



**THE WORKERS' COMPENSATION
RATING AND INSPECTION BUREAU**

December 27, 2013

The Honorable Joseph G. Murphy
Commissioner of Insurance
Massachusetts Division of Insurance
1000 Washington Street, Suite 810
Boston MA 02118-6200

Dear Commissioner Murphy:

In accordance with General Laws, Chapter 152, Sections 52 and 53A, as amended by St. 1985, c. 572, I submit, on behalf of all members and subscribers of The Workers' Compensation Rating and Inspection Bureau of Massachusetts (WCRIBMA), a General Revision of Workers' Compensation Insurance Rates and Rating Values.

With this letter, I am submitting the technical support for the analysis underlying the proposed statewide increase in average rates of 7.7%. Our Cost Containment filing is attached as Volume 3 of the filing.

We propose the manual rates to be effective 12:01 A.M., January 1, 2014, and to apply to each risk as of the first normal anniversary rating date following that effective date.

Sincerely,

A handwritten signature in blue ink that reads "Paul F. Meagher".

Paul F. Meagher
President

**COMMONWEALTH OF MASSACHUSETTS
DIVISION OF INSURANCE**

Docket No. 13-

In re:

**APPLICATION OF THE WORKERS'
COMPENSATION RATING AND INSPECTION
BUREAU OF MASSACHUSETTS FOR APPROVAL
OF A GENERAL RATE REVISION TO BE
EFFECTIVE ON AND AFTER JANUARY 1, 2014**

PRE-FILED DIRECT TESTIMONY OF DAVID APPEL

The Workers' Compensation Rating and Inspection Bureau of Massachusetts ("WCRIBMA") submits the following direct testimony of David Appel in support of its application for a general rate revision to be effective on and after January 1, 2014.

Q. Please state your full name.

A. David Appel.

Q. What are your professional qualifications?

A. I am a Principal and Director of Economics Consulting with the firm of Milliman, Inc. Milliman is one of the nation's largest independently owned consulting firms specializing in the areas of risk and insurance. The company operates offices in more than 60 cities in the U.S., Europe, Latin America, Asia and Australia. Our employees number over 2,600, and our clients number in the thousands. They include insurers, self-insured entities, Federal and State Governments, private corporations, non-profit organizations, unions, and many others. A complete description of my academic and professional credentials can be found in my curriculum vitae, which is attached to this testimony.

Q. What was your role in the preparation of the current WCRIBMA filing for a general rate revision?

A. I was responsible for and sponsor the materials in Section VII of the WCRIBMA's filing dealing with the estimation of the cost of capital and the use of discounted cash flow models to derive the underwriting profit provision proposed by the WCRIBMA this year. I have relied upon the WCRIBMA to provide the underwriting cash flows (for losses, expenses and premiums) that are used in the discounted cash flow models. To the best of my knowledge, information and belief, the data and calculations underlying Section VII of the filing are complete and accurate, and the narrative statements offered in support of Section VII are also accurate and correct.

Q. Are you familiar with the underwriting profit provision used by the WCRIBMA in calculating the proposed rates?

A. Yes.

Q. Are you familiar with the statutory standard that must be applied by the Commissioner in reviewing the rates proposed in the WCRIBMA's current filing – that they “are not excessive, inadequate or unfairly discriminatory” and that they “fall within a range of reasonableness”?

A. Yes. That is the standard typically applied by regulators in assessing insurance rates.

Q. Do you have an opinion as to whether the rates proposed in the WCRIBMA's current filing satisfy the statutory standard?

A. Yes.

Q. What is your opinion?

A. For the reasons offered in Section VII, it is my professional opinion that if the actuarial projections of losses, expenses and premiums in the filing are reasonable, then the proposed rates satisfy the statutory standard because the underwriting profit provision has been calculated so that the rates will yield a fair return to the insurers who have invested their capital in the Massachusetts workers' compensation market.

Q. Do you have anything to add to the text of Section VII of the filing at this time?

A. Yes. While I have concluded that the rates as filed by the WCRIBMA are reasonable and not excessive, I must also note that I believe that the calculations used to derive the indicated profit provision are extremely conservative in the sense that they overstate the income insurers would reasonably expect to earn from the sale of workers' compensation insurance in Massachusetts. To the extent that income is overstated, of course, the required rate change will be set too low. There are three principal reasons for this.

First, the discounted cash flow models used to derive the underwriting profit provision in the filing do not reflect the true cost of policyholder dividends. Policyholder dividends are refunds of premium paid at the end of the policy period (and are frequently tied to the loss experience of the insured). Dividend payments definitively reduce insurer income, and should be reflected in the derivation of underwriting profit provisions. However, in her Decision on 2003 Rates, the Commissioner rejected consideration of dividends in any fashion, and hence in this year's model the WCRIBMA has not considered policyholder dividends in any form. (I understand that previous practice in Massachusetts had been to simply reflect the reduction in investible funds due to the

Pre-Filed Direct Testimony
David Appel

payment of policyholder dividends, but not to reflect the dividend expense itself. In this filing neither the dividend expense nor the reduction in investible funds has been reflected.)

Second, the WCRIBMA has included a provision for the cost of reinsurance in the current filing, but its provision is restricted solely to the reinsurer's expense costs. That is, it does not consider the true net cost of reinsurance, which includes not only the reinsurer's expenses, but also the reinsurer's required profit. Had the reinsurer's required profit been reflected, the required rate change would have been higher.

Third, the WCRIBMA has assumed that all special revenue bonds are tax-exempt, an assumption known to be untrue. A portion of such bonds – approximately half based on recent research – are subject to Federal tax, which, if recognized, would reduce the after tax yield on the investment portfolio. Had a lower after tax portfolio yield been used in the model, the required rate change would have been higher.

It is evident that each of these assumptions provides a degree of conservatism in the filing, in that each works to lower the profit provision estimated by the WCRIBMA.

I would add that I have not adjusted the target rate of return to reflect the arguably greater risk of workers' compensation relative to the average line of property/casualty insurance. I note that had I set the target return higher, a higher underwriting profit would have been indicated as well.

Signed this 16th day of December 2013 under the pains and penalties of perjury.



David Appel

DAVID APPEL

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New York, NY 10119
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PROFESSIONAL EXPERIENCE:

1989 to present **MILLIMAN, INC.**
Principal & Director - Economics Consulting

Responsible for the formation, development and management of
a national consulting practice in insurance economics.

1980 to 1989 **NATIONAL COUNCIL ON COMPENSATION INSURANCE**
Economic and Social Research Division
1985 to 1989 Vice President
1983 Assistant Vice President
Responsible for all economic and social research of NCCI

1982 Director of Economic and Social Research
1981 Senior Research Economist
1980 Associate Research Economist

1976 to 1997 **RUTGERS UNIVERSITY**

1981-97 Associate of the Graduate Faculty,
Department of Economics, Newark, New Jersey

1981-93 Teach variety of graduate courses including:
Microeconomic Theory, Industrial Organization, Public Finance

1978-80 Instructor, Department of Economics,
New Brunswick, New Jersey

1976-78 Adjunct Instructor, Department of Economics, Newark, New Jersey

EDUCATION:

1980 Ph.D., Economics, Rutgers University
1976 M.A., Economics, Rutgers University
1972 B.A., Economics, Brooklyn College, CUNY
Certified ARIAS Arbitrator and Umpire
Member: AAA Panel of Neutrals
Fellow: National Academy of Social Insurance

PAPERS AND PUBLICATIONS

“Comment on Jaffee and Russell” in Deregulating Property-Liability Insurance, J. David Cummins, Editor, Brookings Institution Press, Washington, DC, 2002

"Dynamic Financial Analysis of a Workers Compensation Insurer", CAS Call Papers Program, 1997 (with Susan Witcraft and Mark Mulvaney)

"The Impact of Managed Care on Workers Compensation Claim Costs," in a volume of conference proceedings published by the Workers' Compensation Research Institute, September 1994, (with Philip Borba).

"Health Care Costs in Workers' Compensation", Benefits Quarterly, Vol. 9, No. 4, Fourth Quarter, 1993

"The Transition From Temporary to Permanent Disability: A Longitudinal Analysis" in Workers' Compensation Insurance: Claims Costs, Prices and Regulation, David Durbin and Philip Borba, Editors, Kluwer Academic Publishers, Boston, 1992, (with Richard Butler, David Durbin and John Worrall)

"Leverage, Interest Rates and Workers' Compensation Survival" in Workers' Compensation Insurance: Claims Costs, Prices and Regulation, David Durbin and Philip Borba, Editors, Kluwer Academic Publishers, Boston, 1992, (with Richard Butler, David Durbin and John Worrall)

Benefits, Costs and Cycles in Workers' Compensation, Kluwer Academic Publishers, Boston, 1990, (co-editor with Philip Borba)

"Benefit Increases in Workers' Compensation", Southern Economics Journal, January 1990, (with Richard J. Butler)

"Internal Rate of Return Criteria in Ratemaking", NCCI Digest, Vol. IV, Issue III, September 1990, (with Richard J. Butler).

"Social Inflation in Workers' Compensation: The Phenomenon of Benefit Utilization", Proceedings of the Casualty Loss Reserve Seminar, 1988. Also in Contingencies, Nov./Dec., 1989.

Workers' Compensation Insurance Pricing: Current Programs and Proposed Reforms, Kluwer Academic Publishers, Boston, 1988,(co-editor with Philip Borba)

"Prices and Costs of Workers' Compensation" in Workers' Compensation Insurance Pricing: Current Programs and Proposed Reforms, Kluwer Academic Publishers, Boston, 1988, (with Philip Borba)

“1986 Tax Reform Act: Effects on Workers' Compensation Profitability”, NCCI Digest, Vol. II, Issue II, July 1987 (with James Gerofsky)

"The Propensity for Permanently Disabled Workers' to Hire Legal Services" , Industrial and Labor Relations Review, April 1987, (with Philip Borba)

"Sex, Marital Status, and Medical Utilization by Injured Workers'", Journal of Risk and Insurance, Vol. LIV, No. 1, March 1987, (with John Worrall and Richard Butler)

"The Impact of Workers' Compensation Benefits on Low Back Claims" in Clinical Concepts in Regional Musculoskeletal Illness, Nortin M. Hadler, ed. (Boston: 1986, Grune and Stratton), (with John Worrall)

"Workers' Compensation and Employment: An Industry Analysis" in Disability and the Labor Market: Economic Problems, Policies and Programs, M. Anne Hill and Monroe Berkowitz, eds., (Ithaca:1986 ILR Press), (with James Lambrinos)

"Some Benefit Issues in Workers' Compensation", in Workers' Compensation Benefits: Adequacy, Equity, Efficiency, (Ithaca:1985 ILR Press), (with John Worrall)

Workers' Compensation Benefits: Adequacy, Equity, Efficiency, (co-editor with John Worrall), (Ithaca:1985 ILR Press)

"Survivorship and the Size Distribution of the Property-Liability Insurance Industry", Journal of Risk and Insurance, October 1985, (with John Worrall and Richard Butler).

"Regulating Competition-The Case of Workers' Compensation Insurance", Journal of Insurance Regulation, (with James Gerofsky), June 1985.

"The Wage Replacement Rate and Benefit Utilization in Workers' Compensation Insurance", Journal of Risk and Insurance, September 1982 (with John Worrall)

"Property Damages", in Joseph Seneca and Peter Asch, The Benefits of Air Pollution Control in New Jersey, Center for Coastal and Environmental Studies, Rutgers University, 1979

WORKING PAPERS

"Workers' Compensation Pricing: The Role of Policyholder Dividends" (with David Durbin)

"The Impact of Lifetime Work on Mortality: Do Unisex Pensions Matter?" (with Richard J. Butler)

"Regulatory Survival: Rate Changes in Workers' Compensation" (with Richard J. Butler and John D. Worrall)

"Framing, Firm Size and Financial Incentives in Workers' Compensation Insurance" (with Richard J. Butler and John D. Worrall)

"Application of NAIC Profitability Models to Long Tailed Lines of Insurance" (with James Gerofsky)

INVITED PRESENTATIONS

Huntington Beach, California, March 11, 2013

CAS RPM Seminar

“Risk Loads for Property Catastrophe Covers: Primary and Reinsurer Perspectives”

Huntington Beach, California, March 11, 2013

CAS RPM Seminar

“The Actuary as Expert Witness”

Philadelphia, Pennsylvania, March 20, 2012

CAS Ratemaking Seminar

“How Reinsurers Consider Risk Loads and Cost of Capital for Property Cat Covers”

Chicago, IL , March 17, 2010

CAS Ratemaking Seminar

“Logic, Fallacies and Paradoxes in Risk/Profit Loading in Ratemaking: A Socratic Dialogue”

Chicago, IL , March 16, 2010

CAS Ratemaking Seminar

“Quantifying Risk Loads for Property Catastrophe Exposure”

Las Vegas, NV, March 10, 2009

CAS Ratemaking Seminar

“Using Catastrophe Bonds to Infer Risk Loads/Profit Margins/Reinsurance Costs”

Boston, MA, March 17, 2008

CAS Ratemaking Seminar

“Using Catastrophe Bonds to Infer Risk Loads/Profit Margins/Reinsurance Costs”

Pinehurst, North Carolina, May 21, 2007

Workers Compensation Insurance Organizations Annual Meeting

“Enterprise Risk Management: What Is It and Why Is It Important?”

Salt Lake City, Utah, March 13, 2006

CAS Ratemaking Seminar

“Including Reinsurance Costs in Primary Insurance Rates”

New Orleans, Louisiana, March 11, 2005

CAS Ratemaking Seminar

“Including Reinsurance Costs in Primary Insurance Rates”

Philadelphia, Pennsylvania, March 11, 2004

CAS Ratemaking Seminar

“The Consideration of Risk Loads and Reinsurance Costs in Primary Insurance Ratemaking”

New York, New York, December 12, 2003

Goldman Sachs Insurance Conference

“Interest Rate Changes and Insurance Underwriting”

San Antonio, Texas, March 28, 2003

CAS Ratemaking Seminar

"The Consideration of Risk Loads and Reinsurance Costs in Primary Insurance Ratemaking"

San Antonio, Texas, March 27, 2003

CAS Ratemaking Seminar

"Rate of Return Models in Insurance Ratemaking"

San Diego, California, May 20, 2002

CAS Annual Meeting

"The Actuary as an Expert Witness"

Tampa, Florida, March 7, 2002

CAS Ratemaking Seminar

"Parameterizing Rate of Return Models in Insurance Ratemaking"

Chicago, Illinois, December 10, 2001

NAIC Meeting

"The Impact of Proposition 103 in California"

Kansas City, Missouri, April 30, 2001

NAIC Meeting

"Personal Lines Regulation"

Las Vegas, Nevada, March 12, 2001

CAS Ratemaking Seminar

"Parameterizing Rate of Return Models in Insurance Ratemaking"

Washington DC, January 18, 2001

Brookings Institution Conference on Insurance Regulation

"Auto Insurance Experience in California"

Bermuda, September 14, 2000

Ace Insurance Worldwide Actuarial Conference

"Rate of Return Models In Property Casualty Insurance Ratemaking"

Orlando, Florida, June 9, 1998

Florida Managed Care Institute Annual Conference

"Issues in Integrated Health Care"

Seattle, Washington, July 21, 1997

CAS Dynamic Financial Analysis Seminar

"Dynamic Financial Analysis of a Workers Compensation Insurer"

Boston, Massachusetts, March 14, 1997

CAS Ratemaking Seminar

"Discounted Cash Flow Models in Insurance Ratemaking"

East Lansing, Michigan, July 15, 1996

National Symposium on Workers Compensation

"Managed Care in Workers Compensation"

New Orleans, Louisiana, March 20, 1996

Global Business Research Seminar: Partnerships Between Insurers and Providers

"Integrating the Data Systems"

Orlando, Florida, November 15, 1995

Global Business Research Seminar: Documenting Savings From Managed Care

"Evaluating Savings From Managed Care"

Orlando, Florida, October 27, 1995

Self Insurance Association of America Annual Meeting

"Managed Care in Workers Compensation: A Magic Act or Humbug?"

San Diego, California, October 16, 1995

Global Business Research Seminar: Documenting Savings From Managed Care
"Technical Issues in Measuring Savings From Managed Care"

Durham, North Carolina, September 6, 1995

North Carolina HMO Association Annual Meeting
"Workers Compensation in North Carolina: Risks and Opportunities for HMO's"

Washington, DC, May 22, 1995

Global Business Research Seminar: Outcomes for Workers' Compensation Managed Care
"Measuring and Reporting the Savings"

Orlando, Florida, April 13, 1995

NCCI Annual Meeting
"Managed Care in Workers Compensation"

Phoenix, Arizona, April 3, 1995

Casualty Actuarial Society Seminar on Profitability
"Rate of Return Models - Selecting the Parameters"

New Orleans, Louisiana, March 16, 1995

Casualty Actuarial Society Ratemaking Seminar
"Discounted Cash Flow Models for Insurance Ratemaking"

Orlando, Florida, March 14, 1995

Standard & Poor's Rating Conference
"Consolidation in the Property/Casualty Insurance Industry"

Minneapolis, Minnesota, October 11, 1994

Casualty Actuarial Society Seminar on Medical Cost Containment
"Managed Care and Workers' Compensation"

Toronto, Ontario, August 22, 1994

American Risk and Insurance Association Annual Meeting
"Current Issues in Workers' Compensation"

Boston, Massachusetts, May 17, 1994

Casualty Actuarial Society Annual Meeting
"Standard Of Practice on Profit and Contingency"

Hartford, Connecticut, April 20, 1994

University of Connecticut Blue Cross/Blue Shield Symposium
"24 Hour Coverage - What Will It Involve"

Atlanta, Georgia, March 10, 1994

Casualty Actuarial Society Ratemaking Seminar
"Cash Flow Models for Insurance Ratemaking"

Cambridge, Massachusetts, March 2, 1994

Workers' Compensation Research Institute Health Care Reform Conference
"Early Results of the Florida Pilot Project"

Phoenix, Arizona, November 15, 1993

Casualty Actuarial Society Annual Meeting
"The Use Of Managed Care in Workers' Compensation"

New York, New York, October 20, 1993
Insurance Information Institute/Reinsurance Association of America Research Conference
"The Impact of Health Care Reform on Casualty Insurance"

Somerset, New Jersey, July 13, 1993
National Symposium on Workers' Compensation
"Economic Analysis of Workers' Compensation Issues"

Boston, Massachusetts, June 30, 1993
Institute of Actuaries of Japan Special Meeting
"Health Care Costs in Workers' Compensation"

Dallas, Texas, June 15, 1993
Stirling-Cooke Workers' Compensation Seminar
"Workers' Compensation Medical Costs: Trends, Causes and Solutions"

New York, New York, June 3, 1993
New York Business Group On Health
"The Crisis in Workers' Compensation Health Care"

Mauna Lani Bay, Hawaii, May 3, 1993
Western Association of Insurance Brokers Annual Meeting
"Trends in Insurance Insolvency"

Kingston, Ontario, April 28, 1993
Queen's University Workers' Compensation Conference
"Exposure Bases for Workers' Compensation: Equity vs. Practicality"

Sanibel Island, Florida, March 29, 1993
Workers' Compensation Reinsurance Bureau Annual Meeting
"The Use of Managed Care in Workers' Compensation"

Baltimore, Maryland, March 23, 1993
CAMAR Annual Meeting
"Estimating the Cost of Capital in Insurance Ratemaking"

Philadelphia, Pennsylvania, December 1, 1992
Economic Issues in Workers' Compensation Seminar,
"Rate of Return Regulation in Workers' Compensation"

Seattle, Washington, October 16, 1992
Casualty Actuarial Society Seminar on Profitability
"Risk Based Capital Standards for Property Casualty Insurers"

Washington, DC, August 18, 1992
American Risk and Insurance Association Annual Meeting
"The Crisis in Workers' Compensation"

New York, New York, May 19, 1992
Executive Enterprises Institute Seminar: Winning Approval of Rate and Form Filings
"Determining a Fair Rate of Return for Property/Casualty Insurers"

Palm Beach, Florida, April 23, 1992
NCCI Annual Meeting
"Is the Workers' Compensation Industry Competitive?"

Philadelphia, Pennsylvania, March 20, 1992
University of Pennsylvania/Duncanson & Holt Special Seminar
"Current Issues in Workers' Compensation"

Dallas, Texas, March 12, 1992
Casualty Actuarial Society Ratemaking Seminar
"Profitability Models in Insurance Ratemaking: Estimating the Parameters"

Houston, Texas, December 11, 1991
NCCI/NAIC Commissioners Symposium
"Rate Adequacy: Solvency and Safety Implications"

New York, New York, November 17, 1991
Executive Enterprises Institute Seminar: Winning Approval of Rate and Form Filings
"Determining a Fair Rate of Return for Property/Casualty Insurers"

Philadelphia, Pennsylvania, November 12, 1991
Casualty Actuarial Society Annual Meeting
"The Impact of Medical Costs on Casualty Coverages"

New York, New York, May 17, 1991
Executive Enterprises Institute Seminar: Winning Approval of Rate and Form Filings
"Determining a Fair Rate of Return for Property/Casualty Insurers"

Kiawah Island, South Carolina, April 15 & 16, 1991
Casualty Actuarial Society Seminar on Profitability
"Cost of Capital Estimation: Lessons From Public Utilities"

Chicago, Illinois, March 14, 1991
Casualty Actuarial Society Ratemaking Seminar
"The Use of Profitability Models in Insurance Ratemaking"

Orlando, Florida, October 24, 1990,
Financial Management Association Annual Meeting,
"Current Issues in Insurance Rate Regulation: California Prop. 103 and Pennsylvania Act 6"

New Brunswick, New Jersey, May 18, 1990,
Joint Conference on Workers' Compensation,
"Current State Issues and Benefit Reforms"

Orlando, Florida, May 8, 1990,
National Association of Insurance Commissioners Southeast Zone Raters Conference,
"Loss Cost Rating for Workers' Compensation"

Orlando, Florida, April 3, 1990,
Workers' Compensation Reinsurance Bureau Annual Meeting,
"Medical Costs in Workers' Compensation: Recent Trends in Cost Containment"

Philadelphia, Pennsylvania, March 15, 1990,
CAS Ratemaking Seminar,
"Rate of Return Models in Insurance Regulation: Return on Sales vs. Return on Equity"

Chicago, Illinois, November 10, 1989,
Alliance of American Insurers Research Committee,
"Recent Developments in Rate Regulation: California Proposition 103"

New York, New York, October 5, 1989,
NCCI Legal Trends Seminar,
"Medical Cost Containment in Workers' Compensation"

Philadelphia, Pennsylvania, September 7, 1989,
Workers' Compensation Congress,
"Medical Cost Containment in Workers' Compensation"

Denver, Colorado, August 21, 1989,
American Risk and Insurance Association Annual Meeting,
"Regulatory Survival: Rate Changes in Workers' Compensation" (with Richard J. Butler)

Hilton Head, South Carolina, April 4, 1989,
Workers' Compensation Reinsurance Bureau Annual Meeting,
"Prospects for Workers' Compensation in the 1990's"

Mountain Lakes, New Jersey, March 29, 1989,
St. Clares-Riverside Medical Center,
"Stress in the Workplace"

Dallas, Texas, March 16, 1989,
Casualty Actuarial Society Ratemaking Seminar,
"The Impact of Tax Reform on Insurance Profitability"

New Orleans, Louisiana, December 15, 1988,
NAIC-NCCI Commissioners School,
"A Forecast for Workers' Compensation"

Philadelphia, Pennsylvania, November 17, 1988,
Economic Issues in Workers' Compensation Seminar,
"The Impact of Regulation on the Probability of Insolvency" (with John D. Worrall and David Durbin)

Boston, Massachusetts, November 14, 1988,
American Public Health Association Annual Meeting,
"Stress in the Workplace"

Atlanta, Georgia, September 14, 1988,
Casualty Loss Reserve Seminar,
"Estimating the Cost of Social Inflation in Workers' Compensation"

Reno, Nevada, August 15, 1988,
American Risk and Insurance Association Annual Meeting,
"Benefit Increases in Workers' Compensation"

New York, New York, June 13, 1988,
National Association Of Insurance Commissioners Annual Meeting,
"Alternative Rate of Return Models for Insurance Regulation"

Syracuse, New York, May 5, 1988,
Current Issues in Workers' Compensation Symposium,
"Workers' Compensation Stress Claims"

Hilton Head, South Carolina, April 22, 1988,
Workers' Compensation Reinsurance Bureau Annual Meeting,
"A Forecast for Workers' Compensation Insurers"

Absecon, New Jersey, April 19, 1988,
Pennsylvania Coal Mine Rating Bureau Annual Meeting,
"The Use of Rate of Return Models in Insurance Rate Regulation"

Philadelphia, Pennsylvania, November 17, 1987,
Economic Issues in Workers' Compensation Seminar,
"The Transition to Permanent Disability Status" (with John D. Worrall and David Durbin)

Charlotte, North Carolina, October 20, 1987,
American Insurance Association Government Affairs Conference,
"Prospects for Workers' Compensation in 1988"

Minneapolis, Minnesota, September 29, 1987,
Minnesota Workers' Compensation Reinsurance Association Annual Meeting,
"Economic and Demographic Characteristics of Workers' Compensation Claims"

Airlie, Virginia, July 7, 1987,
National Symposium on Workers' Compensation,
"Forecasting Workers' Compensation Experience"

Santa Clara, California, June 30, 1987,
Symposium on Recent Advances in Ratemaking,
"Econometric Models of Workers' Compensation Losses"

Storrs, Connecticut, May 1, 1987,
University of Connecticut Symposium on Current Issues in Workers' Compensation,
"Current Research in Workers' Compensation"

Philadelphia, Pennsylvania, April 16, 1987,
Wharton School Graduate Seminar Series,
"Impact of Tax Reform on Workers' Compensation Profitability"

Boca Raton, Florida, December 4, 1986,
National Association of Insurance Commissioners/NCCI Commissioners School,
Panel Discussion on Current Issues in Workers' Compensation

Philadelphia, Pennsylvania, November 7, 1985,
Wharton School, University of Pennsylvania, Graduate Seminar Series,
"Litigation in Workers' Compensation"

Vancouver, British Columbia, August 19, 1985,
American Risk and Insurance Association Annual Meeting,
"Earnings Loss and Permanent Disability"

Washington, D.C., April 23, 1985,
Washington Conference on the Economics of Disability,
"Employment Effects of Workers' Compensation Insurance"

Schenectady, New York, January 18, 1985,
Union University Graduate Business Seminar Series,
"The Use of Modern Portfolio Theory in Insurance Regulation"

EXPERT TESTIMONY

Santa Fe, New Mexico, November 7, 2013
Biennial Title Insurance Rate Hearing

New York, New York, July 10, 2013
Larry Arnett and Ronda Arnett, et. al. v. Bank of America, N.A., et. al., Deposition

Austin, Texas, April 25, 2013
State Farm Lloyds Homeowners Rate Hearing

Tallahassee, Florida, October 4, 2012
NCCI Workers Compensation Insurance Rate Hearing

Boston, Massachusetts, May 14, 2012
Massachusetts Workers Compensation Rate Hearing

New York, New York, February 17, 2012
Temporary Services, Inc. et. al. v. American International Group, et. al., Deposition

San Francisco, California, January 19, 2012
Mercury Insurance Company Homeowners Insurance Rate Hearing

Santa Fe, New Mexico, November 16, 2011
Biennial Title Insurance Rate Hearing

Tallahassee, Florida, October 11, 2011
NCCI Workers Compensation Insurance Rate Hearing

Tampa, Florida, September 13, 2011
Citizens Property Insurance Corporation Homeowners Insurance Hearing

Raleigh, North Carolina, July 25, 2011
Dwelling Fire and Extended Coverage Insurance Rate Hearing

Tallahassee, Florida, October 6, 2010
NCCI Workers Compensation Insurance Rate Hearing

Irvine, CA, April 21, 2010
Eastwood Insurance Services, Inc. et. al., vs. Titan Auto Insurance of NM, et. al. Deposition

San Francisco, California, March 9, 2010
Century National Insurance Company Proposition 103 Rollback Hearing

Santa Fe, New Mexico, November 18, 2009
Annual Title Insurance Rate Hearing

Tallahassee, Florida, October 29, 2009
NCCI Workers Compensation Insurance Rate Hearing

Austin, Texas, September 14, 2009
Biennial Title Insurance Rate Hearing

Austin, Texas, April 1, 2009
State Farm Lloyds Homeowners Rate Hearing

Santa Fe, New Mexico, November 19, 2008
Annual Title Insurance Rate Hearing

New York, New York, November 13, 2008
Georgia Hensley, et. al., vs. Computer Sciences Corp. et. al., Deposition

Tallahassee, Florida, October 29, 2008
State Farm Florida Homeowners Insurance Hearing

Raleigh, North Carolina, July 1, 2008
Auto Insurance Rate Hearing

San Francisco, California, May 5, 2008
GeoVera Insurance Company Earthquake Rate Hearing

Tallahassee, Florida, January 23, 2008
Hartford Insurance Group Homeowners Insurance Rate Hearing

Boston, Massachusetts, January 9, 2008
Commerce Insurance Group Auto Insurance Rate Hearing

San Francisco, California, November 29, 2007
Explorer Insurance Company Automobile Rate Hearing

Santa Fe, New Mexico, November 19, 2007
Annual Title Insurance Rate Hearing

Reno, Nevada, June 14, 2007
Public Hearing Regarding Merger Between UnitedHealth Group and Sierra Health Systems

Austin, Texas, May 31, 2007
State Farm Lloyds Homeowners Rate Hearing

Reno, Nevada, October 26, 2006
Public Hearing Regarding Demutualization of Employers Insurance Group

San Francisco, California, August 30, 2006
Hearing on Proposed Title Insurance Rate Regulations

Austin, Texas, August 14, 2006
Biennial Title Insurance Rate Hearing

Raleigh, North Carolina, September 28, 2005
Auto Insurance Rate Hearing

Providence, Rhode Island, September 27, 2005
Norcal Medical Malpractice Insurance Rate Hearing

San Francisco, California, August 23, 2005
Safeco Insurance Company Earthquake Rate Hearing

Boston, Massachusetts, April 15, 2005
Massachusetts Workers Compensation Rate Hearing

Lawrence, Massachusetts, February 14, 2005
Highground, Inc. v. Mazonson

New York, NY, January 21, 2005
NFHA v. Prudential Deposition

Austin, Texas, July 13, 2004
Medical Protective Insurance Company Medical Malpractice Insurance Rate Hearing

Austin, Texas, December 16, 2003
Biennial Title Insurance Rate Hearing

Providence, Rhode Island, November 17, 2003
Norcal Medical Malpractice Insurance Rate Hearing

San Francisco, California, September 16, 2003
Century National Proposition 103 Rollback Hearing

Austin, Texas, September 11, 2003
Farmers Insurance Exchange Homeowner Rate Rollback Hearing

Austin, Texas, September 2, 2003
State Farm Lloyds Homeowners Rate Rollback Hearing

Austin, Texas, May 21, 2003
Farmers Insurance Group Settlement Hearing

Boston, Massachusetts, April 29, 2003
Massachusetts Workers Compensation Rate Hearing

Los Angeles, California, March 12, 2003
SCPIE Medical Malpractice Rate Hearing

Raleigh, North Carolina, July 17, 2002
Auto Insurance Rate Hearing

Tallahassee, Florida, February 25, 2002
NCCI Workers Compensation Insurance Rate Hearing

Austin, Texas, February 5, 2002
Biennial Title Insurance Rate Hearing

Raleigh, North Carolina, September 24, 2001
Auto Insurance Rate Hearing

Boston, Massachusetts, August 14, 2001
Massachusetts Auto Insurance Bureau Rate Hearing

Austin, Texas, March 6, 2001
Texas Auto Benchmark Rate Hearing

Boston, Massachusetts, August 23, 2000
Massachusetts Auto Insurance Bureau Rate Hearing

Austin, Texas, December 7, 1999
Texas Auto Insurance Plan Association Rate Hearing

Raleigh, North Carolina, December 3, 1999
Auto Insurance Rate Hearing

Austin, Texas, November 3, 1999
Biennial Title Insurance Rate Hearing

Austin, Texas, September 8, 1999
Texas Auto Benchmark Rate Hearing

Boston, Massachusetts, August 13, 1999
Massachusetts Auto Insurance Bureau Rate Hearing

Austin, Texas, June 22, 1999
Texas Property Benchmark Rate Hearing

Honolulu, Hawaii, December 16, 1998
NCCI Workers Compensation Insurance Rate Hearing

Richmond, Virginia, November 15, 1998
NCCI Workers Compensation Insurance Rate Hearing

Boston, Massachusetts, October 9, 1998
Massachusetts Auto Insurance Bureau Rate Hearing

Austin, Texas, May 19, 1998
Texas Auto Insurance Plan Association Rate Hearing

Austin, Texas, April 7, 1998
Auto Insurance Benchmark Rate Hearing

Austin, Texas, February 17, 1998
Property Insurance Benchmark Rate Hearing

Austin, Texas, November 18, 1997
Biennial Title Insurance Rate Hearing

Tallahassee, Florida, September 8, 1997
NCCI Workers Compensation Insurance Rate Hearing

Austin, Texas, April 8, 1997
Texas Auto Insurance Plan Association Rate Hearing

Austin, Texas, March 10, 1997
Auto Insurance Benchmark Rate Hearing

San Francisco, California, March 4, 1997
Insurance Department Hearing on Rating Factors

Raleigh, North Carolina, July 16, 1996
Auto Insurance Rate Hearing

San Francisco, California, March 11, 1996
Century National Proposition 103 Rollback Hearing

Sacramento, California, January 30, 1996
Hartford Steam Boiler Proposition 103 Rollback Hearing

San Francisco, California, January 8, 1996
SAFECO Insurance Company Earthquake Rate Hearing

Austin, Texas, December 21, 1995
Residential Property Insurance Benchmark Rate Hearing

Clearwater, Florida, December 8, 1995
Florida Windstorm Underwriting Association Rate Hearing

Austin, Texas, November 28, 1995
Private Passenger Auto Insurance Benchmark Rate Hearing

Austin, Texas, October 31, 1995
Texas Automobile Insurance Plan Association Rate Hearing

Sacramento, California, April 18, 1995
California Insurance Department Hearing on Auto Insurance Rating Factors

Portland, Maine, April 13, 1995
Workers Compensation Assigned Risk Pool Fresh Start Hearing

San Francisco, California, February 6, 1995
Farmers Insurance Group Earthquake Insurance Rate Hearing

Austin, Texas, January 6, 1995
Special Hearing on Classification Rules for Automobile Insurance

Austin, Texas, December 15, 1994
Residential Property Insurance Benchmark Rate Hearing

Austin, Texas, October 4, 1994
Texas Automobile Insurance Plan Association Rate Hearing

Austin, Texas, September 27, 1994
Private Passenger Auto Insurance Benchmark Rate Hearing

Raleigh, North Carolina, July 19, 1994
Private Passenger Auto Insurance Rate Hearing

San Francisco, California, December 22, 1993
Century National Homeowner's Insurance Rate Hearing

Raleigh, North Carolina, October 13, 1993
Homeowners/Farmowners Insurance Rate Hearing

Tallahassee, Florida, October 4, 1993
Workers' Compensation Insurance Rate Hearing

Boston, Massachusetts, September 9, 1993
Automobile Insurance Rate Hearing

Austin, Texas, March 4, 1993
Residential Property Insurance Benchmark Rate Hearing

Austin, Texas, February 10, 1993
Automobile Insurance Benchmark Rate Hearing

Honolulu, Hawaii, November 18, 1992
Liberty Mutual Insurance Automobile Rate Hearing

Raleigh, North Carolina, November 13, 1992
Workers' Compensation Insurance Rate Hearing

Tallahassee, Florida, October 29, 1992
Workers' Compensation Insurance Rate Hearing

San Francisco, California, October 14, 1992
Workers' Compensation Insurance Rate Hearing

Atlanta, Georgia, September 24, 1992
Workers' Compensation Insurance Rate Hearing

Nashville, Tennessee, May 27, 1992
Workers' Compensation Insurance Rate Hearing

San Francisco, California, May 13, 1992
Workers' Compensation Insurance Rate Hearing

Los Angeles, California, April 10, 1992
Mercury General Proposition 103 Rollback Proceedings

Austin, Texas, January 27, 1992
Texas Automobile Insurance Plan Rate Hearing

Austin, Texas, December 17, 1991
Automobile Insurance Rate Hearing

Raleigh, North Carolina, December 16, 1991
Workers' Compensation Insurance Rate Hearing

San Francisco, California, October 22, 1991
Workers' Compensation Rate Hearing

Los Angeles, California, May 23, 1991,
Proposition 103 RCD-2 Proceedings

San Francisco, California, April 9, 1991
California Workers' Compensation Rate Study Commission

Nashville, Tennessee, March 20, 1991
Workers' Compensation Insurance Rate Hearing

Los Angeles, California, March 12, 1991,
California Workers' Compensation Rate Study Commission

Olympia, Washington, February 26, 1991,
House Financial Institutions/Insurance Committee Hearing on Rules for Insurance Regulatory Legislation

Olympia, Washington, November 27, 1990,
Insurance Department Public Hearing on Proposed Rules for Ratemaking

Harrisburg, Pennsylvania, November 12, 1990,
Allstate Insurance Company Automobile Insurance Rate Hearing

Tallahassee, Florida, November 1, 1990,
Scanlan v. Martinez, et.al., Superior Court of Leon County

San Bruno, California, October 1, 1990,
SAFECO Insurance Group Proposition 103 Rate Rollback Hearing

Austin, Texas, July 23, 1990,
Texas State Board of Insurance Special Hearing on Investment Income in Ratemaking

Harrisburg, Pennsylvania, July 18, 1990,
Pennsylvania National Mutual Insurance Company Automobile Insurance Rate Hearing

Harrisburg, Pennsylvania, June 28, 1990,
Harleysville Mutual Insurance Company Automobile Insurance Rate Hearing

Columbia, South Carolina, March 30, 1990,
Workers' Compensation Insurance Rate Hearing

San Bruno, California, March 19, 1990,
California Proposition 103 Generic Hearing

Denver, Colorado, December 12, 1989,
Workers' Compensation Insurance Rate Hearing

Tampa, Florida, October 23, 1989,
Workers' Compensation Insurance Rate Hearing

Austin, Texas, October 17, 1989,
Workers' Compensation Insurance Rate Hearing

Los Angeles, California, September 25, 1989,
SAFECO Insurance Company of America Proposition 103 Rate Hearing

Austin, Texas, August 29, 1989,
Texas Insurance Advisory Association Property Insurance Rate Hearing

Providence, Rhode Island, April 13, 1989,
Workers' Compensation Insurance Rate Hearing

Augusta, Maine, January 24, 1989,
Workers' Compensation Insurance Rate Hearing

Hartford, Connecticut, November 14, 1988,
Workers' Compensation Insurance Rate Hearing

Tallahassee, Florida, November 3, 1988,
Workers' Compensation Insurance Rate Hearing

Austin, Texas, November 2, 1988,
Workers' Compensation Insurance Rate Hearing

Montgomery, Alabama, June 30, 1988,
Workers' Compensation Insurance Rate Hearing

Augusta, Maine, March 24, 1988,
Workers' Compensation Insurance Rate Hearing

Austin, Texas, October 27, 1987,
Workers' Compensation Insurance Rate Hearing

Tallahassee, Florida, October 9, 1987,
Workers' Compensation Insurance Rate Hearing

Atlanta, Georgia, August 6, 1987,
Workers' Compensation Insurance Rate Hearing

Augusta, Maine, February 24, 1987,
Workers' Compensation Insurance Rate Hearing

Tallahassee, Florida, November 14, 1986,
Workers' Compensation Insurance Rate Hearing

Austin, Texas, November 18, 1986,
Workers' Compensation Insurance Rate Hearing

Augusta, Maine, May 28, 1986,
Workers' Compensation Insurance Rate Hearing

Tallahassee, Florida, December 6, 1985,
Workers' Compensation Insurance Rate Hearing

Oklahoma City, Oklahoma, October 10, 1985,
Workers' Compensation Insurance Rate Hearing

Austin, Texas, July 23, 1985,
Workers' Compensation Insurance Rate Hearing

Austin Texas, June 14, 1985,
Workers' Compensation Insurance Rate Hearing

Tallahassee, Florida, November 18, 1984,
Workers' Compensation Insurance Rate Hearing

Austin, Texas, August 29, 1984,
Workers' Compensation Insurance Rate Hearing

Portland, Oregon, March 6, 1984,
NA IC Public Hearing on Investment Income and Insurance Profitability

Tallahassee, Florida, February 25, 1984,
Workers' Compensation Insurance Rate Hearing

Tallahassee, Florida, August 18, 1983,
Workers' Compensation Insurance Rate Hearing

Austin Texas, July 13, 1983,
Workers' Compensation Insurance Rate Hearing

Oklahoma City, Oklahoma, March 6, 1983,
Workers' Compensation Insurance Rate Hearing

Baton Rouge, Louisiana, March 16, 1982,
Louisiana Insurance Commission Public Hearing on Investment Income

Providence, Rhode Island, February 3, 1982,
Workers' Compensation Insurance Rate Hearing

Augusta, Maine, October 1, 1981,
Workers' Compensation Insurance Rate Hearing

COMMONWEALTH OF MASSACHUSETTS
DIVISION OF INSURANCE

Docket No. 13-

In re:

APPLICATION OF THE WORKERS'
COMPENSATION RATING AND INSPECTION
BUREAU OF MASSACHUSETTS FOR APPROVAL
OF A GENERAL RATE REVISION TO BE
EFFECTIVE ON AND AFTER JANUARY 1, 2014

PRE-FILED DIRECT TESTIMONY OF CLAUDIA B. CUNNIFF

The Workers' Compensation Rating and Inspection Bureau of Massachusetts ("WCRIBMA") submits the following direct testimony of Claudia B. Cunniff in support of its application for a general rate revision to be effective on and after January 1, 2014.

Q. Please state your full name.

A. Claudia B. Cunniff.

Q. Ms. Cunniff, please describe your current employment and your educational and professional experience.

A. I am presently employed as Assistant Vice President and Actuary at the WCRIBMA. My educational background includes a Bachelors degree in Biology from College of the Holy Cross. I am a Fellow of the Casualty Actuarial Society. Before joining the WCRIBMA in February 2000, I worked for ten years as an actuary in Massachusetts. My actuarial career began in 1990 at Liberty Mutual Insurance Company where I focused on ratemaking issues on both personal and commercial lines. In 1994, I moved to Trust Insurance Group, Inc., where I became a Manager and Actuary and dealt with a broad

range of actuarial and financial matters. A copy of my curriculum vitae is attached to this testimony.

Q. What was your role in the preparation of the current WCRIBMA filing for a general rate revision?

A. I had principal responsibility for the preparation of the following sections of the filing, which I am sponsoring: Sections II (Loss Development) and III (Premium).

Q. Have you explained the basis of your derivation of each of the ratemaking factors that you are sponsoring in the text and accompanying exhibits found in the WCRIBMA's filing?

A. Yes.

Q. Are the data, calculations and narrative statements in the sections you are sponsoring complete and accurate?

A. To the best of my knowledge, information and belief, the data and calculations underlying Sections II (Loss Development) and III (Premium) of the filing are complete and accurate, and the narrative statements offered in support of those sections are also complete and accurate.

Signed this 20th day of December 2013 under the pains and penalties of perjury.


Claudia B. Cunniff, FCAS, MAAA

Claudia B. Cunniff, FCAS, MAAA

101 Arch Street, 5th floor
Boston, MA 02110
(617) 646-7589

PROFESSIONAL EXPERIENCE:

WORKERS' COMPENSATION RATING & INSPECTION BUREAU OF MA, Boston, MA

2/00 – present

Assistant Vice President and Actuary

Directs development of rate indication and strategy of filing and approval process
Directs preparation of main rate filing and other filings
Supports filings with hearing testimony
Prepares and directs preparation of informational reports
Processes information requests, etc. from members, regulators, etc.

TRUST GROUP, INC., Taunton, MA

8/94-1/00

Manager - Actuary

Financial Modeling - Developed pro-forma income statement model and assisted with the preparation of projected balance sheet and cash flow items
Merger & Acquisition analysis - Performed due diligence analysis associated with various company investment opportunities
Corporate Reporting & Reserving - Responsible for coordinating the quarterly/annual loss reserve analysis, financial booking of company results by component, and Schedule P preparation for all lines of business
Reinsurance Treaty evaluation - Analyzed company reinsurance needs, prepared data for reinsurance pricing negotiations and provided recommendations to senior management regarding reinsurance purchases
Pricing - Responsible for monitoring the regulatory environment and tracking marketplace activity including preparation of competitor analyses, rate-setting, and pricing proposals
Cession strategy - Developed a sophisticated Massachusetts Involuntary Market cession strategy model incorporating the dynamics of the company and industry
Manager - Led a team of 12 professional and technical staff responsible for profitability studies, statistical reporting, statutory reporting, price setting/monitoring, data compilation and analysis

LIBERTY MUTUAL INSURANCE GROUP, Boston MA

6/90-8/94

Senior Actuarial Analyst - Personal Lines ratemaking

Presented actuarial recommendations to Sales, Marketing, and Underwriting
Evaluated loss ratios, retention, growth, competition, and legislation by state to be incorporated in pricing decisions
Completed rate indications and provided actuarial support to the field in over 20 states
Prepared rate filings consistent with state regulatory requirements
Organized training seminars for Actuarial Student Program

Actuarial Assistant/Analyst - Commercial Lines ratemaking

Implemented Loss Costs and rate filings: Commercial Lines Task Force
Prepared actuarial proposals for senior management to aid in rate adequacy decisions
Analyzed Involuntary Market mechanisms and results

EDUCATION:

F.C.A.S. 1999, M.A.A.A. 2000

College of the Holy Cross, Worcester, Massachusetts, B.A. Biology 1990

COMMONWEALTH OF MASSACHUSETTS
DIVISION OF INSURANCE

Docket No. 13-

In re:

APPLICATION OF THE WORKERS'
COMPENSATION RATING AND INSPECTION
BUREAU OF MASSACHUSETTS FOR APPROVAL
OF A GENERAL RATE REVISION TO BE
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PRE-FILED DIRECT TESTIMONY OF ROBERT McCARTHY

The Workers' Compensation Rating and Inspection Bureau of Massachusetts ("WCRIBMA") submits the following direct testimony of Rob McCarthy in support of its application for a general rate revision to be effective on and after January 1, 2014.

Q. Please state your full name.

A. Robert McCarthy.

Q. What are your professional qualifications?

A. I am presently employed as Senior Vice President and Actuary at the WCRIBMA. I joined the WCRIBMA in this capacity in March of 2004. I am a Fellow of the Casualty Actuarial Society. I have been working as an actuary on the workers' compensation line since 1989, when I graduated from the University of Florida with bachelors degrees in Mathematics, Business Management, and Industrial and Systems Engineering. From 1989 until 2003, I worked in a variety of capacities for the FCCI Insurance Group in Florida. My responsibilities included reserving, pricing and product development, reinsurance, data management, decision and accounting support, and investments and cash management. My curriculum vitae is attached to this testimony.

Q. What was your role in the preparation of the current WCRIBMA filing for a general rate revision?

A. I was ultimately responsible for the preparation of the entire filing. I worked closely with the WCRIBMA's actuarial staff and with our outside consulting experts in putting the filing together. I am testifying in support of the reasonableness of the WCRIBMA's overall rate indication and sponsor Sections I (Rate Recommendation), IV (Benefit Change Adjustments), V (Trend), VI (Expenses), XI (Small Deductible Credits), XII (Retrospective Rating), XIII (Data), XIV (Cost Containment) and the underwriting cash flows (for losses, expenses and premiums) that are used in the discounted cash flow models in Section VII (Profit). To the best of my knowledge, information and belief, the data and calculations underlying the sections of the filing I am sponsoring are complete and accurate, and the narrative statements offered in support of these sections are also accurate and correct.

Q. Mr. McCarthy, what general rate level change is the WCRIBMA recommending this year?

A. As shown in Section I of the filing, the WCRIBMA is recommending an increase in average rates of 7.7% for workers' compensation, effective January 1, 2014.

Q. Are you familiar with the statutory standard that must be applied by the Commissioner in reviewing the rates proposed in the WCRIBMA's current filing – that they “are not excessive, inadequate or unfairly discriminatory” and that they “fall within a range of reasonableness”?

A. Yes.

Q. Do you have an opinion as to whether the rates proposed in the WCRIBMA's current filing satisfy the statutory standard?

A. Yes.

Q. What is your opinion?

A. It is my professional opinion that the rates proposed in the WCRIBMA's current filing are not excessive, inadequate or unfairly discriminatory for the classifications to which they apply, and they fall within a range of reasonableness. Accordingly, I recommend that the Commissioner approve the WCRIBMA's filing.

Q. Have you explained in the text and accompanying exhibits found in the WCRIBMA's filing the basis of your derivation of the factors contributing to the overall rate increase that you are sponsoring?

A. Yes.

Q. What was your role in the preparation of the cost containment section of the current WCRIBMA filing?

A. I was responsible for preparing this section of the filing. I reviewed the cost containment surveys for the ten participating companies and contacted them about any outstanding questions the WCRIBMA may have had. I also reviewed all additional supporting material that was submitted by the companies and included it in the filing.

In addition to compiling these ten survey responses, I also obtained updated data and information from the Fraud Bureau of Massachusetts, which can be found in the cost containment filing. To the best of my knowledge, the information and exhibits in this section of the filing are complete and accurate.

Q. Are you familiar with the statutory provisions that require the WCRIBMA to make a cost containment filing?

A. Yes. It is my understanding that the legislature has mandated that the Commissioner make a finding, based on the information we submit in our filing, as to whether insurers employ acceptable "cost control programs and techniques ... which have had or are expected to have a substantial impact on fraudulent claim costs, unnecessary health care costs, and any other unreasonable costs and expenses, as well as the collection of appropriate premium charges owed" to the insurers the WCRIBMA represents.

Q. Does this filing provide the information the Commissioner would need to make a finding that the industry's cost control programs and techniques satisfy the statutory standard?

A. Yes.

Q. Do you have an opinion on what his finding should be this year?

A. Yes.


Q. What is your opinion?

A. In my professional opinion, the information we have submitted this year should lead the Commissioner to make the same finding that was made in the decision on 9/1/99 rates: that "there are acceptable 'cost control programs and techniques' presently in place which satisfy the statutory requirements."

Q. Do you have anything to add at this time?

A. No.

Signed this 20th day of December 2013 under the pains and penalties of perjury.



Robert McCarthy
FCAS, CFA, MAAA, CPCU

Robert McCarthy, FCAS, CFA

101 Arch St ♦ Boston, MA 02110

E-mail: rmccarthy@wcribma.org

PROFESSIONAL EXPERIENCE

[WCRIBMA](#), Boston, MA

(Mar 2004 – Current)

Senior Vice President & Actuary Jan 2012 - Current

Vice President & Actuary Mar 2004 – Dec 2011

Responsible for the management of the Actuarial and Data Operations departments. Oversee the collection of data and manage the preparation of workers' compensation rate filings for the state of Massachusetts.

[FCCI Insurance Group](#), Sarasota, FL

(Dec 1989 – Jan 2003)

Senior Vice President of Decision Support & Chief Actuary Jan 2002 – Jan 2003

Senior Vice President of Investments & Chief Actuary July 2001 – Dec 2001

Vice President of Investments & Chief Actuary July 2000 – Jun 2001

Assistant Vice President of Investments & Chief Actuary Jan 1999 – Jun 2000

Chief Actuary May 1995 – Dec 1998

Early Positions at FCCI Included: Actuary (May 1993 – May 1995), **Assistant Actuary** (Jan 1991 – May 1993), and **Actuarial Trainee** (Dec 1989 – Jan 1991)

Reserving

- Responsible for internally generated reserve estimates and quarterly presentation to board.
- Collaborated with opining actuary on reserves carried in the annual statement.
- Contact for insurance department examiners and independent auditors.

Pricing / Product Development

- Provided product development with the supporting materials needed for rate filings.
- Developed and monitored all workers compensation sliding scale dividend plans.
- Developed the workers comp large deductible product and the rating mechanism used by underwriting.

Reinsurance

- Reviewed quotes and independently developed experience and exposure based pricing.
- Provided data to reinsurers and reinsurance brokers and served as their technical contact.
- Developed an automated system for the calculation of reinsurance recoverables.

Data Warehouse / Decision Support

- Identify and analyze data warehouse software options that facilitated data mining and reporting.
- Developed data warehouse architecture and championed consistent definitions for terms.
- Responsible for ISO CSP statistical reporting and NCCI Aggregate Financial calls
- Responsible for the conversion of many Excel and Access based reports to SAS.

EDUCATION

Bachelor of Science ♦ Industrial and Systems Engineering ♦ [University of Florida](#) ♦ 1989

Bachelor of Arts ♦ Mathematics ♦ [University of Florida](#) ♦ 1989

Bachelor of Science ♦ Business Management ♦ [University of Florida](#) ♦ 1989

Fellow of the Casualty Actuarial Society ♦ 1995

Chartered Financial Analyst ♦ 2007

Masters of Science ♦ Insurance Management ♦ [Boston University](#) ♦ 2008

**COMMONWEALTH OF MASSACHUSETTS
DIVISION OF INSURANCE**

Docket No. 13-

In re:

**APPLICATION OF THE WORKERS'
COMPENSATION RATING AND INSPECTION
BUREAU OF MASSACHUSETTS FOR APPROVAL
OF A GENERAL RATE REVISION TO BE
EFFECTIVE ON AND AFTER JANUARY 1, 2014**

PRE-FILED DIRECT TESTIMONY OF ANTHONY SALIDO

The Workers' Compensation Rating and Inspection Bureau of Massachusetts ("WCRIBMA") submits the following direct testimony of Anthony Salido in support of Sections VIII, IX and X of its filing for a general rate revision to be effective on and after January 1, 2014.

Q. Please state your full name.

A. Anthony Salido.

Q. Mr. Salido, please describe your current employment and your educational and professional experience.

A. I am presently employed as Data Operations Director / Actuary at the Workers' Compensation Rating and Inspection Bureau of Massachusetts, 101 Arch Street, Boston, Massachusetts. My educational background includes a Bachelors degree in Mathematics and Economics from Boston College. I joined the WCRIBMA in June 1998. I am a Fellow of the Casualty Actuarial Society. A copy of my resume is attached to this testimony.

Q. What was your role in the preparation of the current WCRIBMA filing?

A. I had principal responsibility for the preparation of the following sections of the filing, which I am sponsoring: Sections VIII (F-Class), IX (Classification) and X (Experience Rating).

Q. Have you explained the basis of your derivation of each of the ratemaking factors in the text and accompanying exhibits found in Sections VIII (F-Class), IX (Classification) and X (Experience Rating)?

A. Yes.

Q. Are the data, calculations and narrative statements in the sections you are sponsoring complete and accurate?

A. To the best of my knowledge, information and belief, the data and calculations underlying Sections VIII (F-Class), IX (Classification), and X (Experience Rating) are complete and accurate, and the narrative statements are also accurate and correct.

Signed this 20th day of December, 2013 under the pains and penalties of perjury.



Anthony Salido, FCAS, MAAA

Anthony D. Salido, FCAS, MAAA
Workers' Compensation Rating and Inspection Bureau of MA
101 Arch St. 5th Floor
Boston, MA 02110

Work experience

**The Workers' Compensation Rating and Inspection Bureau of MA
Boston, MA**

June 1998 - Present

Senior Actuarial Analyst

January 2004 - August 2010

Data Operations Director / Actuary

September 2010 - Present

- Directs the collection, editing, and correction of all Unit Statistical, Policy and Aggregate Financial Call data submitted to the WCRIBMA by its member carriers.
- Responsible for the preparation of various sections contained in the WCRIBMA's rate filings over the last 12 years, including loss development, premiums, benefit level adjustments, trend, expenses, experience rating, retrospective rating, class rates, and F-Class rates.
- Maintains the data structures and associated metadata for the Actuarial Department's Financial Call and Unit Stat plan databases.
- Responsible for the maintenance of the nightly batch process that populates the Actuarial Department's databases, runs the Actuarial Department's data edits, and creates content for the WCRIBMA's intranet and web site.
- Formalized and directed the process employed by the WCRIBMA for the data reconciliations mandated by the Massachusetts Workers Compensation Statistical Plan. Worked with other WCRIBMA departments and data reporters to explain and/or correct anomalies identified by the reconciliation process.
- Developed and maintains Actuarial Department's intranet site which includes a history of Massachusetts workers' compensation rate filing activity, reconciliation reports, edit reports, and other content to support the WCRIBMA's rate filing efforts.
- Prepares Circular Letters and Special Bulletins.
- Responds to information requests from members, regulators, etc.

Education

F.C.A.S. 2010, M.A.A.A. 2008

Boston College, Chestnut Hill MA

B.A. in Mathematics and Economics 1998

COMMONWEALTH OF MASSACHUSETTS
DIVISION OF INSURANCE

Docket No. 14-

In re:

APPLICATION OF THE WORKERS'
COMPENSATION RATING AND INSPECTION
BUREAU OF MASSACHUSETTS FOR APPROVAL
OF A GENERAL RATE REVISION TO BE
EFFECTIVE ON AND AFTER JANUARY 1, 2014

PRE-FILED DIRECT TESTIMONY OF SHARON TENNYSON

The Workers' Compensation Rating and Inspection Bureau of Massachusetts ("WCRIBMA") submits the following direct testimony of Sharon Tennyson in support of its application for a general rate revision to be effective on and after January 1, 2014.

Q. Please state your full name.

A. Sharon Tennyson.

Q. What are your professional qualifications?

A. I am an economist and Associate Professor of Policy Analysis and Management at Cornell University. Before moving to Cornell, I was on the faculty of the Department of Insurance and Risk Management at the Wharton School of the University of Pennsylvania. I have over 20 years' experience in research related to insurance markets. I serve on the editorial boards of the Journal of Risk and Insurance and the Journal of Insurance Regulation. I am a former president of the Risk Theory Society. My particular area of expertise is in the industrial organization and regulation of insurance markets, and I have published extensively in these areas. My curriculum vitae is attached to this testimony.

Q. What was your role in the preparation of the current WCRIBMA filing for a general rate revision?

A. I was retained by Anderson & Kreiger LLP, counsel for the WCRIBMA, to provide an analysis rooted in well-accepted economic theory, using available insurance market data to determine whether the commission allowance recommended by the WCRIBMA is reasonable and reflects the actual cost to agents or brokers of the services they provide. I completed such an analysis for the WCRIBMA and it is summarized in my report, reproduced in Section XIV of the WCRIBMA's rate filing. To the best of my knowledge, information and belief, the data and calculations underlying my report are complete and accurate, and the narrative statements offered in my report are also accurate and correct.

Q. Professor Tennyson, what conclusions did you reach as a result of your analysis?

A. It is my professional opinion that the commission allowance recommended by the WCRIBMA is reasonable and reflects the actual cost to agents and brokers of the services they provide as producers of workers' compensation insurance policies in Massachusetts.

Q. Have you explained in your report how you came to these conclusions?

A. Yes.

Q. Does your report contain all the data that you relied upon in reaching these conclusions?

A. Yes.

Signed this 20th day of December 2013 under the pains and penalties of perjury.



Sharon Tennyson

SHARON TENNYSON, Ph.D.

Department of Policy Analysis and Management
Cornell University
252 MVR Hall
Ithaca, NY 14853
(607) 255-2619

Email: sharon.tennyson@cornell.edu

Website: <http://www.human.cornell.edu/bio.cfm?netid=st96>

AREAS OF INTEREST

Insurance Law and Economics, Financial Institutions, Consumer Policy, Regulation

EDUCATION

Ph.D., Economics, Northwestern University (Fields: Industrial Organization, Public Finance)

B.A., Economics, University of California at Los Angeles

ACADEMIC POSITIONS

2013-present *Professor*, Department of Policy Analysis and Management, Cornell University

1998-2012 *Associate Professor*, Department of Policy Analysis and Management, Cornell University

1990-1998 *Assistant Professor*, Department of Insurance and Risk Management, University of Pennsylvania

SECONDARY APPOINTMENTS

2013-present Core Faculty member, Cornell Institute for Public Affairs

2012-present Faculty Affiliate, Bronfenbrenner Center for Translational Research, Cornell University

2012-present Senior Research Fellow, Networks Financial Institute, Indiana State University

2006-2011 Research Fellow, Networks Financial Institute, Indiana State University

2003-2008 Faculty Fellow, Program on Pharmaceutical Policy Issues, Department of Policy Analysis and Management, Cornell University

1996-1998 Senior Research Fellow, Financial Institutions Center, Wharton School, University of Pennsylvania

VISITING APPOINTMENTS

July 2011 Visiting Scholar, Munich Risk and Insurance Center, Ludwig Maximilians-Universität, Munich Germany

Feb 2011 Visiting Scholar, Center for Insurance Research, Florida State University

April 2000 Visiting Scholar, Department of Insurance and Risk Management, Wharton School, University of Pennsylvania

July 1999 Visiting Faculty, Centre for Market and Public Organisation (CMPO), University of Bristol, Bristol U.K.

LEADERSHIP POSITIONS

2011-present Editor, *Journal of Consumer Affairs*

- 2011-present International Board of Advisors, SKKU Graduate School of Insurance, SKKU School of Business, Seoul, Korea
- 2010-present Editorial Board member, *Insurance Markets and Companies: Analyses and Actuarial Computations*
- 2005-present Editorial Review Board member, *Journal of Insurance Regulation*
- 2004-present Associate Editor, *Journal of Risk and Insurance*
- 2011 Editorial Board member, *Journal of Public Policy and Marketing*
- 2003-2004 President, Risk Theory Society (Officer 2002-2005)
- 2003-2004 Project Coordinator, Program on Pharmaceutical Policy Issues, Department of Policy Analysis and Management, Cornell University
- 2002-2003 Director of Undergraduate Studies, Department of Policy Analysis and Management, Cornell University

RECENT HONORS AND AWARDS

- 2013 Luncheon Speaker, 13th Annual Regulatory Affairs Symposium, Insurance Bureau of Canada, Toronto; “Ontario Auto Insurance: Great Expectations”
- 2012 Winner, 2011 Casualty Actuarial Society Award for Best Article published by the American Risk and Insurance Association; “The Impact of Rate Regulation on Claims: Evidence from Massachusetts Automobile Insurance”
- 2012 Winner, 2011 Best Feature Article, *Risk Management and Insurance Review*; “The Impact of Rate Regulation on Claims: Evidence from Massachusetts Automobile Insurance”
- 2012 Distinguished Speaker, Center for Marketing and Public Policy, Villanova University; “Credit Card Reforms and Consumers’ Use of Credit Cards”
- 2011 Winner, 2010 Best Article, *Geneva Risk and Insurance Review*; “Incentive Effects of Community Rating in Insurance Markets: Evidence from Massachusetts Automobile Insurance”
- 2011 Keynote Speaker, American Council on Consumer Interests; “Perspectives on Consumer Protection Regulation”
- 2010 Winner, 2009 Best Feature Article, *Risk Management and Insurance Review*; “Do State Cost Control Policies Reduce Medicaid Prescription Drug Spending?”
- 2010 Keynote Speaker, Louisiana Conference on Insurance Fraud and Vehicle Theft; “The Many Faces of Fraud: Moral, Social and Economic Catalysts”
- 2010 Keynote Speaker, China International Conference on Insurance and Risk Management, Xi Ning China; “Issues and Challenges in Consumer Protection Regulation”

REFEREED PUBLICATIONS

“Does the Threat of Insurer Liability for “Bad Faith” Affect Insurance Settlements?” with Danial Asmat, *Journal of Risk and Insurance* (forthcoming).

“The Influence of FDA Advisory Information and Black Box Warnings on Individual Use of Prescription Antidepressants,” with Kristy Parkinson, Joseph Price and Kosali Simon, *Review of Economics of the Household* (forthcoming).

“The Effects of Regulatory Reforms in the South Carolina Auto Insurance Market,” with Robert

W. Klein and Martin Grace, *Journal of Insurance Regulation* (forthcoming).

“The Development and Regulation of China’s Insurance Market: History and Perspectives,” with Bingzheng Chen, Maoqi Wang and Haizhen Zhou, *Risk Management and Insurance Review*, (forthcoming).

“Insurance Distribution,” with James I. Hilliard and Laureen Regan, in *Handbook of Insurance*, 2nd edition, Georges Dionne, editor. Kluwer Academic Publishers 2013.

“The Effect of Prescription Drug Withdrawals on the Use of Competitor Drugs: The Case of Vioxx,” with J. Michael Collins and Kosali Simon, *Journal of Economic Behavior and Organization* 86(1) February 2013: 148-168.

“Determination of the Dates of Passage of the Married Women’s Property Acts and Earnings Acts,” with R. Richard Geddes, *Research in Economic History* Vol. 29 2013: 145-189.

“The Effects of Expanding Property Rights on Women’s Economic Activity,” with R. Richard Geddes and Dean Lueck, *Journal of Law and Economics* 55(4) November 2012: 839-867.

“Consumers’ Insurance Literacy: Evidence from Survey Data,” *Financial Services Review* 20(3) Fall 2011: 165-179.

“The Impact of Rate Regulation on Claims: Evidence from Massachusetts Automobile Insurance,” with Richard A. Derrig, *Risk Management and Insurance Review* 14(2) Fall 2011: 173-200.

Winner, 2011 American Risk and Insurance Association Award for Best Feature Article, *RMIR*

Winner, 2011 Casualty Actuarial Society Award for Best Article Published by the American Risk and Insurance Association

“Challenges and Approaches to Consumer Protection in the Insurance Industry,” in *The Fundamentals of Future Insurance Regulation and Supervision: A Global Perspective*, Patrick M. Liedtke and Jan Monkiewicz, editors. Palgrave MacMillan, 2011.

“The Effects of Regulated Premium Subsidies on Insurance Costs: An Empirical Analysis of Automobile Insurance,” with Laureen Regan and Mary A. Weiss, *Journal of Risk and Insurance* 77(3) June 2010: 597-624.

“Incentive Effects of Community Rating in Insurance Markets: Evidence from Massachusetts Automobile Insurance,” *Geneva Risk and Insurance Review* 35(1) June 2010: 19-46 .

Winner, 2010 European Group of Risk and Insurance Economists Award for Best Article, *GRIR*

“The Law and Economics of First Party Insurance Bad Faith Liability,” with William J. Warfel, *Connecticut Insurance Law Journal* 16(1) 2009-2010: 203-242.

“State Prescription Drug Policies, Cost Barriers and the Use of Acute Care Services by Medicaid

Beneficiaries,” with Hae Kyung Yang, *Journal of Consumer Affairs* 43(1) Spring 2009: 4-25.

“Do State Cost Control Policies Reduce Medicaid Prescription Drug Spending?” with Kosali I. Simon and Julie Hudman, *Risk Management and Insurance Review* 12(1) Winter 2009: 37-64.

Winner, 2009 American Risk and Insurance Association (ARIA) Award for Best Feature Article, *RMIR*

“The Emergence and Potential Consequences of First Party Insurance Bad Faith Liability,” with William J. Warfel, *Journal of Insurance Regulation* 28(2) Winter 2008: 3-20.

“The Relationship between Auto Insurance Rate Regulation and Insured Loss Costs: An Empirical Analysis,” with Laureen Regan and Mary A. Weiss, *Journal of Insurance Regulation* 27(1) Fall 2008: 23-46.

“Insurance Fraud and Optimal Claims Settlement Strategies,” with Keith J. Crocker, *Journal of Law and Economics* 45(2) October 2002: 469-508.

“Claims Auditing in Automobile Insurance: Fraud Detection and Deterrence Objectives,” with Pau Salsas-Forn, *Journal of Risk and Insurance* 69(3) September 2002: 289-308.

“Automobile Insurance Regulation: The Massachusetts Experience,” with Laureen Regan and Mary A. Weiss, in J. David Cummins, ed., *Deregulating Property-Liability Insurance: Restoring Competition and Increasing Market Efficiency*. Washington, DC: American Enterprise Institute-Brookings Institution Joint Center for Regulatory Studies, 2002: 25-80.

“Insurance Experience and Consumers’ Attitudes toward Insurance Fraud,” *Journal of Insurance Regulation* 21(2) Winter 2002: 35-56.

“State Curriculum Mandates and Student Knowledge of Personal Finance,” with Chau Nguyen, *Journal of Consumer Affairs* 25(2) Winter 2001: 241-262.

“Regulation, Political Influence and the Price of Automobile Insurance,” with J. David Cummins and Richard D. Phillips, *Journal of Insurance Regulation* 20(1) Fall 2001: 9-50.

“Insurance Distribution Systems,” with Laureen Regan, in Georges Dionne, ed., *Handbook of Insurance*, Kluwer Academic Publishers, 2000: 709-745.

“Efficiency, Scale Economies and Consolidation in the U.S. Life Insurance Industry,” with J. David Cummins and Mary A. Weiss, *Journal of Banking and Finance* 23(1) January 1999: 325-357.

“Life Insurance Mergers and Acquisitions,” with J. David Cummins and Mary A. Weiss, in J. David Cummins and Anthony Santomero, eds., *Changes in the Life Insurance Industry: Efficiency, Technology and Risk Management*, Kluwer Academic Publishers, 1999: 159-186.

“Costly State Falsification or Verification? Theory and Evidence from Bodily Injury Liability Claims,” with Keith J. Crocker, in Georges Dionne and Claire Laberge-Nadeau, eds., *Automobile*

Insurance: Road Safety, New Drivers, Risks, Insurance Fraud and Regulation, Kluwer Academic Publishers, 1999: 120-130.

“Capital Shocks and Merger Activity in the Property-Liability Insurance Industry,” with Sandra L. Chamberlain, *Journal of Risk and Insurance* 65(4) December 1998: 563-595.

“The Coexistence of Distribution Systems under Price Search: Theory and some Evidence from Insurance,” with Lisa L. Posey, *Journal of Economic Behavior and Organization* 35(1) January 1998: 95-115.

“Rate Regulation and the Industrial Organization of Automobile Insurance,” with Susan J. Suponic, in David Bradford, ed., *The Economics of Property-Casualty Insurance*, University of Chicago Press, 1998: 113-138.

“Moral Hazard, Adverse Selection and Community Monitored Insurance Programs,” with Neil A. Doherty, in Robert Klein, ed., *Alternative Approaches to Insurance Regulation*, National Association of Insurance Commissioners, 1998: 97-110.

“The Impact of Rate Regulation on State Automobile Insurance Markets,” *Journal of Insurance Regulation* 15(4) Summer 1997: 502-523.

“Economic Institutions and Individual Ethics: A Study of Consumer Attitudes Toward Insurance Fraud,” *Journal of Economic Behavior and Organization* 30(2) February 1997: 247-266.

“Agent Discretion and the Choice of Insurance Marketing System,” with Lauren Regan, *Journal of Law and Economics* 39(2) October 1996: 637-666.

“Moral Hazard in Insurance Claiming: Evidence from Automobile Insurance,” with J. David Cummins, *Journal of Risk and Uncertainty* 12(1) January 1996: 29-50.

“Regulatory Lag in Automobile Insurance,” *Journal of Risk and Insurance* 60(1) March 1993: 36-58.

“Reinsurance and the Liability Insurance Crisis,” with Lawrence A. Berger and J. David Cummins, *Journal of Risk and Uncertainty* 5(3) July 1992: 253-272.

“Labor Market Discrimination, Imperfect Information and Self-Employment,” with Stephen Coate, *Oxford Economic Papers* 44(2) April 1992: 272-288.

“Controlling Automobile Insurance Costs,” with J. David Cummins, *Journal of Economic Perspectives* 6(2) Spring 1992: 95-115.

ESSAYS AND POLICY BRIEFS

How Risk and Insurance Experts View the Effectiveness of Prior Approval and Market-Oriented Rate Regulatory Policies in Auto Insurance, Insurance Research Council (monograph, 31 pages), August 2013.

Reforming Ontario's Auto Insurance System: Research and Recommendations, with Mary Kelly and Anne Kleffner, Insurance Bureau of Canada, (monograph, 114 pages), September 2012.

Does Ontario Need a New Auto Insurance System? with Mary Kelly and Anne Kleffner, Insurance Bureau of Canada policy brief, September 2012.

Long Term Effects of Rate Regulatory Reforms in Automobile Insurance Markets, Insurance Research Council (monograph, 65 pages), March 2012.

Consumers' Insurance Literacy, Policy Brief 2011-PB-06 Networks Financial Institute (www.networksfinancialinstitute.org), July 2011.

Rethinking Consumer Protection Regulation in Insurance Markets, Policy Brief 2010-PB-07 Networks Financial Institute (www.networksfinancialinstitute.org), September 2010.

Analyzing the Role for a Consumer Financial Protection Agency, Policy Brief 2009-PB-13 Networks Financial Institute (www.networksfinancialinstitute.org), December 2009.

State Regulation and Consumer Protection in the Insurance Industry, Policy Brief 2008-PB-03 Networks Financial Institute (www.networksfinancialinstitute.org), February 2008.

Reprinted in *Consumer Protection: Diverging Perspectives*, G. Radhika, ed., Hyderabad: Icfai University Press, 2008-09

First-Party Insurance Bad Faith Liability: Law, Theory, and Economic Consequences, with William J. Warfel, National Association of Mutual Insurance Companies Issue Brief (www.namic.org), 2008.

Efficiency Consequences of Insurance Rate Regulation, Policy Brief 2007-PB-03 Networks Financial Institute (www.networksfinancialinstitute.org), March 2007.

Reprinted in *The Icfai University Journal of Insurance Law* 6(3) 2008: 41-54

"Government Regulation of Insurer Sales Practice," *Market and Public Organisation*, University of Bristol, Issue 2, December 1999: 7-10.

NON-REFEREED PUBLICATIONS

"Consumer Protection in Insurance Markets," *Journal of Financial Consumers* 1(1) June 2011: 1-10 (invited article).

"Insurer Anti-Fraud Programs: Contracts and Detection versus Norms and Prevention," *Journal of Financial Transformation*, Spring 2011.

"Bad-Faith Liability for Unfair Claims Settlement Practices in First-Party Insurance," with William J. Warfel, *Pravartak: Journal of Insurance and Risk Management*, May 2009.

"Moral, Social and Economic Dimensions of Insurance Claims Fraud," *Social Research*, 75(4) Winter 2008: 1181-1204 (invited article).

“Financial Literacy: A Public Policy Issue -- The Effect of Curriculum Mandates on Student Financial Knowledge,” with Chau Nguyen and B.J. Bristow, *Proceedings* of the 2000 Annual Conference of the Association for Financial Planning and Counseling, November 2000.

“The Effect of Rate Regulation on Underwriting Cycles,” *CPCU Journal* 44(1) Mar 1991:33-45.

ARTICLES IN TRADE PRESS

“Bad Faith Lawsuits: Raise Standard of Proof”, with William J. Warfel, *Fraud Focus* (newsletter published by The Coalition Against Insurance Fraud), Winter 2009.

“Curriculum Mandates: A Policy to Increase Financial Literacy?” with B.J. Bristow and Chau Nguyen, *Jumpstart Coalition Newsletter*, October 2000.

BOOK REVIEWS

The Liability Maze: The Impact of Liability Law on Safety and Innovation, Peter Huber and Robert Litan, eds., *Journal of Policy Analysis and Management*, V11, No.4 (Fall 1992): 728-731

WORKING PAPERS

“Directors’ and Officers’ Liability Insurance, Corporate Risk and Risk Taking: Panel Data Evidence on the Role of Directors’ and Officers’ Liability Insurance,” with M. Martin Boyer, invited to revise and resubmit to *Journal of Risk and Insurance*.

“The Role of Family and Earlier Life Experiences in Long Term Care Insurance Purchase Decisions,” with HaeKyung Yang, invited to revise and resubmit to *Journal of Economic Psychology*.

“The Impact of Expanded Insurer Liability for Bad Faith: Evidence from the *Royal Globe* Doctrine,” with Brian Richman, invited to revise and resubmit to *Journal of Legal Studies*.

“Product ratings as a market reaction to deregulation: Evidence from the German insurance market”, with Stephanie Meyr, invited to revise and resubmit to *Risk Management and Insurance Review*.

“An Examination of the Long-term Impacts of Auto Insurance Reform: Evidence from Ontario,” with Mary Kelly and Anne E. Kleffner, under review.

“The Effects of CARD Act Disclosures on Consumers’ Use of Credit Cards,” with Lauren Jones and Caezilia Loibl, under revision in preparation for submission.

“Implementation of EU Intermediary Regulation: Intentions and Unintended Side Effects,” with Christoph Lex and Andreas Richter, in preparation for submission.

“My Wife is my Long Term Care Insurance: Household Bargaining and the Purchase of Long Term Care Insurance,” with H. Elizabeth Peters and Frances Woolley, presented at the American Economic Association meetings, January 2008.

“Trends in State Medicaid Prescription Drug Policies 1990-2004: What are the main policies the states are using?” with Kosali Simon and Julie Hudman, 2005.

“Medicaid Crowd-out Of Private Insurance: The Case of Long Term Care,” with Hyojin Kang and Alan Mathios, 2004.

WORKING PAPERS IN PROGRESS (drafts available)

“Do Multiple Damages Awards Succeed in Relieving Strain on the Legal System? Evidence from Tort Law in the Auto Insurance Industry,” with Danial Asmat, first draft 2012.

“The Airline Passenger Protection Rule: Airline Response and On-Time Performance”, with Andrew M. McClintock, first draft November 2011.

“State Regulations, Uninsured Driving and the Cost of Automobile Insurance,” with Mary A. Weiss, presented at the American Risk and Insurance Association meeting August 2011.

CONFERENCE PARTICIPATION

Organizational Activities:

2013	Organizer, Editors’ Roundtable, ACCI annual meeting
2012	Plenary session co-organizer and moderator, panel on Consumer Protection Regulation, Asia-Pacific Risk and Insurance Association annual meeting
2009	Co-organizer, NAIC-Temple Symposium on Insurance Solvency Regulation
2008	Session organizer, American Economic Association meeting
2002	Program Chair, Risk Theory Society Seminar
1999	Session organizer, CSWEP session, Western Economic Association meeting

Research Presentations:

2013	American Risk and Insurance Association meeting (discussant) Casualty Actuarial Society annual meeting (presenter), Vancouver, BC
2012	National Insurance Council of Canada annual meeting (panelist), Quebec City Risk Theory Society seminar (presenter) American Council on Consumer Interests meeting (presenter) Webinar, National Association of Mutual Insurance Companies (presenter) Asia-Pacific Risk and Insurance Association meeting (presenter)
2011	Allied Social Science Association meeting, session sponsored by American Risk and Insurance Association (presenter) American Risk and Insurance Association meeting (presenter)
2010	World Risk and Insurance Economics Congress, Singapore (presenter and discussant) Conference on Insurance Regulatory Reform Issues: A Regional Perspective, Networks Financial Institute, Indianapolis (panelist) C.D. Howe Institute Conference on Price Regulation and Social Welfare: The Case of Automobile Insurance in Canada, Toronto (discussant)
2009	National Association of Mutual Insurance Companies Public Policy Summit
2008	American Society of Health Economists meeting (presenter)

- American Economic Association meeting (presenter)
 Searle Center Conference on Insurance Markets and Regulation, Northwestern University (presenter)
 American Risk and Insurance Association meeting, (presenter and discussant)
 Insurance Bureau of Canada Regulatory Affairs Symposium, Toronto (presenter)
 Fifth Insurance Reform Summit, Networks Financial Institute, Washington, D.C.
 Conference on Empirical Legal Studies (discussant)
- 2007 American Risk and Insurance Association meeting (presenter and discussant)
 Casualty Actuary Society Northeast Regional Meeting (presenter)
 Fourth Insurance Reform Summit, Networks Financial Institute, Washington, D.C. (presenter)
- 2006 International Society for New Institutional Economics meeting (presenter)
 American Risk and Insurance Association meeting (discussant)
- 2002 Casualty Actuarial Society national meeting (presenter)
 Insurance Research Council/Massachusetts Automobile Insurers' Bureau Conference on Insurance Fraud (presenter)
- 2001 American Enterprise Institute-Brookings Joint Center for Regulatory Studies Conference on Property-Liability Insurance Price Deregulation (presenter)
 American Council on Consumer Interests meeting (presenter)
 Risk Theory Society Seminar (presenter)
 Casualty Actuarial Society national meeting (presenter)
- 2000 Seminar of the European Group of Risk and Insurance Economists (presenter, discussant)
 Insurance: Mathematics and Economics meeting (presenter)
- 1998 Economic Policy Institute Conference on Automobile Insurance (discussant)
- 1997 Fifth International Conference on Insurance Solvency and Finance (presenter)
 International Conference on Automobile Insurance, University of Montreal (presenter)
- 1996 American Risk and Insurance Association meeting (presenter)
- 1995 American Risk and Insurance Association meeting (presenter)
- 1994 American Risk and Insurance Association meeting (presenter)
 Econometric Society North American Summer Meeting (presenter)
 Franco-American Economics Seminar (presenter)
 National Bureau of Economic Research Conferences on Property-Casualty Insurance (presenter)
- 1993 American Economic Association meeting (presenter)
- 1992 American Risk and Insurance Association meeting (presenter)
 Risk Theory Society Seminar (presenter)
- 1991 American Risk and Insurance Association meeting (presenter)

Educational Presentations:

- 2012 Cornell Cooperative Extension, Family and Economic Resource Management In-Service, Panelist; "Improving Consumers' Use of Credit Cards: The Role of Policy"
- 2012 Casualty Actuarial Society Northeast Regional meeting (CANE), General Session Speaker; "Lessons for Actuaries from Behavioral Economics" (with James Guszca)

- 2012 Bad Faith and Beyond Conference, Rutgers-Camden Law School, Panelist; “Empirical Perspectives on Bad Faith Liability”
- 2012 American Council of Consumer Interests Webinar for Emerging Academics; “Publishing: Perspectives of an Editor”
- 2011 General Session Speaker, Casualty Actuarial Society InFocus Seminar; “Lessons for Insurance Actuaries from Behavioral Economics” (with James Guszca)
- 2010 Cornell University, Johnson Graduate School of Management, Faculty Panel “Financial Protections in the U.S. and Globally” (Andrew Ross Sorkin visit)
- 2010 Singapore College of Insurance, Distinguished Visiting Professor Lecture; “Understanding Consumer Behavior in Insurance Transactions”
- 2010 Cornell Human Ecology Alumni Association, annual meeting; “Financial Regulatory Reforms”
- 2010 National Conference of Insurance Legislators, Institute for Insurance Policy; “The Cost of Claims Fraud: Who Ultimately Pays?”
- 2008 National Association of Mutual Insurance Companies, annual meeting; “Consequences of First-Party Insurance Bad Faith Liability”
- 2001 Cooperative Extension Conference (ACCEE); “Life is a Risky Business: Making Insurance Choices Wisely”
- 2000 Cornell Cooperative Extension Inservice; “Improving Insurance Knowledge of New York State Consumers”
- 1996 Minnesota Independent Insurance Agents Association; “The Future of Insurance Marketing Systems”

Other Conference Participation:

Faculty mentor, Insurance Economics Colloquium, Wildbad Kreuth Germany, 2013; Panelist, Progrés International Insurance Seminar of the Geneva Association, Geneva Switzerland, Panel on Consumer Protection Regulation, 2012; Panelist, University of Wisconsin Center for Financial Security, Financial Literacy Workshop, 2011; Cornell Cooperative Extension FERM Project Working Team lunch, faculty speaker, 2011; Invited participant, Enterprise Risk Management Institute International (ERM-II), Symposium on Systemic Risk in the Insurance Industry, 2010; Resident academic, annual CEO Conference of Canadian property-casualty insurance companies 2007; Session moderator, American Risk and Insurance Association meetings 2000, 2004, 2006, 2007, 2008; Session moderator, American Council on Consumer Interests meetings 2001, 2012, 2013; General session moderator, Casualty Actuarial Society annual meeting 2013

PUBLIC POLICY CONSULTING

- 2013 White Paper: *How Risk and Insurance Experts View the Effectiveness of Prior Approval and Market-Oriented Rate Regulatory Policies in Auto Insurance*, (consultant to Insurance Research Council)
- 2012 White Paper: *Reforming Ontario’s Auto Insurance System: Research and Recommendations*, with Mary Kelly and Anne Kleffner (consultant to Insurance Bureau of Canada)
- 2011 Expert witness, Michigan Senate hearings on No-fault Insurance; White paper: *Excess Costs in Michigan Auto Insurance: Causes and Implications for Reform* (consultant to several insurance companies)

- 2011 White paper: *Long Term Consequences of Auto Insurance Rate Deregulation*; (consultant to Insurance Research Council)
- 2008 Expert witness, Massachusetts Special Commission on Auto Body Rates (consultant to the Massachusetts Insurance Federation)
- 2008 White Paper: *First-Party Insurance Bad Faith Liability: Law, Theory, and Economic Consequences*, with William J. Warfel (consultant to National Association of Mutual Insurance Companies)
- 2007 Expert witness, Massachusetts Automobile Insurance Competition hearing; White paper: *Evaluating Competition in Automobile Insurance Markets* (consultant to The Fairness for Good Drivers Coalition)
- 2007 White paper: *Unintended Consequences of Insurance Price Suppression* (consultant to Insurance Bureau of Canada)
- 2006 Expert witness, Alberta Automobile Insurance hearing (consultant to the Insurance Bureau of Canada)
- 1995 Expert witness, Maryland State Governor's Commission on Reforming Baltimore City Automobile Insurance

RESEARCH FUNDING

- 2011-2012 Principal Investigator, *Cornell Institute for Social Science* Small Grant, "Credit Card Reforms: Helping or Hurting Consumers?"
- 2006-2008 Principal Investigator, *Program on Consumers, Pharmaceutical Policy and Health* Grant, "Drug Choice, Negative Information and Consumer Behavior"
- 2003-2007 Co-Principal Investigator (with Kosali Simon), *Program on Consumers, Pharmaceutical Policy and Health* Grant, "State Regulation of Medicaid Pharmacy Benefits"
- 2003-2005 Initiative Team Member (with PAM Dept. colleagues), *Merck Company Foundation* Program on Pharmaceutical Policy Issues Grant, "Program on Consumers, Pharmaceutical Policy and Health", John Rizzo, Principal Investigator
- 2000-2003 Principal Investigator, *College of Human Ecology* Grant, Cornell University: "Regulatory Issues in Insurance Markets"
- 1999-2001 Principal Investigator (collaborative research with B.J. Bristow), *CSREES Research-Extension Integration* Grant: "Insurance Choices: Knowledge, Confidence and Competence of New York State Consumers"
- 1998-2003 Principal Investigator, *Hatch Grant, USDA*: "Issues in the Regulation of Insurance Marketing and Distribution"
- 1995-1997 Principal Investigator (collaborative research with Keith J. Crocker), *National Science Foundation, Economics Division* Grant #SBR95-07768: "Contracting with Costly State Falsification: Theory and Empirical Results from Automobile Insurance"
- 1995-1996 Principal Investigator, *National Association of Insurance Commissioners Journal of Insurance Regulation* Grant: "The Effects of Rate Regulation on the Structure of Automobile Insurance Markets"
- 1994-1995 Principal Investigator, *University of Pennsylvania Research Foundation* Grant: "Regulation and Industrial Organization in Structurally Competitive Industries: The Case of Automobile Insurance"

- 1994-1995 Principal Investigator, *University of Pennsylvania Research Foundation Grant*: “Social Norms in Economic Settings: Consumer Attitudes Toward Insurance Fraud”
- 1993-1995 Co-Principal Investigator (collaborative research with J.D. Cummins), *Financial Institutions Center Grant*, The Wharton School: “The Management and Control of Fraud in Insurance Firms”
- 1993-1994 Co-Principal Investigator (collaborative research with S. Chamberlain), *Fishman-Davidson Center Grant*, The Wharton School: “The Risk and Efficiency Effects of Insurance Company Mergers”
- 1992-1993 Principal Investigator, *University of Pennsylvania Research Foundation Grant*: “The Tort System and Insurance ‘Lotteries’”
- 1989-1990 Principal Investigator, *Society of CPCU Grant*: “The Effects of Rate Regulation on Underwriting Cycles”
- 1988-1989 Doctoral Dissertation Fellowship, *State Farm Companies Foundation*: “Supply Dynamics and Underwriting Cycles in Property Liability Insurance”
- 1987-1988 Graduate Research Fellowship, *Center for Urban Affairs and Public Policy*, Northwestern University

PH.D. DISSERTATION COMMITTEES

- In progress Lauren E. Jones (chair)
- In progress José Balmori di la Miyar (chair)
- In progress Peter Wissoker
- 2008 J. Michael Collins (chair)
- 2007 Sara Hoda
- 2007 Hae Kyung Yang
- 2007 Ajay Aseem Palvia
- 2005 Sonja Afroz
- 2003 Hyojin Kang
- 1998 M. Martin Boyer (chair)
- 1998 Susan J. Suponcic
- 1997 David M. Russell
- 1996 Jweeping Er
- 1995 Sung Hun Seog
- 1995 Tracy Shepard Allotey
- 1994 Jeong D. Kim
- 1994 Richard A. Phillips
- 1993 Laureen A. Regan
- 1993 Anne E. Kleffner
- 1993 David W. Sommer
- 1992 Lisa L. Posey

Mentor, Cristoph Lex, visiting Ph.D. student, Ludwig Maximillion University, Spring 2013

Mentor, Maoqi Wang, visiting Ph.D. student, Tsinghua University, Fall 2011

MASTERS’ THESIS COMMITTEES CHAIRED

- 2013 Samir Kiuhan, CIPA (thesis)

2013 Cheng Chen, CIPA (professional report)
2011 Andrew McClintock, PAM
2011 Scott Talaga, CIPA (thesis)

PROFESSIONAL SERVICE

Service to Government and Industry:

Member, Consumer Financial Education Committee, The Actuarial Foundation, 2012-2013; Member, Board of Trustees, Elizabeth Ann Clune Montessori School of Ithaca, 2004-2007; Economic Reviewer, Institute for Defense Analysis, 2003-2006; Cornell representative to Board of Directors, Ithaca Community Childcare Center, 2000-2004 (Vice President, 2002-2003; Secretary 2001-2002); Advisor, Consumer Information Task Force of the Coalition Against Insurance Fraud, 1996-1997

Service to American Risk and Insurance Association:

Program Committee 1993, 1996, 1997, 2000, 2006, 2007, 2008, 2010, 2013; Nominations Committee 1996; Best JRI Feature Article Awards Committee 1995, 1996, 1998, 2006, 2007, 2008, 2012; Best RMIR Feature Article Awards Committee 2013; Best RMIR Perspectives Article Awards Committee 2010 (Chair), 2011; Book Awards Committee, 1992, 1999 (Chair), 2003, 2004

Ad Hoc Reviewing:

Journal of Risk and Insurance (assistant editor award, 1996 and 1997), Journal of Economic Psychology, Journal of Public Policy and Marketing, Natural Hazards, Review of Economics of the Household, Risk Management and Insurance Review, Geneva Risk and Insurance Review, Management Science, Asia-Pacific Journal of Risk and Insurance, Journal of Consumer Affairs, Journal of Policy Analysis and Management, Astin Bulletin, Journal of Law, Economics and Organization, Journal of Banking and Finance, Journal of Political Economy, American Economic Review, Journal of Law and Economics, Journal of Business Ethics, National Science Foundation, Geneva Papers on Risk and Insurance: Issues and Practice, Journal of Legal Studies, Journal of Insurance Regulation, European Economic Review, Journal of Consumer Policy, International Review of Economics and Finance, Industrial and Labor Relations Review, Journal of Insurance Issues, Economic Journal, Journal of Financial Intermediation, Journal of Risk and Uncertainty, Review of Industrial Organization, MIT Press, Elsevier Press

CORNELL UNIVERSITY SERVICE

College and University Committees:

Faculty Committee on Program Review, 2013-present; Committee on Academic Freedom and Professional Status of the Faculty, 2012-present; Mann Library Committee, 2005-2009 (chair 2008-2009); Member, Hotel School Ad-hoc Tenure Review Committee, 2011; CAS Ad-hoc Tenure Review Committee, 2008, 2010; University Benefits Committee, 2002-2006; Grant Review Team, Hatfield Fund for the Enhancement of Economics Education, 2002-2005; College of Human Ecology Nominations Committee, 2001-2004, 2010-2013; College of Human Ecology Educational Policies Committee, 2002-2003; PAM Graduate Field Committee, 2001-2002; Review Team, Pre-proposals for Cornell Cooperative Extension Learning Centers, 2001; PAM Graduate Field Governance Committee, 2000-2001

PAM Department Committees:

Liaison to Mann Library, 2005-present; Executive Committee, 2002-2003; Undergraduate Committee, 1998-2003 (Chair, 2002-2003); Sloan MHA Program Committee, 1998-2001; Faculty Search Committee, 1998-2002, 2002-2004 (Chair), 2005-2006, 2006-2007 (co-Chair), 2008-2009, 2009-2010, 2010-2011, 2012-2013; Search Committee for Sloan Program Associate Director, 1999-2000 (Chair)

CORNELL GRADUATE FIELD MEMBERSHIP

Policy Analysis and Management; Economics; Cornell Institute for Public Affairs

COURSES TAUGHT

Cornell: Economics of Consumer Law and Protection, Economics of Consumer Policy, Risk Management and Policy, Regulating Financial Institutions, Economics of the Public Sector, Consumers, Information and Regulatory Policy (PhD), Seminar on Pharmaceutical Policy Issues (MHA), Microeconomics for Management and Policy (MHA)

Wharton: Principles of Risk and Insurance, Risk Management, Risk Management and Treatment (MBA), Industrial Organization of Insurance Markets (PhD)



**THE WORKERS' COMPENSATION
RATING AND INSPECTION BUREAU**

**MASSACHUSETTS
WORKERS' COMPENSATION
INSURANCE RATE FILING**

Volume 1 of 3

Section I	Rate Recommendation
Section II	Loss Development
Section III	Premiums
Section IV	Benefit Change Adjustments
Section V	Trend
Section VI	Expenses
Section VII	Profit

Recommended Effective Date: January 1, 2014
Filing Date: December 27, 2013

Introduction

On behalf of our more than three hundred member carriers, the Workers' Compensation Rating and Inspection Bureau of Massachusetts ("WCRIBMA") recommends that average rates for workers' compensation insurance be increased by 7.7% for policies effective on and after January 1, 2014.

Filing Summary

This filing is divided into three parts. The first is the main rate level filing, with explanatory text and actuarial exhibits underlying the calculation of the average rate indication. The second part contains the rate level indication for F-Classes, revised Experience and Retrospective Rating Plan parameters, miscellaneous rating values, and classification rate displays. The third part deals with cost containment. The pre-filed testimony of the three WCRIBMA actuaries supporting this filing (Robert McCarthy, Claudia Cunniff and Anthony Salido) and of the WCRIBMA's outside expert witnesses, David Appel of Milliman, Inc. and Sharon Tennyson of Cornell University is included with the filing.

This filing presents the required testimony, data, and calculations supporting the WCRIBMA's recommended rate revisions. The rates the WCRIBMA recommends are neither excessive nor inadequate; they are not unfairly discriminatory; and they fall within a range of reasonableness. The Commissioner should, therefore, approve the WCRIBMA's filing.

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In this introduction the WCRIBMA presents a summary of the principal ratemaking issues and methods considered in the filing. Consistent with past practice, the WCRIBMA uses a loss ratio methodology to derive two separate rate indications that are then averaged to produce the final recommendation. This year the WCRIBMA derived one indication from policy year 2010 data and the other from policy year 2011 data. Policy year 2010 data consist of premium and loss experience generated by policies written during 2010. Policy year 2011 data consist of premium and loss experience generated by policies written during 2010. The WCRIBMA averages these two years of experience to get its filed indication.

Using a standard loss ratio method, the WCRIBMA calculates a permissible loss, Loss Adjustment Expense (“LAE”) and fixed expense ratio (“Target Cost Ratio”) and compares it to an adjusted loss, LAE and fixed expense ratio reflecting the past experience that supports this filing (“Actual Cost Ratio”). The WCRIBMA adjusts Aggregate Financial premium and loss data from the experience period so that they reflect as accurately as possible the conditions that are expected to prevail during the period when the rates are expected to be in effect (here 1/1/14-12/31/14). The recommended rate change is designed to bring the Actual Cost Ratio into alignment with the Target Cost Ratio.

It is important to understand that the ratemaking methodology used in this filing is not a series of unrelated calculations, but rather is an integrated series of adjustments to the reported experience that taken together yield a reasonable rate level. Each of these adjustments is summarized below and further detailed in the body of the filing.

Losses

Losses require three separate adjustments to rate period levels. The first, described in Section II of the filing, is loss development. Since the claims associated with policy year 2010 and policy year 2011 losses have not yet all been settled, the WCRIBMA looks at past settlement patterns to estimate ultimate values. Workers' compensation payments may reflect claims for either (or both) medical and indemnity (wage loss and survivor) benefits, and these are developed separately. The WCRIBMA calculates two different estimates of ultimate medical and indemnity losses, the first based on the development of paid losses, and the second based on the development of the sum of paid losses and case reserves. These are averaged when the WCRIBMA calculates the experience period loss ratios.

Next, losses are adjusted to current benefit levels, and these calculations are displayed in Section IV of the filing. In this filing, these adjustments are made to reflect the impact of recent changes in the Statewide Average Weekly Wage and the medical fee schedule. The WCRIBMA estimates the wage-based benefit effects with a version of the simulation model used by NCCI.

Finally, losses are adjusted for trend to account for expected changes in loss costs from the experience period to the time the recommended rates will be in effect. In this filing, regression techniques are used to analyze separately the distinct underlying components of observed loss trends: changes in claim frequency, claim severity and

wages (used as a proxy for exposure because payroll is the predominant exposure base). Details of the loss trend calculations are found in Section V.

Premiums

For most workers' compensation policies, the final premium is not known until after the policy expires. Insurers base initial premiums on estimated payroll, subject to a post-expiration audit. As a result, policy year premium is developed using a technique much like loss development. The WCRIBMA also adjusts reported premiums to current rate level. These adjustments are found in Section III.

Expenses

Section VI contains the calculations underlying the expense provisions in the rates. As in past years, these calculations are based on the methods specified by the Commissioner in the 1987 rate decision. Expenses are divided into fixed and variable categories. Variable expenses are proportional to either premium (premium taxes, commissions, and other acquisition expenses) or losses (loss adjustment expenses). Fixed expenses are divided into expense categories (salaries, postage, utilities, etc.). As was done in the last filing, the WCRIBMA uses a composite external index to estimate expense trends. The WCRIBMA also continues to include a provision to reflect the estimated net cost to insurers for the purchase of reinsurance.

Underwriting Profit

Discounted cash flow models are used to estimate the underwriting profit provision in Section VII. We use both an namely the internal rate of return (“IRR”) model and an insurer capital cost (“ICC”) model. The IRR model is widely used in insurance ratemaking and in 2003 was approved by the Commissioner for use in workers’ compensation ratemaking in Massachusetts. The ICC model is mathematically equivalent to the IRR model and is used to explicitly quantify the capital costs in dollar terms.

To implement the IRR and ICC models, the WCRIBMA first determines the various inputs needed by the models, such as the cost of capital (or target rate of return), the expected return on insurers’ invested assets, the leverage ratio, and the cash flows associated with underwriting. Using the IRR and ICC models and their associated inputs, the WCRIBMA derives the premium level required to achieve the target return on capital.

Longshore and Harbor Workers

Section VIII describes the derivation of rate recommendations for the risks that have considerable exposure to the benefits and risks that apply under the United States Longshore and Harbor Workers Act, known as the F-Classes.

Classifications and Rating Plan Parameters

Section IX describes how the overall rate change is distributed among the more than four hundred classifications for which workers' compensation policies are written in Massachusetts. Section X presents D-Ratio and expected loss rate calculations for use in experience rating. Section XI details the derivation of miscellaneous rating values, including credit factors for both the Massachusetts Benefits Deductible Program and the Massachusetts Benefits Claim and Aggregate Deductible Program. Section XI also contains recommended revisions to the Massachusetts Construction Classification Premium Adjustment Program. Section XII contains the calculation of various retrospective rating parameters, including hazard group relativities and excess loss factors.

Data

Section XIII describes the process the WCRIBMA uses to validate and edit the data used in its rate filings. Section XIII also provides details about certain adjustments to the reported data, including the exclusion of certain data, deemed necessary this year for purposes of this rate filing.

Cost Containment

The WCRIBMA's cost containment filing once again includes the responses of ten representative carriers to a survey of cost containment practices. This year the WCRIBMA has revised its survey instrument and our cost containment filing provides an expanded array of information. The WCRIBMA recommends that, as in the past, the

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Commissioner accept this filing as evidence of the industry's compliance with its statutory cost containment obligations.

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 Subsection A - Introduction
 1/1/2014

Section I - A
 Exhibit 1

RATE INDICATION SUMMARY

Statewide Rate Change Summary		
<i>Indication Effective Date: 1/1/2014</i>		
(1)	Indicated Rate Change Based on Policy Year 2010 Data (Section I-B, Exhibit 1)	8.4%
(2)	Indicated Rate Change Based on Policy Year 2011 Data (Section I-B, Exhibit 1)	7.0%
(3)	Average Indicated Rate Change = [(1) + (2)] / 2.0	7.7%

Expense Constants			
	Current	Recommended	
(4)	For Risks developing at least \$1,000 in Standard Premium (Section VI-D, Exhibit 1)	\$338	\$338
(5)	For Risks developing at least \$200 and less than \$1,000 in Standard Premium (Section VI-D, Exhibit 1)	\$250	\$250
(6)	For Risks developing less than \$200 in Standard Premium (Section VI-D, Exhibit 1)	\$159	\$159
(7)	Per Capita Risks (for each exposure, up to a maximum of 4)	\$64	\$64

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Section I - Rate Recommendation
 Subsection B - Calculation of Indicated Rate Change
 1/1/2014

Section I - B
 Exhibit 1

Calculation of Indicated Rate Change		Policy Year <u>2010</u>	Policy Year <u>2011</u>
(1)	Standard Earned Premium plus Adjusted ARAP Premium (Section III-A)	898,315,520	957,760,361
(2)	Composite Adjustment Factor (Section III-A)	1.014	0.990
(3)	Adjusted Standard Earned Premium plus Adjusted ARAP = [(1) x (2)]	911,044,188	948,372,498
(4)	Cumulative Premium Development Factor to Ultimate (Section III-A)	1.002	1.003
(5)	Rate On-Level Factor (Section III-D)	0.983	1.000
(6)	Factor to Remove Expense Constant (Section III-A)	0.954	0.957
(7)	Adjusted On-Level Standard Earned Premium plus Adjusted ARAP at Ultimate = [(3) x (4) x (5) x (6)]	856,143,002	910,085,421
(8)	Annual Wage Trend (Section V-A)	0.023	0.023
(9)	Wage Trend Factor to 1/1/2015 (based on Section V-A)	1.094	1.069
(10)	Standard Earned Premium plus ARAP Projected to Prospective Effective Period = [(7) x (9)]	936,294,043	973,281,054
(11)	Average Incurred Losses Projected to Prospective Effective Period (Section I-C Exhibit I, Page 1 Item (26), Page 2 Item (26))	611,670,729	628,027,899
(12)	Loss Ratio Projected to Prospective Effective Period = [(11) / (10)]	0.653	0.645
(13)	Factor to Remove the Large Deductible Contribution to the Residual Market Subsidy (Section I-D)	1.000	1.000
(14)	Loss Adjustment Expense Factor (Section VI-H)	1.192	1.192
(15)	Fixed Expense Ratio (Section VI-B)	0.052	0.051
(16)	Indicated Policy Year Loss, LAE, and Fixed Expense Ratio = { [(12) x (14)] + (15) } x (13)	0.831	0.820
(17)	Commission and Other Acquisition Expense Ratio (Section VI-G)	0.124	0.124
(18)	Premium Tax Ratio (Section VI-A)	0.022	0.022
(19)	Premium Discount Ratio (Section VI-E)	0.050	0.050
(20)	Variable Expense Ratio = [(17) + (18) + (19)]	0.195	0.195
(21)	Underwriting Profit Provision (Section VII-A)	0.038	0.038
(22)	Permissible Loss, LAE, and Fixed Expense Ratio = [1.0 - (20) - (21)]	0.767	0.767
(23)	Indicated Rate Change = [(16) / (22)] - 1.0	8.4%	7.0%
(24)	Overall Indicated Rate Change = [(23) PY2010 + (23) PY2011] / 2.0		7.7%

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 Subsection C - Indicated Rate Change Detail
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Section I - C
 Exhibit 1
 Page 1

Incurred Losses Projected to the Prospective Effective Period
 Policy Year 2010

	<u>Paid Method</u>	<u>Paid + Case Method</u>
Indemnity Losses		
(1) Indemnity Losses at Latest Month - Industry Total (Section II-A)	194,980,018	276,484,282
(2) Indemnity Loss Development Factor to 252 Months (Section II-B)	1.843	1.293
(3) Tail Factor 252 Months to Ultimate (Section II-C)	1.048	1.015
(4) Factor to Adjust for Escalated Benefits (Section II-D)	1.037	1.007
(5) Estimated Ultimate Indemnity Loss = [(1) x (2) x (3) x (4)]	390,623,131	365,777,269
(6) Annual Indemnity Loss Trend (Section V-A)	0.001	0.001
(7) Indemnity Loss Trend Factor to 1/1/2015	1.003	1.003
(8) Estimated Indemnity Losses Trended = [(5) x (7)]	391,793,634	366,873,321
(9) Estimated Benefit Change Factor Prior to 1/1/2014 (Section IV-A)	1.020	1.020
(10) On Level Losses = [(8) x (9)]	399,587,824	374,171,756
(11) Estimated Benefit Change Factor Subsequent to 1/1/2014 (Section IV-A)	1.004	1.004
(12) Incurred Losses Projected to Prospective Effective Period = [(10) x (11)]	401,161,407	375,645,250
Medical Losses		
(13) Medical Losses at Latest Month - Industry Total (Section II-A)	142,495,188	194,260,997
(14) Medical Loss Development Factor to 252 Months (Section II-B)	1.313	1.106
(15) Tail Factor 252 Months to Ultimate (Section II-C)	1.094	1.060
(16) Factor to Adjust for Escalated Benefits (1.000 for Medical Losses)	1.000	1.000
(17) Estimated Ultimate Medical Loss = [(13) x (14) x (15) x (16)]	204,718,411	227,822,891
(18) Annual Medical Loss Trend (Section V-A)	0.008	0.008
(19) Medical Loss Trend Factor to 1/1/2015	1.032	1.032
(20) Estimated Medical Losses Trended = [(17) x (19)]	211,320,293	235,169,860
(21) Estimated Benefit Change Factor Prior to 1/1/2014 (Section IV-A)	1.000	1.000
(22) On Level Losses = [(20) x (21)]	211,320,293	235,169,860
(23) Estimated Benefit Change Factor Subsequent to 1/1/2014 (Section IV-A)	1.000	1.000
(24) Incurred Losses Projected to Prospective Effective Period = [(22) x (23)]	211,341,425	235,193,377
Total Combined Medical and Indemnity Losses		
(25) Total Estimated Ultimate Losses Trended and On Level = [(12) + (24)]	612,502,832	610,838,627
(26) Average Incurred Losses Projected to Prospective Effective Period	611,670,729	

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Section I - Rate Recommendation
 Subsection C - Indicated Rate Change Detail
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Section I - C
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 Page 2

Incurred Losses Projected to the Prospective Effective Period
 Policy Year 2011

	<u>Paid Method</u>	<u>Paid + Case Method</u>
Indemnity Losses		
(1) Indemnity Losses at Latest Month - Industry Total (Section II-A)	111,996,064	209,959,928
(2) Indemnity Loss Development Factor to 252 Months (Section II-B)	3.385	1.753
(3) Tail Factor 252 Months to Ultimate (Section II-C)	1.048	1.015
(4) Factor to Adjust for Escalated Benefits (Section II-D)	1.037	1.007
(5) Estimated Ultimate Indemnity Loss = [(1) x (2) x (3) x (4)]	412,180,212	376,577,223
(6) Annual Indemnity Loss Trend (Section V-A)	0.001	0.001
(7) Indemnity Loss Trend Factor to 1/1/2015	1.002	1.002
(8) Estimated Indemnity Losses Trended = [(5) x (7)]	413,106,401	377,423,410
(9) Estimated Benefit Change Factor Prior to 1/1/2014 (Section IV-A)	1.013	1.013
(10) On Level Losses = [(8) x (9)]	418,619,786	382,460,564
(11) Estimated Benefit Change Factor Subsequent to 1/1/2014 (Section IV-A)	1.004	1.004
(12) Incurred Losses Projected to Prospective Effective Period = [(10) x (11)]	420,268,317	383,966,699
Medical Losses		
(13) Medical Losses at Latest Month - Industry Total (Section II-A)	115,978,595	182,339,081
(14) Medical Loss Development Factor to 252 Months (Section II-B)	1.678	1.181
(15) Tail Factor 252 Months to Ultimate (Section II-C)	1.094	1.060
(16) Factor to Adjust for Escalated Benefits (1.000 for Medical Losses)	1.000	1.000
(17) Estimated Ultimate Medical Loss = [(13) x (14) x (15) x (16)]	212,866,761	228,279,081
(18) Annual Medical Loss Trend (Section V-A)	0.008	0.008
(19) Medical Loss Trend Factor to 1/1/2015	1.024	1.024
(20) Estimated Medical Losses Trended = [(17) x (19)]	217,995,956	233,779,648
(21) Estimated Benefit Change Factor Prior to 1/1/2014 (Section IV-A)	1.000	1.000
(22) On Level Losses = [(20) x (21)]	217,995,956	233,779,648
(23) Estimated Benefit Change Factor Subsequent to 1/1/2014 (Section IV-A)	1.000	1.000
(24) Incurred Losses Projected to Prospective Effective Period = [(22) x (23)]	218,017,756	233,803,026
Total Combined Medical and Indemnity Losses		
(25) Total Estimated Ultimate Losses Trended and On Level = [(12) + (24)]	638,286,073	617,769,726
(26) Average Incurred Losses Projected to Prospective Effective Period	628,027,899	

Derivation of Large Deductible Factor Applied to Remove the Benefit of the Residual Market Subsidy Paid by Large Deductible Insureds

The WCRIBMA makes rates based on the experience of voluntary market risks, excluding large deductibles, and residual markets risks. However, large deductible policies are subject to the assigned risk assessment. Consequently, the WCRIBMA must estimate the residual market subsidy that is attributable to large deductible policies, and then make an offset for this subsidy in the calculation of the indicated average rate change.

Derivation of Factor:

Definitions

w_{vol}	- Proportion of Voluntary Non-Large Deductible Exposure to the sum of Voluntary Non-Large Deductible Exposure plus Residual Market Exposure
w_{rm}	- $1 - w_{vol}$ - Proportion of Residual Market Exposure to the sum of Voluntary Non-Large Deductible Exposure plus Residual Market Exposure
Q_{vol}	- Average Voluntary Market Rate equivalent
Q_{rm}	- Average Residual Market Rate equivalent
Q_{oa-0}	- Average Rate equivalent for Voluntary and Residual Market in total assuming no subsidy paid for by large deductibles.
Q_{oa-1}	- Average Rate equivalent for Voluntary and Residual Market in total assuming a subsidy paid for by large deductibles
u	- Ratio of Non-Large Deductible Voluntary Assessable Premium to the Total Voluntary Assessable Premium
d	- Q_{rm} / Q_{vol}

Assuming no residual market subsidy paid by anyone other than w_{vol} :

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$$(1) w_{vol}Q_{vol} + w_{rm}Q_{rm} = Q_{oa-0}$$

This is a weighted average of the voluntary rate and the residual market rate.

Now assume that large deductibles subsidize the residual market. The residual market subsidy would be:

$$(2) \text{Residual Market Subsidy} = w_{rm} (Q_{rm} - Q_{oa-0})$$

The large deductible share of the residual market subsidy would be:

$$(3) (1 - u) w_{rm} (Q_{rm} - Q_{oa-1})$$

The formula for the overall rate that reflects the subsidy paid by the large deductibles would follow:

$$(4) w_{vol}Q_{vol} + w_{rm}Q_{rm} - (1 - u) w_{rm} (Q_{rm} - Q_{oa-1}) = Q_{oa-1}$$

Therefore Q_{oa-1} :

$$(5) Q_{oa-1} = w_{vol}Q_{vol} - (1 - u) w_{rm} (Q_{rm} - Q_{oa-1}) + w_{rm}Q_{rm}$$

$$(6) Q_{oa-1} / Q_{oa-0} = [w_{vol}Q_{vol} - (1 - u) w_{rm} (Q_{rm} - Q_{oa-1}) + w_{rm}Q_{rm}] / [w_{vol}Q_{vol} + w_{rm}Q_{rm}]$$

If we assume that the average rate equivalent for the total market is 1.00, such that:

$$(7) w_{vol}Q_{vol} + w_{rm}Q_{rm} = Q_{oa-0} = 1.00,$$

.

Then the factor Q_{oa-1} / Q_{oa-0} reduces to Q_{oa-1} . Also solving (7) for Q_{vol} and Q_{rm} and introducing the variable d , results in the following:

$$(8) d = Q_{rm} / Q_{vol}$$

$$(9) Q_{vol}(w_{vol} + w_{rm}d) = 1.00$$

$$(10) Q_{vol} = 1 / (w_{vol} + w_{rm}d)$$

Similarly:

$$(11) Q_{rm} = d / (w_{vol} + w_{rm}d)$$

Given (5) and (7):

$$(12) Q_{oa-1} = 1.0 - (1 - u) w_{rm} (Q_{rm} - Q_{oa-1})$$

$$(13) \text{ Adjustment Factor} = Q_{oa-1} = [1.0 - w_{rm}Q_{rm}(1 - u)] / [1.0 - w_{rm}(1 - u)]$$

Calculation of the “d”

“d” is defined as: $d = Q_{rm} / Q_{vol}$

Let’s define Q_{vol} and Q_{rm} as follows, based on the WCRIBMA’s formula for a rate:

$$(14) Q_{vol} = (L_{vol} + F) / (1 - V_{vol} - P)$$

$$(15) Q_{rm} = (L_{rm} + F) / (1 - V_{rm} - P)$$

$$(16) w_{vol}L_{vol} + w_{rm}L_{rm} = L_f$$

- where
- L_{vol} - Voluntary Loss & LAE Ratio to the sum of Standard Premium plus ARAP
 - L_{rm} - Residual Market Loss & LAE Ratio to the sum of Standard Premium plus ARAP
 - L_f - Voluntary plus Residual Market Loss & LAE Ratio to the sum of Standard Premium plus ARAP
 - F - Fixed Expense Ratio relative to the sum of Standard Premium plus ARAP
 - V_{vol} - Voluntary Variable Expenses Ratio
 - V_{rm} - Residual Market Variable Expenses Ratio
 - P - Profit provision relative to the sum of Standard Premium plus ARAP

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w_{vol} - Proportion of Voluntary Non-Large Deductible Exposure to the sum of Voluntary Non-Large Deductible Exposure plus Residual Market Exposure

w_{rm} - $1 - w_{vol}$

r - L_{rm} / L_{vol}

$$(17) w_{vol}L_{vol} + w_{rm}rL_{vol} = L_f$$

$$(18) L_{vol} = L_f / (w_{vol} + w_{rm}r)$$

$$(19) w_{vol}L_{rm} / r + w_{rm}L_{rm} = L_f$$

$$(20) L_{rm} = L_f r / (w_{vol} + w_{rm}r)$$

Consequently, if a loss ratio differential, r , is selected, the values of L_{vol} and L_{rm} can be derived.

Taking formulas (14) and (15) we can derive a formula for d :

$$(21) d = Q_{rm} / Q_{vol} = [(L_{rm} + F) / (1 - V_{rm} - P)] / [(L_{vol} + F) / (1 - V_{vol} - P)]$$

$$(22) d = Q_{rm} / Q_{vol} = [(L_{rm} + F) / (L_{vol} + F)] \times [(1 - V_{vol} - P) / (1 - V_{rm} - P)]$$

We can solve the first term given a loss ratio differential and formulas (18) and (20). This leaves the second term.

The V_{vol} and V_{rm} can be thought of as the following:

$$(23) V_{vol} = C_{vol} + A + T + D_{vol}$$

$$(24) V_{rm} = C_{rm} + A + T$$

where C_{vol} - Commission Ratio relative to the sum of Standard Premium plus ARAP for the Voluntary Market

C_{rm} - Commission Ratio relative to the sum of Standard Premium plus ARAP for the Residual Market

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A - Other Acquisition Expense Ratio relative to the sum of Standard Premium plus ARAP

T - Premium Tax Ratio relative to the sum of Standard Premium plus ARAP

D_{vol} - Premium Discount relative to the sum of Standard Premium plus ARAP for the voluntary market

Then the second term in (22) becomes:

$$(25) [1 - (C_{vol} + A + T + D_{vol})] / [1 - (C_{rm} + A + T)]$$

and the remaining unknowns are C_{vol} and C_{rm} .

$$(26) w_{vol}C_{vol} + w_{rm}C_{rm} = C_f$$

Introducing a new variable k , the commission ratio differential between the Residual Market and the Voluntary Market, such that:

$$(27) k = C_{rm} / C_{vol},$$

Then equations can be derived for C_{vol} and C_{rm} as follows:

$$(28) C_{vol} = C_f / (w_{vol} + w_{rm}k)$$

$$(29) C_{rm} = C_f k / (w_{vol} + w_{rm}k)$$

“ k ” is the estimated commission differential. Given we have C_f as a known and we can solve for C_{vol} and C_{rm} , we now have all the variables needed to solve equation (13).

The detailed calculations for solving equation (13), the Factor to Remove the Large Deductible Contribution to the Residual Market Subsidy, are located in Section I-D, Exhibit 1, Page 1. The resulting adjustment factor is **1.000**.

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Section I - Rate Recommendation
 Subsection D - Reflecting the Impact of Large Deductibles
 1/1/2014

Section I - D
 Exhibit 1
 Page 1

Factor to Remove the Large Deductible Contribution to the Residual Market Subsidy

	Total Market	Residual Market ("rm")	Voluntary Market ("vol")
(1) Permissible Loss, LAE, and Fixed Expense Ratio	78.8%		
(2) Fixed Expense Ratio	5.1%		
(3) Permissible Loss and LAE Ratio = [(1) - (2)]	73.7%		
(4) Loss Ratio Differential, r	1.113		
(5) Market Weight - w_x		17%	83%
(6) Implied Permissible Loss and LAE Ratio		0.805	0.723
(7) Implied Permissible Loss, LAE, and Fixed Expense Ratio		0.856	0.775
(8) Implied Permissible Loss, LAE, and Fixed Expense Ratio Differential	1.106		
(9) Variable Expense Ratio	19.5%	11.6%	21.1%
(10) Underwriting Profit Provision	3.82%		
(11) Implied Rate Factor Equivalent		1.013	1.032
(12) Implied Rate Differential, d	0.982		
(13) Residual Market Rate equivalent, Q_{rm}	0.985		
(14) Proportion of Total Voluntary Assessable Premium Not from Large Deductibles, u	0.811		
(15) Factor to Remove the Large Deductible Contribution to the Residual Market Subsidy	1.000		

Notes

(1): Section VI-A, Exhibit 1.

(2): Section VI-B, Exhibit 1, average of column (18).

(4): Loss Ratio Differential from Page 2, assumes LAE as % of loss is the same for Residual and Voluntary Market.

(5): Residual Market weight, w_{rm} , from Section I-D, Exhibit 2, Voluntary Market weight, $w_{vol} = 1.0 - (5) w_{rm}$

(6): Voluntary Market Implied Permissible Loss and LAE Ratio = (3) / [(5 w_{rm}) x (4) + (5 w_{vol})]

Residual Market Permissible Implied Loss and LAE Ratio = (4) x (6)_{vol}

(7) = (2) + (6)

(8) = (7)_{rm} / (7)_{vol}

(9): Section VI-A, Exhibit 1, Total Market; Residual Market commission calculated based on the Residual Market - Pool Procedures - Producer Fee Schedule.

Premium discounts were discontinued in the Residual Market effective 1/1/1991.

(10): Section VII-A, Exhibit 1.

(11) = (7) / [1.0 - (9) - (10)]

(12) = (11)_{rm} / (11)_{vol}

(13) = d / [$w_{vol} + (w_{rm} \times d)$]

(14): Exhibit 2.

(15) = [1.0 - $w_{rm} \times Q_{rm} \times (1.0 - u)$] / [1.0 - $w_{rm} \times (1.0 - u)$]

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Calculation of Residual Market to Voluntary Loss Ratio Differential
 (\$ amounts in millions)

Policy Year (1)	Total Market			Residual Market			Voluntary Market			Loss Ratio Differential LR _{rm} / LR _{vol} = (7) / (10) (11)
	Standard Earned Premium plus ARAP (2)	Paid Losses and Case Reserves (3)	Paid + Case Loss Ratio = (3) / (2) (4)	Standard Earned Premium Plus ARAP (5)	Paid Losses and Case Reserves (6)	Paid + Case Loss Ratio = (6) / (5) (7)	Standard Earned Premium Plus ARAP (8)	Paid Losses and Case Reserves (9)	Paid + Case Loss Ratio = (9) / (8) (10)	
2005	1,007	544	54.0%	231	126	54.4%	776	419	53.9%	1,008
2006	1,066	526	49.4%	207	102	49.5%	859	424	49.3%	1,004
2007	1,043	541	51.8%	169	94	55.7%	874	447	51.1%	1,090
2008	857	511	59.6%	125	77	61.7%	732	434	59.2%	1,041
2009	822	491	59.7%	110	76	69.7%	712	415	58.2%	1,198
2010	896	471	52.5%	108	62	56.9%	788	409	51.9%	1,095
2011	955	392	41.1%	134	66	49.0%	821	327	39.8%	1,233
(12) Average Last 2 Years				121	64	52.5%	804	368	45.7%	1,149
(13) Average All Years				155	86	55.6%	795	410	51.7%	1,077
(14) Selected Loss Ratio Differential										1.113

Notes:
 Data as of 12/31/2012 from Aggregate Financial Database, excluding large deductible policies.

Calendar Year (1)	Voluntary Assessable Premium Basis Used to Determine Shares of the Residual Market (2)		Take-Out Program (3)		Take-Out Credits (4)	Residual Market Direct Written Premium (5)		Large Deductible Standard + ARAP Written Premium (6)		Voluntary Non-Large Deductible Not in Take-Out Program Written Premium (7)		Residual Market Weight "w _m " = (5) / [(3) + (5) + (7)] (8)	"u" -- Proportion of Assessable Premium Not from Large Deductibles = (7) / [(7) + (6)] (9)
	Voluntary Assessable Premium Basis Used to Determine Shares of the Residual Market (2)	Take-Out Program Written Premium (3)	Take-Out Program Written Premium (3)	Take-Out Credits (4)		Residual Market Direct Written Premium (5)	Large Deductible Standard + ARAP Written Premium (6)	Voluntary Non-Large Deductible Not in Take-Out Program Written Premium (7)					
2011	890	33	36	131	151	742	0.145	0.831					
2012	912	25	28	173	192	723	0.188	0.791					
Selected	901	29	32	152	171	733	0.166	0.811					

Note:
 Refers to the prospective effective period from 1/1/2014 through 1/1/2015.
 (2),(3),(4),(5),(6): Massachusetts Workers' Compensation Assigned Risk Pool Special Bulletins (2),(3),(4),(5),(6),(7): Selected based on two-year average of Calendar Year 2011 and 2012.

INSOLVENCY FUND IMPACT ON MANUAL RATES

Background

We calculate a loading for the recoupment of the Massachusetts Insurers' Insolvency Fund ("Fund") assessments in this Section I-E. The calculation of the Insolvency Fund factor this year is made in the same way as in past filings and the result flows through to Section IX-K. Although it is not considered part of the indicated change in average rates, the Insolvency Fund loading is significant in the determination of final manual rates.

Section IX-A displays the proposed manual rates and rating values for this filing. Proposed manual rates are determined by initially loading the proposed average rates to offset the impacts of the application of merit rating, experience rating and construction credits, and subsequently loading for recoupment of Insolvency Fund assessments. We continue to calculate these offsets in Section IX-K.

Loading for Recoupment of Insolvency Fund Assessments

Under Massachusetts law, the Fund may assess carriers to cover the Fund's costs of providing relief in the event of insurer insolvencies. If a carrier writes premium for a line of business covered by the Fund, such premium will be subject to assessment. The law provides that these assessments can be recouped from the policyholders. Beginning in 1988, workers' compensation insurance has been covered by the Fund. The loading included in this filing is intended to recoup prior year assessments as provided in G.L. c. 175D, § 13.

I 000021

The Fund does not maintain segregated accounts by line of business and consequently workers' compensation insurers may be assessed by the Fund for expenses related to the insolvency of non-workers' compensation carriers. The Fund assessment base is the total written premium for all lines covered by the Fund, and an individual carrier's assessment is a function of its written premium for all lines covered by the Fund. Therefore, we must first estimate the proportion of the total Fund assessment that is attributable to workers' compensation. This is done by dividing the Massachusetts workers' compensation Statutory Page 14 written premium by the total premium assessment base of the Fund. The assessment applicable to workers' compensation is the product of this ratio and the total Fund assessment. The resulting estimated workers' compensation assessment is then adjusted to reflect the impact of the time value of money, premium taxes, and commissions. This net assessment is divided by the expected written premium in the prospective period to arrive at the factor to load the assessment.

The Fund assessed carriers on October 29, 2013. The loading shown in this filing provides for the recoupment of the portion of these assessments that is attributable to the workers' compensation line and that has not yet been recouped. The loading for the recoupment of the 2013 insolvency fund assessments is 0.0018 (Section I-E, Exhibit 1, Page 1).

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Section I - Rate Recommendation
Subsection E - Calculation of Loading for Recoupment of Insolvency Fund Assessments
1/1/2014

Section I-E
Exhibit 1

Loading for Recoupment of Insolvency Fund Assessments

Unanticipated Insolvency Assessment Recoupments

(1)	Estimated Written Premium for the Policy Period beginning 9/1/12 and ending 12/31/13, absent Insolvency loads	1,255,931,088
(2)	Unanticipated Insolvency Assessment Recoupment Rate (As a % of premium absent insolvency loads)	0.02%
(3)	Unanticipated Insolvency Assessment Recoupments	258,467
(4)	Interest Adjustment Factor	1.011
(5)	Adjusted Unanticipated Insolvency Assessment Recoupments	261,303

Net Assessments

(6)	Amounts Sufficient to Recoup Assessment	2,173,649
(7)	Net Assessments = (6) - (5)	1,912,346

Loading for Recoupment

(8)	Estimated Written Premium in the Prospective Effective Period, absent insolvency loads	1,057,907,481
(9)	Indicated Loading for Recoupment of Insolvency Fund Assessments	0.18%

Notes:

(1): consistent with Exhibit 2 Page 1.

(3) = (1) x (2)

(4): 1.1% is the risk-free rate of interest, shown in Section VII-J, Exhibit 1, Page 1 compounded from the expected collection date of the unanticipated insolvency assessment recoupments to the average date the assessment will be recouped or returned.

(5) = (3) x (4)

(6): Exhibit 2 Page 2.

(7) = (6) - (5)

(8): Exhibit 2 Page 1.

(9) = (7) / [(7) + (8)]

I 000023

Section I - Rate Recommendation
Subsection E - Calculation of Loading for Recoupment of Insolvency Fund Assessments
1/1/2014

Section I-E
Exhibit 2
Page 1

Expected Workers' Compensation Written Premium in Prospective Effective Period

(1)	2012 Calendar Year Written Premium, absent insolvency loads	966,399,685
(2)	Estimated Exposure Growth Factor from Calendar Year 2012 to Policy Period ending 12/31/13	1.008
(3)	Rate Change from Calendar Year 2012 Written to the Policy Period ending 12/31/13	0.0%
(4)	Estimated Written Premium for the Policy Period ending 12/31/13, absent Insolvency Loads = (1) x (2) x [1.0 + (3)]	974,430,721
(5)	Estimated Exposure Growth Factor from the Policy Period ending 12/31/13 to the Prospective Effective Period	1.008
(6)	Average Indicated Rate Change	7.7%
(7)	Estimated Written Premium in Prospective Effective Period, absent insolvency loads. = (4) x (5) x [1.0 + (6)]	1,057,907,481

Notes:

- (1): Adjusted to remove any loading for recoupment of insolvency fund assessments.
- (2): Assumes a 0.8% (from Section VI-G) (12 months).
- (3): The 9/1/12 rate change was 0.0%.
- (5): Assumes a 0.8% annual change (from Section VI-G) compounded for 1 year.
- (6): Section I-A, Exhibit 1.

I 000024

Insolvency Fund Assessments Yet to Be Reflected in the Rates by Workers' Compensation Carriers

Assessment Base Year (1)	Workers' Compensation Calendar Year Written Premium (2)	Assessment Base (3)	Percentage Charged to Workers' Compensation = (2) / (3) (4)	10/29/2013	
				Assessment (5)	Assessment Charged to Workers' Compensation = (4) x (5) (6)
1990	1,364,830,026	6,755,551,749	20.20%		
1991	1,436,058,443	6,868,646,572	20.91%		
1992	1,309,252,255	6,888,088,844	19.01%		
1993	1,395,560,326	7,233,247,733	19.29%		
1994	1,175,326,757	7,224,575,261	16.27%		
1995	1,043,750,298	7,139,153,644	14.62%		
1996	981,758,872	6,855,906,608	14.32%		
1997	914,971,260	6,781,202,666	13.49%		
1998	896,280,476	6,877,677,561	13.03%		
1999	852,073,429	6,979,043,413	12.21%		
2000	873,456,717	7,642,598,776	11.43%		
2001	877,204,341	8,497,773,752	10.32%		
2002	1,270,355,928	9,481,535,538	13.40%		
2003	1,248,676,750	10,132,906,831	12.32%		
2004	1,222,962,359	10,622,095,111	11.51%		
2005	1,335,681,276	10,811,968,884	12.35%		
2006	1,355,363,793	10,785,092,254	12.57%		
2007	1,318,054,939	10,488,212,970	12.57%		
2008	1,018,962,508	10,672,774,843	9.55%		
2009	969,294,389	9,681,198,602	10.01%		
2010	944,881,049	n/a			
2011	1,055,544,626	n/a			
2012	966,598,567	10,857,336,715	8.90%	20,000,000	1,780,545

(9)	Estimated Total Assessment Charged to Workers' Compensation Carriers	1,780,545
(10)	Interest Adjustment Factor	1.033
(11)	Interested-Adjusted Assessment = (9) x (10)	1,838,877
(12)	Adjusted Total Assessments = sum (11)	1,838,877
(13)	Premium Discount	5.0%
(14)	Premium Tax Rate	2.2%
(15)	Commission Rate	8.3%
(16)	Amounts Sufficient to Recoup Assessment = (12) / [1.0 - (13) - (14) - (15)]	2,173,649

Notes:

1988 was the first year that Workers' Compensation was included in the assessment. Base Years 2001 and prior based on a compilation of Statutory Page 14s. Assessment Base Years 2002 and beyond from Guaranty Fund Management Services.

(2),(3): Information from Guaranty Fund Management Services.

(5),(7): Information from Guaranty Fund Management Services, see Page 3.

(9) = Sum (6); Sum (8)

(10): 1.1% is the risk-free rate of interest, shown in Section VII-,J Exhibit 1, Page 1 compounded from the expected payment date of the assessment to the average date the assessment will be recouped or returned.

(13): Section VI-H, Exhibit 1.

(14): Section VI-A, Exhibit 1.

(15): The average commission is 7.8%, consistent with Section VI-J, Exhibit 1.

Since the average premium discount is 5.0% (Section VI-H, Exhibit 1), the average commission as a percent of net premium is $7.8\% / (1.0 - 5.0\%) = 8.3\%$. The assessments of each insurer are in the proportion that the net direct written premiums of the insurer for the calendar year preceding the assessment bears to the net direct written premiums of all insurers for the calendar year preceding the assessment. MGL. Ch. 1

I 000025

Section I - Rate Recommendation
Subsection E - Calculation of Loading for Recoupment of Insolvency Fund Assessments
1/1/2014

Section I-E
Exhibit 2
Page 3

Insolvency Fund Assessments Yet to Be Reflected in the Rates

Assessment Date	Insolvent Company	Assessment by Base Year
		2012
10/29/2013	Assessment by Account	20,000,000
		20,000,000

Notes:

The assessment base year is the year of written premium prior to the year of assessment.

LOSS DEVELOPMENT

“The ultimate value of losses cannot be determined from reported losses alone, because losses are not always reported immediately and loss values change over time as payments are made and reserves adjusted.” Decision on 2003 Rates, p. 5. Loss development is an actuarial method of estimating the ultimate settlement value of losses based on “reported losses”¹ and historical patterns of development, i.e. the change in the observed value of a loss between valuation dates. Loss development factors are derived mathematically by analyzing the development of losses from initial reporting and reserving to ultimate value at the time of the final settlement. The assumption is that losses develop in a consistent pattern over time so that historical experience can be used to predict future development.

Reported losses are developed to their estimated “ultimate” level based on historical loss development patterns. The pattern of change in reported losses over time is observed at regular intervals and converted into age-to-age link ratios, each of which reflects the ratio of the loss valued as of time (T+1) to the loss valued as of time T. When applied successively, age-to-age link ratios yield cumulative loss development factors. Cumulative loss development factors are then applied to current reported losses to estimate what the ultimate value of losses will be when all associated claims are settled.

¹ In this filing, the term “reported losses” refers to either paid losses or paid losses plus case reserves.

In this section of the Filing, reported losses for policy years 2010 and 2011 are developed to their estimated ultimate levels. Consistent with the Statement of Actuarial Principles of the Casualty Actuarial Society, the WCRIBMA has examined the results of more than one method of estimating ultimate losses in an effort to derive a reasonable estimate of losses. The selected estimate of ultimate losses is the average of the estimates derived by developing paid losses and by developing the sum of paid losses and case reserves. The paid loss data used in this filing are the actual inception to date paid losses net of subrogation and second injury fund recoveries. The case reserve data used in this filing are the claim-specific amounts held as reserves for anticipated future claims payments.

The 2010 policy year and 2011 policy year ultimate loss estimates used in our rate indication are calculated by multiplying the reported losses by the applicable loss development factor to ultimate, which is the product of all age-to-age development factors (including the tail factor discussed below) from a given month (“age”) of development forward to the point at which we expect no further development.

One of the goals when using historical data as the basis for the ultimate loss predictions is to balance stability with responsiveness. Stability is desired to avoid large fluctuations that are not representative of the future. Here, the more years that are considered, the more stable the result will be. We must, however, also consider responsiveness. We only want to include data that we believe represent current and ongoing conditions. This would weigh in favor of using the most recent data.

Analysis of the development patterns of AIG revealed that they are materially different from the remainder of the industry. This, in combination with AIG's fluctuating market share over the 21 year period considered, would result in distorted estimates of ultimate losses if AIG's experience was combined with the remainder of the industry in calculating development factors. To avoid this problem, the AIG data are analyzed independently from the remainder of the industry data for purposes of estimating the development of losses to 252 months. The resulting estimates of losses at 252 months for AIG and the remainder of the industry are then summed.²

Our selected age-to-age development factors for the remainder of the industry are the unweighted averages of the latest two indicated age-to-age link ratios. Because the AIG data are, compared to the rest of the industry, relatively sparse, the selected age-to-age development factors for AIG are based on the unweighted averages of the latest five indicated age-to-age link ratios.

As in past filings, medical and indemnity losses are developed separately because of their differing development patterns. The use of separate medical and indemnity loss development factors avoids potential distortions that could arise from changes in the relative proportions of medical and indemnity losses over time. Section II-A, Exhibit 1 summarizes the results. The underlying details of the methodology are displayed in Section II-B.

² In response to the decision on 9/1/2012 rates, we have treated AIG and the balance of the industry the same way in developing losses in Sections II and V of this rate filing.

Consistent with past filings, the historical experience of companies that have stopped writing new business in Massachusetts and that did not report policy experience valued as of the end of the latest calendar year has been excluded from our financial aggregate database in order to avoid distortions to the rate indication.

The WCRIBMA uses historical data and the resultant loss development factors to develop the policy year paid and the paid plus case losses to 252 months for the remainder of the industry and AIG, separately. The developed losses are then combined and an industry based "tail factor" accounts for development beyond 252 months to ultimate.

Indicated ultimate indemnity losses are then adjusted for escalation. We make this adjustment for escalated benefits because some of the losses in the loss development triangle do not reflect the change in the law that introduced inflation-based increases in indemnity benefits or lost wages. See St. 1986, c. 572. The development pattern of indemnity losses that are subject to escalation will differ from that of indemnity losses not subject to escalation (unless escalation is zero). See Section II-D for the details of the calculation.

TAIL FACTOR

Workers' compensation carriers in Massachusetts report aggregated financial policy year loss experience to the WCRIBMA at year-end valuation points for twenty-one consecutive years (252 months). As a result, the WCRIBMA can develop losses to 252 months using the age-to-age link ratios described previously. However, workers' compensation losses may continue to develop well beyond 252 months. A young person could suffer a severe work-related injury and collect workers' compensation benefits for the balance of his/her lifetime, in some cases forty years or more. The "tail factor" accounts for loss development from 252 months of development to ultimate.

Beyond 252 months of development, policy year loss experience is aggregated for statistical reporting purposes and reported in total as a single value. This loss experience is summarized and reported each year as an aggregate number "prior to" a given policy year. It does not lend itself to the calculation and application of age-to-age link ratios. However, these data can be used to develop a tail factor, which is essentially a loss development factor to ultimate intended to account for all remaining loss development beyond a given point. In this filing, we derive tail factor estimates for loss development from 252 months of development to ultimate (the point at which there is no further payment activity).

We used the same method employed by the Commissioner in the 2003 Rate Decision and by the WCRIBMA in all subsequent rate filings. The WCRIBMA's

estimation of tail factors involves calculating the calendar year change in losses for all policy years included in the most recent “prior to” line and comparing that result to the reported losses for the oldest policy year not included in the “prior to” line.

Growth Factor Adjustment

Changes in the level of ultimate losses over time can distort the calculation of the tail factor. Without a growth factor adjustment, the tail factor would aggregate all years beyond 252 months and calculate the factor based on the assumption that policy years prior to 1992 had the same level of ultimate losses as policy year 1992 – an assumption known to be false. Stated mathematically, if the ratios used to calculate the tail factor reflect losses in the numerator that relate to a different level of ultimate losses than do the losses used in the denominator, the tail factor will be distorted. This is not a problem for the age-to-age link ratios used through 252 months of development which only use the data for a given policy year in the calculation. The growth factor is intended to adjust for differences in the ultimate value of losses across policy years, thereby creating a more accurate estimate of development in the tail (see Section II-C, Exhibit 1, Page 2 and Exhibit 2, Page 2). The growth factor decomposes the numerator, the calendar year development for policy years prior to 1992, into individual policy year components, and then adjusts each policy year individually based on its estimated contribution to the aggregate development.

In this filing, we used the same method employed by the Commissioner in the 2003 Rate Decision and by the WCRIBMA in our 2005, 2007, 2008, 2010, 2011, and

2012 rate filings. We calculate separate tail factors directly for medical and indemnity losses in order to reflect their differing development patterns. Medical losses tend to develop differently than do indemnity losses (Section II-B). Application of separate tail factors captures the different development patterns and prevents the estimate of ultimate losses from being unduly distorted by shifts in the proportions of medical and indemnity losses over time. Separate tail factors are also estimated for paid and paid-plus-case reported losses.

As in previous filings, the selected tail factor is based on the average of five observations in order to reduce volatility. In this filing, we use the link factor method (i.e., stating each factor as of the same month (age) of development) to bring each of the five valuations to a common report level, 252 months, so that the calculated tail factor is consistent with the losses to which it is applied. We then calculate a tail factor to project losses from 252 months to ultimate values. The tail factor calculation is detailed on Exhibit 1, Page 1 and Exhibit 2, Page 1 of Section II-C.

II 000008

Summary of Estimated Ultimate Losses

Paid Loss Development Method

Policy Year (1)	Benefit Type (2)	Paid Losses at 12/31/12 (3)	Cumulative Factors from Latest Month to 252 Months (4)	Losses Developed to 252 Months (5)	Tail Factor from 252 Months to Ultimate (6)	Factor to Adjust for Escalated Benefits (7)	Estimated Ultimate Losses (8)
2010	Indemnity	194,980,018	1.843	359,300,421	1.048	1.037	390,623,131
2010	Medical	142,495,188	1.313	187,152,993	1.094	1.000	204,718,411
2010	Total	337,475,206		546,453,413			595,341,542

2011	Indemnity	111,996,064	3.385	379,128,914	1.048	1.037	412,180,212
2011	Medical	115,978,595	1.678	194,602,191	1.094	1.000	212,866,761
2011	Total	227,974,659		573,731,106			625,046,974

Paid Plus Case Loss Development Method

Policy Year (9)	Benefit Type (10)	Paid Plus Case Losses at 12/31/12 (11)	Cumulative Factors from Latest Month to 252 Months (12)	Losses Developed to 252 Months (13)	Tail Factor from 252 Months to Ultimate (14)	Factor to Adjust for Escalated Benefits (15)	Estimated Ultimate Losses (16)
2010	Indemnity	276,484,282	1.293	357,586,475	1.015	1.007	365,777,269
2010	Medical	194,260,997	1.106	214,924,487	1.060	1.000	227,822,891
2010	Total	470,745,279		572,510,962			593,600,160

2011	Indemnity	209,959,928	1.753	368,144,587	1.015	1.007	376,577,223
2011	Medical	182,339,081	1.181	215,354,849	1.060	1.000	228,279,081
2011	Total	392,299,009		583,499,436			604,856,304

Notes:

(3), (11): Aggregate Financial Data.

(4) = (5) / (3)

(5) Exhibit 1, Page 2, Column (5) + Exhibit 1, Page 3, Column (5).

(6): Section II - C, Exhibit 1, Page 1.

(7): Section II - D, Exhibit 1, Page 1.

(8) = (5) x (6) x (7)

(12) = (13) / (11)

(13) Exhibit 1, Page 2, Column (10) + Exhibit 1, Page 3, Column (10).

(14): Section II - C, Exhibit 2, Page 1.

(15): Section II - D, Exhibit 2, Page 1.

(16) = (13) x (14) x (15)

II 000009

Section II - Loss Development
Subsection A - Summary
1/1/2014

Section II - A
Exhibit 1
Page 2

Summary of Estimated Ultimate Losses Remainder of Industry

Paid Loss Development Method

Policy Year (1)	Benefit Type (2)	Paid Losses at 12/31/12 (3)	Cumulative Factors from Latest Month to 252 Months (4)	Losses Developed to 252 Months (5)
2010	Indemnity	152,004,056	1.718	261,113,129
2010	Medical	116,411,469	1.292	150,351,681
2010	Total	268,415,525		411,464,810

2011	Indemnity	91,126,289	3.114	283,764,000
2011	Medical	97,097,548	1.641	159,331,485
2011	Total	188,223,837		443,095,485

Paid Plus Case Loss Development Method

Policy Year (6)	Benefit Type (7)	Paid Plus Case Losses at 12/31/12 (8)	Cumulative Factors from Latest Month to 252 Months (9)	Losses Developed to 252 Months (10)
2010	Indemnity	215,116,889	1.245	267,813,498
2010	Medical	160,183,896	1.113	178,268,318
2010	Total	375,300,785		446,081,816

2011	Indemnity	173,039,374	1.654	286,232,273
2011	Medical	151,543,973	1.174	177,872,747
2011	Total	324,583,347		464,105,020

Notes:

(3), (8): Aggregate Financial Data.

(4), (9): Section II - B, Exhibit 1, Page 1.

(5) = (3) x (4)

(10) = (8) x (9)

II 000010

Section II - Loss Development
 Subsection A - Summary
 1/1/2014

Section II - A
 Exhibit 1
 Page 3

Summary of Estimated Ultimate Losses AIG

Paid Loss Development Method

Policy Year (1)	Benefit Type (2)	Paid Losses at 12/31/12 (3)	Cumulative Factors from Latest Month to 252 Months (4)	Losses Developed to 252 Months (5)
2010	Indemnity	42,975,962	2.285	98,187,292
2010	Medical	26,083,719	1.411	36,801,312
2010	Total	69,059,681		134,988,603

2011	Indemnity	20,869,775	4.570	95,364,915
2011	Medical	18,881,047	1.868	35,270,706
2011	Total	39,750,822		130,635,621

Paid Plus Case Loss Development Method

Policy Year (6)	Benefit Type (7)	Paid Plus Case Losses at 12/31/12 (8)	Cumulative Factors from Latest Month to 252 Months (9)	Losses Developed to 252 Months (10)
2010	Indemnity	61,367,393	1.463	89,772,977
2010	Medical	34,077,101	1.076	36,656,169
2010	Total	95,444,494		126,429,146

2011	Indemnity	36,920,554	2.219	81,912,314
2011	Medical	30,795,108	1.217	37,482,103
2011	Total	67,715,662		119,394,416

Notes:

(3), (8): Aggregate Financial Data.

(4), (9): Section II - B, Exhibit 1, Page 2.

(5) = (3) x (4)

(10) = (8) x (9)

Policy Year Aggregate Financial Data
 Summary of Loss Development Factors
 Remainder of Industry

Months of Development	Loss Development Factors From																		
	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252
(1) Indemnity Paid Losses																			
2 Year Average	1.813	1.291	1.118	1.066	1.025	1.021	1.011	1.007	1.003	1.008	1.005	1.005	1.003	1.003	1.004	1.006	1.002	1.004	1.004
Cumulative Factor to 252	3.114	1.718	1.330	1.190	1.116	1.090	1.067	1.055	1.048	1.044	1.036	1.031	1.026	1.023	1.020	1.016	1.010	1.008	1.004
(2) Medical Paid Losses																			
2 Year Average	1.271	1.076	1.031	1.019	1.013	1.010	1.010	1.011	1.009	1.010	1.014	1.012	1.008	1.007	1.008	1.006	1.005	1.005	1.006
Cumulative Factor to 252	1.641	1.292	1.201	1.164	1.143	1.128	1.117	1.105	1.094	1.084	1.073	1.058	1.045	1.038	1.030	1.023	1.016	1.011	1.006
(3) Indemnity Paid Plus Case Losses																			
2 Year Average	1.329	1.110	1.060	1.019	1.008	1.009	1.003	1.004	1.001	1.005	1.001	1.002	0.999	0.988	1.003	1.003	1.000	1.002	1.001
Cumulative Factor to 252	1.654	1.245	1.122	1.058	1.038	1.030	1.021	1.018	1.014	1.013	1.008	1.007	1.005	1.007	1.009	1.006	1.003	1.002	1.001
(4) Medical Paid Plus Case Losses																			
2 Year Average	1.055	1.018	1.014	1.014	1.025	1.009	1.015	1.000	1.003	1.003	1.001	1.005	1.002	0.999	1.008	1.002	0.999	1.002	0.990
Cumulative Factor to 252	1.174	1.113	1.093	1.078	1.063	1.037	1.028	1.013	1.013	1.011	1.008	1.006	1.001	0.999	1.000	0.992	0.990	0.991	0.990

Notes:

- (1): Exhibit 2, Page 1.
- (2): Exhibit 2, Page 2.
- (3): Exhibit 3, Page 1.
- (4): Exhibit 3, Page 2.

II 000011

Policy Year Aggregate Financial Data
 Summary of Loss Development Factors
 AIG

Months of Development	Loss Development Factors From																		
	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252
(1) Indemnity Paid Losses																			
5 Year Average	2.000	1.409	1.210	1.107	1.055	1.031	1.026	1.016	1.013	1.009	1.007	1.008	1.009	1.005	1.004	1.014	1.014	0.997	1.000
Cumulative Factor to 252	4.570	2.285	1.622	1.341	1.211	1.148	1.114	1.086	1.069	1.055	1.045	1.038	1.029	1.020	1.015	1.011	1.011	0.997	1.000
(2) Medical Paid Losses																			
5 Year Average	1.324	1.108	1.052	1.035	1.022	1.015	1.019	1.011	1.020	1.015	1.012	1.020	1.014	1.005	1.002	1.002	1.001	1.001	0.999
Cumulative Factor to 252	1.868	1.411	1.273	1.211	1.170	1.145	1.128	1.107	1.094	1.073	1.057	1.044	1.024	1.010	1.004	1.002	1.000	0.999	0.999
(3) Indemnity Paid Plus Case Losses																			
5 Year Average	1.517	1.214	1.115	1.062	1.009	1.006	1.009	0.999	1.007	0.998	1.007	1.004	1.006	1.008	0.998	0.963	1.002	1.002	1.000
Cumulative Factor to 252	2.219	1.463	1.205	1.081	1.018	1.009	1.003	0.994	0.995	0.988	0.990	0.984	0.979	0.973	0.965	0.967	1.004	1.002	1.000
(4) Medical Paid Plus Case Losses																			
5 Year Average	1.132	1.053	1.052	1.016	0.980	0.969	0.976	1.010	0.989	1.021	1.003	1.021	1.020	0.977	0.993	0.996	1.011	0.995	0.997
Cumulative Factor to 252	1.217	1.076	1.022	0.971	0.955	0.975	1.006	1.031	1.021	1.032	1.011	1.009	0.988	0.969	0.992	0.999	1.003	0.993	0.997

Notes:

- (1): Exhibit 2, Page 3.
- (2): Exhibit 2, Page 4.
- (3): Exhibit 3, Page 3.
- (4): Exhibit 3, Page 4.

II 000013

Policy Year Aggregate Financial Data
 Calculation of Indemnity Paid Loss Development Factors
 Remainder of Industry

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			144	156	
2009	80,971	146,795	1.813	1999	228,727	230,511	1.008
2010	83,808	151,908	1.813	2000	250,337	250,748	1.002
Average			1.813	Average			1.005
	36	48			156	168	
2008	147,068	187,921	1.278	1998	214,079	214,910	1.004
2009	146,795	191,561	1.305	1999	230,511	231,843	1.006
Average			1.291	Average			1.005
	48	60			168	180	
2007	181,993	202,438	1.112	1997	186,436	186,875	1.002
2008	187,921	211,038	1.123	1998	214,910	215,736	1.004
Average			1.118	Average			1.003
	60	72			180	192	
2006	194,722	206,305	1.059	1996	188,117	188,536	1.002
2007	202,438	217,165	1.073	1997	186,875	187,491	1.003
Average			1.066	Average			1.003
	72	84			192	204	
2005	200,811	205,296	1.022	1995	204,507	205,228	1.004
2006	206,305	211,814	1.027	1996	188,536	189,480	1.005
Average			1.025	Average			1.004
	84	96			204	216	
2004	221,042	225,451	1.020	1994	212,339	213,672	1.006
2005	205,296	209,877	1.022	1995	205,228	206,250	1.005
Average			1.021	Average			1.006
	96	108			216	228	
2003	219,787	223,133	1.015	1993	263,282	263,841	1.002
2004	225,451	227,131	1.007	1994	213,672	214,039	1.002
Average			1.011	Average			1.002
	108	120			228	240	
2002	241,082	242,662	1.007	1992	325,623	326,645	1.003
2003	223,133	224,728	1.007	1993	263,841	264,980	1.004
Average			1.007	Average			1.004
	120	132			240	252	
2001	240,982	241,899	1.004	1992	326,645	328,015	1.004
2002	242,662	243,411	1.003	Average			1.004
Average			1.003				
	132	144					
2000	248,669	250,337	1.007				
2001	241,899	244,315	1.010				
Average			1.008				

Notes:
 Losses from Aggregate Financial Data.

II 000014

Policy Year Aggregate Financial Data
 Calculation of Medical Paid Loss Development Factors
 Remainder of Industry

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			144	156	
2009	88,470	111,873	1.265	1999	116,318	118,165	1.016
2010	91,177	116,388	1.276	2000	118,493	119,861	1.012
Average			1.271	Average			1.014
	36	48			156	168	
2008	107,579	115,407	1.073	1998	106,940	108,179	1.012
2009	111,873	120,638	1.078	1999	118,165	119,675	1.013
Average			1.076	Average			1.012
	48	60			168	180	
2007	120,188	124,267	1.034	1997	91,746	92,330	1.006
2008	115,407	118,719	1.029	1998	108,179	109,127	1.009
Average			1.031	Average			1.008
	60	72			180	192	
2006	110,609	112,685	1.019	1996	92,799	93,584	1.008
2007	124,267	126,564	1.018	1997	92,330	92,846	1.006
Average			1.019	Average			1.007
	72	84			192	204	
2005	110,215	111,221	1.009	1995	94,457	95,106	1.007
2006	112,685	114,666	1.018	1996	93,584	94,354	1.008
Average			1.013	Average			1.008
	84	96			204	216	
2004	118,383	119,214	1.007	1994	106,902	107,465	1.005
2005	111,221	112,674	1.013	1995	95,106	95,782	1.007
Average			1.010	Average			1.006
	96	108			216	228	
2003	121,053	122,472	1.012	1993	118,462	118,971	1.004
2004	119,214	120,275	1.009	1994	107,465	108,050	1.005
Average			1.010	Average			1.005
	108	120			228	240	
2002	125,171	126,560	1.011	1992	149,213	149,967	1.005
2003	122,472	123,760	1.011	1993	118,971	119,606	1.005
Average			1.011	Average			1.005
	120	132			240	252	
2001	118,889	119,935	1.009	1992	149,967	150,901	1.006
2002	126,560	127,699	1.009	Average			1.006
Average			1.009				
	132	144					
2000	117,050	118,493	1.012				
2001	119,935	120,959	1.009				
Average			1.010				

Notes:
 Losses from Aggregate Financial Data.

II 000015

Policy Year Aggregate Financial Data
 Calculation of Indemnity Paid Loss Development Factors
 AIG

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			132	144	
2006	27,366	53,300	1.948	1997	38,269	38,797	1.014
2007	27,779	56,416	2.031	1998	30,127	30,669	1.018
2008	24,529	49,087	2.001	1999	31,012	31,108	1.003
2009	18,006	34,557	1.919	2000	40,538	40,934	1.010
2010	20,451	42,976	2.101	2001	46,551	46,606	1.001
Average			2.000	Average			1.009
	36	48			144	156	
2005	57,841	82,739	1.430	1996	22,497	22,574	1.003
2006	53,300	77,886	1.461	1997	38,797	39,218	1.011
2007	56,416	76,024	1.348	1998	30,669	30,858	1.006
2008	49,087	68,817	1.402	1999	31,108	31,213	1.003
2009	34,557	48,508	1.404	2000	40,934	41,352	1.010
Average			1.409	Average			1.007
	48	60			156	168	
2004	68,106	85,299	1.252	1995	22,766	23,129	1.016
2005	82,739	102,474	1.239	1996	22,574	22,658	1.004
2006	77,886	92,294	1.185	1997	39,218	39,959	1.019
2007	76,024	92,787	1.220	1998	30,858	30,938	1.003
2008	68,817	79,237	1.151	1999	31,213	31,250	1.001
Average			1.210	Average			1.008
	60	72			168	180	
2003	72,041	80,220	1.114	1994	11,095	11,096	1.000
2004	85,299	98,388	1.153	1995	23,129	23,815	1.030
2005	102,474	114,365	1.116	1996	22,658	22,701	1.002
2006	92,294	100,116	1.085	1997	39,959	40,442	1.012
2007	92,787	99,152	1.069	1998	30,938	30,962	1.001
Average			1.107	Average			1.009
	72	84			180	192	
2002	55,472	58,074	1.047	1993	7,261	7,261	1.000
2003	80,220	85,907	1.071	1994	11,096	11,163	1.006
2004	98,388	106,529	1.083	1995	23,815	24,016	1.008
2005	114,365	120,927	1.057	1996	22,701	22,683	0.999
2006	100,116	101,581	1.015	1997	40,442	40,885	1.011
Average			1.055	Average			1.005
	84	96			192	204	
2001	43,199	44,620	1.033	1992	4,967	4,969	1.000
2002	58,074	60,707	1.045	1993	7,261	7,261	1.000
2003	85,907	88,607	1.031	1994	11,163	11,241	1.007
2004	106,529	110,364	1.036	1995	24,016	24,310	1.012
2005	120,927	121,898	1.008	1996	22,683	22,720	1.002
Average			1.031	Average			1.004
	96	108			204	216	
2000	37,507	38,851	1.036	1992	4,969	4,969	1.000
2001	44,620	45,852	1.028	1993	7,261	7,261	1.000
2002	60,707	62,223	1.025	1994	11,241	11,611	1.033
2003	88,607	90,899	1.026	1995	24,310	24,894	1.024
2004	110,364	111,884	1.014	Average			1.014
Average			1.026				
	108	120			216	228	
1999	29,281	30,266	1.034	1992	4,969	4,931	0.992
2000	38,851	40,149	1.033	1993	7,261	7,261	1.000
2001	45,852	46,018	1.004	1994	11,611	11,604	0.999
2002	62,223	62,852	1.010	Average			0.997
2003	90,899	90,826	0.999				
Average			1.016				
	120	132			228	240	
1998	29,794	30,127	1.011	1992	4,931	4,931	1.000
1999	30,266	31,012	1.025	1993	7,261	7,261	1.000
2000	40,149	40,538	1.010	Average			1.000
2001	46,018	46,551	1.012				
2002	62,852	63,498	1.010				
Average			1.013				
	132	144			240	252	
2000	40,538	40,934	1.010	1992	4,931	4,929	1.000
2001	46,551	46,606	1.001	Average			1.000

Notes:
 Losses from Aggregate Financial Data.

II 000016

Policy Year Aggregate Financial Data
 Calculation of Medical Paid Loss Development Factors
 AIG

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			132	144	
2006	29,538	39,401	1.334	1997	15,244	15,319	1.005
2007	29,356	37,893	1.291	1998	11,821	12,082	1.022
2008	24,420	31,727	1.299	1999	9,784	9,873	1.009
2009	19,438	25,592	1.317	2000	13,390	13,456	1.005
2010	18,907	26,084	1.380	2001	16,453	17,033	1.035
Average			1.324	Average			1.015
	36	48			144	156	
2005	43,648	48,693	1.116	1996	9,865	9,917	1.005
2006	39,401	43,873	1.114	1997	15,319	15,458	1.009
2007	37,893	41,628	1.099	1998	12,082	12,291	1.017
2008	31,727	34,982	1.103	1999	9,873	9,994	1.012
2009	25,592	28,427	1.111	2000	13,456	13,672	1.016
Average			1.108	Average			1.012
	48	60			156	168	
2004	41,464	44,441	1.072	1995	8,504	8,593	1.010
2005	48,693	51,152	1.051	1996	9,917	9,956	1.004
2006	43,873	46,711	1.065	1997	15,458	15,749	1.019
2007	41,628	42,913	1.031	1998	12,291	12,552	1.021
2008	34,982	36,384	1.040	1999	9,994	10,467	1.047
Average			1.052	Average			1.020
	60	72			168	180	
2003	33,545	34,627	1.032	1994	5,470	5,520	1.009
2004	44,441	47,075	1.059	1995	8,593	8,658	1.008
2005	51,152	52,869	1.034	1996	9,956	10,055	1.010
2006	46,711	48,032	1.028	1997	15,749	15,976	1.014
2007	42,913	43,746	1.019	1998	12,552	12,897	1.028
Average			1.035	Average			1.014
	72	84			180	192	
2002	24,268	24,746	1.020	1993	5,786	5,793	1.001
2003	34,627	35,187	1.016	1994	5,520	5,541	1.004
2004	47,075	48,611	1.033	1995	8,658	8,759	1.012
2005	52,869	53,317	1.008	1996	10,055	10,096	1.004
2006	48,032	49,672	1.034	1997	15,976	16,068	1.006
Average			1.022	Average			1.005
	84	96			192	204	
2001	15,587	15,740	1.010	1992	2,670	2,673	1.001
2002	24,746	25,266	1.021	1993	5,793	5,796	1.001
2003	35,187	35,526	1.010	1994	5,541	5,548	1.001
2004	48,611	49,311	1.014	1995	8,759	8,802	1.005
2005	53,317	54,365	1.020	1996	10,096	10,128	1.003
Average			1.015	Average			1.002
	96	108			204	216	
2000	12,989	13,277	1.022	1992	2,673	2,677	1.001
2001	15,740	16,026	1.018	1993	5,796	5,796	1.000
2002	25,266	25,784	1.020	1994	5,548	5,554	1.001
2003	35,526	35,593	1.002	1995	8,802	8,857	1.006
2004	49,311	50,933	1.033	Average			1.002
Average			1.019				
	108	120			216	228	
1999	9,496	9,582	1.009	1992	2,677	2,679	1.001
2000	13,277	13,293	1.001	1993	5,796	5,799	1.000
2001	16,026	16,178	1.009	1994	5,554	5,560	1.001
2002	25,784	26,199	1.016	Average			1.001
2003	35,593	36,349	1.021				
Average			1.011				
	120	132			228	240	
1998	11,512	11,821	1.027	1992	2,679	2,682	1.001
1999	9,582	9,784	1.021	1993	5,799	5,799	1.000
2000	13,293	13,390	1.007	Average			1.001
2001	16,178	16,453	1.017				
2002	26,199	26,911	1.027	1992	2,682	2,679	0.999
Average			1.020	Average			0.999

Notes:
 Losses from Aggregate Financial Data.

II 000017

Policy Year Aggregate Financial Data
 Calculation of Indemnity Paid Plus Case Loss Development Factors
 Remainder of Industry

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			144	156	
2009	162,589	210,786	1.296	1999	236,848	236,930	1.000
2010	157,996	215,015	1.361	2000	256,698	256,963	1.001
Average			1.329	Average			1.001
	36	48			156	168	
2008	203,561	222,003	1.091	1998	220,202	220,717	1.002
2009	210,786	237,920	1.129	1999	236,930	237,096	1.001
Average			1.110	Average			1.002
	48	60			168	180	
2007	218,145	229,886	1.054	1997	190,687	190,452	0.999
2008	222,003	236,903	1.067	1998	220,717	220,367	0.998
Average			1.060	Average			0.999
	60	72			180	192	
2006	216,248	221,198	1.023	1996	193,250	192,513	0.996
2007	229,886	233,430	1.015	1997	190,452	190,284	0.999
Average			1.019	Average			0.998
	72	84			192	204	
2005	214,711	216,401	1.008	1995	209,522	210,220	1.003
2006	221,198	222,855	1.007	1996	192,513	193,055	1.003
Average			1.008	Average			1.003
	84	96			204	216	
2004	233,803	234,333	1.002	1994	219,140	219,631	1.002
2005	216,401	219,664	1.015	1995	210,220	211,116	1.004
Average			1.009	Average			1.003
	96	108			216	228	
2003	230,044	230,888	1.004	1993	269,921	269,894	1.000
2004	234,333	235,074	1.003	1994	219,631	219,820	1.001
Average			1.003	Average			1.000
	108	120			228	240	
2002	248,970	250,057	1.004	1992	333,180	334,172	1.003
2003	230,888	231,528	1.003	1993	269,894	269,947	1.000
Average			1.004	Average			1.002
	120	132			240	252	
2001	247,952	248,253	1.001	1992	334,172	334,465	1.001
2002	250,057	250,347	1.001	Average			1.001
Average			1.001				
	132	144					
2000	255,505	256,698	1.005				
2001	248,253	249,741	1.006				
Average			1.005				

Notes:
 Losses from Aggregate Financial Data.

II 000018

Policy Year Aggregate Financial Data
 Calculation of Medical Paid Plus Case Loss Development Factors
 Remainder of Industry

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			144	156	
2009	144,002	150,552	1.045	1999	140,565	141,693	1.008
2010	150,535	160,146	1.064	2000	153,143	152,321	0.995
Average			1.055	Average			1.001
	36	48			156	168	
2008	136,036	137,321	1.009	1998	137,073	137,353	1.002
2009	150,552	154,547	1.027	1999	141,693	142,873	1.008
Average			1.018	Average			1.005
	48	60			168	180	
2007	148,644	148,693	1.000	1997	102,727	103,731	1.010
2008	137,321	141,148	1.028	1998	137,353	136,488	0.994
Average			1.014	Average			1.002
	60	72			180	192	
2006	129,781	132,052	1.017	1996	107,561	108,459	1.008
2007	148,693	150,187	1.010	1997	103,731	102,655	0.990
Average			1.014	Average			0.999
	72	84			192	204	
2005	129,555	133,159	1.028	1995	103,892	105,445	1.015
2006	132,052	135,048	1.023	1996	108,459	108,632	1.002
Average			1.025	Average			1.008
	84	96			204	216	
2004	141,706	141,670	1.000	1994	121,959	122,219	1.002
2005	133,159	135,531	1.018	1995	105,445	105,601	1.001
Average			1.009	Average			1.002
	96	108			216	228	
2003	141,371	144,350	1.021	1993	130,573	130,448	0.999
2004	141,670	142,864	1.008	1994	122,219	122,132	0.999
Average			1.015	Average			0.999
	108	120			228	240	
2002	151,250	151,403	1.001	1992	163,689	163,023	0.996
2003	144,350	144,202	0.999	1993	130,448	131,381	1.007
Average			1.000	Average			1.002
	120	132			240	252	
2001	148,481	147,966	0.997	1992	163,023	161,353	0.990
2002	151,403	152,729	1.009	Average			0.990
Average			1.003				
	132	144					
2000	152,621	153,143	1.003				
2001	147,966	148,296	1.002				
Average			1.003				

Notes:
 Losses from Aggregate Financial Data.

II 000019

Policy Year Aggregate Financial Data
 Calculation of Indemnity Paid Plus Case Loss Development Factors
 AIG

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			132	144	
2006	50,812	75,009	1.476	1997	40,524	40,137	0.990
2007	49,709	79,770	1.605	1998	32,321	32,762	1.014
2008	50,016	71,108	1.422	1999	32,042	31,852	0.994
2009	34,189	51,685	1.512	2000	42,174	42,034	0.997
2010	39,121	61,367	1.569	2001	47,358	47,169	0.996
Average			1.517	Average			0.998
	36	48			144	156	
2005	82,532	103,539	1.255	1996	23,782	23,713	0.997
2006	75,009	95,439	1.272	1997	40,137	41,253	1.028
2007	79,770	92,783	1.163	1998	32,762	32,965	1.006
2008	71,108	83,342	1.172	1999	31,852	32,203	1.011
2009	51,685	62,524	1.210	2000	42,034	41,653	0.991
Average			1.214	Average			1.007
	48	60			156	168	
2004	88,886	99,956	1.125	1995	24,313	25,110	1.033
2005	103,539	121,945	1.178	1996	23,713	23,310	0.983
2006	95,439	103,017	1.079	1997	41,253	42,181	1.022
2007	92,783	103,627	1.117	1998	32,965	32,874	0.997
2008	83,342	89,510	1.074	1999	32,203	31,768	0.986
Average			1.115	Average			1.004
	60	72			168	180	
2003	85,621	89,272	1.043	1994	11,518	11,330	0.984
2004	99,956	113,389	1.134	1995	25,110	25,693	1.023
2005	121,945	128,104	1.051	1996	23,310	23,294	0.999
2006	103,017	107,935	1.048	1997	42,181	43,056	1.021
2007	103,627	107,178	1.034	1998	32,874	32,999	1.004
Average			1.062	Average			1.006
	72	84			180	192	
2002	63,274	63,225	0.999	1993	7,330	7,261	0.991
2003	89,272	92,300	1.034	1994	11,330	11,713	1.034
2004	113,389	115,614	1.020	1995	25,693	25,776	1.003
2005	128,104	127,032	0.992	1996	23,294	23,694	1.017
2006	107,935	108,023	1.001	1997	43,056	42,935	0.997
Average			1.009	Average			1.008
	84	96			192	204	
2001	47,192	47,536	1.007	1992	5,722	5,716	0.999
2002	63,225	65,122	1.030	1993	7,261	7,261	1.000
2003	92,300	92,736	1.005	1994	11,713	11,875	1.014
2004	115,614	116,027	1.004	1995	25,776	25,563	0.992
2005	127,032	124,859	0.983	1996	23,694	23,382	0.987
Average			1.006	Average			0.998
	96	108			204	216	
2000	40,008	41,469	1.037	1992	5,716	4,969	0.869
2001	47,536	47,238	0.994	1993	7,261	7,261	1.000
2002	65,122	65,711	1.009	1994	11,875	11,644	0.981
2003	92,736	92,754	1.000	1995	25,563	25,613	1.002
2004	116,027	116,773	1.006	Average			0.963
Average			1.009				
	108	120			216	228	
1999	32,192	31,951	0.993	1992	4,969	4,931	0.992
2000	41,469	41,422	0.999	1993	7,261	7,261	1.000
2001	47,238	47,312	1.002	1994	11,644	11,808	1.014
2002	65,711	66,412	1.011	Average			1.002
2003	92,754	91,994	0.992				
Average			0.999				
	120	132			228	240	
1998	31,612	32,321	1.022	1992	4,931	4,931	1.000
1999	31,951	32,042	1.003	1993	7,261	7,294	1.004
2000	41,422	42,174	1.018	Average			1.002
2001	47,312	47,358	1.001				
2002	66,412	65,685	0.989				
Average			1.007				
	132	144			240	252	
1997	40,524	40,137	0.990	1992	4,931	4,929	1.000
1998	32,321	32,762	1.014	Average			1.000
1999	32,042	31,852	0.994				
2000	42,174	42,034	0.997				
2001	47,358	47,169	0.996				
Average			0.998				

Notes:
 Losses from Aggregate Financial Data.

II 000020

Section II - Loss Development
 Subsection B - Policy Year Data
 1/1/2014

Section II - B
 Exhibit 3
 Page 4

Policy Year Aggregate Financial Data
 Calculation of Medical Paid Plus Case Loss Development Factors
 AIG

Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Policy Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	24	36			132	144	
2006	47,103	53,434	1.134	1997	17,016	17,084	1.004
2007	43,923	50,275	1.145	1998	13,175	14,572	1.106
2008	38,895	44,542	1.145	1999	12,126	12,145	1.002
2009	30,866	34,955	1.132	2000	14,794	14,425	0.975
2010	30,954	34,077	1.101	2001	18,906	19,211	1.016
Average			1.132	Average			1.021
	36	48			144	156	
2005	56,862	64,805	1.140	1996	10,192	10,245	1.005
2006	53,434	59,313	1.110	1997	17,084	16,620	0.973
2007	50,275	51,164	1.018	1998	14,572	15,357	1.054
2008	44,542	43,116	0.968	1999	12,145	12,046	0.992
2009	34,955	35,931	1.028	2000	14,425	14,281	0.990
Average			1.053	Average			1.003
	48	60			156	168	
2004	51,036	58,757	1.151	1995	10,365	10,318	0.995
2005	64,805	71,523	1.104	1996	10,245	10,552	1.030
2006	59,313	61,729	1.041	1997	16,620	17,385	1.046
2007	51,164	49,672	0.971	1998	15,357	15,316	0.997
2008	43,116	42,898	0.995	1999	12,046	12,459	1.034
Average			1.052	Average			1.021
	60	72			168	180	
2003	44,630	46,445	1.041	1994	5,948	6,096	1.025
2004	58,757	64,819	1.103	1995	10,318	10,311	0.999
2005	71,523	69,548	0.972	1996	10,552	11,186	1.060
2006	61,729	60,350	0.978	1997	17,385	17,518	1.008
2007	49,672	49,074	0.988	1998	15,316	15,420	1.007
Average			1.016	Average			1.020
	72	84			180	192	
2002	32,262	32,579	1.010	1993	5,813	5,826	1.002
2003	46,445	45,714	0.984	1994	6,096	5,979	0.981
2004	64,819	62,913	0.971	1995	10,311	9,659	0.937
2005	69,548	65,614	0.943	1996	11,186	10,898	0.974
2006	60,350	59,990	0.994	1997	17,518	17,355	0.991
Average			0.980	Average			0.977
	84	96			192	204	
2001	18,421	18,428	1.000	1992	2,670	2,674	1.002
2002	32,579	31,453	0.965	1993	5,826	5,796	0.995
2003	45,714	42,594	0.932	1994	5,979	5,838	0.976
2004	62,913	60,873	0.968	1995	9,659	9,632	0.997
2005	65,614	64,264	0.979	1996	10,898	10,824	0.993
Average			0.969	Average			0.993
	96	108			204	216	
2000	14,313	14,486	1.012	1992	2,674	2,722	1.018
2001	18,428	18,068	0.980	1993	5,796	5,796	1.000
2002	31,453	30,517	0.970	1994	5,838	5,598	0.959
2003	42,594	39,532	0.928	1995	9,632	9,705	1.008
2004	60,873	60,083	0.987	Average			0.996
Average			0.976				
	108	120			216	228	
1999	12,406	12,538	1.011	1992	2,722	2,722	1.000
2000	14,486	15,284	1.055	1993	5,796	5,891	1.016
2001	18,068	18,528	1.025	1994	5,598	5,683	1.015
2002	30,517	29,306	0.960	Average			1.011
2003	39,532	39,487	0.999				
Average			1.010				
	120	132			228	240	
1998	13,485	13,175	0.977	1992	2,722	2,721	1.000
1999	12,538	12,126	0.967	1993	5,891	5,838	0.991
2000	15,284	14,794	0.968	Average			0.995
2001	18,528	18,906	1.020				
2002	29,306	29,646	1.012				
Average			0.989				

Notes:
 Losses from Aggregate Financial Data.

II 000021

Paid Loss Tail Factors

Indemnity 252nd Month to Ultimate Loss Tail Development Factor

(1)	Valuation Date [Y]	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
(2)	Prior to Policy Year 1992 at [Y]	8,687,527,003	8,699,732,210	8,719,845,377	8,730,934,248	8,743,196,791
(3)	Prior to Policy Year 1992 at [Y] - 1 yr	8,672,619,033	8,687,527,003	8,699,732,210	8,719,845,377	8,730,934,248
(4)	Difference = (2) - (3)	14,907,970	12,205,207	20,113,167	11,088,871	12,262,543
(5)	Policy Year 1992 at [Y]	323,644,864	324,809,822	325,623,032	326,644,688	328,015,413
(6)	Ratio = (4) / (5)	0.046	0.038	0.062	0.034	0.037
(7)	Growth Factor	1.300	1.300	1.300	1.300	1.300
(8)	Product = (6) x (7)	0.060	0.049	0.080	0.044	0.049
(9)	Factor to Ultimate = 1.000 + (8)	1.060	1.049	1.080	1.044	1.049

(10)	Month [M]	204	216	228	240	252
(11)	Factor to Ultimate = (9)	1.060	1.049	1.080	1.044	1.049
(12)	Factor from [252] to [M]	0.985	0.990	0.992	0.996	1.000
(13)	Indicated [252] to Ultimate Tail Factor = (11) x (12)	1.044	1.039	1.072	1.040	1.049
(14)	Five Year Average					1.048

Medical 252nd Month to Ultimate Loss Tail Development Factor

(15)	Valuation Date [Y]	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
(16)	Prior to Policy Year 1992 at [Y]	2,578,393,075	2,591,491,459	2,603,031,479	2,613,879,550	2,627,729,322
(17)	Prior to Policy Year 1992 at [Y] - 1 yr	2,566,783,235	2,578,393,075	2,591,491,459	2,603,031,479	2,613,879,550
(18)	Difference = (16) - (17)	11,609,840	13,098,384	11,540,020	10,848,071	13,849,772
(19)	Policy Year 1992 at [Y]	147,636,845	148,341,060	149,213,179	149,967,296	150,900,940
(20)	Ratio = (18) / (19)	0.079	0.088	0.077	0.072	0.092
(21)	Growth Factor	1.300	1.300	1.300	1.300	1.300
(22)	Product = (20) x (21)	0.102	0.115	0.101	0.094	0.119
(23)	Factor to Ultimate = 1.000 + (22)	1.102	1.115	1.101	1.094	1.119

(24)	Month [M]	204	216	228	240	252
(25)	Factor to Ultimate = (23)	1.102	1.115	1.101	1.094	1.119
(26)	Factor from [252] to [M]	0.978	0.984	0.989	0.994	1.000
(27)	Indicated [252] to Ultimate Tail Factor = (25) x (26)	1.078	1.097	1.088	1.087	1.119
(28)	Five Year Average					1.094

Notes:

- (2), (3), (5): Indemnity Paid Losses from Aggregate Financial Data.
- (16), (17), (19): Medical Paid Losses from Aggregate Financial Data.
- (7), (21): Exhibit 1, Page 2.
- (12), (26): 1.0 / Cumulative LDF from Section II - B, Exhibit 1.

II 000022

Growth Factor Adjustment Paid Losses

Policy Year (1)	On-Level Annual Growth Factor (2)	On-Level Cumulative Growth Factor (3)	Relative Volume of Losses (4)	Quarters in Report Interval (5)	Percent Development for Report Interval (6)	Prior to 1992 Dollar Development (7)	On-Level Prior to 1992 Dollar Development (8)
1992			1,000,000				
1991	0.606	0.606	1,649,992	85 - 88	0.469%	7,734	4,688
1990	1.065	0.645	1,549,366	89 - 92	0.450%	6,972	4,500
1989	1.139	0.735	1,360,278	93 - 96	0.431%	5,866	4,313
1988	1.045	0.768	1,301,270	97 - 100	0.413%	5,368	4,125
1987	1.244	0.956	1,045,991	101 - 104	0.394%	4,119	3,938
1986	1.218	1.165	858,715	105 - 108	0.375%	3,220	3,750
1985	1.287	1.499	667,250	109 - 112	0.356%	2,377	3,563
1984	1.162	1.741	574,271	113 - 116	0.338%	1,938	3,375
1983	1.218	2.121	471,451	117 - 120	0.319%	1,503	3,188
1982	1.110	2.354	424,827	121 - 124	0.300%	1,274	3,000
1981	0.989	2.329	429,430	125 - 128	0.281%	1,208	2,813
1980	1.090	2.537	394,115	129 - 132	0.263%	1,035	2,625
1979	1.208	3.066	326,134	133 - 136	0.244%	795	2,438
1978	1.134	3.478	287,510	137 - 140	0.225%	647	2,250
1977	1.248	4.342	230,284	141 - 144	0.206%	475	2,063
1976	1.259	5.468	182,868	145 - 148	0.188%	343	1,875
1975	1.137	6.216	160,886	149 - 152	0.169%	271	1,688
1974	1.055	6.561	152,427	153 - 156	0.150%	229	1,500
1973	1.133	7.432	134,550	157 - 160	0.131%	177	1,313
1972	1.037	7.706	129,762	161 - 164	0.113%	146	1,125
1971	1.054	8.120	123,157	165 - 168	0.094%	115	938
1970	1.152	9.355	106,890	169 - 172	0.075%	80	750
1969	1.082	10.119	98,820	173 - 176	0.056%	56	563
1968	1.052	10.643	93,963	177 - 180	0.038%	35	375
1967	1.049	11.169	89,531	181 - 184	0.019%	17	188
						46,000	60,938
(9) Indicated Growth Factor:							1.325
(10) Selected Growth Factor:							1.300

Notes:

Assume 1992 losses of \$1,000,000. This produces a tail of 4.60% = \$46,000 / \$1,000,000 (with no growth).

However, putting Prior to 1992 Losses on-level produces a tail of 6.09% = 1.325 x 4.60%.

A growth factor of 1.300 has been selected.

(2): Based on year to year changes of incurred losses from Annual Statement.

(3): Cumulative product of (2), beginning at top of column.

(4) = \$1,000,000 / (3).

The equivalent of what \$1,000,000 of losses in PY1992 would be in each prior policy year (1967-1991) given the on-level cumulative growth factors in (3).

(5): Quarters that correspond to the policy years.

(6): Estimated % paid loss emergence during the quarters displayed in (5).

(7) = (4) x (6)

(8) = (3) x (7)

(9) = [Sum of (8)] / [Sum of (7)]

II 000023

Paid Plus Case Loss Tail Factors

Indemnity 252nd Month to Ultimate Loss Tail Development Factor

(1) Valuation Date [Y]	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
(2) Prior to Policy Year 1992 at [Y]	8,834,401,100	8,842,561,104	8,848,314,686	8,851,280,854	8,859,424,003
(3) Prior to Policy Year 1992 at [Y] - 1 yr	8,833,456,717	8,834,401,100	8,842,561,104	8,848,314,686	8,851,280,854
(4) Difference = (2) - (3)	944,383	8,160,004	5,753,582	2,966,168	8,143,149
(5) Policy Year 1992 at [Y]	331,384,717	332,571,814	333,179,550	334,172,214	334,465,310
(6) Ratio = (4) / (5)	0.003	0.025	0.017	0.009	0.024
(7) Growth Factor	1.150	1.150	1.150	1.150	1.150
(8) Product = (6) x (7)	0.003	0.028	0.020	0.010	0.028
(9) Factor to Ultimate = 1.000 + (8)	1.003	1.028	1.020	1.010	1.028
(10) Month [M]	204	216	228	240	252
(11) Factor to Ultimate = (9)	1.003	1.028	1.020	1.010	1.028
(12) Factor from [252] to [M]	0.994	0.997	0.998	0.999	1.000
(13) Indicated [252] to Ultimate Tail Factor = (11) x (12)	0.997	1.025	1.017	1.009	1.028
(14) Five Year Average					1.015

Medical 252nd Month to Ultimate Loss Tail Development Factor

(15) Valuation Date [Y]	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
(16) Prior to Policy Year 1992 at [Y]	2,748,294,116	2,750,687,300	2,762,100,367	2,774,733,671	2,779,262,862
(17) Prior to Policy Year 1992 at [Y] - 1 yr	2,742,195,938	2,748,294,116	2,750,687,300	2,762,100,367	2,774,733,671
(18) Difference = (16) - (17)	6,098,178	2,393,184	11,413,067	12,633,304	4,529,191
(19) Policy Year 1992 at [Y]	163,517,181	163,073,156	163,688,666	163,023,366	161,353,097
(20) Ratio = (18) / (19)	0.037	0.015	0.070	0.077	0.028
(21) Growth Factor	1.150	1.150	1.150	1.150	1.150
(22) Product = (20) x (21)	0.043	0.017	0.080	0.089	0.032
(23) Factor to Ultimate = 1.000 + (22)	1.043	1.017	1.080	1.089	1.032
(24) Month [M]	204	216	228	240	252
(25) Factor to Ultimate = (23)	1.043	1.017	1.080	1.089	1.032
(26) Factor from [252] to [M]	1.008	1.010	1.009	1.010	1.000
(27) Indicated [252] to Ultimate Tail Factor = (25) x (26)	1.051	1.027	1.090	1.100	1.032
(28) Five Year Average					1.060

Notes:

- (2), (3), (5): Indemnity Paid Plus Case Losses from Aggregate Financial Data.
- (16), (17), (19): Medical Paid Plus Case Losses from Aggregate Financial Data.
- (7), (21): Exhibit 2, Page 2.
- (12), (26): 1.0 / Cumulative LDF from Section II - B, Exhibit 1.

II 000024

Growth Factor Adjustment Paid Plus Case Losses

Policy Year (1)	On-Level Annual Growth Factor (2)	On-Level Cumulative Growth Factor (3)	Relative Volume of Losses (4)	Quarters in Report Interval (5)	Percent Development for Report Interval (6)	Prior to 1992 Dollar Development (7)	On-Level Prior to 1992 Dollar Development (8)
1992			1,000,000				
1991	0.606	0.606	1,649,992	85 - 88	0.286%	4,713	2,856
1990	1.065	0.645	1,549,366	89 - 92	0.271%	4,204	2,713
1989	1.139	0.735	1,360,278	93 - 96	0.257%	3,497	2,571
1988	1.045	0.768	1,301,270	97 - 100	0.243%	3,159	2,428
1987	1.244	0.956	1,045,991	101 - 104	0.228%	2,390	2,285
1986	1.218	1.165	858,715	105 - 108	0.214%	1,840	2,142
1985	1.287	1.499	667,250	109 - 112	0.200%	1,334	1,999
1984	1.162	1.741	574,271	113 - 116	0.186%	1,066	1,857
1983	1.218	2.121	471,451	117 - 120	0.171%	808	1,714
1982	1.110	2.354	424,827	121 - 124	0.157%	667	1,571
1981	0.989	2.329	429,430	125 - 128	0.143%	613	1,428
1980	1.090	2.537	394,115	129 - 132	0.129%	507	1,285
1979	1.208	3.066	326,134	133 - 136	0.114%	373	1,142
1978	1.134	3.478	287,510	137 - 140	0.100%	287	1,000
1977	1.248	4.342	230,284	141 - 144	0.086%	197	857
1976	1.259	5.468	182,868	145 - 148	0.071%	131	714
1975	1.137	6.216	160,886	149 - 152	0.057%	92	571
1974	1.055	6.561	152,427	153 - 156	0.043%	65	428
1973	1.133	7.432	134,550	157 - 160	0.029%	38	286
1972	1.037	7.706	129,762	161 - 164	0.014%	19	143
						26,000	29,991
(9) Indicated Growth Factor:							1.153
(10) Selected Growth Factor:							1.150

Notes:

Assume 1992 losses of \$1,000,000. This produces a tail of 2.60% = \$26,000 / \$1,000,000 (with no growth).

However, putting Prior to 1992 Losses on-level produces a tail of 3.00% = 1.153 x 2.60%.

A growth factor of 1.150 has been selected.

(2): Based on year to year changes of incurred losses from Annual Statement.

(3): Cumulative product of (2), beginning at top of column.

(4) = \$1,000,000 / (3).

The equivalent of what \$1,000,000 of losses in PY1992 would be in each prior policy year (1972-1991) given the on-level cumulative growth factors in (3).

(5): Quarters that correspond to the policy years.

(6): Estimated % paid plus case loss emergence during the quarters displayed in (5).

(7) = (4) x (6)

(8) = (3) x (7)

(9) = [Sum of (8)] / [Sum of (7)]

LOSS DEVELOPMENT

ADJUSTMENT FOR ESCALATED BENEFITS

This section calculates factors that reflect the impact of the introduction of escalation (inflation-indexed wage loss benefit increases) on loss development. This adjustment for differences in development patterns is necessary because some of our loss data predate the law change introducing escalation of indemnity benefits. These older, unescalated losses exhibit a development pattern that will differ from the expected development of indemnity losses that are subject to escalation.

The statutory escalation of benefits became effective on October 1, 1986, following the passage of St. 1986, c. 582. Data collected for policy year 1987 and later years reflect the impact of escalation. In this Filing, age-to-age link ratios are derived from experience for policy years 1992 and later to develop losses to 252 months. Beyond 252 months of development, loss development factors, including age-to-age link ratios and tail factors, are derived from experience for policy years 1991 and prior. Reported losses for policy years prior to 1987 do not reflect the impact of escalation and therefore must be adjusted.

We have used the same simulation model to quantify the adjustment for escalated benefits the WCRIBMA since our 2003 rate filing. The simulation model assumes that permanent total claimants experience impaired mortality.

Exhibits 1 and 2 estimate the differentials between the escalated and non-escalated benefit levels for both the paid and paid-plus-case loss development methods, respectively. The resulting factors are the basis for the selected escalation factor used in the estimation of ultimate losses.

II 000026

Section II - Loss Development
 Subsection D - Adjustment for Escalation of Benefits
 1/1/2014

Section II - D
 Exhibit 1
 Page 1

Differential in Indemnity Loss Development

Paid Loss Development Method Calculation of Adjustment for Differential in Loss Development

Escalated or Unescalated (1)	Injury Type (2)	Implicit LDF to Ultimate From Month				
		168	180	192 (3)	204	216
Escalated	Fatal	3.036	2.859	2.703	2.562	2.433
Escalated	Permanent Total	4.073	3.719	3.417	3.157	2.929
Escalated	Other Indemnity	1.000	1.000	1.000	1.000	1.000
Escalated	Total Indemnity	1.084	1.081	1.079	1.076	1.073
Unescalated	Fatal	1.942	1.861	1.789	1.725	1.668
Unescalated	Permanent Total	2.452	2.295	2.160	2.043	1.941
Unescalated	Other Indemnity	1.000	1.000	1.000	1.000	1.000
Unescalated	Total Indemnity	1.033	1.031	1.030	1.028	1.027

Escalated or Unescalated (4)	Injury Type (5)	Differential in Loss Development at Month				
		168	180	192 (6)	204	216
Escalated	Fatal	1.563	1.536	1.511	1.485	1.459
Escalated	Permanent Total	1.661	1.620	1.582	1.545	1.509
Escalated	Other Indemnity	1.000	1.000	1.000	1.000	1.000
Escalated	Total Indemnity	1.050	1.049	1.048	1.046	1.045

Selected Differential in Indemnity Loss Development at Month 312 1.037

Notes:

(3) = [(8) Exhibit 1, Page 2] / [(9) Exhibit 1, Page 2]

(6) = [(3) for Escalated] / [(3) for Unescalated]

II 000027

Differential in Indemnity Loss Development

Paid Loss Development Method Calculation of Adjustment for Differential in Loss Development

Escalated or Unescalated (1)	Injury Type (2)	Losses at Month						Injury Type Weights @ Ultimate (5)
		Ultimate (3)	168	180	192 (4)	204	216	
Escalated	Fatal	874,958	288,217	306,023	323,680	341,550	359,626	1.45%
Escalated	Permanent Total	1,668,738	409,709	448,697	488,350	528,641	569,759	5.10%
Escalated	Other Indemnity							55.44%
Escalated	Total Indemnity							61.98%
Unescalated	Fatal	465,615	239,708	250,218	260,195	269,862	279,221	0.77%
Unescalated	Permanent Total	824,906	336,400	359,427	381,858	403,713	424,987	2.52%
Unescalated	Other Indemnity							55.44%
Unescalated	Total Indemnity							58.73%

Escalated or Unescalated (6)	Injury Type (7)	Estimated Losses at Month					
		Ultimate (8)	168	180	192 (9)	204	216
Escalated	Fatal	1,449	477	507	536	566	596
Escalated	Permanent Total	5,096	1,251	1,370	1,491	1,614	1,740
Escalated	Other Indemnity	55,439	55,439	55,439	55,439	55,439	55,439
Escalated	Total Indemnity	61,983	57,167	57,316	57,466	57,618	57,774
Unescalated	Fatal	771	397	414	431	447	462
Unescalated	Permanent Total	2,519	1,027	1,098	1,166	1,233	1,298
Unescalated	Other Indemnity	55,439	55,439	55,439	55,439	55,439	55,439
Unescalated	Total Indemnity	58,729	56,863	56,951	57,036	57,118	57,199

Notes:

Escalation calculation applied only to Fatal and Permanent Total Injury Types.

(3),(4): Average discounted losses are calculated from Simulation Model loss flows using a 3.5% discount rate.

(5): Escalated: From Section IV-E, Exhibit 2. As a % of total losses, Indemnity and Medical.

Unescalated: [(5) for Escalated] x [(3) for Unescalated] / [(3) for Escalated] .

(8) = (5) x 100,000

(9) = (8) x [(4) / (3)]

II 000028

Differential in Indemnity Loss Development

Paid Plus Case Loss Development Method Calculation of Adjustment for Differential in Loss Development

Escalated or Unescalated (1)	Injury Type (2)	Implicit LDF to Ultimate From Month				
		168	180	192 (3)	204	216
Escalated	Fatal	1.364	1.340	1.317	1.295	1.274
Escalated	Permanent Total	1.398	1.368	1.340	1.313	1.288
Escalated	Other Indemnity	1.000	1.000	1.000	1.000	1.000
Escalated	Total Indemnity	1.031	1.029	1.027	1.026	1.024
Unescalated	Fatal	1.212	1.198	1.184	1.171	1.159
Unescalated	Permanent Total	1.253	1.234	1.215	1.198	1.183
Unescalated	Other Indemnity	1.000	1.000	1.000	1.000	1.000
Unescalated	Total Indemnity	1.011	1.010	1.010	1.009	1.008

Escalated or Unescalated (4)	Injury Type (5)	Differential in Loss Development at Month				
		168	180	192 (6)	204	216
Escalated	Fatal	1.125	1.119	1.112	1.105	1.099
Escalated	Permanent Total	1.115	1.109	1.102	1.096	1.089
Escalated	Other Indemnity	1.000	1.000	1.000	1.000	1.000
Escalated	Total Indemnity	1.019	1.018	1.017	1.016	1.015

Selected Differential in Indemnity Loss Development at Month 312 1.007

Notes:

(3) = [(8) Exhibit 2, Page 2] / [(9) Exhibit 2, Page 2]

(6) = [(3) for Escalated] / [(3) for Unescalated]

II 000029

Differential in Indemnity Loss Development

Paid Plus Case Loss Development Method Calculation of Adjustment for Differential in Loss Development

Escalated or Unescalated (1)	Injury Type (2)	Losses at Month						Injury Type Weights @ Ultimate (5)
		Ultimate (3)	168	180	192 (4)	204	216	
Escalated	Fatal	874,958	641,246	652,979	664,504	675,808	686,874	1.45%
Escalated	Permanent Total	1,668,738	1,193,905	1,219,988	1,245,595	1,270,688	1,295,221	5.10%
Escalated	Other Indemnity							55.44%
Escalated	Total Indemnity							61.98%
Unescalated	Fatal	465,615	384,035	388,719	393,217	397,535	401,676	0.77%
Unescalated	Permanent Total	824,906	658,201	668,658	678,696	688,321	697,538	2.52%
Unescalated	Other Indemnity							55.44%
Unescalated	Total Indemnity							58.73%

Escalated or Unescalated (6)	Injury Type (7)	Estimated Losses at Month					
		Ultimate (8)	168	180	192 (9)	204	216
Escalated	Fatal	1,449	1,062	1,081	1,100	1,119	1,137
Escalated	Permanent Total	5,096	3,646	3,725	3,804	3,880	3,955
Escalated	Other Indemnity	55,439	55,439	55,439	55,439	55,439	55,439
Escalated	Total Indemnity	61,983	60,146	60,245	60,343	60,438	60,531
Unescalated	Fatal	771	636	644	651	658	665
Unescalated	Permanent Total	2,519	2,010	2,042	2,072	2,102	2,130
Unescalated	Other Indemnity	55,439	55,439	55,439	55,439	55,439	55,439
Unescalated	Total Indemnity	58,729	58,084	58,124	58,162	58,199	58,234

Notes:

Escalation calculation applied only to Fatal and Permanent Total Injury Types.

(3),(4): Average discounted losses are calculated from Simulation Model loss flows using a 3.5% discount rate.

(5): Escalated: From Section IV-E, Exhibit 2. As a % of total losses, Indemnity and Medical.

Unescalated: [(5) for Escalated] x [(3) for Unescalated] / [(3) for Escalated] }

(8) = (5) x 100,000

(9) = (8) x [(4) / (3)]

Accident Year Paid Loss Development Factors
Used in Section VII Profit

Accident year loss flows are need for purposes of estimating a profit provision in Section VII. Using the most recent available financial aggregate data, the WCRIBMA has updated the medical and the indemnity accident year paid losses used to derive an accident year payment pattern. The combined loss flow is a weighted average of the medical and indemnity paid loss flows.

Medical Paid Loss Flow

As with the policy year loss development, we develop accident year losses for AIG and the remainder of the industry separately through the 21st report. We compute accident year medical paid loss development factors for AIG from the averages of the five latest link ratios and for the remainder of the industry from the averages of the two latest link ratios. Separately, medical paid losses for AIG and the remainder of the industry are developed through a 21st report using their respective link ratios. The resulting values for AIG and the remainder of the industry are then summed, and the sum is multiplied by a medical paid loss tail factor. For purposes of modeling cash flows in Section VII, a policy year medical paid loss tail factor is used, in lieu of developing a separate accident year tail factor.

II 000031

Indemnity Paid Loss Flow

The flow for indemnity paid losses has been derived from the financial aggregate data using a method identical to the method we used for medical paid losses except that the indemnity paid losses have been adjusted for escalation of benefits.

Accident Year Aggregate Financial Data
Summary of Loss Development Factors
Industrywide

Months of Development	Loss Development Factors From																Tail Factor	Escalation Factor			
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204			204-216	216-228	228-240
(1) Indemnity Paid Losses																					
2 Year Average	2.851	1.508	1.201	1.094	1.030	1.027	1.017	1.009	1.006	1.005	1.006	1.006	1.003	1.004	1.003	1.004	1.004	1.003	1.003	1.002	1.037
Cumulative	6.997	2.454	1.627	1.355	1.238	1.202	1.171	1.151	1.141	1.135	1.129	1.122	1.116	1.112	1.108	1.105	1.100	1.095	1.092	1.089	1.037
(2) Medical Paid Losses																					
2 Yr Average	1.907	1.140	1.047	1.024	1.017	1.011	1.011	1.012	1.009	1.010	1.011	1.013	1.010	1.007	1.008	1.007	1.006	1.005	1.002	1.006	1.000
Cumulative	2.943	1.543	1.354	1.293	1.263	1.242	1.228	1.215	1.201	1.190	1.179	1.166	1.151	1.140	1.131	1.122	1.115	1.108	1.103	1.101	1.094

Notes:
Tail Factors from Section II-C, Exhibit 1, page 1 (accident year tail factors, were approximated using policy year tail factors).
Escalation Factor from Section II-D, Exhibit 1, page 1.

II 000033

Accident Year Aggregate Financial Data
Calculation of Indemnity Paid Loss Development Factors
Industrywide

Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	12	24			132	144	
2010	38,480	110,332	2.867	2000	246,702	248,387	1.007
2011	43,768	124,101	2.835	2001	241,195	242,497	1.005
Average			2.851	Average			1.006
	24	36			144	156	
2009	110,809	166,413	1.502	1999	215,913	217,404	1.007
2010	110,332	167,083	1.514	2000	248,387	249,453	1.004
Average			1.508	Average			1.006
	36	48			156	168	
2008	170,354	204,309	1.199	1998	207,801	208,471	1.003
2009	166,413	200,216	1.203	1999	217,404	218,119	1.003
Average			1.201	Average			1.003
	48	60			168	180	
2007	192,752	208,775	1.083	1997	182,102	182,531	1.002
2008	204,309	225,725	1.105	1998	208,471	209,543	1.005
Average			1.094	Average			1.004
	60	72			180	192	
2006	191,586	195,353	1.020	1996	194,065	194,580	1.003
2007	208,775	217,289	1.041	1997	182,531	183,146	1.003
Average			1.030	Average			1.003
	72	84			192	204	
2005	205,822	211,093	1.026	1995	202,733	203,438	1.003
2006	195,353	200,848	1.028	1996	194,580	195,617	1.005
Average			1.027	Average			1.004
	84	96			204	216	
2004	230,208	235,058	1.021	1994	237,376	238,552	1.005
2005	211,093	213,757	1.013	1995	203,438	204,135	1.003
Average			1.017	Average			1.004
	96	108			216	228	
2003	234,361	236,699	1.010	1993	284,201	284,852	1.002
2004	235,058	236,710	1.007	1994	238,552	239,408	1.004
Average			1.009	Average			1.003
	108	120			228	240	
2002	234,858	236,153	1.006	1992	339,782	340,625	1.002
2003	236,699	238,082	1.006	1993	284,852	285,943	1.004
Average			1.006	Average			1.003
	120	132			240	252	
2001	240,165	241,195	1.004	1991	655,141	656,124	1.002
2002	236,153	237,609	1.006	Average			1.002
Average			1.005				

Notes:
Losses from Aggregate Financial Data.

II 000034

Accident Year Aggregate Financial Data Calculation of Medical Paid Loss Development Factors Industrywide

Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor		Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	12	24				132	144	
2010	55,743	104,321	1.871		2000	118,354	119,830	1.012
2011	57,779	112,221	1.942		2001	114,803	115,904	1.010
Average			1.907		Average			1.011
	24	36				144	156	
2009	98,053	111,419	1.136		1999	112,646	114,331	1.015
2010	104,321	119,304	1.144		2000	119,830	121,125	1.011
Average			1.140		Average			1.013
	36	48				156	168	
2008	118,501	124,132	1.048		1998	101,113	101,992	1.009
2009	111,419	116,648	1.047		1999	114,331	115,609	1.011
Average			1.047		Average			1.010
	48	60				168	180	
2007	116,863	120,211	1.029		1997	89,147	89,888	1.008
2008	124,132	126,436	1.019		1998	101,992	102,621	1.006
Average			1.024		Average			1.007
	60	72				180	192	
2006	106,817	108,217	1.013		1996	94,486	95,262	1.008
2007	120,211	122,789	1.021		1997	89,888	90,584	1.008
Average			1.017		Average			1.008
	72	84				192	204	
2005	112,290	112,975	1.006		1995	97,933	98,509	1.006
2006	108,217	109,943	1.016		1996	95,262	95,995	1.008
Average			1.011		Average			1.007
	84	96				204	216	
2004	124,063	125,300	1.010		1994	110,352	110,955	1.005
2005	112,975	114,239	1.011		1995	98,509	99,160	1.007
Average			1.011		Average			1.006
	96	108				216	228	
2003	128,248	129,661	1.011		1993	129,694	130,227	1.004
2004	125,300	126,839	1.012		1994	110,955	111,548	1.005
Average			1.012		Average			1.005
	108	120				228	240	
2002	121,303	122,555	1.010		1992	156,808	156,747	1.000
2003	129,661	130,765	1.009		1993	130,227	130,833	1.005
Average			1.009		Average			1.002
	120	132				240	252	
2001	113,606	114,803	1.011		1991	211,328	212,620	1.006
2002	122,555	123,657	1.009		Average			1.006
Average			1.010					

Notes:
Losses from Aggregate Financial Data.

Accident Year Aggregate Financial Data
Summary of Loss Development Factors
AIG

Months of Development	Loss Development Factors From																Tail Factor	Escalation Factor					
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204			204-216	216-228	228-240	240-252	
(1) Indemnity Paid Losses																							
5 Yr Average	3.102	1.657	1.295	1.148	1.080	1.032	1.030	1.016	1.019	1.012	1.008	1.007	1.013	1.005	1.004	1.010	0.999	1.000	1.000	1.000	1.000	1.048	1.037
Cumulative	10.465	3.373	2.035	1.571	1.369	1.267	1.227	1.191	1.172	1.151	1.137	1.128	1.120	1.106	1.100	1.096	1.086	1.087	1.087	1.087	1.087	1.087	1.037
(2) Medical Paid Losses																							
5 Yr Average	2.001	1.168	1.075	1.038	1.027	1.015	1.018	1.017	1.016	1.019	1.010	1.012	1.021	1.010	1.004	1.001	1.003	1.002	1.000	0.999	1.000	1.094	1.000
Cumulative	3.389	1.694	1.450	1.349	1.299	1.265	1.246	1.224	1.204	1.185	1.164	1.151	1.138	1.115	1.103	1.099	1.098	1.095	1.093	1.093	1.093	1.094	1.000

Notes:
Tail Factors from Section II-C, Exhibit 1, page 1 (accident year tail factors, were approximated using policy year tail factors).
Escalation Factor from Section II-D, Exhibit 1, page 1.

II 000036

Accident Year Aggregate Financial Data
Calculation of Indemnity Paid Loss Development Factors
AIG

Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	12	24			132	144	
2007	13,919	40,299	2.895	1997	27,346	27,524	1.006
2008	12,254	39,494	3.223	1998	35,998	36,853	1.024
2009	9,263	28,762	3.105	1999	29,114	29,108	1.000
2010	8,415	26,809	3.186	2000	34,154	34,208	1.002
2011	10,660	33,079	3.103	2001	44,426	44,869	1.010
Average			3.102	Average			1.008
2006	43,129	70,110	1.626	1996	23,990	24,014	1.001
2007	40,299	68,805	1.707	1997	27,524	27,608	1.003
2008	39,494	65,177	1.650	1998	36,853	37,708	1.023
2009	28,762	46,573	1.619	1999	29,108	29,179	1.002
2010	26,809	45,133	1.683	2000	34,208	34,382	1.005
Average			1.657	Average			1.007
2005	66,474	88,435	1.330	1995	15,165	15,412	1.016
2006	70,110	92,461	1.319	1996	24,014	24,746	1.030
2007	68,805	85,574	1.244	1997	27,608	27,623	1.001
2008	65,177	84,526	1.297	1998	37,708	38,197	1.013
2009	46,573	59,930	1.287	1999	29,179	29,246	1.002
Average			1.295	Average			1.013
2004	66,587	78,124	1.173	1994	8,173	8,173	1.000
2005	88,435	105,605	1.194	1995	15,412	15,457	1.003
2006	92,461	104,854	1.134	1996	24,746	24,948	1.008
2007	85,574	97,915	1.144	1997	27,623	27,691	1.002
2008	84,526	92,387	1.093	1998	38,197	38,661	1.012
Average			1.148	Average			1.005
2003	68,442	73,652	1.076	1993	7,478	7,478	1.000
2004	78,124	86,861	1.112	1994	8,173	8,172	1.000
2005	105,605	116,957	1.108	1995	15,457	15,556	1.006
2006	104,854	112,262	1.071	1996	24,948	25,221	1.011
2007	97,915	101,470	1.036	1997	27,691	27,698	1.000
Average			1.080	Average			1.004
2002	54,817	56,565	1.032	1992	6,296	6,296	1.000
2003	73,652	76,375	1.037	1993	7,478	7,478	1.000
2004	86,861	90,998	1.048	1994	8,172	8,172	1.000
2005	116,957	121,519	1.039	1995	15,556	15,948	1.025
2006	112,262	112,999	1.007	1996	25,221	25,794	1.023
Average			1.032	Average			1.010
2001	40,469	42,302	1.045	1992	6,296	6,296	1.000
2002	56,565	58,558	1.035	1993	7,478	7,441	0.995
2003	76,375	78,891	1.033	1994	8,172	8,172	1.000
2004	90,998	93,618	1.029	1995	15,948	15,975	1.002
2005	121,519	122,716	1.010	Average			0.999
Average			1.030				
2000	32,495	32,924	1.013	1992	6,296	6,305	1.001
2001	42,302	43,586	1.030	1993	7,441	7,441	1.000
2002	58,558	58,989	1.007	1994	8,172	8,164	0.999
2003	78,891	80,494	1.020	Average			1.000
2004	93,618	94,516	1.010				
Average			1.016				
1999	27,484	28,481	1.036	1992	6,305	6,305	1.000
2000	32,924	33,939	1.031	1993	7,441	7,441	1.000
2001	43,586	44,005	1.010	Average			1.000
2002	58,989	59,647	1.011				
2003	80,494	80,900	1.005				
Average			1.019				
1998	35,237	35,998	1.022	1992	6,305	6,303	1.000
1999	28,481	29,114	1.022	Average			1.000
2000	33,939	34,154	1.006				
2001	44,005	44,426	1.010				
2002	59,647	59,709	1.001				
Average			1.012				

Notes:
Losses from Aggregate Financial Data.

II 000037

Accident Year Aggregate Financial Data
 Calculation of Medical Paid Loss Development Factors
 AIG

Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor	Accident Year	Losses (in 000's) Evaluated at Month		Loss Development Factor
	12	24			132	144	
2007	17,890	36,754	2.055	1997	12,309	12,422	1.009
2008	15,836	30,495	1.926	1998	12,461	12,566	1.008
2009	13,654	25,784	1.888	1999	11,109	11,177	1.006
2010	10,760	21,863	2.032	2000	11,226	11,341	1.010
2011	11,907	25,056	2.104	2001	15,994	16,287	1.018
Average			2.001	Average			1.010
2006	37,813	43,655	1.155	1996	9,431	9,473	1.004
2007	36,754	42,945	1.168	1997	12,422	12,550	1.010
2008	30,495	35,692	1.170	1998	12,566	12,580	1.001
2009	25,784	29,530	1.145	1999	11,177	11,439	1.023
2010	21,863	26,289	1.202	2000	11,341	11,570	1.020
Average			1.168	Average			1.012
2005	45,906	49,952	1.088	1995	6,554	6,647	1.014
2006	43,655	46,860	1.073	1996	9,473	9,510	1.004
2007	42,945	46,729	1.088	1997	12,550	12,787	1.019
2008	35,692	38,281	1.073	1998	12,580	12,729	1.012
2009	29,530	31,084	1.053	1999	11,439	12,073	1.055
Average			1.075	Average			1.021
2004	36,977	38,858	1.051	1994	4,216	4,235	1.005
2005	49,952	52,546	1.052	1995	6,647	6,689	1.006
2006	46,860	48,323	1.031	1996	9,510	9,688	1.019
2007	46,729	48,315	1.034	1997	12,787	12,918	1.010
2008	38,281	39,218	1.024	1998	12,729	12,885	1.012
Average			1.038	Average			1.010
2003	28,765	29,435	1.023	1993	5,833	5,839	1.001
2004	38,858	40,091	1.032	1994	4,235	4,250	1.003
2005	52,546	54,369	1.035	1995	6,689	6,718	1.004
2006	48,323	48,851	1.011	1996	9,688	9,742	1.006
2007	48,315	49,963	1.034	1997	12,918	12,969	1.004
Average			1.027	Average			1.004
2002	21,090	21,473	1.018	1992	3,466	3,470	1.001
2003	29,435	29,828	1.013	1993	5,839	5,842	1.000
2004	40,091	40,794	1.018	1994	4,250	4,253	1.001
2005	54,369	54,761	1.007	1995	6,718	6,740	1.003
2006	48,851	49,740	1.018	1996	9,742	9,758	1.002
Average			1.015	Average			1.001
2001	15,579	15,733	1.010	1992	3,470	3,475	1.001
2002	21,473	22,018	1.025	1993	5,842	5,841	1.000
2003	29,828	30,236	1.014	1994	4,253	4,260	1.002
2004	40,794	41,327	1.013	1995	6,740	6,792	1.008
2005	54,761	56,274	1.028	Average			1.003
Average			1.018				
2000	10,678	10,966	1.027	1992	3,475	3,488	1.004
2001	15,733	15,836	1.007	1993	5,841	5,843	1.000
2002	22,018	22,530	1.023	1994	4,260	4,262	1.000
2003	30,236	30,279	1.001	Average			1.002
2004	41,327	42,388	1.026				
Average			1.017				
1999	10,630	10,800	1.016	1992	3,488	3,490	1.001
2000	10,966	11,047	1.007	1993	5,843	5,842	1.000
2001	15,836	15,902	1.004	Average			1.000
2002	22,530	23,119	1.026				
2003	30,279	31,027	1.025				
Average			1.016				
1998	12,350	12,461	1.009	1992	3,490	3,486	0.999
1999	10,800	11,109	1.029	Average			0.999
2000	11,047	11,226	1.016				
2001	15,902	15,994	1.006				
2002	23,119	23,907	1.034				
Average			1.019				

Notes:
 Losses from Aggregate Financial Data.

PREMIUMS

Background

To derive a rate indication, this filing evaluates the adequacy of the current rate level by comparing an historical loss, LAE, and fixed expense ratio to a permissible loss, LAE, and fixed expense ratio. The historical loss ratio is the ratio of losses and loss adjustment expenses to earned premium. In the current ratemaking methodology, "earned premium" includes policy year earned standard premium and All Risk Adjustment Program ("ARAP") premium. Policy year premiums are defined as the premiums associated with all policies taking effect in a given year. Policy Year earned premiums are the premiums related to the portion of the policy year that has already expired. Standard premium is defined as the premium resulting from standard rating procedures, using WCRIBMA rates, after the application of experience rating adjustments, Merit Rating Plan adjustments, Construction Classification Premium Adjustment Program ("CCPAP") Credits, expense constants, and loss constants. Since the ARAP premium reported on the Aggregate Financial Policy Year Call is impacted by deviations and schedule rating credits, a factor is applied to the reported ARAP premium to adjust the premium from Company Level to Bureau Designated Statistical Reporting (DSR) Level. Adjustment factors applicable to policy year 2010 and policy year 2011 are calculated in Section III-A.

Policy years 2010 and 2011 earned standard and adjusted ARAP premiums are used in the indication and are brought to the current rate level in Section III.

III 000002

Summary

Initial workers' compensation insurance premiums are by necessity estimates. They are typically a function of the employer's payroll during the time the policy is in effect and consequently are not known definitively at policy inception. In addition to payroll audit adjustments, other adjustments may occur to the premium as a result of changes to the policy. For example, experience modification factors may change during the term of a policy or CCPAP credit applications may be filed up to six months after the termination date of a policy.

Insurance carriers typically try to estimate the impact of premium adjustments. However, industry-wide policy year earned standard and ARAP premium historically develops until such time as all audits have been finalized and no further premium modifications can be made. Therefore, premiums must be developed to ultimate so that the premiums used in the indication properly reflect the actual exposure level which gave rise to the ultimate losses.

The currently-effective rates were derived using "estimated values" for the average experience modification, the average merit rating credit, the average ARAP surcharge, and the average CCPAP credit. However, the "actual values" for the policy years under review differ from the "estimated values" loaded into the current rates. The WCRIBMA applies factors to premiums to adjust the "actual values" of the experience modification, merit rating credit, ARAP surcharge, and Construction Classification Premium Adjustment Program credit to the "estimated values" loaded in the current

rates. These offsets are necessary to ensure that the change in the current manual rates (which contain the same “estimated values”) is consistent with the overall average indicated rate level change. Additionally, the loading for prior Insolvency Fund assessments is removed.

Premium Development

The WCRIBMA developed premium to 252 months utilizing historical premium development factors based on the average of the latest five age-to-age development factors, also known as link ratios. For a given policy year, a premium development link ratio is the ratio of the premium valued as of time (T+1) to the premium valued as of time T. As in recent filings, annual age-to-age link ratios are calculated using the sum of earned standard premium and adjusted ARAP premium. The calculation of standard premium plus adjusted ARAP premium development factors is completed in Section III-A.¹

Impact of Experience and Merit Rating, ARAP and Construction Credit

The currently-effective rates contain an assumed load to reflect an estimated average experience modification and merit rating impact, ARAP impact, and Construction Credit impact. The actual experience modifications, merit rating debits or credits, ARAP surcharges, and Construction Credits for the policy years under review differ from the

¹ The WCRIBMA still contends that the method used in developing premiums in its 2012 Rate Filing is sound and reasonable. However, in response to the decision on 9/1/2012 rates, we have reflected development of premiums to 252 months and the use of 5-year average premium development factors in this filing.

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estimated values used in deriving the current rates. A factor is applied to premiums to adjust the impact of these programs to the level anticipated in the current rates. Adjustment factors applicable to policy year 2010 and policy year 2011 are calculated in Section III-B.

Consistent with past practice, the WCRIBMA uses the historical experience modification anticipated in the rates in the derivation of the adjustment factor. This is appropriate as the intention of the adjustment factor is to bring premium to the current rate level. The experience modification reflected in the rates for non-merit-rated risks is 1.00 and the average merit rating for merit-rated risks is -2.0%.

ARAP was introduced in Massachusetts for policies effective 1/1/1990 and after. The premium used to develop the rate indication is standard premium plus ARAP premium. An adjustment for the ARAP offset is included to reflect the fact that the ARAP surcharges during policy year 2010 and policy year 2011 were not precisely in balance with the ARAP surcharge anticipated by the offset in the rates.

An adjustment for the Construction Credit offset is included because the extent to which Construction Credits were actually applied to policy year 2010 and policy year 2011 differed from that anticipated in the rates.

Loading for Recoupment of Insolvency Fund Assessments

In Section III-C, factors are calculated to adjust the policy year 2010 and policy year 2011 premiums so that the one-time loadings for recoupment of Insolvency Fund assessments are excluded.

On-Level Adjustment

The reported premium should be brought to the current rate level. Since the beginning of the historical period, there has been a 1.0% rate decrease (effective 9/1/2008) and a 2.4% rate decrease (effective 9/1/2010). Workers' compensation premium is not written evenly throughout the year, and a disproportionate number of policies are effective on January 1 or July 1. To take this into account, the on-level factors in this filing use rate level weights based on USR data for the historical period. Premium on-level factors are calculated in Section III-D.

Premium Adjustment Factor

Premium adjustment factors are intended to bring historical standard premium data to the level applicable for a different policy period. They are used to estimate the percentage of premium eligible for experience rating, adjust the layers of standard premium for premium discount and expense constant calculations, and determine weights used in calculating the weighted average premium collection pattern used to estimate the profit provision. Premium adjustment factors are composite factors that meld adjustments related to exposure growth and trend, premium on-leveling, changes in rating programs and the proposed rate change. These adjustments are calculated in Section III-E.

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Section III - Premiums
 Subsection A - Summary
 1/1/2014

Section III - A
 Exhibit 1
 Page 1

Policy Year Aggregate Financial Data
 Calculation of Standard Premium plus Adjusted ARAP Premium Development Factors
 Industrywide

Summary Exhibit

	Policy Year as of 12/31/2012	
	2010	2011
(1) Standard Earned Premium plus Adjusted ARAP Premium	898,315,520	957,760,361
(2) Adjustment for Experience and Merit Rating, ARAP, and Construction Credit Off-balance	1.014	0.990
(3) Adjustment Factor to Remove the Impact of Loading for Recoupment of Insolvency Fund Assessments	1.000	1.000
(4) Composite Adjustment Factor = (2) x (3)	1.014	0.990
(5) Adjusted Standard Earned Premium plus ARAP = (1) x (4)	911,044,188	948,372,498
(6) Cumulative Premium Development Factor to Ultimate (see Page 2)	1.002	1.003
(7) Rate On-Level Factor	0.983	1.000
(8) Factor to Remove Expense Constant	0.954	0.957
(9) Adjusted On-Level Earned Premium at Ultimate = (5) x (6) x (7) x (8)	856,143,002	910,085,421

Notes:

- (1): Section III-B, Exhibit 2
- (2): Section III-B, Exhibit 1
- (3): Section III-C, Exhibit 1
- (6): Premiums are deemed to be fully developed at 252 months.
- (7): Section III-D, Exhibit 1
- (8): Section VI-F, Exhibit 2.

Policy Year Aggregate Financial Data
Calculation of Standard Premium plus Adjusted ARAP Premium Development Factors
Industrywide

Months of Development	Premium Development Factors From:																			
	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252	
2 Year Average	1.007	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative Factor to 252	1.006	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 Year Average	1.001	0.999	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative Factor to 252	1.003	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000

Notes:
From Page 3

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Policy Year Aggregate Financial Data
Calculation of Standard Premium plus Adjusted ARAP Premium Development Factors
Industrywide

Policy Year	Premium (in 000's) Evaluated at Month		Premium Development Factor	Policy Year	Premium (in 000's) Evaluated at Month		Premium Development Factor
	24	36			132	144	
2006	638,828	637,061	0.997	1997	555,459	555,532	1.000
2007	631,207	633,436	1.004	1998	557,749	557,750	1.000
2008	560,711	555,675	0.991	1999	547,176	547,162	1.000
2009	565,890	567,793	1.003	2000	523,384	523,384	1.000
2010	605,935	612,260	1.010	2001	557,597	557,597	1.000
2 yr Average			1.007	2 yr Average			1.000
5 yr Average			1.001	5 yr Average			1.000
2005	592,576	591,828	0.999	1996	586,019	585,823	1.000
2006	637,061	636,822	1.000	1997	555,532	555,534	1.000
2007	633,436	633,840	1.001	1998	557,750	557,807	1.000
2008	555,675	554,489	0.998	1999	547,162	547,162	1.000
2009	567,793	568,127	1.001	2000	523,384	523,336	1.000
2 yr Average			0.999	2 yr Average			1.000
5 yr Average			0.999	5 yr Average			1.000
2004	575,568	575,050	0.999	1995	604,719	605,171	1.001
2005	591,828	593,522	1.003	1996	585,823	585,823	1.000
2006	636,822	636,441	0.999	1997	555,534	555,534	1.000
2007	633,840	634,267	1.001	1998	557,807	557,807	1.000
2008	554,489	554,004	0.999	1999	547,162	547,163	1.000
2 yr Average			1.000	2 yr Average			1.000
5 yr Average			1.000	5 yr Average			1.000
2003	612,061	613,058	1.002	1994	710,774	713,480	1.004
2004	575,050	575,904	1.001	1995	605,171	605,172	1.000
2005	593,522	594,411	1.001	1996	585,823	585,823	1.000
2006	636,441	636,338	1.000	1997	555,534	555,534	1.000
2007	634,267	633,880	0.999	1998	557,807	557,805	1.000
2 yr Average			1.000	2 yr Average			1.000
5 yr Average			1.001	5 yr Average			1.001
2002	624,020	623,964	1.000	1993	872,181	872,953	1.001
2003	613,058	613,124	1.000	1994	713,480	713,482	1.000
2004	575,904	575,755	1.000	1995	605,172	605,172	1.000
2005	594,411	594,640	1.000	1996	585,823	585,823	1.000
2006	636,338	636,395	1.000	1997	555,534	555,534	1.000
2 yr Average			1.000	2 yr Average			1.000
5 yr Average			1.000	5 yr Average			1.000
2001	558,237	557,692	0.999	1992	892,068	891,747	1.000
2002	623,964	623,947	1.000	1993	872,953	872,953	1.000
2003	613,124	613,699	1.001	1994	713,482	713,485	1.000
2004	575,755	575,772	1.000	1995	605,172	605,172	1.000
2005	594,640	594,744	1.000	1996	585,823	585,823	1.000
2 yr Average			1.000	2 yr Average			1.000
5 yr Average			1.000	5 yr Average			1.000
2000	523,520	523,406	1.000	1992	891,747	891,746	1.000
2001	557,692	557,634	1.000	1993	872,953	872,953	1.000
2002	623,947	624,576	1.001	1994	713,485	713,487	1.000
2003	613,699	613,741	1.000	1995	605,172	605,172	1.000
2004	575,772	575,780	1.000	2 yr Average			1.000
2 yr Average			1.000	5 yr Average			1.000
5 yr Average			1.000				
1999	547,310	547,146	1.000	1992	891,746	891,746	1.000
2000	523,406	523,360	1.000	1993	872,953	872,953	1.000
2001	557,634	557,640	1.000	1994	713,487	713,489	1.000
2002	624,576	624,610	1.000	2 yr Average			1.000
2003	613,741	613,802	1.000	5 yr Average			1.000
2 yr Average			1.000				
5 yr Average			1.000				
1998	557,938	557,749	1.000	1992	891,746	891,746	1.000
1999	547,146	547,176	1.000	1993	872,953	872,953	1.000
2000	523,360	523,384	1.000	2 yr Average			1.000
2001	557,640	557,597	1.000	5 yr Average			1.000
2002	624,610	624,610	1.000				
2 yr Average			1.000				
5 yr Average			1.000				
1998	557,938	557,749	1.000	1992	891,746	891,746	1.000
1999	547,146	547,176	1.000	1993	872,953	872,953	1.000
2000	523,360	523,384	1.000	2 yr Average			1.000
2001	557,640	557,597	1.000	5 yr Average			1.000
2002	624,610	624,610	1.000				
2 yr Average			1.000				
5 yr Average			1.000				

Section III - Premiums
Subsection B - Adjustment for Experience and Merit Rating, ARAP and Construction Credit Off-Balance
1/1/2014

Adjustment for Experience and Merit Rating, ARAP and Construction Credit Off-Balance

Rate Level Effective Date (1)	Experience Mod for Non-Merit Rated Risks Anticipated in Rates (2)		Percentage of Premium (3)	Merit Rating Impact Anticipated in Rates (4)		Average Experience Mod and Merit Rating Factor (6)	ARAP Charge in Rates (7)	Construction Credit in Construction Rates (8)	Policy Year Written Weights			Calendar Year Earned Weights						
	1.000	1.000		0.880	0.880				0.860	0.027	-0.027	-0.020	0.997	0.997	0.997	2010 (9)	2011 (10)	2012 (11)
9/1/2007	1.000	1.000	0.880	0.027	0.120	0.997	0.046	-0.034	69.9%	30.1%	100.0%	94.3%	5.7%	18.3%	81.7%	100.0%		
9/1/2008	1.000	1.000	0.880	-0.027	0.120	0.997	0.045	-0.036										
9/1/2010	1.000	1.000	0.860	-0.020	0.140	0.997	0.049	-0.053										

Policy Year			Calendar Year Earned		
2010	2011	2012	2010	2011	2012
0.997	0.997	0.997	0.997	0.997	0.997

(14) Weighted Average Experience and Merit Rating factor anticipated in rates

(15) Weighted ARAP Charge anticipated in rates

(16) Percentage of Premium for CCPAP Eligible Classes

(17) Weighted Average Construction Credit anticipated in rates

(18) Combined Weighted Average impact anticipated in rates
= (14) x [1.0 + (15)] x [1.0 + (17)]

(19) Manual Premium

(20) Standard Earned Premium at DSR Level, excluding Expense Constants

(21) ARAP Premium

(22) Adjustment Factor to Adjust from Company Level to DSR Level Premium

(23) Standard Earned Premium plus Adjusted ARAP
= (20) + [(21) x (22)]

(24) Combined Actual impact
= (23) / (19)

(25) Adjustment for Experience and Merit Rating, ARAP, and Construction Credit Off-balance
= (18) / (24)

Notes:

- (3) = 1.0 - (5)
- (2), (4), (5), (7), (8): Previous filings.
- (6) = [(2) x (3)] + [1.0 + (4)] x (5)
- (9), (10): Section III-D, Exhibit 2.
- (11), (12): Section III-D, Exhibit 3.
- (13): Section III-D, Exhibit 4.
- (14) = Sum [(6) x (9) through (13)]
- (15) = Sum [(7) x (9) through (13)]
- (17) = Sum [(8) x (9) through (13)] x (16)
- (16), (19), (20), (21): Unit Statistical Plan Data, Excluding Large Deductible Policies. CY 2012 uses CY 2011 values.
- (22): from Section III-B, Exhibit 2.

852,181,137	898,412,251	816,833,736	875,296,694
824,235,810	882,119,463	789,595,578	853,177,637
38,961,752	47,817,725	36,773,221	43,389,739
1.059	1.059	1.056	1.060
865,493,431	932,766,723	828,435,913	899,182,273
1.016	1.038	1.014	1.027
1.014	0.990	1.015	1.001
1.001	1.001	1.001	1.001

Policy Year Aggregate Financial Data
 Calculation of Standard Premium plus ARAP Premium
 Industrywide

	Policy Year valued as of 12/31/2012			Calendar Years		
	2010	2011	2012	2010	2011	2012
(1) Aggregate Financial: Standard Earned Premium at DSR Level	857,310,730	907,489,035	929,808,063	786,142,206	877,402,753	929,808,063
(2) Aggregate Financial: Standard Earned Premium at Company Level	809,603,826	856,789,912	879,792,382	744,303,077	827,531,295	879,792,382
(3) Aggregate Financial: ARAP Premium	38,722,990	47,462,794	47,015,483	34,780,459	45,309,375	47,015,483
(4) Adjustment Factor to Adjust from Company Level to DSR Level Premium = (1) / (2)	1.059	1.059	1.057	1.056	1.060	1.057
(5) Adjusted ARAP Premium = (3) x (4)	41,004,790	50,271,326	49,688,286	36,735,555	48,039,960	49,688,286
(6) Standard Earned Premium plus adjusted ARAP Premium = (1) + (5)	898,315,520	957,760,361	979,496,349	822,877,761	925,442,713	979,496,349

Notes:

(1),(2),(3): Aggregate Financial Policy Year Calls

Factor to Remove the Impact of Loading for Recoupment of Insolvency Fund Assessments

Rate Level Effective Date (1)	Loading for Recoupment of Insolvency Fund Assessments (2)	Policy Year Weights		Calendar Year Earned Weights		
		2010 (3)	2011 (4)	2010 (5)	2011 (6)	2012 (7)
9/1/2007	-3.11%					
9/1/2008	-0.06%	69.9%		94.3%	18.3%	
9/1/2010	0.02%	30.1%	100.0%	5.7%	81.7%	100.0%

Policy Year		Calendar Year Earned	
2010	2011	2010	2011

(8) Weighted Average Loading for Recoupment of Insolvency Fund Assessment in the Rates
 = Sum [(2) x (3) through (7)]

(9) Adjustment Factor to Remove the Impact of Loading for Recoupment of Insolvency Fund Assessments
 = [1.0 - (8)]

Notes:

- (2): Previous filings.
- (3),(4): Section III-D, Exhibit 2.
- (5),(6): Section III-D, Exhibit 3.
- (7): Section III-D, Exhibit 4.

III 000012

Section III - Premiums
 Subsection D - Rate On-Level Factors
 1/1/2014

Section III - D
 Exhibit 1

Rate On-Level Factors

Rate Level Effective Date (1)	Rate Change (2)	Cumulative Rate Level Change (3)	Factor to Current Rate Level (4)	Policy Year Weights	
				2010 (5)	2011 (6)
9/1/2007		1.000	0.966		
9/1/2008	0.990	0.990	0.976	69.9%	
9/1/2010	0.976	0.966	1.000	30.1%	100.0%

(7) Rate On-Level Factor
 = Sum [(4) x (5) through (6)]

Policy Year	
2010	2011
0.983	1.000

Notes:

(4): (3)_{latest rate level effective date} / (3).

(5),(6): From Exhibit 2.

III 000013

Section III - Premiums
 Subsection D - Premium On-Level Factors
 1/1/2014

Section III - D
 Exhibit 2

Policy Year Weights for On-Leveling Earned Premium

Policy Year (1)	Policy Month (2)	Standard Earned Premium at Rate Level Effective			Earned Premiums (6)
		9/1/2007 (3)	9/1/2008 (4)	9/1/2010 (5)	
2010	1		144,038,153		144,038,153
2010	2		57,840,558		57,840,558
2010	3		63,438,619		63,438,619
2010	4		80,150,505		80,150,505
2010	5		61,261,912		61,261,912
2010	6		74,867,873		74,867,873
2010	7		97,303,363		97,303,363
2010	8		52,105,965		52,105,965
2010	9			71,967,988	71,967,988
2010	10			68,915,292	68,915,292
2010	11			51,388,188	51,388,188
2010	12			80,027,271	80,027,271
2010	Total		631,006,947	272,298,738	903,305,685

2011	1			162,665,218	162,665,218
2011	2			65,714,261	65,714,261
2011	3			71,512,269	71,512,269
2011	4			85,276,894	85,276,894
2011	5			66,411,992	66,411,992
2011	6			81,217,277	81,217,277
2011	7			102,874,844	102,874,844
2011	8			55,680,383	55,680,383
2011	9			73,196,828	73,196,828
2011	10			73,110,880	73,110,880
2011	11			54,308,815	54,308,815
2011	12			78,891,473	78,891,473
2011	Total			970,861,135	970,861,135

2012	1			167,737,820	167,737,820
2012	2			67,766,705	67,766,705
2012	3			73,742,415	73,742,415
2012	4			87,936,309	87,936,309
2012	5			68,483,000	68,483,000
2012	6			83,749,970	83,749,970
2012	7			106,082,960	106,082,960
2012	8			57,416,739	57,416,739
2012	9			75,479,451	75,479,451
2012	10			75,390,717	75,390,717
2012	11			56,002,435	56,002,435
2012	12			81,351,656	81,351,656
2012	Total			1,001,140,179	1,001,140,179

Rate Level Effective Date (7)	Policy Year Weights		
	2010 (8)	2011 (9)	2012 (10)
9/1/2007			
9/1/2008	69.9%		
9/1/2010	30.1%	100.0%	100.0%

Notes:

- (6) = (3) + (4) + (5)
- (3),(4),(5): From Unit Statistical Plan Data. PY 2012 estimated from PY 2011 data.
- (8),(9),(10) = [PY Total of (3), (4) or (5)] / [PY Total of (6)]

III 000014

Section III - Premiums
 Subsection D - Premium On-Level Factors
 1/1/2014

Section III - D
 Exhibit 3

Calendar Year ("CY") Weights for On-Leveling Earned Premium

Policy Year (1)	Policy Month (2)	CY in which Premium is Earned (3)	Standard Earned Premium at Rate Level Effective			Earned Premiums (7)
			9/1/2007 (4)	9/1/2008 (5)	9/1/2010 (6)	
2008	12	2010		0		0
2009	1	2010		1,432,890		1,432,890
2009	2	2010		5,821,221		5,821,221
2009	3	2010		11,173,977		11,173,977
2009	4	2010		19,266,444		19,266,444
2009	5	2010		19,233,032		19,233,032
2009	6	2010		27,722,396		27,722,396
2009	7	2010		42,884,908		42,884,908
2009	8	2010		30,031,175		30,031,175
2009	9	2010		42,623,201		42,623,201
2009	10	2010		46,204,067		46,204,067
2009	11	2010		41,064,147		41,064,147
2009	12	2010		66,922,606		66,922,606
2010	1	2010		142,527,806		142,527,806
2010	2	2010		52,144,952		52,144,952
2010	3	2010		51,479,205		51,479,205
2010	4	2010		59,322,665		59,322,665
2010	5	2010		40,257,539		40,257,539
2010	6	2010		42,113,245		42,113,245
2010	7	2010		48,325,340		48,325,340
2010	8	2010		21,055,140		21,055,140
2010	9	2010			21,989,593	21,989,593
2010	10	2010			16,212,727	16,212,727
2010	11	2010			7,660,668	7,660,668
2010	12	2010			2,991,230	2,991,230
Total		2010		811,605,956	48,854,217	860,460,173

2009	12	2011				0
2010	1	2011		1,492,364		1,492,364
2010	2	2011		5,691,034		5,691,034
2010	3	2011		11,955,564		11,955,564
2010	4	2011		20,822,560		20,822,560
2010	5	2011		21,001,422		21,001,422
2010	6	2011		32,751,853		32,751,853
2010	7	2011		48,975,080		48,975,080
2010	8	2011		31,050,203		31,050,203
2010	9	2011			49,978,854	49,978,854
2010	10	2011			52,703,907	52,703,907
2010	11	2011			43,729,158	43,729,158
2010	12	2011			77,035,968	77,035,968
2011	1	2011			161,134,973	161,134,973
2011	2	2011			59,406,861	59,406,861
2011	3	2011			57,797,054	57,797,054
2011	4	2011			63,017,924	63,017,924
2011	5	2011			43,605,870	43,605,870
2011	6	2011			45,326,523	45,326,523
2011	7	2011			50,923,370	50,923,370
2011	8	2011			22,419,470	22,419,470
2011	9	2011			22,472,089	22,472,089
2011	10	2011			16,932,271	16,932,271
2011	11	2011			7,924,566	7,924,566
2011	12	2011			2,888,923	2,888,923
Total		2011		173,740,080	777,297,781	951,037,861

Rate Level Effective Date (8)	Calendar Year Earned Weights	
	2010 (9)	2011 (10)
9/1/2007		
9/1/2008	94.3%	18.3%
9/1/2010	5.7%	81.7%

Notes:

(7) = (4) + (5) + (6)

(4),(5),(6): From Unit Statistical Plan Data.

(9),(10) = [CY Total of (4), (5) or (6)] / [CY Total of (7)]

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Section III - Premiums
 Subsection D - Premium On-Level Factors
 1/1/2014

Section III - D
 Exhibit 4

Calendar Year ("CY") Weights for On-Leveling Earned Premium

Policy Year (1)	Policy Month (2)	CY in which Premium is Earned (3)	Standard Earned Premium at Rate Level Effective			PY Premiums Earned During CY (7)
			9/1/2007 (4)	9/1/2008 (5)	9/1/2010 (6)	
2010	12	2012			4,796	4,796
2011	1	2012			1,540,994	1,540,994
2011	2	2012			6,309,753	6,309,753
2011	3	2012			13,716,470	13,716,470
2011	4	2012			22,259,754	22,259,754
2011	5	2012			22,805,856	22,805,856
2011	6	2012			35,889,027	35,889,027
2011	7	2012			51,947,869	51,947,869
2011	8	2012			33,258,304	33,258,304
2011	9	2012			50,720,147	50,720,147
2011	10	2012			56,173,439	56,173,439
2011	11	2012			46,379,507	46,379,507
2011	12	2012			75,995,445	75,995,445
2012	1	2012			166,128,917	166,128,917
2012	2	2012			61,270,507	61,270,507
2012	3	2012			59,746,514	59,746,514
2012	4	2012			65,142,690	65,142,690
2012	5	2012			45,075,567	45,075,567
2012	6	2012			46,855,685	46,855,685
2012	7	2012			52,641,528	52,641,528
2012	8	2012			23,176,076	23,176,076
2012	9	2012			23,230,294	23,230,294
2012	10	2012			17,505,239	17,505,239
2012	11	2012			8,194,002	8,194,002
2012	12	2012			2,986,995	2,986,995
	Total	2012			988,955,376	988,955,376

Rate Level Effective Date (8)	Calendar Year Earned Weights
9/1/2007	
9/1/2008	
9/1/2010	100.0%

Notes:

(7) = (4) + (5) + (6)

(4),(5),(6): From Unit Statistical Plan Data. PY 2012 based on PY 2011 data subject to adjustments for rate level, exposure growth, and wage changes.

(9) = [CY Total of (4), (5) or (6)] / [CY Total of (7)]

III 000016

Section III - Premiums
Subsection E - Premium Adjustment Factors
1/1/2014

Section III - E
Exhibit 1

Calculation of Premium Adjustment Factor PY 2011 to Prospective Effective Period 1/1/2014 - 12/31/2014

(1)	Wage Trend from PY 2011 to Prospective Effective Period 1/1/2014 - 12/31/2014	1.058
(2)	Exposure Growth	1.025
(3)	Rate On-Level Factor	1.000
(4)	Overall Indicated Rate Change for Policies Effective 1/1/2014	1.077
(5)	Adjustment Factor to Balance Experience Rating, ARAP, and Construction Credits	0.990
(6)	Impact of Change in Indicated Loading for Recoupment of Insolvency Fund Assessments	1.002
(7)	Adjustment Factor = (1) x (2) x (3) x (4) x (5) x (6)	1.159
(8)	Selected Factor	1.16

Notes:

(1): Statewide Average Weekly Wage for PY 2011 (Section V-G, Exhibit 2)	1,174.21
Statewide Average Weekly Wage for 10/1/2013, based on data period 4/1/12 to 4/1/13 (Section V-G, Exhibit 2)	1,181.28
Statewide Average Weekly Wage at 1/1/2015 (using wage trend of 2.3%, Section V-A, Exhibit 3)	1,242.27
(2): Exposure growth from PY 2011 to Prospective Effective Period 1/1/2014 - 12/31/2014 (Section VI-G, Exhibit 1)	
(3): Section III-D Exhibit 1.	
(5): Exhibit 2.	
(6): PY 2011 factor to load for Recoupment of Insolvency Fund (Section III-C, Exhibit 1: [1.0 + (8)]).	1.000
Policy Effective factor to load for Recoupment of Insolvency Fund Assessments (Section I-E, Exhibit 1, Page 1).	1.002

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Section III - Premiums
Subsection E - Premium Adjustment Factors
1/1/2014

Section III - E
Exhibit 2

Factor to Balance Experience Rating, ARAP, and Construction Credit

Beginning Period - PY 2011

(1)	Anticipated Impact on Manual Rates of Experience Rating, ARAP, and Construction Credits	1.028
(2)	Actual Impact on Manual Rates of Experience Rating, ARAP, and Construction Credits	1.038
(3)	Ratio of Anticipated to Actual = (1) / (2)	0.990

Ending Period - Prospective Effective Period 1/1/2014 - 12/31/2014

(4)	Anticipated Impact on Manual Rates of Experience Rating, ARAP, and Construction Credits	1.040
(5)	Actual is Assumed to be equal to the Anticipated, Since the Actual Impact has yet to be Determined	1.040
(6)	Ratio of Anticipated to Actual is Assumed to be 1.000	1.000
(7)	Adjustment Factor to Balance Experience Rating, ARAP, and Construction Credits = (3) / (6)	0.990

Notes:

(1),(2): PY 2011, Section III-B, Exhibit 1.

(4),(5): Prospective Effective Period, Section IX-K, Exhibit 1.

BENEFIT CHANGE ADJUSTMENTS

In Section IV we calculate benefit change adjustment factors that are used in Sections I, II, V, VIII, IX, X, XI, and XII of the rate filing. Benefit change adjustment factors are used to adjust loss experience to the benefit level as of a given period or point in time.

Benefit Change Adjustments

The benefit change adjustments are summarized in Section IV-A, Exhibit 1. We calculate separate adjustments to bring indemnity and medical losses for policy years 2010 and 2011 to the January 1, 2014 benefit level, and additional adjustments to bring losses from the January 1, 2014 benefit level to the projected benefit level for the period the rates will be in effect. These benefit change adjustments are used in Section I of the filing. In the same exhibit we also present additional benefit level adjustments used in other sections of the filing.

Benefit changes considered in this section are the result of the reevaluations of the Statewide Average Weekly Wage (“SAWW”) made every October 1st by the Commonwealth’s Division of Unemployment Assistance.

In Section IV-B, we display in detail the derivation of our estimates of the effects of the changes in the SAWW announced in 2013 and projected for 2014 and 2015. Section IV-C summarizes the provisions of Chapter 398, showing benefits that are tied to the SAWW. Section IV-D contains backup data used in the evaluations. The model underlying the estimates is described below. Section IV-E includes injury type weights, and Section IV-F details the USL&HW benefit level changes.

Section IV-B - Determination of the Effect of Announced SAWW Changes

Introduction

We use a version of the NCCI's "Automatics Model" to evaluate the effects of changes in the SAWW. The Automatics Model, a traditional approach, looks at benefits paid to average claimants.

Description of the Model

NCCI's "Automatics Model" is used to evaluate benefit changes that are dependent on changes in the SAWW. In Massachusetts, SAWW changes are announced every October. Most indemnity benefits are determined as a percentage of the SAWW, subject to maximum and minimum amounts.

For each injury type, the indemnity benefits payable to an average claimant are determined before and after each announced SAWW change. The estimated impact of the change in the SAWW is calculated by comparing the "before" and "after" costs.

Section IV-B details the estimation of changes in the costs of benefits arising from changes in the SAWW effective October 1, 2013, and the projected SAWW changes of October 1, 2014 and October 1, 2015. Exhibit 1, pages 1 and 2, estimate the effect on fatal benefits. Exhibit 2 evaluates the effect on permanent total benefits. Exhibit 3 evaluates the effect on permanent partial benefits. Exhibit 4 looks at temporary total benefits.

Section IV-B, Exhibit 1 – Benefits for Fatal Claims

Fatal benefits are the sum of dependent survivor benefits, which are a function of the SAWW, and burial payments, which are not a function of the SAWW. Expected dependent survivor payments are valued on page 1. The NCCI provided the distribution of dependents by category - none, widow alone, widow with children, etc. For each category of dependents, the cost is estimated as the product of a contingent annuity value and an average weekly benefit.

The contingent annuity values represent the present value of a stream of payments of \$1 discounted to reflect not only the time value of money, but also the possible occurrence of a contingent event that would cause the payment stream to cease. Examples of contingent events that would affect dependent survivor benefits for workers' compensation include death or remarriage of the dependent survivor. For simplicity, we have used values from the approved pension tables in the Massachusetts' Workers' Compensation Statistical Plan which assume an interest rate of 3.5% and COLA adjustments of 2.9%. The annuities reflect the appropriate U.S. life tables in all cases except for the category of "three orphans" and "widow with child(ren)," where an annuity certain was used to approximate joint survivorship.

Average weekly benefits before and after the SAWW revision are evaluated on page 2. The estimated average weekly benefit depends on the proportions of workers whose wages result in either the application of the statutory minimum benefit, the application of the statutory maximum benefit, or a benefit that falls somewhere between the minimum and the maximum. As in the last filing these proportions come from the Massachusetts Wage Table ("Wage Table"). As shown in Section IV-D Exhibit 1, the

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Wage Table is based on Massachusetts workers' compensation data from accident years 1987 to 1994.

Section IV-B, Exhibit 2 – Benefits for Permanent Total Cases

To evaluate the effect of announced SAWW changes on permanent total losses, we consider weekly wage loss benefits and specific injury payments separately, and then we weight them together. Most permanent total payments are associated with weekly wage loss benefits. The statutory weekly wage loss benefit is two thirds of the pre-injury wage subject to a minimum and maximum. The minimum and maximum are a function of the promulgated SAWW. Therefore changes to the SAWW affect the average benefit paid. The second component we consider is specific injury payments. These benefits vary directly with the SAWW. Specific injury payments are made for the loss of use of body parts and determined as various multiples of the SAWW as listed in Section 36 of M.G.L. Chapter 152.

Section IV-B, Exhibit 3 – Benefits for Permanent Partial Cases

Permanent partial disability cases typically include a temporary period of total disability, referred to as the "healing period," followed by a period of partial disability during which the worker has a wage earning capacity at a level below his pre-injury wage. Different benefit structures apply to the two periods. In addition, under Section 36 specific injury payments are made for the loss of use of various body parts. In this exhibit, we weight together the effect of the SAWW on wage loss, specific injury payments, and healing period payments, using weights provided by the NCCI.

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Section IV-B, Exhibit 4 – Benefits for Temporary Total Cases

We evaluate the effect on temporary total benefits in Exhibit 4. Temporary total wage loss benefits under Section 34 of M.G.L. Chapter 152 provide an injured worker sixty percent of their pre-injury average weekly wage subject to a cap, the statutory maximum compensation rate, and a floor, the statutory minimum compensation rate. However, if the average weekly wage of the employee is less than the minimum compensation rate, his wage compensation rate is set equal to his average weekly wage.

Section IV-C – Provisions of the Law

Section IV-C summarizes the benefit changes due to the increase in the maximum and minimum weekly benefits. It includes both historical changes and projected changes.

Section IV-D – Massachusetts Data

Historical data used in the estimation of benefit change adjustments are shown in Section IV-D, along with the derivation of projected SAWW values. The WCRIBMA utilizes both historical DCI data and NCCI data.

Section IV-E – Injury Type Weights

Unit Statistical Plan Data are used in Section IV-E to calculate the relative weights for indemnity and medical benefits for the various injury types. Injury type weights are estimated at two valuation points, ultimate and at fifth-report.

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Section IV – Benefit Change Adjustments
Subsection A - Summary
1/1/2014

Section IV - A
Page 6

Section IV-F – Effects of USL&HW Benefit Changes

Section IV-F contains the derivation of benefit change adjustment factors related to claims paid or payable under the USL&HW Act. The calculations are analogous to those for state workers' compensation benefits in Section IV-A. The assumed changes in benefit levels used in Section IV-F are from NCCI's Annual Statistical Bulletin.

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Section IV - Benefit Change Adjustments
 Subsection A - Summary
 1/1/2014

Section IV - A
 Exhibit 1

Benefit Level Adjustment Factors

All Injury Types

Time Period		Indemnity					Medical	Total
Beginning Period	Ending Period	Death	Permanent Total	Permanent Partial	Temporary Total	All Injury Types	All Injury Types	All Injury Types
1/1/2014	Prosp. Eff. Period					1.004	1.000	
PY 2010	1/1/2014					1.020	1.000	
PY 2011	1/1/2014					1.013	1.000	
PY 2002	Prosp. Eff. Period	1.039	1.057	1.105	1.030	1.079	1.072	
PY 2003	Prosp. Eff. Period	1.039	1.057	1.105	1.031	1.079	1.046	
PY 2004	Prosp. Eff. Period	1.036	1.052	1.096	1.028	1.073	1.036	
PY 2005	Prosp. Eff. Period	1.031	1.044	1.080	1.024	1.062	1.032	
PY 2006	Prosp. Eff. Period	1.026	1.036	1.065	1.020	1.050	1.032	
PY 2007	Prosp. Eff. Period	1.020	1.028	1.050	1.015	1.039	1.032	
PY 2008	Prosp. Eff. Period	1.014	1.020	1.035	1.010	1.027	1.024	
PY 2009	Prosp. Eff. Period	1.012	1.017	1.030	1.008	1.023	1.002	
PY 2010	Prosp. Eff. Period	1.012	1.017	1.031	1.009	1.024	1.000	
PY 2011	Prosp. Eff. Period	1.009	1.012	1.022	1.007	1.017	1.000	
PY 2009	PY 2010	1.000	1.000	0.999	0.999		1.002	
PY 2010	PY 2011	1.004	1.005	1.008	1.002		1.000	
PY 2011	PY 2012	1.005	1.006	1.011	1.003		1.000	1.006
PY 2010	Prosp. Eff. Period							1.015
PY 2011	Prosp. Eff. Period							1.011
PY 2012	Prosp. Eff. Period							1.005
10/1/2009	Prosp. Eff. Period							1.015
9/1/2008	Prosp. Eff. Period							1.017
Prior Eff. Period (using benefit level projections from prior filing)	Prosp. Eff. Period					1.020	1.000	1.013

Note:

10/1/2009 and 1/1/2014 refer to points in time. All other time periods refer to Policy Years.

Example: PY 2003 to Prosp. Eff. Period for Permanent Partial = 1.105 = 1.103 / 0.998

where 1.103 is the Index Factor for Prosp. Eff. Period and 0.998 is the Index Factor for PY 2003 for Indemnity Permanent Partial, from Exhibit 2.

Benefit Level Changes and Weights

Date of Change	Injury Type: Death												Weighted Average Benefit Level						
	10/1/2001	10/1/2002	12/1/2002	10/1/2003	9/1/2004	10/1/2004	10/1/2005	10/1/2006	10/1/2007	10/1/2008	4/1/2009	10/1/2009		10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014	10/1/2015
Benefit Level Change	1.000	0.999	1.000	1.000	1.000	1.005	1.005	1.006	1.006	1.006	1.000	1.000	0.999	1.006	1.004	1.001	1.003	1.004	
Cumulative Benefit Level Change	1.000	0.999	0.999	0.999	0.999	1.004	1.009	1.014	1.020	1.026	1.026	1.026	1.025	1.031	1.036	1.036	1.039	1.043	
Time Period																			
PY 2002	0.336	0.144	0.493	0.027															0.999
PY 2003			0.347	0.607	0.020	0.026													0.999
PY 2004				0.281	0.062	0.630	0.028												1.002
PY 2005					0.337	0.635	0.635	0.029	0.028										1.007
PY 2006						0.341	0.631	0.631	0.631	0.027									1.013
PY 2007							0.343	0.350	0.350	0.417	0.209	0.025							1.018
PY 2008										0.056	0.290	0.333	0.026						1.024
PY 2009													0.640	0.027					1.026
PY 2010													0.640	0.632					1.026
PY 2011													0.343	0.344					1.029
PY 2012														0.025					1.034
9/1/2008														0.631					1.026
Prior Eff. Period									0.004	0.180	0.426	0.390	0.399	0.399					1.038
Prop. Eff. Period											0.003	0.003	0.597	0.597	0.344	0.631	0.025		1.026
10/1/2009											1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.036
1/1/2014																			1.036

Indemnity All Injury Types - Average Benefit Level for Current Policy Period. Estimated at 1/1/2012 (using benefit level projections from prior filing).

Date of Change	10/1/2001	10/1/2002	12/1/2002	10/1/2003	9/1/2004	10/1/2004	10/1/2005	10/1/2006	10/1/2007	10/1/2008	4/1/2009	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014
Benefit Level Change	1.000	0.998	1.000	1.000	1.000	1.009	1.011	1.011	1.011	1.012	1.000	1.000	0.998	1.011	1.005	1.005	1.000
Cumulative Level Change	1.000	0.998	0.998	0.998	0.998	1.007	1.018	1.029	1.041	1.053	1.053	1.053	1.051	1.063	1.068	1.073	1.073

Medical All Injury Types - Average Benefit Level for Current Policy Period. Estimated at 1/1/2012 (using benefit level projections from prior filing).

Date of Change	10/1/2001	10/1/2002	12/1/2002	10/1/2003	9/1/2004	10/1/2004	10/1/2005	10/1/2006	10/1/2007	10/1/2008	4/1/2009	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014
Benefit Level Change	1.000	1.000	1.062	1.000	1.014	1.000	1.000	1.000	1.000	1.000	1.032	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative Level Change	1.000	1.000	1.062	1.062	1.067	1.067	1.067	1.067	1.067	1.067	1.101	1.101	1.101	1.101	1.101	1.101	1.101

All Injury Types - Average Benefit Level for Current Policy Period. Estimated at 1/1/2012 (using benefit level projections from prior filing).

Date of Change	10/1/2001	10/1/2002	12/1/2002	10/1/2003	9/1/2004	10/1/2004	10/1/2005	10/1/2006	10/1/2007	10/1/2008	4/1/2009	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014
Benefit Level Change	1.000	0.999	1.020	1.000	1.005	1.006	1.007	1.007	1.007	1.013	1.000	1.000	0.999	1.007	1.003	1.003	1.000
Cumulative Level Change	1.000	0.999	1.019	1.019	1.024	1.030	1.037	1.045	1.052	1.059	1.073	1.073	1.072	1.080	1.083	1.086	1.086

Index Factors for All Injury Types

Time Period	Death			Indemnity			Medical			Total All Injury Types	
	Permanent	Temporary	Total	Permanent	Temporary	Total	All Injury Types	All Injury Types	Total		
PY 2002	0.999	0.999	0.998	0.999	0.998	0.999	0.999	0.998	0.999	1.027	1.010
PY 2003	0.999	0.999	0.998	0.999	0.998	0.999	0.999	0.998	0.998	1.053	1.019
PY 2004	1.002	1.004	1.006	1.002	1.004	1.004	1.004	1.003	1.027	1.027	1.027
PY 2005	1.007	1.012	1.020	1.006	1.015	1.015	1.015	1.067	1.035	1.067	1.035
PY 2006	1.013	1.019	1.036	1.010	1.026	1.026	1.026	1.067	1.042	1.067	1.042
PY 2007	1.018	1.027	1.050	1.014	1.037	1.037	1.037	1.067	1.050	1.067	1.050
PY 2008	1.024	1.036	1.065	1.019	1.049	1.049	1.049	1.075	1.060	1.075	1.060
PY 2009	1.026	1.039	1.071	1.021	1.053	1.053	1.053	1.099	1.072	1.099	1.072
PY 2010	1.026	1.038	1.070	1.021	1.052	1.052	1.052	1.101	1.073	1.101	1.073
PY 2011	1.029	1.043	1.079	1.023	1.059	1.059	1.059	1.101	1.077	1.101	1.077
PY 2012	1.034	1.050	1.091	1.026	1.068	1.068	1.068	1.101	1.083	1.101	1.083
9/1/2008	1.026	1.039	1.071	1.021	1.053	1.053	1.053	1.095	1.071	1.095	1.071
Prior Eff. Period	1.028	1.041	1.075	1.022	1.056	1.056	1.056	1.101	1.075	1.101	1.075
Prop. Eff. Period	1.038	1.056	1.103	1.030	1.077	1.077	1.077	1.101	1.089	1.101	1.089
10/1/2009	1.026	1.039	1.071	1.021	1.053	1.053	1.053	1.101	1.073	1.101	1.073
1/1/2014	1.036	1.053	1.097	1.028	1.073	1.073	1.073	1.101	1.086	1.101	1.086

Notes:
10/1/2009 and 1/1/2014 refer to points in time. All other time periods refer to Policy Years.
Index Factors for All Injury Types Table is a Excel Data Table that repeats the calculation of the Weighted Average Benefit Level for all Injury Types.

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Section IV - Benefit Change Adjustments
 Subsection A - Summary
 1/1/2014

Section IV - A
 Exhibit 3

Historical and Estimated Benefit Level Changes

Effective Date (1)	Indemnity					Medical	Total
	Death (2)	Permanent Total (3)	Permanent Partial (4)	Temporary Total (5)	All Injury Types (6)	All Injury Types (7)	All Injury Types (8)
10/1/2001	0.8%	1.2%	2.2%	0.6%	1.5%	0.0%	0.9%
10/1/2002	-0.1%	-0.1%	-0.3%	-0.1%	-0.2%	0.0%	-0.1%
12/1/2002	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	2.0%
10/1/2003	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
9/1/2004	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.5%
10/1/2004	0.5%	0.7%	1.2%	0.4%	0.9%	0.0%	0.6%
10/1/2005	0.5%	0.8%	1.5%	0.4%	1.1%	0.0%	0.7%
10/1/2006	0.5%	0.7%	1.5%	0.4%	1.1%	0.0%	0.7%
10/1/2007	0.6%	0.9%	1.4%	0.5%	1.1%	0.0%	0.7%
10/1/2008	0.6%	0.8%	1.5%	0.5%	1.2%	0.0%	0.7%
4/1/2009	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	1.3%
10/1/2009	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
10/1/2010	-0.1%	-0.1%	-0.2%	-0.1%	-0.2%	0.0%	-0.1%
10/1/2011	0.6%	0.8%	1.4%	0.4%	1.1%	0.0%	0.7%
10/1/2012	0.4%	0.6%	1.0%	0.3%	0.8%	0.0%	0.5%
10/1/2013	0.1%	0.1%	0.2%	0.1%	0.2%	0.0%	0.1%
10/1/2014	0.3%	0.4%	0.7%	0.2%	0.6%	0.0%	0.3%
10/1/2015	0.4%	0.4%	0.7%	0.2%	0.6%	0.0%	0.4%

Notes:

Estimated changes for 10/1/2014 and 10/1/2015 use projected SAWW values for 10/1/2014 and 10/1/2015 .

Effects of SAWW Change

Person(s) Receiving Benefits (1)	Number of Cases (2)	Average Number of Dependents (3)	Average Arithmetic Age (4)	Annuity Symbol (5)	Annuity Value (6)	Effects of SAWW Change of 10/1/2012		Effects of SAWW Change of 10/1/2013		Effects of SAWW Change of 10/1/2014		Effects of SAWW Change of 10/1/2015	
						Cost (7)	Cost (8)	Cost (9)	Cost (10)	Cost (11)	Cost (12)	Cost (13)	Cost (14)
None	204	0	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Spouse, No Children	212	1	40	a 40 : Life	30.53	215,605,771	216,481,239	220,753,228	220,950,712	225,281,023	225,946,268	240,322,674	241,263,611
Spouse with Children	407	1	38	a 38 : Life	30.55	414,193,558	415,875,393	424,082,178	424,461,559	432,780,385	434,058,366	461,676,433	463,484,039
Child(ren)		1.9	10	a 416	6.87								
Orphan, No Sibling	21	1	13	a 13 : 5	4.82	3,371,817	3,385,509	3,452,318	3,455,406	3,523,127	3,533,530	3,758,360	3,773,075
Orphan with Sibling(s)	15	2.5	12	a 312	5.79	2,893,127	2,904,875	2,962,199	2,964,849	3,022,956	3,031,882	3,224,793	3,237,420
Other Dependents (No Spouse)	141	1.7	58	a 58 : Life	22.08	21,470,639	21,470,639	21,470,979	21,470,979	21,471,327	21,471,327	21,472,412	21,472,412
(15) Total Survivor Benefits	1,000					657,534,912	660,117,655	672,720,901	673,303,505	686,078,818	688,041,375	730,454,673	733,230,557
(16) Cost of Burial (1,000 cases)						4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
(17) Total Monetary Cost [= (15) + (16)]						661,534,912	664,117,655	676,720,901	677,303,505	690,078,818	692,041,375	734,454,673	737,230,557
(18) Fatal Benefit Change Factors						1.004	1.001	1.001	1.003	1.003	1.003	1.004	1.004

Notes:
 (2), (3): Section IV-D, Exhibit 2.
 (4): Section IV-D, Exhibit 2, Column(4) rounded to nearest whole number.
 (5): For two or more dependents, benefits are last-survivor contingent. An annuity certain is used to approximate the joint-survivor annuity for "Child(ren)" and "Orphan with Sibling(s)".
 (6): Life annuity values from *Massachusetts Workers' Compensation Statistical Plan*, Part I, Section IX (Effective 9/1/2011).
 Annuity certain values assume the same discount rate used in the derivation of the Pension Tables contained in the *Massachusetts Workers' Compensation Statistical Plan*.
 (7), (9), (11), (13) = $52 \times (2) \times (6) \times [\text{Page 2}, (14)]$ for Spouses and Orphans and = $52 \times (2) \times (3) \times (6) \times [\text{Page 2}, (30)]$ for All Others Dependents
 (8), (10), (12), (14) = $52 \times (2) \times (6) \times [\text{Page 2}, (15)]$ for Spouses and Orphans and = $52 \times (2) \times (3) \times (6) \times [\text{Page 2}, (31)]$ for All Others Dependents
 (16): Since average cost of a funeral in 2011 was approximately \$6,500, well above the statutory maximum, we assume funeral benefit equal to statutory maximum.
 (18): Ratio of (17) for later date to (17) for earlier date.

IV 000011

Determination of the Average Weekly Survivor Benefit for Fatalities

Fatal: Spouse and Orphans - Effective 10/1/2012

(1) Nominal Rate of Compensation Based on Gross Wages ("Comp. Rate")	66.67%
(2) Min Weekly Compensation	110.00
(3) Max Weekly Compensation	1,173.06
(4) Average Injured Worker Weekly Wage ("AIWWW") for 12 months starting 10/1/2012	987.97

Wage Intervals (5)	Benefit (6)	Wage Distribution Entry Ratios = (5) / (4) (7)		Percentage in Interval		Average Wage in Interval = (9) / (8) x (4) (10)	Average Benefit in Interval (11)
				Workers (8)	Wages (9)		
0.00 165.00	Statutory Minimum	0.00	0.15	0.42%	0.04%	95.86	110.00
165.00 1,759.59	Actual Wage x Comp. Rate	0.15	1.80	93.45%	86.67%	916.24	610.82
1,759.59 over	Statutory Maximum	1.80	over	6.13%	13.29%	2,141.83	1,173.06

(12) Average Weekly Benefit **643.21**

	Effects of SAWW Change			
	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(13) Starting date of 12 month period for AIWWW				
(14) Benefits Effective	10/1/2011	10/1/2012	10/1/2013	10/1/2014
Average Weekly Benefits	640.61	655.91	669.36	714.05
(15) Benefits Effective	10/1/2012	10/1/2013	10/1/2014	10/1/2015
Average Weekly Benefits	643.21	656.49	671.33	716.85
(16) Fatal: Spouse and Orphans Benefit Change Factors	1.004	1.001	1.003	1.004

Fatal: All Others - Effective 10/1/2012

(17) Nominal Rate of Compensation Based on Gross Wages ("Comp. Rate")	66.67%
(18) Min Weekly Compensation	0.00
(19) Max Weekly Compensation	80.00
(20) Average Injured Worker Weekly Wage ("AIWWW") for 12 months starting 10/1/2012	987.97

Wage Intervals (21)	Benefit (22)	Wage Distribution Entry Ratios = (21) / (20) (23)		Percentage in Interval		Average Wage in Interval = (25) / (24) x (20) (26)	Average Benefit in Interval (27)
				Workers (24)	Wages (25)		
0.00 0.00	Statutory Minimum	0.00	0.00	0.00%	0.00%	0.00	0.00
0.00 120.00	Actual Wage x Comp. Rate	0.00	0.10	0.18%	0.01%	47.55	31.70
120.00 over	Statutory Maximum	0.10	over	99.82%	99.99%	989.63	80.00

(28) Average Weekly Benefit **79.91**

	Effects of SAWW Change			
	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(29) Starting date of 12 month period for AIWWW				
(30) Benefits Effective	10/1/2011	10/1/2012	10/1/2013	10/1/2014
Average Weekly Benefits	79.91	79.92	79.92	79.92
(31) Benefits Effective	10/1/2012	10/1/2013	10/1/2014	10/1/2015
Average Weekly Benefits	79.91	79.92	79.92	79.92
(32) Fatal: All Others Benefit Change Factors	1.000	1.000	1.000	1.000

Notes:

- (1)-(3), (17)-(19): Section IV-C, Exhibit 1.
- (4), (20): Section IV-D, Exhibit 3.
- (5), (21): Wage Intervals follow Massachusetts General Law = (2) / (1)
- (7), (23): Rounded to nearest 0.05.
- (8), (24): Section IV-D, Exhibit 1, column (2).
- (9), (25): Section IV-D, Exhibit 1, column (3).
- (11), (27): Comp Rate x Average Wage in Interval, subject to a statutory maximum and statutory minimum.
- (12) = Sum [(8) x (11)]
- (28) = Sum [(24) x (27)]
- (14), (15): Average Weekly Benefits results from an Excel Data Table that repeats the calculation of (12) for different dates.
- (16) = (15) / (14)
- (30), (31): Average Weekly Benefits results from an Excel Data Table that repeats the calculation of (28) for different dates.
- (32) = (31) / (30)

IV 000012

Section IV - Benefit Change Adjustments
 Subsection B - Effects of SAWW Change
 1/1/2014

Section IV-B
 Exhibit 2

Determination of the Average Weekly Benefit for Permanent Totals

Permanent Total - Effective 10/1/2012

(1)	Nominal Rate of Compensation Based on Gross Wages ("Comp. Rate")	66.67%
(2)	Min Weekly Compensation	234.61
(3)	Max Weekly Compensation	1,173.06
(4)	Average Injured Worker Weekly Wage ("AIWWW") for 12 months starting 10/1/2012	987.97

Wage Intervals (5)	Benefit (6)	Wage Distribution Entry Ratios = (5) / (4) (7)		Percentage in Interval		Average Wage in Interval = (9) / (8) x (4) (10)	Average Benefit in Interval (11)	
		Workers (8)	Wages (9)	Workers (8)	Wages (9)			
0.00	351.92	Statutory Minimum	0.00	0.35	5.07%	1.29%	251.19	234.61
351.92	1,759.59	Actual Wage x Comp. Rate	0.35	1.80	88.80%	85.42%	950.33	633.55
1,759.59	over	Statutory Maximum	1.80	over	6.13%	13.29%	2,141.83	1,173.06

(12) Average Weekly Benefit **646.42**

	Effects of SAWW Change			
	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(13) Starting date of 12 month period for AIWWW	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(14) Benefits Effective	10/1/2011	10/1/2012	10/1/2013	10/1/2014
Average Weekly Wage Loss Benefit	643.44	658.93	672.28	687.49
(15) Benefits Effective	10/1/2012	10/1/2013	10/1/2014	10/1/2015
Average Weekly Wage Loss Benefit	646.42	659.60	674.52	689.78
(16) Permanent Total Wage Loss Benefit Change Factors	1.005	1.001	1.003	1.003
(17) Specific Injury Benefits				
SAWW Effect on Specific Injury Benefits	1.033	1.007	1.023	1.023
(18) Benefit Proportions Associated with Permanent Total Claims				
(a) Permanent Total Wage Loss Benefits	96.50%	96.50%	96.50%	96.50%
(b) Specific Injury Benefits	3.50%	3.50%	3.50%	3.50%
(19) Permanent Total Benefit Change Factors	1.006	1.001	1.004	1.004
= [(16) x (18a)] + [(17) x (18b)]				

Notes:

- (1), (2), (3): Section IV-C, Exhibit 1.
- (4): Section IV-D, Exhibit 3.
- (5): Wage Intervals follow Massachusetts General Law = (2) / (1)
- (7): Rounded to nearest 0.05.
- (8): Section IV-D, Exhibit 1, column (2).
- (9): Section IV-D, Exhibit 1, column (3).
- (11): Comp Rate x Average Wage in Interval, subject to a statutory maximum and statutory minimum.
- (12) = Sum [(8) x (11)]
- (14), (15): Average Weekly Benefits results from an Excel Data Table that repeats the calculation of (12) for different dates.
- (16) = (15) / (14)
- (17): Ratio of SAWW from Section IV-D, Exhibit 3.
 Example: Effect of SAWW Change of 10/1/2013 = SAWW 10/1/2013 / SAWW 10/1/2012 = 1.007 = 1,181.28 / 1,173.06
- (18): Estimated Average Schedule Benefit compared to Average Indemnity Cost per Claim.
 DCI data for Permanent Total Claims in Massachusetts.

IV 000013

Section IV - Benefit Change Adjustments
 Subsection B - Effects of SAWW Change
 1/1/2014

Section IV-B
 Exhibit 3

Determination of the Average Weekly Benefit for Permanent Partials

Permanent Partial - Effective 10/1/2012

(1)	Nominal Rate of Compensation Based on Gross Wages ("Comp. Rate")	37.20%
(2)	Min Weekly Compensation	0.00
(3)	Max Weekly Compensation	879.80
(4)	Average Injured Worker Weekly Wage ("AIWWW") for 12 months starting 10/1/2012	987.97
(5)	SAWW effective 10/1/2012	1,173.06

Wage Intervals (6)	Benefit (7)	Wage Distribution Entry Ratios = (6) / (4) (8)		Percentage in Interval		Average Wage in Interval =(10) / (9) x (4) (11)	Average Benefit in Interval (12)	
		Workers (9)	Wages (10)	Workers (9)	Wages (10)			
0.00	2,365.04	Actual Wage x Comp. Rate	0.00	2.40	99.12%	97.20%	968.86	360.41
2,365.04	3,858.75	Statutory Maximum	2.40	3.90	0.74%	2.09%	2,789.00	879.80
3,858.75	6,174.00	Statutorily Reduced	3.90	6.25	0.10%	0.49%	4,649.48	579.32
6,174.00	over	Exceeds Statutory Limit	6.25	over	0.03%	0.22%	6,097.50	0.00

(13) Average Weekly Benefit 364.37

	Effects of SAWW Change			
	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(14) Starting date of 12 month period for AIWWW	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(15) Benefits Effective	10/1/2011	10/1/2012	10/1/2013	10/1/2014
Average Weekly Wage Loss Benefit	364.05	372.39	380.65	389.26
(16) Benefits Effective	10/1/2012	10/1/2013	10/1/2014	10/1/2015
Average Weekly Wage Loss Benefit	364.37	372.46	380.89	389.51
(17) Permanent Partial Wage Loss Benefit Change Factors	1.001	1.000	1.001	1.001
(18) Specific Injury Benefits				
SAWW Effect on Specific Injury Benefits	1.033	1.007	1.023	1.023
(19) Permanent Partial Healing Period				
Effect on Healing Period Benefits	1.003	1.001	1.002	1.002
(20) Benefit Proportions Associated with Permanent Partial Claims				
(a) Permanent Partial Wage Loss Benefits	27%	27%	27%	27%
(b) Specific Injury Benefits	26%	26%	26%	26%
(c) Healing Period - Temporary Total Benefits	47%	47%	47%	47%
(21) Permanent Partial Benefit Change Factors	1.010	1.002	1.007	1.007
= [(17) x (20a)] + [(18) x (20b)] + [(19) x (20c)]				

Notes:

- (1), (2), (3): Section IV-C, Exhibit 1.
- (4), (5): Section IV-D, Exhibit 3.
- (6): Wage Intervals follow Massachusetts General Law = (2) / (1)
- (7): Statutory Maximum: Insurer may reduce benefit to level at which benefits + earnings = 2 x SAWW.
- (8): Rounded to nearest 0.05.
- (9): Section IV-D, Exhibit 1, column (2).
- (10): Section IV-D, Exhibit 1, column (3).
- (12): Comp Rate x Average Wage in Interval, subject to a statutory maximum and a statutory limitation.
- (13) = Sum [(9) x (12)]
- (15), (16): Average Weekly Benefits results from an Excel Data Table that repeats the calculation of (13) for different dates.
- (17) = (16) / (15)
- (18): Ratio of SAWW from Section IV-D, Exhibit 3.
 Example: Effect of SAWW Change of 10/1/2013 = 1.007 = 1,181.28 / 1,173.06
- (19): Temporary Total Benefit Change Factors, Exhibit 4.
- (20): DCI data for Permanent Partial Claims in Massachusetts.

IV 000014

Section IV - Benefit Change Adjustments
 Subsection B - Effects of SAWW Change
 1/1/2014

Section IV-B
 Exhibit 4

Determination of the Average Weekly Benefit for Temporary Totals

Temporary Total - Effective 10/1/2012

(1) Nominal Rate of Compensation Based on Gross Wages ("Comp. Rate")	60.00%
(2) Min Weekly Compensation	234.61
(3) Max Weekly Compensation	1,173.06
(4) Average Injured Worker Weekly Wage ("AIWWW") for 12 months starting 10/1/2012	987.97

Wage Intervals (5)	Benefit (6)	Wage Distribution Entry Ratios = (5) / (4) (7)		Percentage in Interval		Average Wage in Interval = (9) / (8) x (4) (10)	Average Benefit in Interval (11)
				Workers (8)	Wages (9)		
0.00 - 234.61	Actual Wage	0.00	0.25	2.23%	0.43%	191.40	191.40
234.61 - 391.02	Statutory Minimum	0.25	0.40	4.62%	1.53%	326.48	234.61
391.02 - 1,955.10	Actual Wage x Comp. Rate	0.40	2.00	90.06%	90.52%	992.97	595.78
1,955.10 over	Statutory Maximum	2.00	over	3.09%	7.52%	2,407.16	1,173.06

(12) Average Weekly Benefit **587.90**

	Effects of SAWW Change			
	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(13) Starting date of 12 month period for AIWW	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(14) Benefits Effective Average Weekly Benefits	10/1/2011 586.14	10/1/2012 599.98	10/1/2013 612.61	10/1/2014 626.47
(15) Benefits Effective Average Weekly Benefits	10/1/2012 587.90	10/1/2013 600.37	10/1/2014 613.95	10/1/2015 627.84
(16) Temporary Total Benefit Change Factors	1.003	1.001	1.002	1.002

Notes:

- (1), (2), (3): Section IV-C, Exhibit 1.
- (4): Section IV-D, Exhibit 3.
- (5): Wage Intervals follow Massachusetts General Law = (2) / (1)
- (7): Rounded to nearest 0.05.
- (8): Section IV-D, Exhibit 1, column (2).
- (9): Section IV-D, Exhibit 1, column (3).
- (11): Comp Rate x Average Wage in Interval, subject to a statutory maximum and statutory minimum, unless the actual wage is less than the statutory minimum.
- (12) = Sum [(8) x (11)]
- (14), (15): Average Weekly Benefits results from an Excel Data Table that repeats the calculation of (12) for different dates.
- (16) = (15) / (14)

Section IV - Benefit Change Adjustments
Subsection C - Provisions of the Law
1/1/2014

Summary of Principal Benefit Changes Due to the Increase in the Maximum and Minimum Weekly Benefits

	10/1/2011	10/1/2012	10/1/2013	10/1/2014	10/1/2015
(1) Fatal					
% Rate of Compensation	66.67%	66.67%	66.67%	66.67%	66.67%
Minimum Weekly Benefit	\$110.00	\$110.00	\$110.00	\$110.00	\$110.00
Widow/Orphan	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Others					
Maximum Weekly Benefit	\$1,135.82	\$1,173.06	\$1,181.28	\$1,208.01	\$1,235.34
Widow/Orphan	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00
Others					
Each Additional Child	\$6.00, if benefit under \$150.00	\$6.00, if benefit under \$150.00	\$6.00, if benefit under \$150.00	\$6.00, if benefit under \$150.00	\$6.00, if benefit under \$150.00
Maximum Aggregate Payable	250 x SAWW	250 x SAWW	250 x SAWW	250 x SAWW	250 x SAWW
Burial Allowance	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
Cost of Living Adjustment - benefits	Each October 1 after 2 years after injury. Based on the lesser of 5%, N.E. region urban area CPI, and the % change in the SAWW	Each October 1 after 2 years after injury. Based on the lesser of 5%, N.E. region urban area CPI, and the % change in the SAWW	Each October 1 after 2 years after injury. Based on the lesser of 5%, N.E. region urban area CPI, and the % change in the SAWW	Each October 1 after 2 years after injury. Based on the lesser of 5%, N.E. region urban area CPI, and the % change in the SAWW	Each October 1 after 2 years after injury. Based on the lesser of 5%, N.E. region urban area CPI, and the % change in the SAWW
increase annually by:					
(2) Total Disability					
Permanent Total					
% Rate of Compensation	66.67%	66.67%	66.67%	66.67%	66.67%
Minimum Weekly Benefit	\$227.16	\$234.61	\$236.26	\$241.60	\$247.07
Maximum Weekly Benefit	\$1,135.82	\$1,173.06	\$1,181.28	\$1,208.01	\$1,235.34
Duration	Lifetime	Lifetime	Lifetime	Lifetime	Lifetime
Cost of Living Adjustment - benefits	Same as Fatal	Same as Fatal	Same as Fatal	Same as Fatal	Same as Fatal
increase annually by:					
Temporary Total					
% Rate of Compensation	60.00%	60.00%	60.00%	60.00%	60.00%
Minimum Weekly Benefit	\$227.16	\$234.61	\$236.26	\$241.60	\$247.07
Maximum Weekly Benefit	\$1,135.82	\$1,173.06	\$1,181.28	\$1,208.01	\$1,235.34
Waiting Period/Retroactive After	5 days/21 days	5 days/21 days	5 days/21 days	5 days/21 days	5 days/21 days
(3) Permanent Partial Disability					
% Rate of Compensation	37.20%	37.20%	37.20%	37.20%	37.20%
Minimum Weekly Benefit	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Maximum Weekly Benefit	\$851.87	\$879.80	\$885.96	\$906.01	\$926.50
(4) Specific Injury Payments					
Scheduled Injuries	According to the injury, a scheduled number multiplied by the SAWW	According to the injury, a scheduled number multiplied by the SAWW	According to the injury, a scheduled number multiplied by the SAWW	According to the injury, a scheduled number multiplied by the SAWW	According to the injury, a scheduled number multiplied by the SAWW
Non-Scheduled Injuries	32 x SAWW	32 x SAWW	32 x SAWW	32 x SAWW	32 x SAWW
Disfigurement	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Maximum Benefit	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00
Benefit	As determined by the reviewing board	As determined by the reviewing board	As determined by the reviewing board	As determined by the reviewing board	As determined by the reviewing board

Notes:

Source: The General Laws of Massachusetts, Chapter 152, Sections 31-36.

(1): (2): Maximum Weekly Benefit for Fatalities and Total Disabilities is 100% of the SAWW.

(2): Minimum Weekly Benefit for Total Disability is 20% of the SAWW.

(3): Maximum Weekly Benefit for Permanent Partial is 75% of the SAWW. There is no Minimum Weekly Benefit for Permanent Partial Disability.

(3): Permanent Partial % Rate of Compensation is 60% of 62%, the lost wage-earning capacity, Section IV-D, Exhibit 4.

Values in Italics are Projected

IV 000016

Section IV - Benefit Change Adjustments
 Subsection D - Massachusetts Data
 1/1/2014

Section IV-D
 Exhibit 1

Massachusetts Standard Wage Distribution Table

R = Entry Ratio to Average Wage

A = Percentage of workers receiving not more than the percentage of the average wage indicated by column R

B = Percentage of wages received by the % of workers in column A

R (1)	A (2)	B (3)	R (1)	A (2)	B (3)	R (1)	A (2)	B (3)
0.05	0.0856	0.0013	2.40	99.1195	97.2019	4.75	99.9236	99.5618
0.10	0.1766	0.0085	2.45	99.2068	97.4138	4.80	99.9259	99.5728
0.15	0.4174	0.0405	2.50	99.2808	97.5971	4.85	99.9281	99.5834
0.20	0.9257	0.1319	2.55	99.3443	97.7576	4.90	99.9302	99.5937
0.25	2.2314	0.4323	2.60	99.3993	97.8994	4.95	99.9322	99.6035
0.30	3.5317	0.7887	2.65	99.4474	98.0258	5.00	99.9342	99.6135
0.35	5.0674	1.2884	2.70	99.4897	98.1390	5.05	99.9360	99.6226
0.40	6.8493	1.9583	2.75	99.5271	98.2411	5.10	99.9378	99.6317
0.45	8.8185	2.8024	2.80	99.5604	98.3335	5.15	99.9395	99.6404
0.50	11.3281	4.0021	2.85	99.5902	98.4178	5.20	99.9412	99.6492
0.55	14.4745	5.6622	2.90	99.6170	98.4949	5.25	99.9428	99.6576
0.60	18.4932	7.9785	2.95	99.6412	98.5658	5.30	99.9443	99.6655
0.65	23.0308	10.8200	3.00	99.6631	98.6310	5.35	99.9458	99.6735
0.70	28.5691	14.5564	3.05	99.6831	98.6915	5.40	99.9472	99.6810
0.75	35.0225	19.2288	3.10	99.7013	98.7475	5.45	99.9486	99.6886
0.80	40.0471	23.1320	3.15	99.7180	98.7998	5.50	99.9499	99.6957
0.85	44.3868	26.7137	3.20	99.7333	98.8484	5.55	99.9512	99.7029
0.90	48.9940	30.7458	3.25	99.7474	98.8939	5.60	99.9524	99.7096
0.95	53.5531	34.9727	3.30	99.7604	98.9365	5.65	99.9536	99.7164
1.00	57.4700	38.7995	3.35	99.7724	98.9764	5.70	99.9547	99.7226
1.05	61.0338	42.4490	3.40	99.7836	99.0143	5.75	99.9558	99.7289
1.10	64.9829	46.6881	3.45	99.7939	99.0496	5.80	99.9569	99.7353
1.15	68.2577	50.3695	3.50	99.8035	99.0829	5.85	99.9579	99.7411
1.20	71.1419	53.7606	3.55	99.8125	99.1147	5.90	99.9589	99.7470
1.25	73.9565	57.2095	3.60	99.8209	99.1447	5.95	99.9599	99.7529
1.30	76.3431	60.2534	3.65	99.8288	99.1734	6.00	99.9608	99.7583
1.35	78.8313	63.5465	3.70	99.8361	99.2002	6.05	99.9617	99.7637
1.40	80.9932	66.5149	3.75	99.8430	99.2260	6.10	99.9626	99.7692
1.45	83.1764	69.6230	3.80	99.8495	99.2505	6.15	99.9634	99.7741
1.50	85.3328	72.8012	3.85	99.8556	99.2739	6.20	99.9643	99.7796
1.55	87.3234	75.8346	3.90	99.8613	99.2960	6.25	99.9650	99.7840
1.60	89.0732	78.5889	3.95	99.8667	99.3172	6.30	99.9658	99.7890
1.65	90.4645	80.8478	4.00	99.8718	99.3375	6.35	99.9666	99.7941
1.70	91.5989	82.7450	4.05	99.8767	99.3572	6.40	99.9673	99.7985
1.75	92.8617	84.9207	4.10	99.8812	99.3755	6.45	99.9680	99.8030
1.80	93.8677	86.7057	4.15	99.8856	99.3937	6.50	99.9687	99.8076
1.85	94.6704	88.1702	4.20	99.8897	99.4108	6.55	99.9693	99.8115
1.90	95.4837	89.6937	4.25	99.8935	99.4269	6.60	99.9700	99.8161
1.95	96.2382	91.1467	4.30	99.8972	99.4427	6.65	99.9706	99.8201
2.00	96.9125	92.4774	4.35	99.9008	99.4583	6.70	99.9712	99.8241
2.05	97.4495	93.5662	4.40	99.9041	99.4727	6.75	99.9718	99.8281
2.10	97.9350	94.5748	4.45	99.9073	99.4869	6.80	99.9724	99.8322
2.15	98.2808	95.3105	4.50	99.9103	99.5003	6.85	99.9729	99.8356
2.20	98.5368	95.8679	4.55	99.9132	99.5135	6.90	99.9735	99.8397
2.25	98.7336	96.3063	4.60	99.9160	99.5263	6.95	99.9740	99.8432
2.30	98.8893	96.6609	4.65	99.9186	99.5383	7.00	99.9745	99.8467
2.35	99.0155	96.9546	4.70	99.9211	99.5500			

Notes:

Based on Massachusetts workers' compensation data from accident years 1987 to 1994.

For $R > 2.00$, $B_i = B_{i-1} + [(0.55 \times R_i) + (0.45 \times R_{i-1})] \times (A_i - A_{i-1})$

IV 000017

Section IV - Benefit Change Adjustments
 Subsection D - Massachusetts Data
 1/1/2014

Section IV-D
 Exhibit 2

Dependency Table

Dependency Class (1)	Number of Cases (2)	Average Number of Dependents (3)	Average Dependent Age (4)
No Dependents	204	0	N/A
Spouse, No Children	212	1	40
Spouse with Children	153	1	38
1 Child		1	11
Spouse with Children	166	1	38
2 Children		2	10
Spouse with Children	63	1	37
3 Children		3	10
Spouse with Children	18	1	37
4 Children		4	10
Spouse with Children	5	1	37
5 Children		5	10
Spouse with Children	2	1	38
More than 5 Children		7	10
Spouse with Children	407	1	38
Summary		1.9	10
Orphan, No Sibling	21	1	13
1 Child			
Orphans with Sibling(s)	10	2	12
2 Children		3	12
3 Children	3	3	12
4 Children	1	4	12
More than 4 Children	1	5	12
Orphans with Sibling(s)	15	2.5	12
Summary			
Other Dependents (No Spouse)	41	1	62
1 Parent			
2 Parents	91	2	58
Sibling	7	1	37
Other	2	2	31
Other Dependents	141	1.7	58
Summary			

Notes:

Source: NCCI, CPS data, 1989-1993, reweighted using DCI Data for Fatalities, 1984-1993.

(2): Dependent count includes working adult household members standardized to a total of 1,000 cases.

Derivation of Estimated SAWW (Statewide Average Weekly Wage) and AIWWW (Average Injured Worker Weekly Wage)

SAWW Effective Date (1)	SAWW Based on Data (2)	Midpoint of the SAWW Data (3)	Actual SAWW (4)	Estimated Annual SAWW Trend Factor (5)	Actual and Projected SAWW (6)	AIWWW Period (7)	Effective AIWWW (8)
10/1/2011	4/1/10 to 4/1/11	10/1/2010	1,135.82		1,135.82	10/1/12 to 10/1/13	987.97
10/1/2012	4/1/11 to 4/1/12	10/1/2011	1,173.06		1,173.06	10/1/13 to 10/1/14	1,010.32
10/1/2013	4/1/12 to 4/1/13	10/1/2012	1,181.28		1,181.28	10/1/14 to 10/1/15	1,033.18
10/1/2014	4/1/13 to 4/1/14	10/1/2013		1.023	1,208.01	10/1/15 to 10/1/16	1,056.56
10/1/2015	4/1/14 to 4/1/15	10/1/2014		1.023	1,235.34		

Notes:

- (4): Section V-G, Exhibit 2.
- (5): 2.3% Estimated Annual Trend in SAWW, Section V-A, Exhibit 1.
- (6) For SAWW Effective Date 10/1/2012 & 10/1/2013, (6) = (4)
 For SAWW Effective Date 10/1/2014 & 10/1/2015, (6) = (5) x (6 from Prior Period)
- (8): For the AIWWW Period 10/1/13 to 10/1/14, (8) is the product of .827 and the average of the SAWWs effective 10/1/2014 and 10/1/2015, respectively.
 For the AIWWW Periods 10/1/14 to 10/1/15 and 10/1/15 to 10/1/16, (8) = (5) x (8 from Prior Period).
 Historical Relationship of .827 for the ratio of AIWWW to SAWW is selected based on DCI data.
 4/1/1996: SAWW = 648, AIWWW = 536
 4/1/1994: SAWW = 595, AIWWW = 492

IV 000019

Section IV - Benefit Change Adjustments
 Subsection D - Massachusetts Data
 1/1/2014

Section IV-D
 Exhibit 4

Average Wage Loss for Permanent Partial Claimants

DCI Report Level	(Pre-Injury - Post-Injury) / Pre-Injury Wage					Average
	1979 (1)	1980 (2)	1981 (3)	1982 (4)	1983 (5)	
Average Wage Loss for Major Permanent Partial Claimants						
1	0.61	0.62	0.60	0.62	0.60	0.61
2	0.62	0.62	0.59	0.63	0.62	0.62
3	0.64	0.60	0.65	0.60		0.62
4	0.60	0.64	0.62			0.62
(6) Selected Average Wage Loss for Major Permanent Partial Claimants						0.62

Average Wage Loss for Minor Permanent Partial Claimants						
1	0.58	0.58	0.58	0.60	0.59	0.59
2	0.62	0.60	0.59	0.58	0.64	0.61
3	0.66	0.64	0.65	0.56		0.63
4	0.62	0.70	0.66			0.66
(7) Selected Average Wage Loss for Minor Permanent Partial Claimants						0.62

Notes:

Source: Detail Claim Information ("DCI") Data, compiled as of 10/1/1985.

(6), (7): These data were compiled prior to Chapter 398. To be consistent with Chapter 398, 62% will be used as the wage loss as a percent of pre-injury wage. The percent of that that is paid is 60% subject to maximums.

IV 000020

Post-Chapter 398 Injury Type Weights at 5th Report

Injury Type (1)	Policy Year (2)	Indemnity - Likely to Develop			Indemnity - Not Likely to Develop			On-level Losses at Fifth Report = (5) + (8) (9)	Weights at 5th report (10)
		Losses at Fifth Report (3)	Benefit On-Level Factor to Prosp. Eff. Period (4)	On-level Losses at Fifth Report = (3) x (4) (5)	Losses at Fifth Report (6)	Benefit On-Level Factor to Prosp. Eff. Period (7)	On-level Losses at Fifth Report = (6) x (7) (8)		
Death	2003	629,606	1.039	654,380	5,092,924	1.039	5,293,326	5,947,706	
Death	2004	828,432	1.036	858,199	4,953,963	1.036	5,131,968	5,990,167	
Death	2005	3,905,032	1.031	4,025,088	9,690,411	1.031	9,988,333	14,013,421	
Death	2006	2,577,437	1.026	2,643,471	5,591,670	1.026	5,734,928	8,378,398	
Death	2007	2,485,219	1.020	2,534,844	6,412,661	1.020	6,540,710	9,075,554	
Total Death		10,425,726		10,715,983	31,741,629		32,689,264	43,405,247	1.51%
Permanent Total	2003	23,857,109	1.057	25,213,352	0	1.057	0	25,213,352	
Permanent Total	2004	31,549,225	1.052	33,188,542	0	1.052	0	33,188,542	
Permanent Total	2005	22,366,393	1.044	23,349,165	0	1.044	0	23,349,165	
Permanent Total	2006	30,737,180	1.036	31,853,768	0	1.036	0	31,853,768	
Permanent Total	2007	31,239,746	1.028	32,112,372	0	1.028	0	32,112,372	
Total Permanent Total		139,749,653		145,717,199	0		0	145,717,199	5.07%
Permanent Partial	2003	126,630,768	1.105	139,898,557	103,297,721	1.105	114,120,781	254,019,337	
Permanent Partial	2004	126,617,815	1.096	138,725,673	116,741,875	1.096	127,905,344	266,631,018	
Permanent Partial	2005	119,787,372	1.080	129,419,572	113,849,109	1.080	123,003,808	252,423,380	
Permanent Partial	2006	108,920,939	1.065	115,954,343	101,754,664	1.065	108,325,317	224,279,660	
Permanent Partial	2007	97,392,551	1.050	102,227,791	115,182,303	1.050	120,900,749	223,128,540	
Total Permanent Partial		579,349,445		626,225,935	550,825,672		594,255,999	1,220,481,934	42.43%
Temporary Total	2003	21,773,967	1.031	22,439,012	52,521,576	1.031	54,125,749	76,564,761	
Temporary Total	2004	22,179,890	1.028	22,797,172	52,446,836	1.028	53,906,469	76,703,641	
Temporary Total	2005	25,513,642	1.024	26,118,540	57,561,834	1.024	58,926,556	85,045,096	
Temporary Total	2006	27,549,372	1.020	28,090,107	61,424,325	1.020	62,629,953	90,720,060	
Temporary Total	2007	26,097,018	1.015	26,488,882	61,889,542	1.015	62,818,853	89,307,735	
Total Temporary Total		123,113,889		125,933,713	285,844,113		292,407,580	418,341,292	14.54%
(11) Total Indemnity		852,638,713		908,592,830	868,411,414		919,352,843	1,827,945,672	63.55%

(12) Aggregate Financial Policy Year Call, Indemnity Fifth to Ultimate Development Factor Paid + Case
 (13) Tail Development Attributed to Likely to Develop Claims
 (14) Percentage Likely to Develop
 (15) Indemnity Likely to Develop - Loss Development Factor from 5th Report to Ultimate = $1.0 + \{ [(12) - 1.0] \times (13) \} / (14)$
 (16) Indemnity Not Likely to Develop - Loss Development Factor from 5th Report to Ultimate = $1.0 + \{ [(12) - 1.0] \times [1.0 - (13)] \} / [1.0 - (14)]$

IV 000021

Post-Chapter 398 Injury Type Weights at 5th Report

Injury Type (1)	Policy Year (2)	Medical - Likely to Develop			Medical - Not Likely to Develop			Medical Losses at Fifth Report = (5) + (8) (9)	Weights at 5th report at (10)
		Losses at Fifth Report (3)	Benefit On-Level Factor to Prosp. Eff. Period (4)	On-level Losses at Fifth Report = (3) x (4) (5)	Losses at Fifth Report (6)	Benefit On-Level Factor to Prosp. Eff. Period (7)	On-level Losses at Fifth Report = (6) x (7) (8)		
Death	2003	8,370	1.046	8,754	175,673	1.046	183,732	192,486	
Death	2004	61,768	1.036	63,999	94,146	1.036	97,546	161,545	
Death	2005	319,781	1.032	330,047	550,716	1.032	568,396	898,443	
Death	2006	44,965	1.032	46,409	296,570	1.032	306,091	352,499	
Death	2007	3,931,530	1.032	4,058,151	714,126	1.032	737,125	4,795,276	
Total Death		4,366,414		4,507,359	1,831,231		1,892,890	6,400,249	0.22%
Permanent Total	2003	19,022,213	1.046	19,894,851	0	1.046	0	19,894,851	
Permanent Total	2004	23,944,962	1.036	24,809,755	0	1.036	0	24,809,755	
Permanent Total	2005	21,246,809	1.032	21,928,900	0	1.032	0	21,928,900	
Permanent Total	2006	25,024,497	1.032	25,827,863	0	1.032	0	25,827,863	
Permanent Total	2007	12,167,762	1.032	12,559,642	0	1.032	0	12,559,642	
total Permanent Total		101,406,243		105,021,011	0		0	105,021,011	3.65%
Permanent Partial	2003	56,447,122	1.046	59,036,617	37,708,503	1.046	39,438,370	98,474,987	
Permanent Partial	2004	62,001,983	1.036	64,241,237	43,080,112	1.036	44,635,987	108,877,224	
Permanent Partial	2005	49,589,169	1.032	51,181,140	42,775,863	1.032	44,149,105	95,330,245	
Permanent Partial	2006	46,769,196	1.032	48,270,637	37,921,844	1.032	39,139,257	87,409,893	
Permanent Partial	2007	44,301,390	1.032	45,728,179	44,423,074	1.032	45,853,782	91,581,961	
total Permanent Partial		259,108,860		268,457,811	205,909,396		213,216,500	481,674,311	16.75%
Temporary Total	2003	12,741,446	1.046	13,325,956	42,824,008	1.046	44,788,547	58,114,503	
Temporary Total	2004	11,629,129	1.036	12,049,125	43,507,703	1.036	45,079,021	57,128,146	
Temporary Total	2005	15,551,726	1.032	16,050,986	45,696,448	1.032	47,163,450	63,214,436	
Temporary Total	2006	13,257,966	1.032	13,683,589	48,308,654	1.032	49,859,516	63,543,106	
Temporary Total	2007	13,540,200	1.032	13,976,281	50,573,376	1.032	52,202,163	66,178,445	
total Temporary Total		66,720,467		69,085,938	230,910,189		239,092,698	308,178,635	10.71%
Medical Only	2003	0	1.046	0	28,130,237	1.046	29,420,703	29,420,703	
Medical Only	2004	0	1.036	0	27,637,993	1.036	28,636,163	28,636,163	
Medical Only	2005	0	1.032	0	28,997,875	1.032	29,928,800	29,928,800	
Medical Only	2006	0	1.032	0	28,420,698	1.032	29,333,093	29,333,093	
Medical Only	2007	0	1.032	0	28,918,213	1.032	29,849,565	29,849,565	
Total Medical Only		0		0	142,105,016		147,168,324	147,168,324	5.12%
(11) Total Medical		431,601,984		447,072,118	580,755,832		601,370,412	1,048,442,530	36.45%

(12) Total Medical & Indemnity	1,284,240,697	1,355,664,948	1,449,167,246	1,520,723,255	2,876,388,203
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(13) Medical Only fraction of Total Medical	14.04%
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- (14) Aggregate Financial Policy Year Call, Medical Fifth to Ultimate Development Factor Paid + Case
- (15) Tail Development Attributed to Likely to Develop Claims
- (16) Percentage Likely to Develop
- (17) Medical Likely to Develop - Loss Development Factor from 5th Report to Ultimate = $1.0 + \{ [(14) - 1.0] \times (15) \} / (16)$
- (18) Medical Not Likely to Develop - Loss Development Factor from 5th Report to Ultimate = $1.0 + \{ [(14) - 1.0] \times [1.0 - (15)] \} / [1.0 - (16)]$
- (19) Indemnity Likely Weight at 5th Report
- (20) Indemnity Not Likely Weight at 5th Report
- (21) Medical Likely Weight at 5th Report
- (22) Medical Not Likely Weight at 5th Report

	1.127
	0.8
	0.426
	1.239
	1.044
	31.59%
	31.96%
	15.54%
	20.91%

Post-Chapter 398 Injury Type Weights at Ultimate

Injury Type (1)	Policy Year (2)	Indemnity - Likely to Develop			Indemnity - Not Likely to Develop			Indemnity Ult. On-level Losses at Ultimate = (5) + (8) (9)	Weights at Ultimate (10)
		On-level Losses at Fifth Report (3)	Development Factors 5th to Ultimate (4)	Est. Ult. On-level Losses = (3) x (4) (5)	On-level Losses at Fifth Report (6)	Development Factors 5th to Ultimate (7)	Est. Ult. On-level Losses = (6) x (7) (8)		
Death	2003	654,380	1.087	711,357	5,293,326	1.022	5,407,198	6,118,555	
Death	2004	858,199	1.087	932,921	5,131,968	1.022	5,242,369	6,175,290	
Death	2005	4,025,088	1.087	4,375,548	9,988,333	1.022	10,203,206	14,578,754	
Death	2006	2,643,471	1.087	2,873,635	5,734,928	1.022	5,858,300	8,731,935	
Death	2007	2,534,844	1.087	2,755,550	6,540,710	1.022	6,681,417	9,436,967	
Total Death		10,715,983		11,649,011	32,689,264		33,392,491	45,041,501	1.45%
Permanent Total	2003	25,213,352	1.087	27,408,649	0	1.022	0	27,408,649	
Permanent Total	2004	33,188,542	1.087	36,078,231	0	1.022	0	36,078,231	
Permanent Total	2005	23,349,165	1.087	25,382,151	0	1.022	0	25,382,151	
Permanent Total	2006	31,853,768	1.087	34,627,239	0	1.022	0	34,627,239	
Permanent Total	2007	32,112,372	1.087	34,908,360	0	1.022	0	34,908,360	
Total Permanent Total		145,717,199		158,404,630	0		0	158,404,630	5.10%
Permanent Partial	2003	139,898,557	1.087	152,079,365	114,120,781	1.022	116,575,799	268,655,164	
Permanent Partial	2004	138,725,673	1.087	150,804,360	127,905,344	1.022	130,656,902	281,461,262	
Permanent Partial	2005	129,419,572	1.087	140,687,987	123,003,808	1.022	125,649,922	266,337,908	
Permanent Partial	2006	115,954,343	1.087	126,050,356	108,325,317	1.022	110,655,660	236,706,016	
Permanent Partial	2007	102,227,791	1.087	111,128,648	120,900,749	1.022	123,501,621	234,630,269	
Total Permanent Partial		626,225,935		680,750,716	594,255,999		607,039,904	1,287,790,620	41.43%
Temporary Total	2003	22,439,012	1.087	24,392,751	54,125,749	1.022	55,290,127	79,682,878	
Temporary Total	2004	22,797,172	1.087	24,782,096	53,906,469	1.022	55,066,129	79,848,225	
Temporary Total	2005	26,118,540	1.087	28,392,651	58,926,556	1.022	60,194,211	88,586,862	
Temporary Total	2006	28,090,107	1.087	30,535,881	62,629,953	1.022	63,977,277	94,513,157	
Temporary Total	2007	26,488,882	1.087	28,795,238	62,818,853	1.022	64,170,241	92,965,479	
Total Temporary Total		125,933,713		136,898,618	292,407,580		298,697,985	435,596,602	14.01%
(11) Total Indemnity		908,592,830		987,702,975	919,352,843		939,130,379	1,926,833,353	61.98%

Post-Chapter 398 Injury Type Weights at Ultimate

Injury Type (1)	Policy Year (2)	Medical - Likely to Develop			Medical - Not Likely to Develop			Medical Losses at Ultimate = (5) + (8) (9)	Weights at Ultimate (10)
		On-level Losses at Fifth Report (3)	Development Factors 5th to Ultimate (4)	Est. Ult On-level Losses = (3) x (4) (5)	On-level Losses at Fifth Report (6)	Development Factors 5th to Ultimate (7)	Est. Ult On-level Losses = (6) x (7) (8)		
Death	2003	8,754	1,239	10,843	183,732	1.044	191,881	202,724	
Death	2004	63,999	1,239	79,272	97,546	1.044	101,873	181,144	
Death	2005	330,047	1,239	408,810	568,396	1.044	593,606	1,002,416	
Death	2006	46,409	1,239	57,484	306,091	1.044	319,667	377,150	
Death	2007	4,058,151	1,239	5,026,597	737,125	1.044	769,819	5,796,416	
Total Death		4,507,359		5,583,005	1,892,890		1,976,845	7,559,850	0.24%
Permanent Total	2003	19,894,851	1,239	24,642,603	0	1.044	0	24,642,603	
Permanent Total	2004	24,809,755	1,239	30,730,410	0	1.044	0	30,730,410	
Permanent Total	2005	21,928,900	1,239	27,162,061	0	1.044	0	27,162,061	
Permanent Total	2006	25,827,863	1,239	31,991,482	0	1.044	0	31,991,482	
Permanent Total	2007	12,559,642	1,239	15,556,903	0	1.044	0	15,556,903	
total Permanent Total		105,021,011		130,083,460	0		0	130,083,460	4.18%
Permanent Partial	2003	59,036,617	1,239	73,125,247	39,438,370	1.044	41,187,579	114,312,826	
Permanent Partial	2004	64,241,237	1,239	79,571,910	44,635,987	1.044	46,615,726	126,187,636	
Permanent Partial	2005	51,181,140	1,239	63,395,122	44,149,105	1.044	46,107,250	109,502,371	
Permanent Partial	2006	48,270,637	1,239	59,790,049	39,139,257	1.044	40,875,199	100,665,249	
Permanent Partial	2007	45,728,179	1,239	56,640,854	45,853,782	1.044	47,887,534	104,528,388	
total Permanent Partial		268,457,811		332,523,182	213,216,500		222,673,288	555,196,470	17.86%
Temporary Total	2003	13,325,956	1,239	16,506,092	44,788,547	1.044	46,775,053	63,281,145	
Temporary Total	2004	12,049,125	1,239	14,924,555	45,079,021	1.044	47,078,410	62,002,965	
Temporary Total	2005	16,050,986	1,239	19,881,429	47,163,450	1.044	49,255,290	69,136,719	
Temporary Total	2006	13,683,589	1,239	16,949,071	49,859,516	1.044	52,070,935	69,020,006	
Temporary Total	2007	13,976,281	1,239	17,311,612	52,202,163	1.044	54,517,485	71,829,098	
total Temporary Total		69,085,938		85,572,760	239,092,698		249,697,172	335,269,932	10.79%
Medical Only	2003	0	1,239	0	29,420,703	1.044	30,725,599	30,725,599	
Medical Only	2004	0	1,239	0	28,636,163	1.044	29,906,262	29,906,262	
Medical Only	2005	0	1,239	0	29,928,800	1.044	31,256,231	31,256,231	
Medical Only	2006	0	1,239	0	29,333,093	1.044	30,634,104	30,634,104	
Medical Only	2007	0	1,239	0	29,849,565	1.044	31,173,482	31,173,482	
Total Medical Only		0		0	147,168,324		153,695,678	153,695,678	4.94%
(11) Total Medical		447,072,118		553,762,407	601,370,412		628,042,984	1,181,805,391	38.02%

(12) Total Medical & Indemnity	1,355,664,948	1,541,465,382	1,520,723,255	1,567,173,363	3,108,638,745
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(13) Medical Only fraction of Total Medical	13.01%
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Ind & Med N/L Weights at Ult
 Indemnity Likely 31.77%
 Indemnity Not Likely 30.21%
 Medical Likely 17.81%
 Medical Not Likely 20.20%

USL&HW Benefit Level Factors

All Injury Types

Time Period		Indemnity					Medical	Total
Beginning Period	Ending Period	Death	Permanent Total	Permanent Partial	Temporary Total	All Injury Types	All Injury Types	
PY 2007	Prosp. Eff. Period	1.048	1.031	1.010	1.031	1.000	1.000	
PY 2008	Prosp. Eff. Period	1.036	1.024	1.008	1.024	1.000	1.000	
PY 2009	Prosp. Eff. Period	1.026	1.019	1.008	1.019	1.000	1.000	
PY 2010	Prosp. Eff. Period	1.022	1.016	1.007	1.016	1.000	1.006	
PY 2011	Prosp. Eff. Period	1.018	1.012	1.006	1.012	1.000	1.006	
PY 2012	Prosp. Eff. Period						1.004	

10/1/2009	Prosp. Eff. Period						1.006
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Prior Eff. Period (using benefit level projections from prior filing)	Prosp. Eff. Period				1.012	1.000	1.007
-----------------------------------------------------------------------	--------------------	--	--	--	-------	-------	-------

Notes:

10/1/2009 refers to a point in time. All other time periods refer to Policy Years.

Example: $PY\ 2011\ to\ Prosp.\ Eff.\ Period\ for\ Indemnity\ Permanent\ Partial = 1.006 = 1.011 / 1.005$

where 1.011 is the Index Factor of Prosp. Eff. Period and 1.005 is the Index Factor of PY 2011 for Indemnity Permanent Partial, from Exhibit 2.

USL&HW Benefit Level Changes and Weights

Death												
	10/1/2006	10/1/2007	10/1/2008	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014	10/1/2015	Weighted Average Benefit Level	
Benefit Level Change	1.006	1.009	1.011	1.009	1.002	1.006	1.006	1.006	1.006	1.006	1.006	1.012
Cumulative Benefit Level Change	1.006	1.015	1.026	1.035	1.038	1.044	1.050	1.056	1.063	1.069		1.060
Time Period												1.035
PY 2007	0.378	0.614	0.008									1.012
PY 2008		0.254	0.734	0.012								1.023
PY 2009			0.276	0.711	0.013							1.033
PY 2010				0.314	0.675	0.011						1.037
PY 2011					0.397	0.595	0.008					1.041
PY 2012						0.398	0.594	0.008				1.048
Prior Eff. Period				0.001	0.565	0.435						1.040
Prosp. Eff. Period							0.398	0.594				1.060
10/1/2009				1.000								1.035

Indemnity All Injury Types - Average Benefit Level for Current Policy Period, Estimated at 1/1/2012 (using benefit level projections from prior filing).

Date of Change	10/1/2007	10/1/2008	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014	Weighted Average Benefit Level
Benefit Level Change	1.003	1.002	1.003	1.001	1.003	1.003	1.003	1.000	1.010
Cumulative Level Change	1.003	1.005	1.008	1.009	1.012	1.015	1.018	1.018	

Medical All Injury Types - Average Benefit Level for Current Policy Period, Estimated at 1/1/2012 (using benefit level projections from prior filing).

Date of Change	10/1/2007	10/1/2008	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014	Weighted Average Benefit Level
Benefit Level Change	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative Level Change	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	

All Injury Types - Average Benefit Level for Current Policy Period, Estimated at 1/1/2012 (using benefit level projections from prior filing).

Date of Change	10/1/2007	10/1/2008	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	10/1/2014	Weighted Average Benefit Level
Benefit Level Change	1.000	1.002	1.001	1.000	1.001	1.002	1.002	1.000	1.004
Cumulative Level Change	1.000	1.002	1.003	1.004	1.005	1.007	1.009	1.009	

Index Factors for All Injury Types

Time Period	Death						Indemnity						Total	
	Permanent		Temporary		All Injury Types		Permanent		Temporary		All Injury Types		Medical All Injury Types	
	Total	Partial	Total	Partial	Total	Partial	Total	Partial	Total	Partial	Total	Partial	Total	Types
PY 2007	1.012		1.006		1.006		1.004		1.000		1.000		1.000	1.002
PY 2008	1.023		1.013		1.013		1.007		1.000		1.000		1.000	1.004
PY 2009	1.033		1.018		1.009		1.009		1.000		1.000		1.000	1.005
PY 2010	1.037		1.021		1.004		1.021		1.011		1.000		1.000	1.005
PY 2011	1.041		1.024		1.005		1.024		1.013		1.000		1.000	1.006
PY 2012	1.048		1.029		1.007		1.029		1.016		1.000		1.000	1.007
Prior Eff. Period	1.040		1.023		1.005		1.023		1.012		1.000		1.000	1.005
Prosp. Eff. Period	1.060		1.037		1.011		1.037		1.022		1.000		1.000	1.011
10/1/2009	1.035		1.019		1.004		1.019		1.010		1.000		1.000	1.005

Notes:
10/1/2009 refers to a point in time. All other time periods refer to Policy Years.
Index Factors for All Injury Types is an Excel Data Table that repeats the calculation of the Weighted Average Benefit Level for all Injury Types.

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Section IV - Benefit Change Adjustments
 Subsection F - Effects of USL&HW Benefit Changes
 1/1/2014

Section IV - F
 Exhibit 3

USL&HW Historical and Estimated Benefit Level Changes

Effective Date (1)	Indemnity					Medical	Total
	Death (2)	Permanent Total (3)	Permanent Partial (4)	Temporary Total (5)	All Injury Types (6)	All Injury Types (7)	All Injury Types (8)
10/1/2005	0.3%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
10/1/2006	0.6%	0.3%	0.1%	0.3%	0.2%	0.0%	0.1%
10/1/2007	0.9%	0.5%	0.1%	0.5%	0.3%	0.0%	0.2%
10/1/2008	1.1%	0.6%	0.1%	0.6%	0.2%	0.0%	0.1%
10/1/2009	0.9%	0.5%	0.1%	0.5%	0.3%	0.0%	0.1%
10/1/2010	0.2%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%
10/1/2011	0.6%	0.5%	0.2%	0.5%	0.3%	0.0%	0.1%
10/1/2012	0.6%	0.4%	0.2%	0.4%	0.3%	0.0%	0.2%
10/1/2013	0.6%	0.4%	0.2%	0.4%	0.3%	0.0%	0.2%
10/1/2014	0.6%	0.4%	0.2%	0.4%	0.3%	0.0%	0.2%
10/1/2015	0.6%	0.4%	0.2%	0.4%	0.3%	0.0%	0.2%

Notes:

Values prior to 10/1/2012 are from NCCI's Annual Statistical Bulletin, 2013 Edition.

Values for 10/1/2012 are from NCCI CT-2013-04.

Changes for 10/1/2013 - 10/1/2015 are assumed to be the same as 10/1/2012.

NET TREND**The Role of Trend**

The rate level indication in this filing is based on recent historical Massachusetts premium and loss data. Since the filing develops rates for a future period, beginning with policies issued January 1, 2014, basic principles of ratemaking require that historical losses and premiums be adjusted to the levels expected during the prospective rate period. The trend factors we use represent the expected change from the experience period (in this filing, policy years 2010 and 2011) to January 1, 2015, the midpoint of the policy period for which we are setting rates. The trend factors reflect expected movements in the frequency of claims, the average cost of claims (also called “severity”), and payroll levels (which drive the amount of premium collected). Trend factors exclude certain otherwise-quantifiable changes over time such as statutorily-mandated changes in benefits and on-level factors for historical rate changes, which are considered elsewhere in the filing.

WCRIBMA Recommendation

The composite trend factor developed in this section is expressed as a “net” trend, meaning that it incorporates the combined effects on loss ratios of claim frequency movements, claim cost movements, and wage inflation – which may offset one another. Net trends are developed in this section separately for

indemnity losses and medical losses (including medical only claims and medical on lost time claims). Based on the methodology documented in this section, the WCRIBMA has used net trend factors of -2.1% per year for indemnity losses, and -1.4% per year for medical losses. The indicated trend factors and their key components are summarized in Section V-A Exhibit 1.

Indemnity Net Trend	-2.1%
Medical Net Trend	-1.4%

We are projecting that average claim costs for workers' compensation will continue to rise, as they have in recent years in both Massachusetts and elsewhere, at annual rates of 2.7% and 3.6% for indemnity and medical benefits, respectively. We are projecting downward movement in claim frequency per worker week, at a pace of 2.6% annually for lost time claims and 2.7% for medical claims. Finally, we are projecting an increase of 2.3% annually in average wages.

Trend	Indemnity		Medical
Severity	2.7%		3.6%
Frequency	-2.6%		-2.7%
SAWW		2.3%	
Net	-2.1%		-1.4%

The annual net trends we use in this filing reflect our expectations about the extent to which growth in the average cost of claims will be offset by declining claim frequencies and by the growth of premium that results from wage inflation.

General Methodology

The WCRIBMA has separately calculated claim cost trends (for indemnity benefits, for medical on lost time claims, and for medical only claims); claim frequency trends (for lost time claims and for medical only claims); and average weekly wage trends.

The WCRIBMA recommends that the calculation of trend factors be based upon movements in the underlying factors of claim severity, claim frequency, and wages – rather than fitting time trends to loss ratios themselves. Given the differences in the behavior of claim severity, claim frequency and wage trends, we are confident that analyzing them separately provides better insights into the drivers of net trend.

For each component (claim severity, frequency, and wage trend), our primary method of measuring trends is an exponential least squares regression fit to the historical Massachusetts Unit Statistical Plan Data. Regressions were performed using data series of varying lengths, spanning from five to ten policy years, all ending with Policy Year 2011. A summary of the results is shown in the attached exhibits. The results of each of these regressions indicate an annual rate of change. Next, we tested the credibility of each of these indicated trends on the basis of the consistency between the historical data and the fitted exponential curves. Using a methodology from the actuarial literature,¹ we

¹ Venter, Gary, "Classical Partial Credibility with Application to Trend," *PCAS LXXIII*, 1986, pp. 27-51.

assigned higher credibility to the indicated trend if the trend line more closely fit the data, and a lower credibility if the data displayed wide departures from the fitted trend line. Third, to the extent that this credibility test suggested that the indicated trend from the historical data sets should be given less than 100% weight, we complemented the Massachusetts indication with an indicated trend from a larger database. In the case of claim cost trends, we looked to national trends in workers' compensation claim costs to provide the complementary trend indication. In the case of claim frequency trends and average weekly wage trends, we looked to longer term (15 year) Massachusetts trends to provide the complementary trend indications. We then judgmentally selected the trend indications for each component. The various results of our calculations and the selections we have made are summarized in Exhibits 1 through 3 of Section V-A for claim cost, claim frequency, and average weekly wage, respectively.

Section V-A – Net Trend Calculation

Section V-A documents the calculation of the separate trends for claim severity, claim frequency, and average weekly wage.

Exhibit 1 in this section summarizes and combines all of the trend components, beginning with the indicated trend based on the historical Massachusetts data (Row (1)), applying the credibility parameter to each based on how well the indicated trend fits the underlying data (Row (10), Exhibits 2 and

3), and applying the complement of the credibility to the trend indications that are based on broader or longer data series (Row (2)). The claim severity trend and the claim frequency trend are then combined to produce total loss trends (Row (8)). The medical trends for lost time claims and medical only claims are weighted together, based on the relative volume of claim dollars by type of claim, to produce an overall medical loss trend. Finally, the loss trends for indemnity and medical losses are offset by the credibility-weighted average weekly wage trend to produce the total net annual trend.

Exhibits 2 and 3 of Section V-A document the calculation of the severity trends, frequency trends, and average weekly wage trends. In each of these exhibits, the first step is to calculate the exponential fits to the historical Massachusetts data, using data series of varying lengths, spanning from five to ten policy years, all ending with Policy Year 2011. The exponential method yields fitted values for each year in the data series and also an indicated annual rate of change in the data series. The exponential fits here and elsewhere in this section were calculated using a standard function within Microsoft Excel™.

Next, these exhibits document the calculation of the credibility associated with each of the fitted annual trends. This calculation uses a procedure described in the Venter paper, which requires that the parameters of a confidence interval be chosen. Based on Venter's paper, actuarial judgment, and sensitivity testing, we defined the confidence interval to achieve at least a 90% probability that the trend observed in the future will be within 6% of the

projected trend in this filing. Selecting a higher required degree of confidence (probability) or a lower tolerance for error would reduce the amount of credibility assigned to the trend estimates derived from the historical Massachusetts data, while a lower required degree of confidence (probability) or higher tolerance for error would increase the credibility assigned to indications derived from the latest historical Massachusetts data.

The specific steps and calculations that implement Venter's procedure to calculate the credibility assigned to the historical Massachusetts trend (Row (1)) are detailed in Exhibits 2 and 3 of Section V-A, in Rows numbered (3) through (11). Row (2), denoted "n," is the number of years, data points, used in the exponential fitting of the historical data. Row (3), denoted "s," quantifies the goodness of fit of the exponential curve to the five years of Massachusetts data. $S = \text{SQRT} (\text{SSR} / (n-2))$, where SSR is the sum of the squared differences between the observed and fitted points over the years of Massachusetts data analyzed, and n-2 is an adjustment for degrees of freedom. Row (4), denoted "t," is the 95th percentile of the t-distribution with n-2 degrees of freedom. We use the 95th percentile one-sided distribution to correspond to the selected 90% probability of being within a specified tolerance in either direction. Row (6) implements the formula that Venter provides for a component element of the standard deviation of the projected point, given the distance into the future that we are projecting, and Row (7) then calculates the confidence interval for the projection. The confidence interval incorporates both the uncertainty about the

parameters of the trend line and the potential variability of the actual future point from its expected value on the line. Row (9) expresses this confidence interval as a percentage of the projected value of frequency, severity, or average weekly wage, which is calculated in Row (8). If Row (9) is less than the selected error tolerance (i.e., 6% in this filing), then there is at least 90% probability that the actual value is within 6% of the fitted value, and the credibility procedure assigns 100% to the indicated historical Massachusetts trend. If the ratio in Row (9) is greater than the selected error tolerance, then the credibility assigned to the historical Massachusetts trend must be less than 100%. Specifically, it is calculated in Row (10) as the ratio of the selected error tolerance divided by the calculated confidence interval.

To the extent that the credibility assigned to each of the fitted trends based on the historical Massachusetts data is less than 100%, the balance of the credibility is assigned to a longer-term Massachusetts trend (for frequency and average weekly wage) or countrywide trend (for claim severity). The calculations of the annual trend rates from these complementary data series are documented at the foot of Section V-A, Exhibit 2 (severity), Section V-B (frequency) and Section V-G, Exhibit 2 (average weekly wage), and use the same exponential fit function within Microsoft Excel™.

The complementary data set to be given weight when the historical Massachusetts indications are not fully credible provides a trend indication for a particular component (severity, frequency, average weekly wage) that would be

reasonable to use if we had no recent local data. For severity, the WCRIBMA expects that trends will tend to vary more over time than across state lines. Thus, it is our expectation that severity trends recently observed in other states will provide useful information about severity trends to be expected in Massachusetts. The actual level of claim costs is likely to vary by state (depending on benefit levels, demographics, industry mix, and social factors), but we would expect that the average trend across a broad mix of states creates a reasonable basis for a baseline expectation of Massachusetts severity trends. Consequently, we have selected a multi-state severity trend as the complement of credibility for Massachusetts severity trends. The multi-state severities are shown at the foot of Section V-A Exhibit 2 and supporting information is provided in Section V-G.

For claim frequency and average weekly wages, it is our expectation that Massachusetts trends observed in the short term will tend to revert to long term Massachusetts averages, and that these long-term Massachusetts averages would thus represent a reasonable expectation of future trends in the absence of recent observations. Consequently, we have selected a long-term Massachusetts trend as the complement of credibility for the historical Massachusetts frequency and average weekly wage trends. We judgmentally selected fifteen years of data to calculate the long-term Massachusetts trends.

Finally, Section V-A Exhibits 2 and 3 Row (12) calculate the credibility-weighted annual trend, which is:

Credibility-weighted annual trend =

[Z] x [indicated annual trend based on historical n-years of Massachusetts data]

+ [1.0 minus Z] x [indicated annual trend based on complementary data],

Where Z = credibility

These various components of the final net trend calculation are shown graphically on Exhibits 4 through 5 of Section V-A and are brought forward to Exhibit 1.

Data Used in the WCRIBMA Trend Analysis

For the trend analysis, the WCRIBMA has continued to use Unit Statistical Plan Data. The WCRIBMA selected this data source because it provides detailed, matching payroll, claim count, and claim dollar data that can be used to calculate historical claim frequencies and claim severities. Unit Statistical Plan Data are reported on a policy-by-policy basis and in individual claim detail (except for the smallest claims, which previously could be reported in a batch for an individual employer and policy period).

We have Unit Statistical Plan Data for policies written through December 2011. As in the 2010, 2011 and 2012 Filings, the Unit Statistical Plan Data used

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in this trend analysis have been compiled on a “policy year” basis. Policy year 2011, for example, includes all policies with inception dates between January 1, 2011 and December 31, 2011. For policy year 2011, the average policy inception date is assumed to be July 1, 2011 and the average accident date is assumed to be January 1, 2012.

Unit Statistical Plan Data include coding that designates the “injury type” of a claim (i.e., fatal, permanent total, permanent partial, temporary total, medical only). We have used separate data for lost time claims and medical only claims as the starting point for our analysis because the medical only claims are very numerous but small in average severity, and thus could mask important trends if combined with the lost time claims. The Unit Statistical Plan Data also report medical loss dollars separately from indemnity loss dollars, and we have preserved this separation in the data that we used in our analysis.

The Unit Statistical Plan Data for a particular policy are first reported to the WCRIBMA eighteen months after policy inception (i.e., six months after a twelve month policy expires). Subsequent experience on each policy is reported at successive twelve month intervals, 30, 42, 54, 66, 78, 90, 102, 114, and 126 months after policy inception. (The Unit Statistical Plan Data reporting timeline thus differs from some other policy year data in which all policies are reported at a common calendar date, such as December 31.) These successive reports are compiled in order to evaluate each policy year at various maturities. This in turn enables us to aggregate loss development histories that allow us to develop the

most recent, least mature policy years to the same tenth-report maturity as the older, more mature policy years.

Unit Statistical Plan Data have been compiled out to tenth-report for each of the years included in the analysis. For purposes of the trend analysis, we have used each of the policy years developed to tenth-report. While we could have used other data sources to derive development factors from tenth-report to ultimate, the same (or very similar) tenth-to-ultimate development factors would likely apply to all policy years, and thus not have produced a different trend indication. In the interest of not adding unnecessary complexity to the filing, we opted to use the data for all policy years at tenth-report.

Overview of:

Section V-B – Claim Count Development

Section V-C – Indemnity Loss Development

Section V-D – Medical Loss Development

Section V-B documents the calculation of historical claim counts developed to tenth-report, which are used in the calculation of claim frequencies and average claim costs. Section V-C and Section V-D document the calculation of historical loss dollars for indemnity and medical, respectively, developed to tenth-report and adjusted to current benefit levels; the resulting on-level developed losses are used in the calculation of average claim costs.

These sections use standard loss development techniques to develop the

claim counts and losses to a tenth-report basis. We have developed indemnity losses separately from medical, and medical only losses separately from lost time medical.

Consistent with the methodology used to calculate the loss development factors in Section II - Loss Development that are used to determine the overall indication, the AIG and remainder of the industry data are evaluated separately from the remainder of the industry data for purposes of estimating losses to tenth-report. The selected age-to-age development factors for the remainder of the industry are the unweighted averages of the latest two indicated age-to-age link ratios and the selected age-to-age development factors for AIG are the unweighted averages of the latest five indicated age-to-age link ratios.² The resulting estimates of losses at tenth-report for AIG and the remainder of the industry are then summed; before on-leveling and calculating severities.

For purposes of the trend calculations, we have developed the claim counts and loss dollars to tenth-report, since the Unit Statistical Plan Data provides information as far as a tenth-report.

After the losses and claim counts are developed to tenth-report, as described above, Sections V-B, V-C and V-D of the filing calculate the historical year-by-year average claim costs and claim frequencies that are used in the calculation of the indicated Massachusetts loss trends in Section V-A.

² In response to the decision on 9/1/2012 rates, we have treated AIG and the balance of the industry the same way in developing losses in Sections II and V of this rate filing.

Section V-B – Massachusetts Claim Frequency

The historical claim frequencies derived in Section V-B for each year are the ratio of:

- (a) the reported claim counts as of the most recent Unit Statistical Plan Data compilation, developed to tenth-report, and adjusted to the current mix of Massachusetts payrolls by employment classification, divided by
- (b) estimated worker weeks underlying the Unit Statistical Plan Data (described below in Section V-E).

For purposes of the trend calculations, we calculate claim frequencies separately for lost time claims and for medical only claims.

The adjustment to the current mix of Massachusetts payrolls by employment classification is intended to remove any trend in claim frequency that is attributable to historical shifts in the mix of employment in Massachusetts. We make this adjustment because our objective is to estimate the level of premiums that would be adequate for the current mix of classes. Any future shifts in the mix of employment would be adjusted for automatically in the premium base because these shifts would move payroll to differently-rated classifications. Details of the class mix adjustment calculations are provided in Section V-F.

Section V-B also displays the indicated claim frequency trend based on the exponential fit to fifteen years of Massachusetts data, calculated using the claim frequencies as shown, and the standard function in Microsoft Excel™. This long

term claim frequency trend is used as the complement of credibility in Section V-A.

Sections V-C and V-D – Massachusetts Average Claim Costs

The historical average claim costs derived in Section V-C and Section V-D for each year are simply the ratio of:

- (a) reported losses as of the most recent Unit Statistical Plan Data compilation, developed to tenth-report, and adjusted to current benefit levels, divided by
- (b) reported claim counts as of the most recent Unit Statistical Plan Data compilation, developed to tenth-report.

The reported Unit Statistical Plan Data reflect the statutory benefit provisions that applied to each individual claim. Thus, claims from the 2002 policy year were handled and reported based on the benefits in effect at that time. Similarly, claims from the 2011 policy year were handled and reported based on the benefits in effect at that time. The changes in statutory benefits over time would contribute to a trend in the average claim cost data. But we do not want this trend to affect the data, because the statutory benefit changes are specifically addressed in another section of the filing. Therefore, before the Unit Statistical Plan Data are used in our trend analysis, the losses are all adjusted to a common benefit level. In Sections V-C and V-D the developed loss dollars are

placed “on-level” to the current Massachusetts benefit levels. By placing all of the loss data on current benefit level, we avoid a distortion in the trend analysis.

The resulting Massachusetts historical average claim costs in the final columns of Sections V-C and V-D are carried forward to Section V-A for use in calculating the historical fitted Massachusetts trends.

Section V-E – Payroll Development and Worker-Weeks

Section V-E documents the estimation of worker. The resulting estimate of worker weeks is used as the denominator of the claim frequency calculation in Section V-B, as described above.

In summary, worker weeks for a particular time period are estimated by dividing total covered payroll for that period by the statewide average weekly wage corresponding to that same period. More specifically, the historical worker weeks estimated in Section V-E for each policy year are derived as the ratio of:

- (a) the reported payroll as of the most recent Unit Statistical Plan Data compilation, developed to tenth-report, divided by
- (b) the state average weekly wage corresponding to the same period.

As with claim counts and frequency, consistently we have developed the payrolls to tenth-report.

The state average weekly wage is based on Massachusetts wage data compiled by the Division of Unemployment Assistance (DUA). Although it is not

compiled for workers' compensation purposes and is not defined in exactly the same way as payrolls used in workers' compensation calculations, the overall movement over time in this series is reasonably representative of the overall movement to be expected in the average wages used to calculate workers' compensation premiums. The time periods for which the Massachusetts wage data are compiled do not correspond to the policy periods we are analyzing; we use a weighted average of several wage data periods to correspond to the policy periods, as detailed in the footnotes in Section V-E. The underlying Massachusetts average wage series is documented in Section V-G.

Section V-F – Adjustment Factor for Class Mix

Section V-F documents the quantification of the estimated effect of a shifting mix of payrolls by classification over time. This effect is estimated by examining the proportion of payrolls that are in high-rated classifications versus low-rated classifications; specifically by calculating a weighted average of the *current* average rates, weighted by each year's payrolls by classification. For example, using the 2011 distribution of payrolls by classification, the weighted average of the current rates is \$0.922, while using the 1997 distribution of payrolls by classification against the same current rates produces an average rate of \$1.091. Since the average rate in each classification is based on the workers' compensation claims experience within that classification, this

movement in average rates indicates, not surprisingly, that the insured employment mix in Massachusetts has shifted towards less hazardous occupations. The claim trends caused by this shift should not be included in the trend factors because other sections of the filing (specifically the classification rate section) incorporate an explicit distribution of payrolls. Any further movement in the insured employment mix towards less hazardous occupations will automatically produce premium reductions by means of the lower rates that apply to those less hazardous occupations.

While the class mix change may affect the average cost of claims as well as the frequency of claims, we have made the simplifying assumption that all of the effect is related to claim frequency, and we have applied the class mix adjustment to the claim frequency series that is developed in Section V-B.

Section V-G – External Data

Section V-G Exhibit 1 displays some details underlying the countrywide severity data used to develop the complementary average claim cost trends.

Section V-G Exhibit 2 displays the Massachusetts average weekly wage data used in our analysis.

Section V-H – Expense Trends

Section V-H displays fixed expenses trended over two separate time periods. Fixed expenses are first trended from the historical periods for which

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they are reported to the periods on which the rate indication is based. Next, fixed expenses are trended forward to the period for which the rates are being set. For the first trend period, reported external index values (such as the CPI) are available that span the time period over which the WCRIBMA is trending. Consequently, the first trend factor is taken as a ratio of index values for the corresponding time periods, Section V-H, Exhibit 1. Index values are not available for the proposed effective period of the rates, however, so a projection is made. The WCRIBMA used an exponential least squares regression to project expense trends into the future.

The trends in the individual components of insurance company expenses have been estimated by using government indices that reflect changes in the prices of the goods and services used in operating an insurance company. Specifically, the selected indices are:

Expense	Index
Average Weekly Earnings ³	Average Weekly Earnings of Massachusetts Private Fire, Marine, and Casualty Insurance Employees. This series is provided on an annual basis.
Food Away From Home	Consumer Price Index for Food Away from Home
Private Transportation	Consumer Price Index for Private Transportation
Telephone Services	Consumer Price Index for Telephone
Postage	Consumer Price Index for Postage

³ The WCRIBMA acknowledges that concerns were raised in the last hearing with using the Average Weekly Earnings of Massachusetts Private Fire, Marine, and Casualty Insurance Employees in estimating expense trends. However, we continue to believe that this data is more representative than the Massachusetts SAWW for estimating trends in insurance company wages.

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Expense	Index
Office and Store Machines and Equipment	Producer Price Index for Office and Store Machines and Equipment
Paper	Producer Price Index for Paper

These indices are first normalized to a value of 100 with Calendar Year 2012 serving as the base. We then combine the indices using the weights shown in Section V-H, Exhibit 2, Page 2 for calendar year 2012 and weights from prior filings for all other years to derive the expense trend. The weights attributed to the various components of insurance company expenses for the workers' compensation line are based on the experience of the "Commercial Casualty" line as compiled in Best's Aggregates and Averages. Premium taxes, which are not incorporated in the expenses to which the expense trends and projection factors apply, are excluded from the determination of the component weights.

Trend Summary

	Indemnity			Medical			SAWW
	Severity	Frequency	Lost Time Medical		Severity	Frequency	
			Severity	Frequency			
(1) Massachusetts Trend	2.7%	-1.6%	3.7%	-1.6%	2.1%	-3.7%	2.3%
5 Year	2.1%	-0.6%	3.5%	-0.6%	0.4%	-3.6%	2.3%
6 Year	2.3%	-1.0%	3.4%	-1.0%	1.0%	-3.6%	1.8%
7 Year	2.6%	-1.5%	3.5%	-1.5%	1.7%	-3.8%	2.0%
8 Year	2.5%	-1.8%	3.2%	-1.8%	2.6%	-3.8%	2.2%
9 Year	3.2%	-2.1%	4.1%	-2.1%	3.0%	-3.6%	2.5%
10 Year	3.7%	-2.4%	4.3%	-2.4%	3.7%	-3.7%	2.7%
(2) Complement of Credibility	2.6%	-3.7%	3.9%	-3.7%	4.6%	-4.6%	3.0%
(3) Credibility Weighted Trend	2.7%	-2.6%	3.8%	-2.6%	2.7%	-3.9%	2.3%
5 Year	2.4%	-2.5%	3.8%	-2.5%	1.3%	-4.2%	2.3%
6 Year	2.5%	-2.3%	3.6%	-2.3%	1.5%	-4.0%	1.8%
7 Year	2.6%	-2.5%	3.7%	-2.5%	2.5%	-4.0%	2.0%
8 Year	2.5%	-2.6%	3.4%	-2.6%	3.4%	-3.8%	2.2%
9 Year	3.0%	-2.7%	4.0%	-2.7%	3.6%	-3.6%	2.5%
10 Year	3.4%	-2.9%	4.2%	-2.9%	4.1%	-3.7%	2.7%
(4) Selected Trend	2.7%	-2.6%	3.8%	-2.6%	2.7%	-3.9%	2.3%
(5) Medical Loss Trend	Lost Time Medical			Medical Only			
(6) Fraction of Total Medical	1.1%			-1.3%			
(7) Total Medical Loss Trend	87.0%			13.0%			
	Indemnity			Medical			
(8) Total Loss Trend	0.1%			0.8%			
(9) SAWW Trend	2.3%			2.3%			
(10) Total Net Trend	-2.1%			-1.4%			

Notes:

- (1) (2) (3): Exhibit 2 Severity; Exhibit 3 Frequency and SAWW.
- (4) = Selected Trend
- (5) = $[(1.0 + \text{Credibility Weighted Severity Trend}) \times (1.0 + \text{Credibility Weighted Frequency Trend})] - 1.0$
- (6) Medical Only = Medical Only Fraction of Total Medical from Section IV-E, Exhibit 2
Lost Time Medical = 1.0 - Medical Only
- (7) = Weighted Average of (5) using (6) as weights
- (8): Indemnity = $(1.0 + \text{Credibility Weighted Severity Trend}) \times (1.0 + \text{Credibility Weighted Frequency Trend}) - 1.0$
Medical = Row (7)
- (9): (4) for SAWW.
- (10) = $\{ [1.0 + (8)] / [1.0 + (9)] \} - 1.0$

Indemnity Severity Trend Calculation

Policy Year	Massachusetts Indemnity Severity	5 Year			6 Year			7 Year			8 Year			9 Year			10 Year					
		Exponential Fit	Difference Squared		Exponential Fit	Difference Squared		Exponential Fit	Difference Squared		Exponential Fit	Difference Squared		Exponential Fit	Difference Squared		Exponential Fit	Difference Squared				
2002	18,204																					
2003	19,184																					
2004	22,182																					
2005	22,155																					
2006	23,005																					
2007	23,131	23,883	566,018		23,189	33,819		22,423	72,285		21,992	35,812		20,573	1,927,479		20,038	728,752		19,315	1,234,694	
2008	24,807	24,384	179,122		23,732	360,838		23,003	3		22,534	143,576		21,237	891,651		20,788	1,942,757		20,573	1,234,694	
2009	26,224	24,894	1,767,878		24,287	270,511		23,598	218,541		23,088	6,855		22,632	139,530		21,566	346,986		22,372	400,401	
2010	24,722	25,416	480,740		24,855	1,874,780		24,209	1,929,892		24,835	1,929,892		24,897	1,761,345		24,078	531,117		24,078	531,117	
2011	25,701	25,948	61,128		25,436	509,223		25,477	569,333		25,446	523,274		25,701	957,722		25,913	1,418,483		25,913	1,418,483	
					26,031	108,909		26,136	189,131		26,072	137,633		26,531	689,564		26,883	1,397,206		26,883	1,397,206	
(1)	Massachusetts Trend																					
(2)	n		2.1%			2.3%			2.6%			2.5%			3.2%						3.7%	
(3)	s		5		6	7		8	9		10				9						10	
(4)	t		1009.11		888.55	816.93		750.13	996.38		996.38				1.89						1.86	
(5)	m		2.35		2.13	2.02		1.94	1.89		1.89				7.00						7.50	
(6)	$[1 + 1/n + 12 \times m^2/(n^3 \times m)]^{n-5}$		5.00		5.50	6.00		6.50	7.00		7.00				1.39						1.34	
(7)	Confidence Interval		1.92		1.70	1.56		1.46	2565.05		2128.19				2621.11						2713.62	
(8)	Projected Value		4567.58		3224.22	27,904.64		28,215.69	28,048.22		29,187.49				0.09						30,024.97	
(9)	C/I/Projected Severity		0.17		0.12	0.09		0.08	0.08		0.08				0.09						0.09	
(10)	Credibility - MA Trend (Z)		36%		52%	66%		79%	67%		67%				67%						66%	
(11)	Complement of Credibility																					
(12)	Credibility Weighted Severity Trend		2.4%		2.5%	2.6%		2.6%	2.6%		2.5%				3.0%						3.4%	

Notes:

- (1) Massachusetts Trend from exponential fit to Severities.
- (2) Number of data points used in the exponential fitting of the severities.
- (3) $\sqrt{SSR/(n-2)}$ where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.
- (4) T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with n - 2 degrees of freedom.
- (5) Number of years between midpoint of data and projected point.
- (7) $= (3) \times (4) \times (6)$
- (8) Severity projected to policy effective period using exponential fit to data.
- (9) $= (7) / (8)$
- (10) The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%. Numerically, $(10) = \text{minimum of } k / (9) \text{ and } 100\%$.
- (11) Complement of credibility is based on a countrywide data for severities.
- (12) $= [(11) \times (10)] + \{ [(11) \times [1.0 - (10)]] \}$

Lost Time Medical Severity Trend Calculation

Policy Year	Lost Time Medical Severity	5 Year		6 Year		7 Year		8 Year		9 Year		10 Year	
		Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared
2002	8,947												
2003	8,932												
2004	10,776												
2005	10,659												
2006	11,227												
2007	11,298												
2008	11,570												
2009	13,285												
2010	12,606												
2011	12,883												
(1)	Massachusetts Trend												
(2)	n		3.5%		3.4%		3.5%		3.2%		4.1%		4.3%
(3)	s		5		6		7		8		9		10
(4)	t		634.08		549.55		494.75		467.86		589.26		569.91
(5)	m		2.35		2.13		2.02		1.94		1.89		1.86
(6)	$[1 + 1/n + 12 \times m^2 / (n^3 - n)]^{.5}$		5.00		5.50		6.00		6.50		7.00		7.50
(7)	Confidence Interval		2870.07		1994.11		1553.43		1327.36		1550.12		1414.97
(8)	Projected Value Prospective Period		14,645.41		14,532.89		14,622.13		14,393.19		15,093.43		15,294.76
(9)	C/P/Projected Severity		0.20		0.14		0.11		0.09		0.10		0.09
(10)	Credibility - MA Trend (Z)		31%		44%		56%		65%		58%		65%
(11)	Complement of Credibility												
(12)	Credibility Weighted Severity Trend		3.8%		3.6%		3.7%		3.4%		4.0%		4.2%

Notes:

- (1): Massachusetts Trend from exponential fit to Severities.
- (2): Number of data points used in the exponential fitting of the severities.
- (3): $\sqrt{SSR / (n - 2)}$ where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.
- (4): T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with n - 2 degrees of freedom.
- (5): Number of years between midpoint of data and projected point.
- (7) = (3) x (4) x (6)
- (8): Severity projected to policy effective period using exponential fit to data.
- (9) = (7) / (8)
- (10): The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%. Numerically, (10) = the minimum of k / (9), and 100%.
- (11): Complement of credibility is based on a countrywide data for severities.
- (12) = $[(1) \times (10)] + \{[(1) \times [1.0 - (10)]]\}$

Medical Only Severity Trend Calculation

Policy Year	5 Year		6 Year		7 Year		8 Year		9 Year		10 Year	
	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared
2002	573										623	2,540
2003	646										647	0
2004	665										671	37
2005	719										696	570
2006	765										721	1,891
2007	800	2	780	213	747	771	705	1,596	671	618	718	55
2008	814	130	787	179	773	23	723	11	691	718	712	570
2009	790	232	802	359	800	725	760	557	733	996	748	1,891
2010	800	78	810	108	814	103	800	103	778	2,031	776	1,397
2011	823	136	818	30	828	24	842	354	825	126	805	225
(1)	Massachusetts Trend	0.4%	1.0%	1.7%	2.6%	3.0%	3.7%	3.0%	3.0%	3.0%	3.7%	3.7%
(2)	n	5	6	7	8	9	10	9	9	9	10	10
(3)	s	13.88	16.11	22.78	31.07	32.04	39.48	32.04	32.04	32.04	39.48	39.48
(4)	t	2.35	2.13	2.02	1.94	1.89	1.86	1.89	1.89	1.89	1.86	1.86
(5)	m	5.00	5.50	6.00	6.50	7.00	7.50	7.00	7.00	7.00	7.50	7.50
(6)	$[1 + 1/n + 12 \times m^2 / (n^3 - n)]^{1.5}$	1.92	1.70	1.56	1.46	1.39	1.34	1.39	1.39	1.39	1.34	1.34
(7)	Confidence Interval	62.84	58.45	71.52	88.14	84.30	98.02	88.14	84.30	84.30	98.02	98.02
(8)	Projected Value Prospective Period	821.10	841.58	871.80	909.08	928.78	966.80	909.08	928.78	928.78	966.80	966.80
(9)	C/I/Projected Severity	0.08	0.07	0.08	0.10	0.09	0.10	0.10	0.09	0.09	0.10	0.10
(10)	Credibility - MA Trend (Z)	78%	86%	73%	62%	66%	59%	62%	66%	66%	59%	59%
(11)	Complement of Credibility											
(12)	Credibility Weighted Severity Trend	1.3%	1.5%	2.5%	3.4%	3.6%	4.6%	3.4%	3.6%	3.6%	4.1%	4.1%

Notes:

- (1): Massachusetts Trend from exponential fit to Severities.
- (2): Number of data points used in the exponential fitting of the severities.
- (3): $\sqrt{\text{SSR}/(n-2)}$ where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.
- (4): T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with n - 2 degrees of freedom.
- (5): Number of years between midpoint of data and projected point.
- (7) = (3) x (4) x (6)
- (8): Severity projected to policy effective period using exponential fit to data.
- (9) = (7) / (8)
- (10): The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%. Numerically, (10) = the minimum of k / (9), and 100%.
- (11): Complement of credibility is based on a countrywide data for severities.
- (12) = $[(1) \times (10)] + \{(1) \times [1.0 - (10)]\}$

Lost Time Frequency Trend Calculation

Policy Year	Adjusted Claim Frequency	5 Year		6 Year		7 Year		8 Year		9 Year		10 Year	
		Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared
2002	223.43												
2003	212.24												
2004	205.76												
2005	199.67												
2006	190.51												
2007	189.95	184.49	29.82	188.18	5.46	194.46	27.19	200.87	23.97	207.49	22.64	215.82	57.99
2008	178.91	183.35	19.71	186.32	13.18	191.53	1.02	197.16	6.35	203.16	6.79	210.71	2.36
2009	176.04	182.21	38.10	184.48	31.08	188.63	1.73	193.51	9.00	198.92	0.57	205.72	0.00
2010	185.81	181.08	22.39	182.66	43.87	185.79	47.35	186.43	56.57	182.83	48.21	182.83	41.55
2011	180.68	179.96	0.52	180.86	24.55	180.22	31.27	179.60	38.57	179.02	46.13	178.16	58.55
(1)	Massachusetts Trend		-0.6%		-1.0%		-1.5%		-1.8%		-2.1%		-2.4%
(2)	n		5		6		7		8		9		10
(3)	s		6.07		5.49		5.78		5.80		5.75		6.17
(4)	t		2.35		2.13		2.02		1.94		1.89		1.86
(5)	m		5.00		5.50		6.00		6.50		7.00		7.50
(6)	$[1 + 1/n + 12 \times m^2 / (n^3 - n)]^{n-5}$		1.92		1.70		1.56		1.46		1.39		1.34
(7)	Confidence Interval		27.48		19.93		18.14		16.46		15.12		15.32
(8)	Projected Value Prospective Period		176.64		173.82		169.59		166.69		164.54		161.87
(9)	CI/Projected Frequency		0.16		0.11		0.11		0.10		0.09		0.09
(10)	Credibility - MA Trend (Z)		39%		52%		56%		61%		65%		63%
(11)	Complement of Credibility		-3.7%		-3.7%		-3.7%		-3.7%		-3.7%		-3.7%
(12)	Credibility Weighted Frequency Trend		-2.5%		-2.3%		-2.5%		-2.6%		-2.7%		-2.9%

Notes:

- (1): Massachusetts Trend from exponential fit to Adjusted Claim Frequencies
- (2): Number of data points used in the exponential fitting of the adjusted claim frequencies.
- (3): $\sum SSR / (n - 2)$ where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.
- (4): T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with n - 2 degrees of freedom.
- (5): Number of years between midpoint of data and projected point.
- (7) = (3) x (4) x (6)
- (8): Frequency projected to policy effective period using exponential fit to data.
- (9) = (7) / (8)
- (10): The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%. Numerically, (10) = the minimum of k / (9), and 100%.
- (11): Complement of credibility is based on a fifteen-year exponential fit to Adjusted Claim Frequencies.
- (12) = $[(1) \times (10)] + \{ [(11) \times [1.0 - (10)]] \}$

Medical Only Frequency Trend Calculation

Policy Year	Adjusted MedOnly Claim Frequency	5 Year		6 Year		7 Year		8 Year		9 Year		10 Year	
		Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared
2002	540.48												
2003	501.38												
2004	494.44												
2005	478.98												
2006	455.41												
2007	447.85	437.98	97.46	454.81	0.36	475.12	14.91	493.99	0.20	508.78	54.88	512.29	68.59
2008	413.48	422.37	79.00	438.44	88.54	457.27	3.46	475.37	13.06	490.38	16.48	493.12	1.74
2009	398.17	407.33	83.80	422.65	84.03	440.10	60.07	457.45	4.15	474.64	40.26	474.67	18.60
2010	400.79	392.82	63.62	407.43	85.78	407.65	89.90	440.21	58.31	439.06	77.22	456.91	2.24
2011	379.43	378.82	0.37	392.76	64.45	392.34	71.44	423.62	102.72	423.18	93.93	423.36	97.48
(1)	Massachusetts Trend												
(2)	n		-3.6%		-3.6%		-3.8%		-3.8%		-3.6%		-3.7%
(3)	s		5		6		7		8		9		10
(4)	t		10.40		9.00		8.30		7.58		7.89		8.18
(5)	m		2.35		2.13		2.02		1.94		1.89		1.86
(6)	$[1 + 1/n + 12 \times m^2 / (n^3 - n)]^{n-5}$		5.00		5.50		6.00		6.50		7.00		7.50
(7)	Confidence Interval		1.92		1.70		1.56		1.46		1.39		1.34
(8)	Projected Value Prospective Period		47.06		32.65		26.07		21.49		20.76		20.31
(9)	CI/Projected Frequency		339.77		339.20		336.65		336.44		339.23		336.78
(10)	Credibility - MA Trend (Z)		0.14		0.10		0.08		0.06		0.06		0.06
(11)	Complement of Credibility		43%		62%		77%		94%		98%		99%
(12)	Credibility Weighted Frequency Trend		-4.6%		-4.6%		-4.6%		-4.6%		-4.6%		-4.6%
			-4.2%		-4.0%		-4.0%		-3.8%		-3.6%		-3.7%

- Notes:
- (1): Massachusetts Trend from exponential fit to Adjusted Claim Frequencies
 - (2): Number of data points used in the exponential fitting of the adjusted claim frequencies.
 - (3): χ^2 SSR/(n - 2) where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.
 - (4): T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with n - 2 degrees of freedom.
 - (5): Number of years between midpoint of data and projected point.
 - (6): $(7) = (3) \times (4) \times (5)$
 - (7): Frequency projected to policy effective period using exponential fit to data.
 - (8): $(9) = (7) / (6)$
 - (9): The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%. Numerically, $(10) = \text{the minimum of } k / (9), \text{ and } 100\%$.
 - (10): Complement of credibility is based on a fifteen-year exponential fit to Adjusted Claim Frequencies.
 - (11): $(12) = [(1) \times (10)] + \{(11) \times [1.0 - (10)]\}$

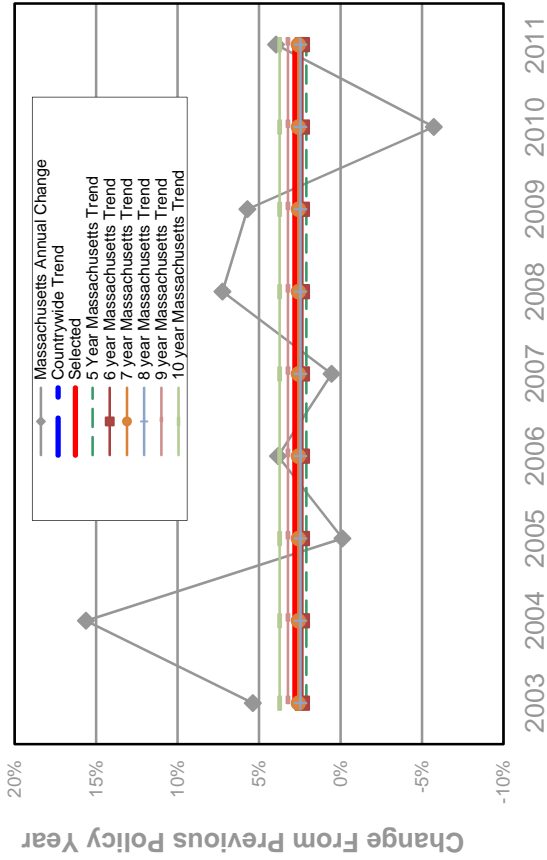
Statewide Average Weekly Wage Trend Calculation

Data Period	Statewide Average Weekly Wage	5 Year		6 Year		7 Year		8 Year		9 Year		10 Year	
		Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared	Exponential Fit	Difference Squared
4/1/03 to 4/1/04	918.78												
4/1/04 to 4/1/05	958.58												
4/1/05 to 4/1/06	1,000.43												
4/1/06 to 4/1/07	1,043.54												
4/1/07 to 4/1/08	1,093.27												
4/1/08 to 4/1/09	1,094.70	1,083.50	125.41	1,076.88	268.63	1,050.97	55.14	1,017.88	304.57	981.47	523.88	944.00	636.08
4/1/09 to 4/1/10	1,088.06	1,108.43	414.89	1,096.67	3.90	1,071.80	460.88	1,040.63	8.47	1,005.94	30.40	969.73	124.25
4/1/10 to 4/1/11	1,135.82	1,133.93	3.57	1,116.83	827.83	1,093.05	2.72	1,087.66	49.51	1,031.03	156.55	996.15	18.28
4/1/11 to 4/1/12	1,173.06	1,160.02	170.12	1,137.36	2.37	1,136.82	1.01	1,136.82	1.01	1,083.09	134.78	1,079.84	1,770.81
4/1/12 to 4/1/13	1,181.28	1,186.70	29.43	1,158.27	218.86	1,159.36	187.64	1,162.23	117.30	1,166.15	47.69	1,170.55	6.31
		1,188.20	47.94	1,182.35	1.14	1,182.35	1.14	1,188.20	47.94	1,195.23	194.72	1,202.45	448.11
(1)	Massachusetts Trend		2.3%		1.8%		2.0%		2.2%		2.5%		2.7%
(2)	n		5		6		7		8		9		10
(3)	s		15.74		18.20		16.85		18.09		20.40		22.63
(4)	t		2.35		2.13		2.02		1.94		1.89		1.86
(5)	m		4.67		5.17		5.67		6.17		6.67		7.17
(6)	$[1 + 1/n + 12 \times m^2 / (n^3 - n)]^n \cdot 5$		1.84		1.64		1.51		1.42		1.36		1.31
(7)	Confidence Interval		68.09		63.65		51.37		50.09		52.59		55.23
(8)	Projected Value Prospective Period		1,260.91		1,238.31		1,245.89		1,260.42		1,276.38		1,291.95
(9)	Ci/Projected Wage		0.05		0.05		0.04		0.04		0.04		0.04
(10)	Credibility - MA Trend (Z)		100%		100%		100%		100%		100%		100%
(11)	Complement of Credibility		3.0%		3.0%		3.0%		3.0%		3.0%		3.0%
(12)	Credibility Weighted Wage Trend		2.3%		1.8%		2.0%		2.2%		2.5%		2.7%

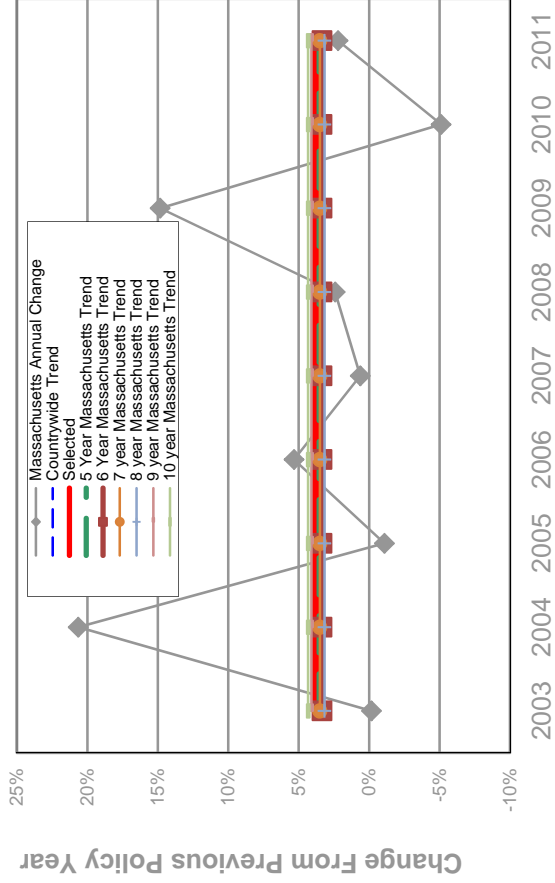
Notes:

- (1): Massachusetts Trend from exponential fit to the SAWWW.
- (2): Number of data points used in the exponential fitting of the statewide average weekly wages.
- (3): $\sqrt{SSR/(n-2)}$ where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.
- (4): T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with n - 2 degrees of freedom.
- (5): Number of years between midpoint of data and projected point.
- (6): $(3) \times (4) \times (6)$
- (7): SAWWW projected to policy effective period using exponential fit to data.
- (8): $(7) / (8)$
- (9): The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%. Numerically, $(10) = \text{the minimum of } k / (9) \text{ and } 100\%$.
- (10): Complement of credibility is based on a fifteen-year exponential fit to the SAWWWs.
- (11): $(12) = [(11) \times (10)] + \{ (11) \times [1.0 - (10)] \}$

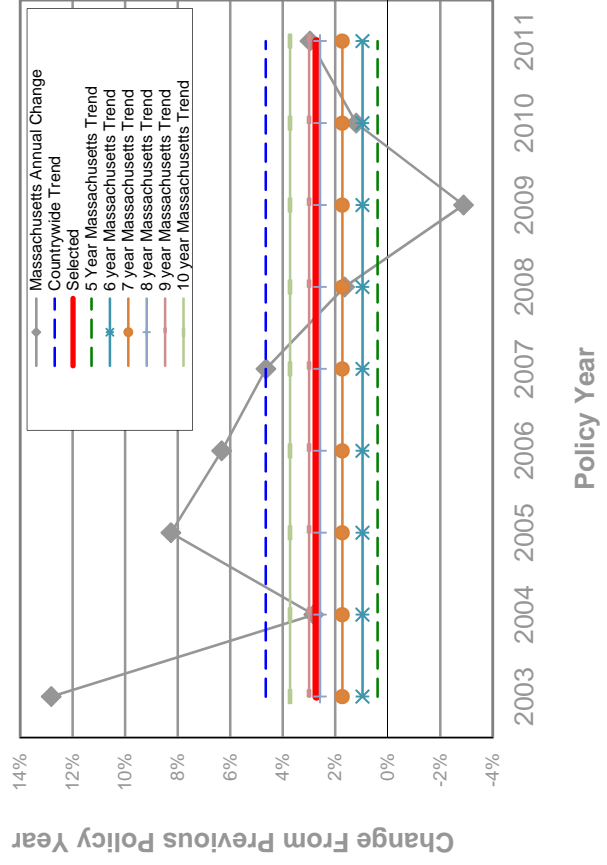
Indemnity Severity Trend



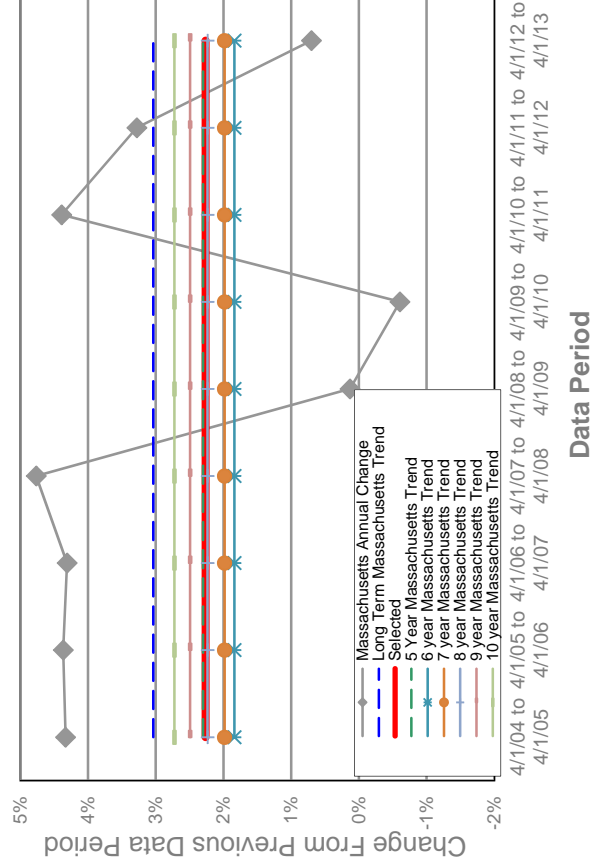
Lost Time Medical Severity Trend

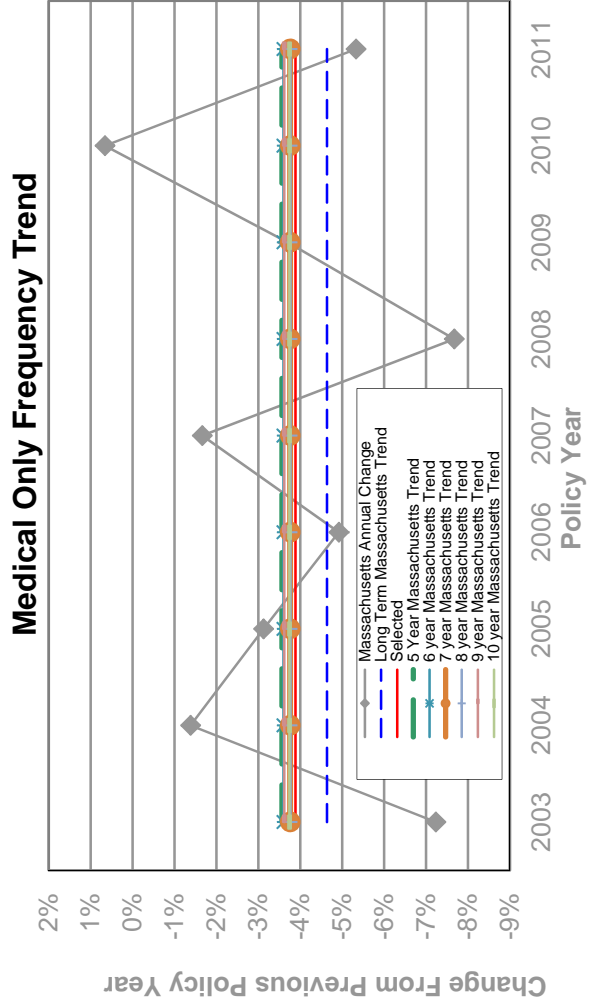
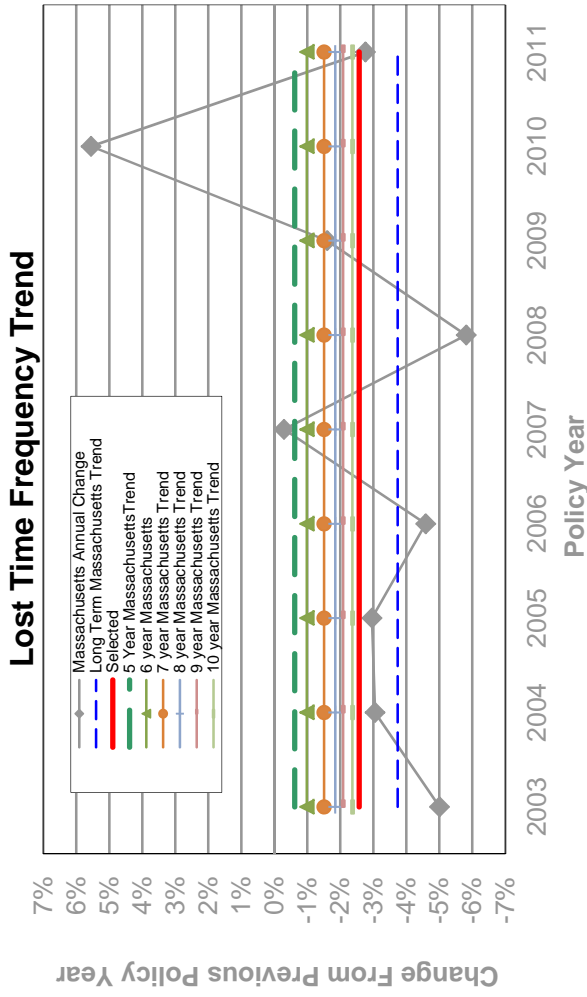


Medical Only Severity Trend



SAWW Trend





Lost Time Reported Claim Counts - Industrywide

Policy Year (1)	Lost Time Reported Claim Counts										Developed to Tenth Report to Tenth Report (3)	Estimated Million Worker-Weeks (4)	Unadjusted Claim Frequency = (3) / (4) (5)	Class Mix Adjustment = (5) x (6) (6)	Adjusted Claim Frequency = (5) x (6) (7)		
	Age of Development																
	18	30	42	54	66	78	90	102	114	126							
1997					25,125						25,174	74.50	337.90	0.845	285.56		
1998					25,563						25,613	73.51	348.43	0.812	283.04		
1999	24,627	24,936	25,066	25,114	25,107	25,105	25,111	25,114	25,100	25,101	25,101	73.07	343.51	0.822	282.28		
2000	23,668	24,163	24,303	24,329	24,326	24,328	24,334	24,330	24,340	24,341	24,341	77.66	313.43	0.846	265.12		
2001	20,823	21,129	21,287	21,307	21,322	21,330	21,336	21,343	21,349	21,348	21,348	77.06	277.04	0.844	233.91		
2002	20,157	20,512	20,565	20,604	20,616	20,622	20,630	20,629	20,640	20,638	20,638	77.14	267.54	0.835	223.43		
2003	18,948	19,154	19,225	19,265	19,305	19,320	19,329	19,337	19,347	19,346	19,346	74.30	260.36	0.815	212.24		
2004	17,494	17,731	17,780	17,835	17,863	17,870	17,880	17,885	17,885	17,883	17,883	71.65	249.73	0.824	205.76		
2005	16,774	17,066	17,136	17,173	17,198	17,207	17,213	17,213	17,213	17,227	17,227	73.58	234.11	0.853	199.67		
2006	15,478	15,758	15,855	15,902	15,913	15,927	15,927	15,927	15,927	15,947	15,947	75.66	210.76	0.904	190.51		
2007	15,210	15,543	15,650	15,687	15,718	15,718	15,718	15,718	15,718	15,749	15,749	78.32	201.07	0.945	189.95		
2008	13,905	14,189	14,261	14,307	14,307	14,307	14,307	14,307	14,307	14,349	14,349	78.59	182.59	0.980	178.91		
2009	12,967	13,199	13,260	13,260	13,260	13,260	13,260	13,260	13,260	13,341	13,341	75.29	177.18	0.994	176.04		
2010	14,365	14,653	14,653	14,653	14,653	14,653	14,653	14,653	14,653	14,825	14,825	79.87	185.61	1.001	185.81		
2011	14,470	14,470	14,470	14,470	14,470	14,470	14,470	14,470	14,470	14,918	14,918	82.56	180.68	1.000	180.68		
																15 Year Lost Time Frequency Trend	-3.7%

	Age-to-Age Development Factors									
	18 - 30	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114	114 - 126	126 - 138
2 Yr Weighted Average Selected	1.019	1.006	1.003	1.001	1.001	1.000	1.000	1.001	1.000	1.000
Cumulative	1.031	1.012	1.006	1.003	1.002	1.001	1.001	1.000	1.000	1.000

Notes:
Development factors are claim count weighted averages from latest two years.
(4) Section V-E, Exhibit 1.
(6) Section V-F, Exhibit 1.

Medical Only Reported Claim Counts - Industrywide

Policy Year (1)	Medical Only Reported Claim Counts										Developed to Tenth Report (3)	Estimated Million Worker-Weeks (4)	Unadjusted Claim Frequency = (3) / (4) (5)	Class Mix Adjustment (6)	Adjusted Claim Frequency = (5) x (6) (7)
	Age of Development														
	18	30	42	54	66	78	90	102	114	126					
1997					61,605						61,618	74.50	827.09	0.845	698.97
1998					62,514						62,528	73.51	850.59	0.812	690.97
1999	58,238	60,498	61,100	61,252	61,311	61,321	61,325	61,326	61,267	61,269	61,269	73.07	838.47	0.822	689.01
2000	56,429	58,874	59,440	59,557	59,697	59,697	59,703	59,636	59,637	59,640	59,640	77.66	767.97	0.846	649.60
2001	51,365	52,970	53,409	53,522	53,566	53,549	53,580	53,589	53,586	53,590	53,590	77.06	695.46	0.844	587.19
2002	47,698	49,555	49,804	49,855	49,883	49,892	49,897	49,914	49,919	49,923	49,923	77.14	647.17	0.835	540.48
2003	44,215	45,415	45,636	45,671	45,688	45,693	45,696	45,699	45,696	45,696	45,700	74.30	615.03	0.815	501.38
2004	41,849	42,816	42,915	42,969	42,978	42,987	42,993	42,992	42,992	42,996	42,996	71.65	600.08	0.824	494.44
2005	40,395	41,181	41,297	41,312	41,317	41,320	41,319	41,324	41,324	41,324	41,324	73.58	561.58	0.853	478.98
2006	37,303	38,007	38,087	38,114	38,114	38,114	38,114	38,114	38,114	38,114	38,121	75.66	503.82	0.904	455.41
2007	36,544	37,071	37,119	37,116	37,123	37,123	37,123	37,123	37,123	37,123	37,131	78.32	474.08	0.945	447.85
2008	32,711	33,073	33,138	33,154	33,154	33,154	33,154	33,154	33,154	33,154	33,164	78.59	422.01	0.980	413.48
2009	29,836	30,125	30,160	30,160	30,160	30,160	30,160	30,160	30,160	30,160	30,175	75.29	400.76	0.994	398.17
2010	31,543	31,910	31,910	31,910	31,910	31,910	31,910	31,910	31,910	31,910	31,976	79.87	400.36	1.001	400.79
2011	30,932	30,932	30,932	30,932	30,932	30,932	30,932	30,932	30,932	30,932	31,328	82.56	379.43	1.000	379.43
15 Year Medical Only Frequency Trend															
-4.6%															

2 Yr Weighted Average Selected Cumulative	Age-to-Age Development Factors									
	15 Year Medical Only Frequency Trend									
	18 - 30	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114	114 - 126	126 - 138
1,011	1,002	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1,011	1,002	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1,013	1,002	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Notes:
Development factors are claim count weighted averages from latest two years.
(4): Section V-E, Exhibit 1.
(6): Section V-F, Exhibit 1.

Indemnity Paid + Case Losses (in 000's)

Policy Year (1)	Developed to Tenth Report (2)	Indemnity On-Level Factor (3)	On-Level Indemnity Losses (in 000's) Developed to Tenth Report = (2) x (3) (4)	Developed Claim Counts (5)	Severity = 1,000 x (4) / (5) (6)
2002	348,333	1.079	375,696	20,638	18,204
2003	343,951	1.079	371,132	19,346	19,184
2004	370,034	1.073	396,897	17,893	22,182
2005	359,520	1.062	381,653	17,227	22,155
2006	349,367	1.050	366,866	15,947	23,005
2007	350,685	1.039	364,281	15,749	23,131
2008	346,570	1.027	355,964	14,349	24,807
2009	342,015	1.023	349,847	13,341	26,224
2010	357,943	1.024	366,502	14,825	24,722
2011	376,875	1.017	383,408	14,918	25,701

Notes:

(2): (3) Exhibit 1, Page 2 + (3) Exhibit 1, Page 3.

(3): Section IV-A, Exhibit 1.

(5): Section V-B, Exhibit 1.

Indemnity Paid + Case Losses (in 000's)
Remainder of Industry

Policy Year (1)	Age of Development (2)										Developed to Tenth Report (3)
	18	30	42	54	66	78	90	102	114	126	
2000	229,755	306,658	323,710	325,073	330,970	333,758	332,365	336,961	337,792	339,372	
2001	227,682	266,641	278,379	286,749	293,862	297,602	297,825	298,399	297,614	288,115	
2002	183,645	228,806	244,869	260,172	266,153	270,090	270,126	269,756	271,088	272,354	
2003	160,662	203,367	220,088	228,763	235,706	236,948	239,719	240,686	242,089	242,841	
2004	152,516	201,510	220,043	230,976	235,437	236,672	241,144	241,757	243,711	243,711	
2005	148,803	187,153	203,066	213,017	218,464	219,187	221,693		224,312	228,907	
2006	136,557	186,996	207,381	217,600	221,850	223,899			240,961	240,961	
2007	148,864	196,180	216,713	226,982	234,215				247,304	247,304	
2008	149,819	200,496	219,863	234,327					265,063	265,063	
2009	161,581	200,496	219,863						263,940	263,940	
2010	157,414	212,607									
2011	174,934										288,060

		Age-to-Age Development Factors									
		18 - 30	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114	114 - 126	126
2 Yr-Weighted Average	1.326										
Selected	1.326	1.113	1.057	1.026	1.006	1.010	1.004	1.005	1.003	1.003	
Cumulative	1.647	1.241	1.115	1.055	1.029	1.022	1.012	1.008	1.003	1.003	

Notes:
Development factors are loss weighted average from latest two years.

Indemnity Paid + Case Losses (in 000's)
 -AIG-

Policy Year (1)	Age of Development (2)												Developed to Tenth Report (3)	
	18	30	42	54	66	78	90	102	114	126				
1999	14,711	22,912	27,026	29,288	29,984	29,273	31,028	31,543	31,424	31,267				
2000	20,803	30,551	36,693	39,073	41,419	40,934	41,736	42,248	42,242	43,136				
2001	26,378	37,167	46,197	47,721	48,720	51,559	51,190	51,743	51,217	51,319				
2002	36,409	53,190	60,755	66,311	72,227	72,489	74,538	75,504	76,126	75,979				
2003	43,895	68,439	80,734	90,835	99,130	100,041	100,758	101,418	100,763					
2004	48,412	76,614	96,470	109,288	119,802	123,064	123,973	126,175						
2005	54,769	108,340	125,345	133,475	133,971									
2006	53,787	100,604	113,967	116,520										
2007	48,556	77,943	91,253	101,909	106,343	118,168								
2008	48,283	71,334	83,825	90,534										
2009	31,410	50,680	62,529											
2010	38,527	63,068												
2011	37,730													

Age-to-Age Development Factors								
	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114	114 - 126
5 Yr Weighted Average Selected	1.207	1.126	1.063	1.012	1.006	1.012	0.998	1.003
Cumulative	1.491	1.235	1.096	1.032	1.019	1.014	1.001	1.003

Notes:
 Development factors are loss weighted average from latest five years.

Lost Time Medical Paid + Case Losses (in 000's)

Policy Year (1)	Developed to Tenth Report (2)	Medical On-Level Factor (3)	On-Level Lost Time Medical Losses (in 000's) to Tenth Report = (2) x (3) (4)	Developed Claim Counts (5)	Severity = 1,000 x (4) / (5) (6)
2002	172,251	1.072	184,652	20,638	8,947
2003	165,215	1.046	172,795	19,346	8,932
2004	186,095	1.036	192,816	17,893	10,776
2005	177,903	1.032	183,614	17,227	10,659
2006	173,468	1.032	179,037	15,947	11,227
2007	172,373	1.032	177,924	15,749	11,298
2008	162,058	1.024	166,023	14,349	11,570
2009	176,915	1.002	177,238	13,341	13,285
2010	186,859	1.000	186,877	14,825	12,606
2011	192,172	1.000	192,191	14,918	12,883

Notes:

- (2): (3) Exhibit 1, Page 2 + (3) Exhibit 1, Page 3.
- (3): Section IV-A, Exhibit 1.
- (5): Section V-B, Exhibit 1.

Lost Time Medical Paid + Case Losses (in 000's)
Remainder of Industry

Policy Year (1)	Age of Development (2)										Developed to Tenth Report (3)
	18	30	42	54	66	78	90	102	114	126	
2000	139,863	160,169	167,005	172,040	178,420	184,305	189,375	187,215	186,260	188,181	
2001	121,477	124,509	127,118	135,727	137,699	153,884	154,310	155,230	153,811	154,592	
2002	108,824	115,139	120,399	130,840	131,729	135,746	138,614	140,418	140,098	141,749	
2003	103,860	108,664	114,899	121,174	124,292	124,080	124,195	126,281	124,617	125,648	
2004	107,430	113,180	121,866	122,109	123,336	124,525	124,665	126,299	124,665	126,387	
2005	94,078	99,289	104,182	107,383	111,741	113,166	114,187			115,984	
2006	95,537	104,151	109,569	111,885	113,742	115,913				118,312	
2007	114,613	122,332	124,445	127,971	128,257					133,000	
2008	104,267	112,309	115,977	119,431						125,057	
2009	120,880	128,754	134,032							144,421	
2010	126,964	137,279								153,409	
2011	130,329									156,331	

2 Yr Weighted Average Selected Cumulative	Age-to-Age Development Factors									
	18 - 30	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114	114 - 126	
	1.073	1.037	1.029	1.010	1.016	1.005	1.015	0.983	1.008	
	1.073	1.037	1.029	1.010	1.016	1.005	1.015	0.993	1.008	
	1.200	1.117	1.078	1.047	1.037	1.021	1.016	1.001	1.008	

Notes:
Development factors are loss weighted average from latest two years.

Lost Time Medical Paid + Case Losses (in 000's)
AIG

Policy Year (1)	Age of Development										Developed to Tenth Report (3)
	18	30	42	54	66	78	90	102	114	126	
1999	7,801	9,742	9,926	10,612	10,362	10,681	11,071	11,634	11,656	11,503	
2000	10,527	12,694	19,057	19,287	14,030	14,309	14,375	14,413	14,903	14,641	
2001	16,276	16,474	16,620	18,040	18,034	18,390	18,544	18,279	18,257	18,688	
2002	23,634	26,114	28,852	31,100	33,148	33,598	31,135	31,743	30,854	30,502	30,502
2003	31,219	35,051	39,198	42,531	44,811	43,838	42,027	39,546	39,640		39,568
2004	35,228	44,012	49,112	57,587	60,878	60,503	57,963	59,964			59,698
2005	42,267	48,472	54,936	59,769	63,760	62,397	62,233				61,919
2006	44,211	48,994	54,292	57,906	57,753	57,247					55,156
2007	34,768	39,427	41,579	41,432	41,289						39,373
2008	31,686	36,437	37,720	37,462							37,001
2009	24,822	30,405	30,761								32,494
2010	26,033	29,420									33,450
2011	27,566										35,841

5 Yr-Weighted Average Selected Cumulative	Age-to-Age Development Factors							
	18 - 30	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114
1.144	1.076	1.070	1.036	0.990	0.968	0.999	0.997	0.998
1.144	1.076	1.070	1.036	0.990	0.968	0.999	0.997	0.998
1.300	1.137	1.056	0.988	0.954	0.963	0.995	0.996	0.998

Notes:
Development factors are loss weighted average from latest five years.

Medical Only Paid + Case Losses (in 000's)

Policy Year (1)	Developed to Tenth Report (2)	Medical On-Level Factor (3)	On-Level Medical Only Losses (in 000's) to Tenth Report = (2) x (3) (4)	Developed Claim Counts (5)	Severity = 1,000 x (4) / (5) (6)
2002	26,683	1.072	28,604	49,923	573
2003	28,244	1.046	29,540	45,700	646
2004	27,578	1.036	28,574	42,996	665
2005	28,806	1.032	29,731	41,324	719
2006	28,254	1.032	29,161	38,121	765
2007	28,794	1.032	29,721	37,131	800
2008	26,337	1.024	26,981	33,164	814
2009	23,797	1.002	23,840	30,175	790
2010	25,565	1.000	25,568	31,976	800
2011	25,788	1.000	25,791	31,328	823

Notes:

(2): (3) Exhibit 2, Page 2 + (3) Exhibit 2, Page 3.

(3): Section IV-A, Exhibit 1.

(5): Section V-B, Exhibit 2.

Medical Only Paid + Case Losses (in 000's)
Remainder of Industry

Policy Year (1)	Age of Development (2)										Developed to Tenth Report (3)
	18	30	42	54	66	78	90	102	114	126	
2000	22,730	24,395	24,780	24,809	24,991	24,882	25,104	25,091	25,001	25,019	
2001	21,417	22,624	23,116	23,112	23,065	23,101	23,120	23,079	23,165	23,160	
2002	21,236	22,494	22,765	22,481	22,452	22,377	22,389	22,417	22,407	22,421	22,421
2003	20,809	21,924	22,521	22,758	22,689	22,660	22,625	22,629	22,627	22,632	22,632
2004	19,416	20,012	20,154	20,145	20,252	20,312	20,293	20,268		20,267	20,267
2005	20,013	20,432	20,488	20,602	20,507	20,532	20,433			20,422	20,422
2006	20,329	20,611	20,648	20,569	20,600	20,604				20,532	20,532
2007	21,218	21,697	21,757	21,882	21,896					21,835	21,835
2008	20,749	20,815	20,909	20,875						20,840	20,840
2009	19,855	19,850	19,822							19,831	19,831
2010	21,217	21,052								21,095	21,095
2011	21,857									21,811	21,811

Age-to-Age Development Factors

	18 - 30	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114	114 - 126
2 Yr Weighted Average	0.996	1.002	1.002	1.001	1.001	0.997	1.000	1.000	1.000
Selected	0.996	1.002	1.002	1.001	1.001	0.997	1.000	1.000	1.000
Cumulative	0.998	1.002	1.000	0.998	0.997	0.997	0.999	1.000	1.000

Notes:
Development factors are loss weighted average from latest two years.

Worker Weeks by Policy Year

Policy Year (1)	Payroll (in millions of dollars) Age of Development										Developed to Termination Report (3)	State Average Weekly Wage (4)	Estimated Million Worker-Weeks = (3) / (4) (5)
	18	30	42	54	66	78	90	102	114	126			
1997											53,107	712.84	74.50
1998											56,675	770.97	73.51
1999											61,764	845.24	73.07
2000											68,862	886.71	77.66
2001											68,077	883.36	77.06
2002											68,967	894.05	77.14
2003											69,022	928.90	74.30
2004											69,437	969.11	71.65
2005											74,412	1,011.25	73.58
2006											79,914	1,056.18	75.66
2007											85,538	1,092.12	78.32
2008											85,879	1,092.79	78.59
2009											82,951	1,101.70	75.29
2010											91,435	1,144.80	79.87
2011											96,948	1,174.21	82.56

Age-to-Age Development Factors

	18 - 30	30 - 42	42 - 54	54 - 66	66 - 78	78 - 90	90 - 102	102 - 114	114 - 126
2 Yr. Weighted Average	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Notes:
 Development factors are payroll weighted average from latest two years.
 (5). Section V.G. Exhibit 2. The smoothed SAWW is the average of the policy year SAWW with the two preceding policy year SAWWs.
 For all policy years the following class codes are excluded from reported Schedule Z payrolls: 0059, 0065, 0066, 0067, 0068, 0070, 0073, 0074, 0076, 0077, 0079, 0098, 0909, 0912, 0913, 7445, 7453, and 9885.

V 000041

Section V - Trend
Subsection F - Calculation of Class Mix Adjustment Factor
1/1/2014

Section V - F
Exhibit 1

Class Mix Adjustment Factors

Policy Year (1)	Average Manual Rates Based on Rates Effective 9/1/10 (2)	Class Mix Adjustment Factor = 0.922 / (2) (3)
1997	1.091	0.845
1998	1.135	0.812
1999	1.122	0.822
2000	1.090	0.846
2001	1.092	0.844
2002	1.104	0.835
2003	1.131	0.815
2004	1.119	0.824
2005	1.081	0.853
2006	1.020	0.904
2007	0.976	0.945
2008	0.941	0.980
2009	0.928	0.994
2010	0.921	1.001
2011	0.922	1.000

Notes:

(2): Current rates (Effective 9/1/10) averaged over class payrolls (excluding large deductibles) by Policy Year.

(3): Adjustment to 2011 Policy Year level.

Periods from which NCCI Data is Taken

State	Annual Statistical Bulletin - Weights					Annual Statistical Bulletin - Policy Period Beginning Dates				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Alabama	1.8%	1.7%	1.7%	1.6%	1.9%	5/1/2005	5/1/2006	5/1/2007	5/1/2008	5/1/2009
Alaska	0.8%	0.9%	0.7%	0.7%	0.8%	4/1/2005	4/1/2006	4/1/2007	4/1/2008	4/1/2009
Arizona	3.1%	3.1%	2.6%	2.5%	2.2%	3/1/2005	3/1/2006	3/1/2007	3/1/2008	3/1/2009
Arkansas	0.7%	0.8%	0.7%	0.8%	0.8%	2/1/2005	2/1/2006	2/1/2007	2/1/2008	2/1/2010
Colorado	3.2%	3.0%	3.2%	3.3%	3.3%	3/1/2005	3/1/2006	3/1/2007	3/1/2008	3/1/2009
Connecticut	2.6%	2.8%	3.2%	3.3%	3.5%	8/1/2005	8/1/2006	8/1/2007	8/1/2008	8/1/2009
District Of Columbia	0.5%	0.4%	0.4%	0.3%	0.3%	2/1/2005	2/1/2006	2/1/2007	2/1/2008	2/1/2009
Florida	11.6%	9.8%	9.5%	9.2%	8.9%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2009
Georgia	4.9%	5.2%	5.4%	4.9%	4.7%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
Hawaii	0.6%	0.7%	0.7%	0.7%	0.7%	6/1/2005	6/1/2006	6/1/2007	6/1/2008	6/1/2009
Idaho	1.2%	1.1%	1.0%	1.1%	1.2%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
Illinois	10.3%	11.7%	12.3%	12.3%	12.0%	4/1/2005	4/1/2006	4/1/2007	4/1/2008	4/1/2009
Indiana	2.8%	2.8%	2.8%	2.8%	3.0%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
Iowa	2.0%	2.1%	2.4%	2.5%	2.9%	3/1/2005	3/1/2006	3/1/2007	3/1/2008	3/1/2009
Kansas	1.7%	1.7%	1.7%	1.7%	1.9%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
Kentucky	2.9%	2.2%	2.3%	2.1%	2.2%	5/1/2005	5/1/2006	5/1/2007	5/1/2008	5/1/2009
Louisiana	2.6%	2.5%	2.8%	2.7%	3.0%	9/1/2005	9/1/2006	9/1/2007	9/1/2008	9/1/2009
Maine	0.9%	0.8%	0.9%	0.8%	0.8%	6/1/2005	6/1/2006	6/1/2007	6/1/2008	6/1/2009
Maryland	2.9%	2.9%	2.8%	3.2%	3.2%	4/1/2005	4/1/2006	4/1/2007	4/1/2008	4/1/2009
Mississippi	1.2%	1.3%	1.1%	1.2%	1.4%	9/1/2005	9/1/2006	9/1/2007	9/1/2008	9/1/2009
Missouri	3.1%	3.2%	3.3%	2.9%	3.2%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
Montana	1.5%	1.6%	1.3%	1.5%	1.2%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2010
Nebraska	1.3%	1.2%	1.2%	1.1%	1.4%	8/1/2005	8/1/2006	8/1/2007	8/1/2008	8/1/2009
Nevada	1.4%	1.6%	1.6%	1.5%	1.3%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2009
New Hampshire	1.2%	1.1%	1.0%	1.1%	1.2%	4/1/2005	4/1/2006	4/1/2007	4/1/2008	4/1/2009
New Mexico	0.8%	0.9%	1.1%	1.1%	1.1%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
North Carolina	6.0%	5.3%	5.7%	6.0%	5.8%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2009
Oklahoma	3.0%	3.2%	3.6%	3.6%	3.7%	6/1/2005	6/1/2006	6/1/2007	6/1/2008	6/1/2009
Oregon	2.7%	2.4%	2.5%	2.5%	2.6%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2009
Rhode Island	0.7%	0.7%	0.7%	0.6%	0.8%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2009
South Carolina	2.9%	2.6%	2.8%	2.6%	2.7%	5/1/2005	5/1/2006	5/1/2007	5/1/2008	5/1/2009
South Dakota	0.5%	0.6%	0.6%	0.4%	0.5%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2010
Tennessee	3.8%	3.8%	3.8%	3.8%	3.6%	6/1/2005	6/1/2006	6/1/2007	6/1/2008	6/1/2009
Texas	7.3%	8.2%	7.5%	7.6%	6.8%	1/1/2005	1/1/2006	1/1/2007	1/1/2008	1/1/2009
Utah	1.2%	1.6%	1.5%	1.4%	1.2%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
Vermont	0.6%	0.6%	0.5%	0.6%	0.6%	7/1/2005	7/1/2006	7/1/2007	7/1/2008	7/1/2009
Virginia	3.8%	3.8%	3.4%	3.4%	3.5%	2/1/2005	2/1/2006	2/1/2007	2/1/2008	2/1/2009
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%					

Policy Period Start Date	Average Earned Date	Years
4/15/2009	4/13/2008	4.04
4/15/2010	4/13/2008	3.04
3/30/2005	4/1/2006	2.00
3/30/2006	4/1/2007	1.00

Notes:
Weights are derived from data obtained from NCCI that underlies the NCCI Annual Statistical Bulletins.

Section V - Trend
 Subsection G - External Data
 1/1/2014

Section V - G
 Exhibit 2

Summary of Statewide Average Weekly Wage (SAWW) Data

Date Promulgated by DUA (1)	Period of Data Used by DUA (2)	SAWW (3)
10/1/95	4/1/94 to 4/1/95	604.03
10/1/96	4/1/95 to 4/1/96	631.03
10/1/97	4/1/96 to 4/1/97	665.55
10/1/98	4/1/97 to 4/1/98	699.91
10/1/99	4/1/98 to 4/1/99	749.69
10/1/00	4/1/99 to 4/1/00	830.89
10/1/01	4/1/00 to 4/1/01	890.94
10/1/02	4/1/01 to 4/1/02	882.57
10/1/03	4/1/02 to 4/1/03	884.46
10/1/04	4/1/03 to 4/1/04	918.78
10/1/05	4/1/04 to 4/1/05	958.58
10/1/06	4/1/05 to 4/1/06	1,000.43
10/1/07	4/1/06 to 4/1/07	1,043.54
10/1/08	4/1/07 to 4/1/08	1,093.27
10/1/09	4/1/08 to 4/1/09	1,094.70
10/1/10	4/1/09 to 4/1/10	1,088.06
10/1/11	4/1/10 to 4/1/11	1,135.82
10/1/12	4/1/11 to 4/1/12	1,173.06
10/1/13	4/1/12 to 4/1/13	1,181.28
15 Year Exponential Fit, Trend =		3.0%

Policy Year (4)	SAWW (5)
1995	639.90
1996	674.14
1997	712.84
1998	770.97
1999	845.24
2000	886.71
2001	883.36
2002	894.05
2003	928.90
2004	969.11
2005	1,011.25
2006	1,056.18
2007	1,092.12
2008	1,092.79
2009	1,101.70
2010	1,144.80
2011	1,174.21

Notes:

(5): SAWW for Policy Year $i = [0.03125 \times \text{SAWW during period } 4/1/(i-1) \text{ to } 4/1/i] + [0.6875 \times \text{SAWW during period } 4/1/i \text{ to } 4/1/(i+1)] + [0.28125 \times \text{SAWW during period } 4/1/(i+1) \text{ to } 4/1/(i+2)]$

The DUA is the Department of Unemployment Assistance; previously this data was compiled by the DET (Division of Employment and Training).

V 000044

Section V - Trend
 Subsection H - Expense Trends
 1/1/2014

Section V - H
 Exhibit 1

Calculation of Expense Trend Index

Time Interval (1)	Time Index (2)	Expense Trend Index (3)	Expense Trend Factors		
			PY2010 (4)	PY2011 (5)	1/1/2014 (6)
CY1998	7/1/1998	59.25			
CY1999	7/1/1999	61.31			
CY2000	7/1/2000	64.08			
CY2001	7/1/2001	66.54			
CY2002	7/1/2002	67.69			
CY2003	7/1/2003	71.96			
CY2004	7/1/2004	78.35			
CY2005	7/1/2005	87.51			
CY2006	7/1/2006	85.53			
CY2007	7/1/2007	94.19			
CY2008	7/1/2008	100.14			
CY2009	7/1/2009	100.74			
CY2010	7/1/2010	103.57	0.981	0.964	1.050
CY2011	7/1/2011	99.74	1.019	1.001	1.091
CY2012	7/1/2012	100.00	1.017	0.999	1.088

15 Year Exponential Fit, Trend: 4.5%

PY2010	1/1/2011	101.66			1.070
PY2011	1/1/2012	99.87			1.089
1/1/2013	1/1/2014	105.20			1.034
1/1/2014	1/1/2015	108.80			

Notes:

- (1): 1/1/13 and 1/1/14 are time intervals comparable to the policy years.
- (2): Midpoint of the time interval used for determination of Expense Trend Index exponential trend rate of 3.4%.
- (3): Calendar Years: Exhibit 2, Page 2 - Average of (10) through (16) weighted by (18) through (24)
 PY2010 - Average of indices for CY2010 and CY2011.
 PY2011 - Average of indices for CY2011 and CY2012.
 The exponential trend rate derived from an exponential regression of the Expense Trend Index for CY2006 - CY2012 is applied to the CY2012 Expense Trend Index value to derive the Expense Trend Index values for 1/1/2013 and 1/1/2014
- (4) = [(3) for PY2010] / (3)
- (5) = [(3) for PY2011] / (3)
- (6) = [(3) for 1/1/2014] / (3)

Calculation of Credibility Weighted Expense Trend

Calendar Year (1)	Expense Index (2)	7 Year Exponential Fit (3)	Difference Squared (4)
2006	85.53	91.29	33.17
2007	94.19	93.33	0.74
2008	100.14	95.41	22.37
2009	100.74	97.53	10.31
2010	103.57	99.71	14.97
2011	99.74	101.93	4.79
2012	100.00	104.20	17.64

(5)	7 Year Expense Index Trend	2.2%
(6)	n	7
(7)	s	4.56
(8)	t	2.02
(9)	m	5.50
(10)	$[1 + 1/n + 12 \times m^2 / (n^3 - n)]^{.5}$	1.49
(11)	Confidence Interval	13.71
(12)	Projected Value Prospective Period	110.11
(13)	CI/Projected Expense Index	0.12
(14)	Credibility - 7 Year Expense Index Trend (Z)	48%
(15)	Complement of Credibility - 15 year	4.5%
(16)	Credibility Weighted Expense Trend	3.4%

Notes:

(2): Exhibit 1.

(5): 7 Year Massachusetts Trend from seven-year exponential fit to expense trend indices.

(6): Number of data points used in the exponential fitting of the 7 Year Massachusetts Trend.

(7): $\sqrt{SSR/(n-2)}$ where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.

(8): T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with 5 (= n - 2) degrees of freedom.

(9): Number of years between midpoint of data and projected point.

(11) = (7) x (8) x (10)

(12): Projected to prospective effective period using exponential fit to data.

(13) = (11) / (12)

(14): The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%.
 Numerically, (14) = the minimum of k / (13) and 100%.

(15): Complement of credibility is based on a 15-year exponential fit, Exhibit 1.

(16) = [(5) x (14)] + { (15) x [1.0 - (14)] }

Calculation of Expense Trend Index

Economic Indices							
Calendar Year (1)	Average Weekly Earnings (2)	Food (3)	Private Transportation (4)	Phone (5)	Postage (6)	Machines & Equipment (7)	Paper (8)
1998	977.00	161.10	138.00	100.70	160.80	112.30	145.40
1999	1,021.00	165.00	140.70	100.20	165.60	112.30	141.80
2000	1,075.00	169.00	150.10	98.70	165.60	112.70	149.80
2001	1,133.00	173.80	150.80	99.40	172.10	112.70	150.60
2002	1,166.00	178.20	149.00	99.90	182.60	112.50	144.70
2003	1,265.00	182.00	153.50	98.50	191.70	112.30	146.10
2004	1,406.00	187.40	158.80	96.00	191.70	113.20	149.40
2005	1,609.00	193.30	170.30	95.00	191.70	115.10	159.60
2006	1,559.00	199.10	177.50	95.90	201.90	114.70	167.40
2007	1,752.00	206.41	181.50	98.37	206.88	114.60	169.30
2008	1,865.00	215.61	192.49	100.50	213.86	122.10	184.30
2009	1,873.00	223.38	173.49	102.34	224.22	123.50	179.60
2010	1,940.00	226.20	189.26	102.09	230.14	121.00	182.10
2011	1,842.00	231.50	209.94	100.63	239.40	122.20	191.20
2012	1,846.00	238.19	215.46	100.96	247.83	121.20	191.60

Economic Indices, Normalized to Calendar Year 2012 Index of 100							
Calendar Year (9)	Average Weekly Earnings (10)	Food (11)	Private Transportation (12)	Phone (13)	Postage (14)	Machines & Equipment (15)	Paper (16)
1998	52.93	67.64	64.05	99.74	64.88	92.66	75.89
1999	55.31	69.27	65.30	99.24	66.82	92.66	74.01
2000	58.23	70.95	69.66	97.76	66.82	92.99	78.18
2001	61.38	72.97	69.99	98.45	69.44	92.99	78.60
2002	63.16	74.81	69.15	98.95	73.68	92.82	75.52
2003	68.53	76.41	71.24	97.56	77.35	92.66	76.25
2004	76.16	78.68	73.70	95.08	77.35	93.40	77.97
2005	87.16	81.15	79.04	94.09	77.35	94.97	83.30
2006	84.45	83.59	82.38	94.99	81.47	94.64	87.37
2007	94.91	86.66	84.24	97.43	83.48	94.55	88.36
2008	101.03	90.52	89.34	99.54	86.30	100.74	96.19
2009	101.46	93.78	80.52	101.36	90.47	101.90	93.74
2010	105.09	94.97	87.84	101.11	92.86	99.83	95.04
2011	99.78	97.19	97.44	99.67	96.60	100.83	99.79
2012	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Weights							
Calendar Year (17)	Average Weekly Earnings (18)	Food (19)	Private Transportation (20)	Phone (21)	Postage (22)	Machines & Equipment (23)	Paper (24)
1998	77.5%	3.1%	3.1%	2.4%	2.4%	8.7%	2.7%
1999	78.0%	3.0%	3.0%	3.0%	2.0%	9.0%	2.0%
2000	77.1%	2.7%	2.7%	2.5%	2.5%	10.1%	2.4%
2001	78.0%	2.3%	2.3%	2.5%	2.5%	10.0%	2.3%
2002	79.5%	2.2%	2.2%	2.4%	2.4%	9.5%	1.9%
2003	80.2%	2.1%	2.1%	2.1%	2.1%	9.4%	1.9%
2004	79.9%	2.1%	2.1%	1.8%	1.8%	10.4%	1.8%
2005	78.8%	2.1%	2.1%	2.0%	2.0%	10.0%	2.0%
2006	80.9%	2.1%	2.1%	1.8%	1.8%	9.3%	1.8%
2007	79.9%	2.1%	2.1%	1.8%	1.8%	10.4%	1.8%
2008	78.3%	2.1%	2.1%	1.9%	1.9%	11.9%	1.8%
2009	79.5%	1.6%	1.6%	1.8%	1.8%	12.3%	1.4%
2010	80.3%	1.8%	1.8%	2.0%	2.0%	10.7%	1.4%
2011	81.8%	1.8%	1.8%	1.7%	1.7%	9.9%	1.1%
2012	82.0%	1.8%	1.8%	1.6%	1.6%	10.0%	1.1%

Notes:

- (2): Average Weekly Earnings, Covered Employment and Wages, Private Fire, Marine, and Casualty Insurers - Massachusetts
 Unadjusted for Seasonality
 Years CY2006 - CY2012: Bureau of Labor Statistics, Series ID ENU25000405524126 (Direct Property and Casualty Insurers Average Weekly Wage.)
- (3): Food Away From Home, Consumer Price Index, Urban Wage Earners and Clerical Workers - U.S.
 Unadjusted for Seasonality, Base: 1982 - 1984 = 100. Bureau of Labor Statistics, Series ID CWUR0000SEFV.
- (4): Private Transportation, Consumer Price Index, Urban Wage Earners and Clerical Workers - U.S.
 Unadjusted for Seasonality, Base: 1982 - 1984 = 100. Bureau of Labor Statistics, Series ID CWUR0000SAT1.
- (5): Telephone Services, Consumer Price Index, Urban Wage Earners and Clerical Workers - U.S.
 Unadjusted for Seasonality, Base: December 1997= 100. Bureau of Labor Statistics, Series ID CWUR0000SEED.
- (6): Postage, Consumer Price Index, Urban Wage Earners and Clerical Workers - U.S.
 Unadjusted for Seasonality, Base: 1982 - 1984 = 100. Bureau of Labor Statistics, Series ID CWUR0000SEEC01.
- (7): Office and Store Machines and Equipment, Producer Price Index
 Unadjusted for Seasonality, Base: 1982 = 100. Bureau of Labor Statistics, Series ID WPU1193.
- (8): Paper, Producer Price Index
 Unadjusted for Seasonality, Base: 1982 - 1984 = 100. Bureau of Labor Statistics, Series ID WPU0913.
- (18)-(24): Section VI-E, Exhibit 1, for Calendar Year 2012. Prior Filings for all other years.

Exposure Growth Estimate Based on Trend in Million Worker-Weeks

Policy Year (1)	Estimated Million Worker-Weeks (2)	5 Year Exponential Fit (3)	Difference Squared (4)
1997	74.50		
1998	73.51		
1999	73.07		
2000	77.66		
2001	77.06		
2002	77.14		
2003	74.30		
2004	71.65		
2005	73.58		
2006	75.66		
2007	78.32	77.00	1.76
2008	78.59	77.94	0.42
2009	75.29	78.89	12.95
2010	79.87	79.86	0.00
2011	82.56	80.84	2.99

15 Year Million Worker-Weeks Trend **0.5%**

(5)	5 Year MA Trend	1.2%
(6)	n	5
(7)	s	2.46
(8)	t	2.35
(9)	m	5.00
(10)	$[1 + 1/n + 12 \times m^2 / (n^3 - n)]^{.5}$	1.92
(11)	Confidence Interval	11.12
(12)	Projected	83.84
(13)	CI / Projected	0.13
(14)	Credibility - 5 Year MA Trend (Z)	45%
(15)	Complement of Credibility	0.5%
(16)	Credibility-Weighted Overall Exposure Growth	0.8%

Notes:

(2): Section V-E, Exhibit 1.

(5): 5 Year Massachusetts Trend from five-year exponential fit to estimated million worker-weeks.

(6): Number of data points used in the exponential fitting of the 5 Year Massachusetts Trend.

(7): $\sqrt{SSR / (n-2)}$ where SSR is the sum of squared residuals and n is the number of data points used in the exponential fitting of the data.

(8): T-value based on a two-tailed t-test with probability parameter, p, of 90% and a t-distribution with 3 (= n - 2) degrees of freedom.

(9): Number of years between midpoint of data and projected point.

(11) = (7) x (8) x (10)

(12): Million Worker-Weeks projected to prospective effective period using exponential fit to data.

(13) = (11) / (12)

(14): The credibility is the ratio of the target value, k, to the quotient of the confidence interval and the projected frequency, capped at 100%.

Numerically, (14) = the minimum of k / (13) and 100%.

(15): Complement of credibility is based on a 15-year exponential fit.

(16) = [(5) x (14)] + { (15) x [1.0 - (14)] }

V 000048

Section V - Trend
 Subsection H - Expense Trends
 1/1/2014

Section V - H
 Exhibit 2
 Page 3

Calendar Year 2012
 Weights for Expense Trends

Expense Component (1)	Percentage of Net Written Premium (2)	% of Total = (2) / Total (2) (3)	Corresponding Index (4)	Weights (5)
Salaries	7.12%	61.8%		
Payroll Taxes	0.51%	4.4%	Average Weekly Earnings Covered Employment and Wages; Private Fire, Marine, Casualty Massachusetts	82.0%
Employee Relations	1.82%	15.8%		
Travel & Travel Items	0.42%	3.6%	Food Away From Home-CPI-US Private Transportation-CPI-US	1.8% 1.8%
Postage & Telephone	0.37%	3.2%	Postage-CPI-US Telephone-CPI-US	1.6% 1.6%
Equipment	1.15%	10.0%	Office & Stores Machines & Equipment-PPI	10.0%
Printing & Stationery	0.13%	1.1%	Paper-PPI	1.1%
Total	11.52%	100.0%		100.0%

Notes:

(2): 2013 Best's Aggregates and Averages, Property-Casualty, Totals for Predominately Commercial Casualty Companies with Written Premium Net of Reinsurance Ceded over \$15 million.

(5) = Based on (3)

EXPENSES

In this filing, the WCRIBMA has used the same general methods to calculate expenses as it used in its filing for 2011 and 2012 rates.

Fixed Expenses

The provision for fixed expenses has three components: general expenses, Pool expenses, and other taxes.

The determination of the general expense allowance involves estimating general expenses from the latest three available calendar years of Massachusetts data (Section VI-B, Exhibit 2, Page 2). For each of the three years, a general expense ratio calculated from industry-wide data is applied to Massachusetts standard earned premium plus ARAP, excluding expense constant revenue, to obtain an estimate of Massachusetts general expenses for all companies (Section VI-B, Exhibit 2, Page 1). These estimated general expense dollars are trended and adjusted for exposure growth to be consistent with the data periods on which the rate indication in Section I is based. The three years of estimated general expenses are averaged to obtain an estimate of Massachusetts general expense requirements for all companies. As in past filings, general expenses relating to Boards and Bureaus were estimated using the actual WCRIBMA expenses taken from WCRIBMA Financial Statements and Expense Analysis Report rather than the Incurred Boards and Bureaus expense item from the Expense Call.

VI 000002

The latest three available years of Massachusetts data, taken from the Massachusetts Workers' Compensation Assigned Risk Pool Annual Report and the WCRIBMA Financial Statements and Expense Analysis Report, are used to determine the Pool expense allowance (Section VI-B, Exhibit 1). The estimated Pool expense dollars are trended and adjusted for exposure growth to be consistent with the data periods on which the rate indication in Section I is based. The three years of estimated Pool expenses are averaged to obtain an estimate of Massachusetts Pool expense requirements for all companies.

The WCRIBMA used the “Other Tax” percentage for the “Commercial Casualty” line as compiled in Best's Aggregates and Averages (2013) to estimate the allowance for miscellaneous taxes in Massachusetts. The resulting allowance for other taxes is then trended and adjusted for exposure growth to be consistent with the experience periods on which the rate indication in Section I is based (Section VI-C).

Variable Expenses

As in the past, the variable expense ratio is comprised of the following components: commissions, other acquisition expenses, premium discounts and premium taxes. As in recent filings, the WCRIBMA has also considered two additional variable expenses which are described below: earned but uncollectible premium net of incidental income and the “frictional costs” of reinsurance.

VI 000003

The provision for commission expenses is calculated by taking the ratios of reported commission expenses to reported written premium for each of the latest three calendar years. A three-year average is used to derive the commission expense ratio (Section VI-G, Exhibit 3).

The WCRIBMA calculates the other acquisition expense load by taking the ratios of reported other acquisition expenses to reported standard earned premium for each of the latest three calendar years. The WCRIBMA then averages these three ratios to determine the other acquisition expense ratio (Section VI-G, Exhibit 2).

The average premium discount is calculated from the Premium Discount Schedules using the methodology used in the Commissioner's Decision on September 1, 1999 Rates and used in each of the WCRIBMA's subsequent rate filings. However, for interstate-rated risks, the parameter estimate of Massachusetts premium relative to countywide premium is no longer assumed to be a constant 40% for all policies. As in the 2011 and 2012 rate filings, the Massachusetts portion of the interstate-rated premium is based on actual historical rating data.

Carriers in Massachusetts may elect to use either the Type A or the Type B premium discount table. Based on the projected distribution of policy size and the two available premium discount tables, the WCRIBMA estimated an average premium discount for the Type A and Type B tables, separately. These two averages are weighted using the percentages of voluntary market premium written by Type A insurers and Type B insurers (Section VI-E, Exhibit 1) as weights. The resulting average premium discount for the voluntary market is used, in turn, to obtain the premium discount used in the overall rate indication in Section I.

The premium tax rate is 2.28% of net premiums. To put this expense on a “standard premium plus ARAP” basis, the WCRIBMA multiplies the premium tax rate by one minus the “average premium discount for the total market” in Section VI-E, Exhibit 1.

Incidental Income and Earned but Uncollectible Premium

During the hearing on 2003 rates, questions were raised about whether the WCRIBMA should take various forms of “incidental income” (such as finance charges) into account and, if the WCRIBMA were to do so, whether it would also be appropriate to make off-setting adjustments for earned but uncollectible premium (“EBUP”). In response, the WCRIBMA instituted a call for data on both incidental income and EBUP. The WCRIBMA proposes to treat incidental income as a negative expense item and to offset incidental income by EBUP. The calculation used by the WCRIBMA, which accounts for both incidental income and EBUP, is based upon a three-year average of the experience reported for calendar years 2010, 2011, and 2012. This year, the selected net effect of including both incidental income and EBUP is zero (Section VI-G, Exhibit 5).

Frictional Costs of Reinsurance

Fundamental to the business of insurance is the concept of sharing underwriting risk among risk bearers. Examples include the sharing of large property risks across a syndicate of primary insurers; self-insureds participating in group self-insurance funds; and reinsurers assuming risks from primary carriers. In workers’ compensation,

VI 000005

primary insurers utilize reinsurance to reduce their overall underwriting risk, and reinsurers (not unlike primary insurers) must commit capital (surplus) to support the underwriting risk they assume from primary insurers. Reinsurance allows primary insurers to underwrite risks that, but for the existence of a risk-sharing business partner, they would not be able to insure.

The business of reinsurance is not a charitable endeavor. Primary carriers must cover their costs of purchasing reinsurance and provide an opportunity for reinsurers to earn a fair rate of return on their invested capital. Prior to the 2005 filing, both the benefits of reinsurance and the costs of obtaining it were overlooked in making rates for workers' compensation in Massachusetts. In the 2005 filing, the WCRIBMA introduced an expense load intended to recognize only the "frictional costs" of reinsurance. Frictional costs, as that term is used in this filing, are the sum of the acquisition expenses (reduced for recognition of ceding commissions), general expenses and taxes associated with providing reinsurance coverage that must be borne by the primary carriers. The estimation of the load for frictional costs associated with the purchase of reinsurance is detailed in Section VI-G, Exhibit 4.

Expense Constants

Beginning with the September 1, 2008 rate filing, a new three tiered system of expense constants replaced the two tier system. The current expense constants are \$159 for risk sizes less than \$200, \$250 for risk sizes greater than or equal to \$200 but less than \$1,000, and \$338 for risk sizes greater than or equal to \$1,000. The WCRIBMA is seeking no change in the existing expense constants..

Loss Adjustment Expense

The loss adjustment expense (“LAE”) provision is calculated using a three-year average ratio of LAE to losses (Section VI-H). The Adjusting and Other Expense (“AO”) portion of the LAE ratio is adjusted for the effects of losses eliminated by large deductibles. The reported AO for large deductible policies is assumed to be less than it would have been had the policies been written on a full coverage basis, but more than it would have been as a percentage of net losses. In other words, AO is assumed to be partially variable and partially fixed with respect to large deductible losses. The selected adjustment factor is an average of that which would result from assuming all AO is fixed and from assuming all AO is variable (Section VI-I, Exhibit 1, Page 1).

VI 000007

Section VI - Expenses
Subsection A - Summary
1/1/2014

Section VI - A
Exhibit 1

Summary of Expense Ratios

(1)	Commission and Other Acquisition Expense Ratio	12.4%
(2)	Average Premium Discount as a % of Standard Premium + ARAP	5.0%
(3)	Premium Tax Ratio = 2.28% x [1.0 - (2)]	2.2%
(4)	Variable Expense Ratio = (1) + (2) + (3)	19.5%
(5)	Fixed Expense Ratio	5.1%
(6)	Total Loss Adjustment Expense Ratio (LAE / Loss)	19.2%

Notes:

(1): Section VI-G, Exhibit 1.

(2): Section VI-E, Exhibit 1.

(3): 2.28% from Section VI-B, Exhibit 3.

(5): Section VI-B, Exhibit 1.

(6): Section VI-H, Exhibit 1.

Calculation of Fixed Expenses

Calendar Year (1)	General Expense Exclusive of Expense Constant Premium (2)	Total Pool Expenses for non-Large Deductible (3)	Total General Expense = (2) + (3) (4)	Projected to PY 2010		Projected to PY 2011			
				Expense Trend Factor (5)	Exposure Growth Factor (6)	Projected General Expense = (4) x (5) x (6) (7)	Expense Trend Factor (8)	Exposure Growth Factor (9)	Projected General Expense = (7) x (8) x (9) (10)
2010	31,429,899	1,346,629	32,776,528	0.981	1.004	32,303,047	0.964	1.012	31,998,811
2011	30,725,439	2,469,667	33,195,106	1.019	0.996	33,693,653	1.001	1.004	33,376,321
2012	35,372,202	2,135,600	37,507,802	1.017	0.988	37,658,896	0.999	0.996	37,304,219
Average			34,493,145			34,551,865			34,226,450

Policy Year (11)	Three Year Average Projected General Expense (12)	Provision for Other Taxes (13)	Provision for Fixed Expenses = (12) + (13) (14)	Expense Trends from PYs to 1/1/2015 (15)	Trended Fixed Expenses = (14) x (15) (16)	Standard Earned Premium plus ARAP Projected to Prospective Effective Period (17)	Fixed Expense Ratio to Standard Earned Premium plus ARAP = (16) / (17) (18)
2010	34,551,865	4,428,747	38,980,612	1.070	41,720,279	803,150,303	5.2%
2011	34,226,450	4,387,036	38,613,486	1.089	42,066,985	830,565,651	5.1%
Average							5.1%

Notes:

- (2): Exhibit 2, Page 1.
 - (3): Exhibit 2, Page 3.
 - (5): Section V-H, Exhibit 1.
 - (6): 0.8% annual growth in worker-weeks, from Section V-H, Exhibit 3; 0.5 years from CY 2010 to PY 2010, -0.5 years from CY 2011 to PY 2010, -1.5 years from CY 2012 to PY 2010.
 - (8): Section V-H, Exhibit 1.
 - (9): 0.8% annual growth in worker-weeks, from Section V-H, Exhibit 3; 0.5 years from CY 2010 to PY 2011, -0.5 years from CY 2011 to PY 2011, -1.5 years from CY 2012 to PY 2011.
 - (13): Section VI-C, Exhibit 1.
 - (15): Section V-H, Exhibit 1.
 - (17): These premium amounts do not match those displayed in Section I. This is due to the exclusion of data from a company group included in the Section I data. The premium amounts displayed have been adjusted by the same development, trend, and premium level factors shown in Section I and off-balance factors shown in Section III.
- The ARAP premium has been adjusted from company level to DSR level premium using the policy year adjustment factors from Section III-B, Exhibit 2.

VI 000009

Section VI - Expenses
 Subsection B - Fixed Expenses
 1/1/2014

Section VI - B
 Exhibit 2
 Page 1

General Expense Exclusive of Proposed Expense Constant

	Calendar Year		
	2010	2011	2012
(1) Standard Earned Premium Including Expense Constant Premium	672,771,769	745,824,287	789,952,350
(2) ARAP Premium at Company Level	28,854,005	39,890,792	40,031,784
(3) Adjustment Factor to Adjust from Company Level to DSR Level Premium	1.056	1.060	1.057
(4) Standard Earned Premium plus Adjusted ARAP = (1) + [(2) x (3)]	703,247,729	788,119,111	832,259,917
(5) Adjustment for Experience and Merit Rating, ARAP, and Construction Credit Off-balance	1.015	1.001	1.001
(6) Adjustment Factor to Remove the Impact of Loading for Recoupment of Insolvency Fund Assessments	1.001	1.000	1.000
(7) Adjusted Standard Earned Premium plus ARAP = (4) x (5) x (6)	714,459,012	789,195,260	833,067,472
(8) Ratio of Adjusted General Expense to Adjusted Standard Earned Premium plus ARAP	6.7%	6.0%	6.2%
(9) General Expenses = (7) x (8)	48,220,671	47,079,048	51,768,555
(10) Expense Constant Premium	33,290,716	33,431,281	33,527,170
(11) General Expense Portion of Expense Constant	51.0%	51.0%	51.0%
(12) Average Expense Constant in Effect	237.90	236.21	236.89
(13) Proposed Average Expense Constant	247.28	247.28	247.28
(14) Expense Trend Factor - Calendar Year XXXX to 1/1/15, the midpoint of the Prospective Effective Period	1.050	1.091	1.088
(15) Trend Factor to Adjust Proposed Average Expense Constant to Calendar Year XXXX = 1.0 / (14)	0.952	0.917	0.919
(16) Detrended Proposed Average Expense Constant = (13) x (15)	235.40	226.68	227.27
(17) Adjusted General Expenses Generated by the Expense Constant = [(10) x (11)] x [(16) / (12)]	16,790,773	16,353,609	16,396,354
(18) General Expenses Exclusive of Expense Constant Premium = (9) - (17)	31,429,899	30,725,439	35,372,202

Notes:

- (1),(2): Aggregate Financial Policy Year Call, excludes large deductible policies.
- (3): Section III-B, Exhibit 2.
- (5): Section III-B, Exhibit 1.
- (6): Section III-C, Exhibit 1.
- (8): Page 2.
- (10): Calculated expense constant premium based on historical Unit Statistical Plan Data.
- (11): Exhibit 3.
- (12): Calculated average expense constant in effect based on historical Unit Statistical Plan Data.
- (13): Section VI-D, Exhibit 1.
- (14): Section V-H, Exhibit 1.

VI 000010

Section VI - Expenses
 Subsection B - Fixed Expenses
 1/1/2014

Section VI - B
 Exhibit 2
 Page 2

Calculation of General Expense

	Calendar Year		
	2010	2011	2012
(1) Standard Earned Premium Including Expense Constant Premium	789,727,545	864,377,049	919,343,231
(2) ARAP Premium at Company Level	32,074,079	44,268,500	44,128,309
(3) Adjustment Factor to Adjust from Company Level to DSR Level Premium	1.056	1.060	1.057
(4) Standard Earned Premium plus Adjusted ARAP = (1) + [(2) x (3)]	823,604,588	911,313,405	965,980,208
(5) Adjustment for Experience, Merit, ARAP and CCPAP Off-Balance	1.015	1.001	1.001
(6) Adjustment for Insolvency Fund Recoupment	1.001	1.000	1.000
(7) Adjusted Standard Earned Premium plus ARAP = (4) x (5) x (6)	836,734,617	912,557,772	966,917,514
(8) Actual WCRIBMA Expenses	11,225,354	10,911,037	11,224,379
(9) General Expenses (excluding Boards & Bureaus Expenses)	45,248,012	43,527,140	48,861,898
(10) Adjusted General Expense = (8) + (9)	56,473,366	54,438,177	60,086,277
(11) Ratio of Adjusted General Expense to Adjusted Standard Earned Premium plus ARAP (including expense constants) = (10) / (7)	6.7%	6.0%	6.2%

Notes:

- (1),(2): Aggregate Financial Reconciliation Report Calls, Calendar Years 2010 - 2012, including large deductible policies.
- (3): Section III-B, Exhibit 2.
- (5): Section III-B, Exhibit 1.
- (6): Section III-C, Exhibit 1.
- (8): WCRIBMA Financial Statements and Expense Analysis Report. Excludes Workers' Compensation Bureau Pool Expenses.
- (9): Aggregate Financial Expense Calls, Calendar Years 2010 - 2012.

VI 000011

Section VI - Expenses
 Subsection B - Fixed Expenses
 1/1/2014

Section VI - B
 Exhibit 2
 Page 3

Calculation of Pool Expense

	Calendar Year		
	2010	2011	2012
(1) Administrative Expenses	521,682	1,011,534	549,347
(2) Other Expense Allowances	-	-	-
(3) Workers' Compensation Bureau Pool Expenses	2,000,000	2,060,137	2,084,963
(4) Total Pool Expenses = (1) + (2) + (3)	2,521,682	3,071,671	2,634,310
(5) Target Pool Participation Ratios for Excluded Companies	0.341	0.008	-
(6) Total Pool Expenses, excluding 2 company(ies) = (4) x [1.0 - (5)]	1,661,096	3,046,389	2,634,310
(7) Proportion of Voluntary Assessable Premium Not from Large Deductibles " u "	0.811	0.811	0.811
(8) Total Pool Expenses for Non-Large Deductibles = (6) x (7)	1,346,629	2,469,667	2,135,600

Notes:

- (1),(2): Massachusetts Workers' Compensation Assigned Risk Pool Annual Report and WCRIBMA Financial Statements and Expense Analysis Report, adjusted for non-large deductible policies.
- (3): From the WCRIB Financial Statements and Expense Analysis Report
- (7): Section I-D, Exhibit 2.

VI 000012

Section VI - Expenses
Subsection B - Fixed Expenses
1/1/2014

Section VI - B
Exhibit 3

Expense Constant Components

(1)	Portion of Expense Constant for General Expenses Loaded for Premium Taxes	52.16%
(2)	Current Premium Tax Rate	2.28%
(3)	General Expense Portion of Expense Constant = (1) x [1.0 - (2)]	51.0%
(4)	Other Acquisition Portion of Expense Constant = [1.0 - (1)] x [1.0 - (2)]	46.7%

Notes:

(1): NCCI 1991 Calendar Year Expense database.

(2): Massachusetts Department of Revenue, 2012 Form 63-23P.

2.28% is Premium Tax as % of Net Premium.

VI 000013

Section VI - Expenses
 Subsection C - Other Taxes
 1/1/2014

Section VI - C
 Exhibit 1

Calculation of Other Taxes

(1)	Calendar Year 2012 Standard Earned Premium Including Expense Constant Premium	789,952,350	
(2)	Calendar Year 2012 ARAP Premium at Company Level	40,031,784	
(3)	Adjustment Factor to Adjust from Company Level to DSR Level Premium	1.057	
(4)	Calendar Year 2012 Standard Earned Premium plus Adjusted ARAP = (1) + [(2) x (3)]	832,259,917	
(5)	Calendar Year 2012 Other Tax Allowance	0.53%	
(6)	Calendar Year 2012 Other Taxes = (4) x (5)	4,410,978	
		<u>PY2010</u>	<u>PY2011</u>
(7)	Other Tax Trend Factor from CY 2012 to PY XXXX	1.017	0.999
(8)	Annual Exposure Growth	0.8%	0.8%
(9)	Trend Length	-1.5	-0.5
(10)	Provision for Other Taxes = (6) x (7) x { [1.0 + (8)] ^ (9) }	4,428,747	4,387,036

Notes:

(1),(2): Based on from Aggregate Financial Policy Year Call.

(3): Section III-B, Exhibit 2.

(5): 2013 Best's Aggregates and Averages. Page 659.

(7): Section V-H, Exhibit 1.

(9): -1.5 years from CY 2012 to PY 2010, -0.5 years from CY 2012 to PY 2011.

VI 000014

Section VI - Expenses
 Subsection D - Expense Constant
 1/1/2014

Section VI - D
 Exhibit 1

Calculation of Expense Constant

Standard Premium Ranges		PY 2011 Adjusted Policy Count	Adjusted Policy Distribution	Current Expense Constant	Trend Factor from 1/1/14 to 1/1/15	Selected Trend Factor	Calculated Expense Constant = (5) x (7) (8)
Unadjusted	Adjusted						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Less than \$200	Less Than \$172	55,878	40%	\$159.00	1.034	1.000	\$159.00
\$200 to \$1,000	\$172 to \$862	31,647	22%	\$250.00	1.034	1.000	\$250.00
\$1,000 or more	\$862 or more	53,424	38%	\$338.00	1.034	1.000	\$338.00
Total		140,949	100%	\$247.28			\$247.28

Notes:

Unit Statistical Plan Data PY 2011 (excluding Large Deductible policies).

Risk sizes in terms of Massachusetts Standard Premium.

(2): Instead of projecting the premiums for all policies forward to the prospective effective period, the end points of the Standard Premium

Ranges are adjusted. This is done by dividing the end points by the Premium Adjustment Factor, 1.16, from Section III-E, Exhibit 1.

(4) = (3) / Total (3)

TOTAL (5) = (5) weighted by (4)

(6): Section V-H, Exhibit 1.

Total (8) = (8) weighted by (4)

VI 000015

Section VI - Expenses
Subsection E - Expenses Net of Premium Discount
1/1/2014

Section VI - E
Exhibit 1

Calculation of Average Premium Discount

	<u>Elected Premium Discount Table</u>	
	<u>Type A</u>	<u>Type B</u>
(1) Average Premium Discount as a % of Standard Premium	7.4%	4.2%
(2) Percentage of Voluntary Written Premium by Discount Type	65.4%	34.6%
(3) Weighted Average Premium Discount as a % of Standard Premium in Voluntary Market = (1) weighted by (2)	<hr/>	
	6.3%	
(4) Voluntary Market Share	83.2%	
(5) Average Premium Discount in Total Market = (3) x (4)	5.2%	
(6) Average ARAP Surcharge for Prospective Effective Period as a % of Standard Premium	5.2%	
(7) Average Premium Discount as a % of Standard Premium + ARAP = (5) / [1.0 + (6)]	5.0%	

Notes:

(1): Type "A" - Exhibit 2, Total (10).

Type "B" - Exhibit 3, Total (10).

(2): Exhibit 4.

(4): Special Bulletin 10/17/13. Market Share is estimated using Standard Premium plus ARAP.

(6): Section IX-K, Exhibit 3.

VI 000016

Section VI - Expenses
 Subsection E - Expenses Net of Premium Discount
 1/1/2014

Section VI - E
 Exhibit 2

Average Premium Discount Voluntary Market Risks - Type "A" Discounts

Intrastate Intervals						
Layer of Standard Premium (1)	Standard Premium Ranges - PY 2011				Total = [Sum of (2)] (3)	
	0 - 10,000	10,000 - 200,000	200,000 - 1,750,000	1,750,000 & Over		
0 - 10,000	95,569,634	70,420,000	2,490,000	10,000	168,489,634	
10,000 - 200,000		161,352,860	47,310,000	190,000	208,852,860	
200,000 - 1,750,000			49,160,587	1,550,000	50,710,587	
1,750,000 - & Over				4,625,011	4,625,011	
Total	95,569,634	231,772,860	98,960,587	6,375,011	432,678,092	

Interstate Intervals					
Layer of Standard Premium (4)	Standard Premium Ranges - PY 2011				Total Premium in Layer (6)
	0 - 10,000	10,000 - 200,000	200,000 - 1,750,000	1,750,000 & Over	
0 - 10,000	117,559	3,406,106	1,388,120	175,985	5,087,770
10,000 - 200,000		20,333,134	26,374,280	3,343,727	50,051,141
200,000 - 1,750,000			46,154,243	27,277,774	73,432,017
1,750,000 - & Over				68,305,556	68,305,556
Total	117,559	23,739,240	73,916,643	99,103,042	196,876,484

Total		Proportion of Premium in Layer (9)	% Premium Discount Type A Company (10)
Layer of Standard Premium (7)	Total = (3) + (6) (8)		
0 - 10,000	173,577,404	27.6%	0.0%
10,000 - 200,000	258,904,001	41.1%	9.1%
200,000 - 1,750,000	124,142,604	19.7%	11.3%
1,750,000 - & Over	72,930,567	11.6%	12.3%
Total	629,554,576	100.0%	7.4%

Notes:

Unit Statistical Plan Data.

Layers correspond to the Premium Discount layers.

For interstate rated policies, the ratio of Massachusetts Standard Premium to Countrywide Standard Premium is assumed to equal the ratio of Massachusetts Expected Losses (used in an interstate experience modification) to Countrywide Expected Losses.

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Average Premium Discount Voluntary Market Risks - Type "B" Discounts

Intrastate Intervals						
Layer of Standard Premium (1)	Standard Premium Ranges - PY 2011				Total = [Sum of (2)] (3)	
	0 - 10,000	10,000 - 200,000	200,000 - 1,750,000	1,750,000 & Over		
0 - 10,000	52,739,879	26,310,000	630,000	30,000	79,709,879	
10,000 - 200,000		49,113,053	11,970,000	570,000	61,653,053	
200,000 - 1,750,000			11,789,669	4,650,000	16,439,669	
1,750,000 - & Over				6,182,395	6,182,395	
Total	52,739,879	75,423,053	24,389,669	11,432,395	163,984,996	

Interstate Intervals					
Layer of Standard Premium (4)	Standard Premium Ranges - PY 2011				Total Premium in Layer (6)
	0 - 10,000	10,000 - 200,000	200,000 - 1,750,000	1,750,000 & Over	
0 - 10,000	63,530	1,318,005	413,077	69,424	1,864,036
10,000 - 200,000		7,371,227	7,848,472	1,319,054	16,538,753
200,000 - 1,750,000			13,792,002	10,760,705	24,552,707
1,750,000 - & Over				49,347,301	49,347,301
Total	63,530	8,689,232	22,053,551	61,496,484	92,302,797

Total		Proportion of Premium in Layer (9)	% Premium Discount Type B Company (10)
Layer of Standard Premium (7)	Total = (3) + (6) (8)		
0 - 10,000	81,573,915	31.8%	0.0%
10,000 - 200,000	78,191,806	30.5%	5.1%
200,000 - 1,750,000	40,992,376	16.0%	6.5%
1,750,000 - & Over	55,529,696	21.7%	7.5%
Total	256,287,793	100.0%	4.2%

Notes:

Unit Statistical Plan Data.

Layers correspond to the Premium Discount layers.

For interstate rated policies, the ratio of Massachusetts Standard Premium to Countrywide Standard Premium is assumed to equal the ratio of Massachusetts Expected Losses (used in an interstate experience modification) to Countrywide Expected Losses.

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Calendar Year 2012 Direct Written Premiums by Premium Discount Election - Type "A" or Type "B"

NAIC Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	Direct Written Premium (\$000) (4)	Residual Market Written Premium (\$000) (5)	Adjusted Voluntary Written Premium		
					Total Written Premium (\$000) (6)	Type A Written Premium (\$000) (7)	Type B Written Premium (\$000) (8)
19445	National Union Fire Insurance Company of Pittsburgh, Pa.	B	96,714	0	96,714	0	96,714
33758	Associated Industries of Massachusetts Mutual Insurance Company	A	79,178	38,955	40,223	40,223	0
25658	The Travelers Indemnity Company	A	50,002	23,397	26,605	26,605	0
23841	New Hampshire Insurance Company	B	47,468	0	47,468	0	47,468
29459	Twin City Fire Insurance Company	B	31,281	0	31,281	0	31,281
23035	Liberty Mutual Fire Insurance Company	A	29,943	1,461	28,482	28,482	0
44326	Atlantic Charter Insurance Company	A	28,373	7,755	20,618	20,618	0
33600	LM Insurance Corporation	A	27,452	25,654	1,798	1,798	0
19429	The Insurance Company of the State of Pennsylvania	A	22,093	0	22,093	22,093	0
25682	The Travelers Indemnity Company of Connecticut	A	22,083	0	22,083	22,083	0
42376	Technology Insurance Company, Inc.	A	20,488	0	20,488	20,488	0
25674	Travelers Property Casualty Company of America	A	19,612	14,870	4,742	4,742	0
11104	Associated Employers Insurance Company	B	19,219	0	19,219	0	19,219
19410	Commerce and Industry Insurance Company	B	18,489	0	18,489	0	18,489
42404	Liberty Insurance Corporation	A	18,218	0	18,218	18,218	0
40142	American Zurich Insurance Company	A	18,071	6,425	11,646	11,646	0
30104	Hartford Underwriters Insurance Company	A	17,498	12,903	4,595	4,595	0
11984	Independence Casualty Insurance Company	A	17,484	0	17,484	17,484	0
31325	Acadia Insurance Company	A	17,305	6,349	10,956	10,956	0
12886	Massachusetts Employers Insurance Company	A	15,665	0	15,665	15,665	0
31470	NorGUARD Insurance Company	A	14,658	0	14,658	14,658	0
16535	Zurich American Insurance Company	A	14,625	0	14,625	14,625	0
29424	Hartford Casualty Insurance Company	B	13,790	0	13,790	0	13,790
19038	Travelers Casualty and Surety Company	A	13,716	0	13,716	13,716	0
19682	Hartford Fire Insurance Company	B	12,192	0	12,192	0	12,192
37478	Hartford Insurance Company of the Midwest	B	12,042	0	12,042	0	12,042
18023	Star Insurance Company	A	11,852	0	11,852	11,852	0
24198	Peerless Insurance Company	A	11,686	0	11,686	11,686	0
42390	AmGUARD Insurance Company	A	9,500	0	9,500	9,500	0
28258	Continental Indemnity Company	B	9,070	0	9,070	0	9,070
13083	New Hampshire Employers Insurance Company	A	8,411	0	8,411	8,411	0
23043	Liberty Mutual Insurance Company	B	8,091	19,431	0	0	0
24139	Old Republic General Insurance Corporation	A	8,077	0	8,077	8,077	0
20281	Federal Insurance Company	A	7,878	0	7,878	7,878	0
41360	Arbella Protection Insurance Company	A	7,817	0	7,817	7,817	0
25224	Great Divide Insurance Company	A	7,467	0	7,467	7,467	0
25666	The Travelers Indemnity Company of America	A	6,638	0	6,638	6,638	0
25615	The Charter Oak Fire Insurance Company	A	6,538	0	6,538	6,538	0
20443	Continental Casualty Company	B	6,151	3,212	2,939	0	2,939
25623	The Phoenix Insurance Company	A	6,083	0	6,083	6,083	0
11030	MEMIC Indemnity Company	B	5,829	0	5,829	0	5,829
23817	Illinois National Insurance Company	B	5,603	0	5,603	0	5,603
23965	Norfolk and Dedham Mutual Fire Insurance Company	A	5,555	0	5,555	5,555	0
14788	NGM Insurance Company	A	5,540	0	5,540	5,540	0
13803	Farm Family Casualty Insurance Company	A	5,299	0	5,299	5,299	0
22357	Hartford Accident and Indemnity Company	A	5,202	0	5,202	5,202	0
21113	United States Fire Insurance Company	A	4,959	0	4,959	4,959	0
22292	The Hanover Insurance Company	A	4,809	0	4,809	4,809	0
11150	Arch Insurance Company	A	4,588	0	4,588	4,588	0
13374	Arrow Mutual Liability Insurance Company	B	4,588	0	4,588	0	4,588
21458	Employers Insurance Company of Wausau	A	4,571	0	4,571	4,571	0
21261	Electric Insurance Company	A	4,240	0	4,240	4,240	0
21784	Firemen's Insurance Company of Washington, D.C.	A	4,188	0	4,188	4,188	0
19380	American Home Assurance Company	B	3,749	0	3,749	0	3,749
12777	Chubb Indemnity Insurance Company	A	3,516	0	3,516	3,516	0
20494	Transportation Insurance Company	B	3,503	0	3,503	0	3,503
14702	EastGUARD Insurance Company	A	3,475	0	3,475	3,475	0
25976	Utica Mutual Insurance Company	A	3,347	0	3,347	3,347	0

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Calendar Year 2012 Direct Written Premiums by Premium Discount Election - Type "A" or Type "B"

NAIC Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	Direct Written Premium (\$000) (4)	Residual Market Written Premium (\$000) (5)	Adjusted Voluntary Written Premium		
					Total Written Premium (\$000) (6)	Type A Written Premium (\$000) (7)	Type B Written Premium (\$000) (8)
12262	Pennsylvania Manufacturers' Association Insurance Company	A	3,268	0	3,268	3,268	0
20303	Great Northern Insurance Company	A	3,195	0	3,195	3,195	0
39926	Selective Insurance Company of the Southeast	A	3,188	0	3,188	3,188	0
31534	Citizens Insurance Company of America	A	3,156	0	3,156	3,156	0
20478	National Fire Insurance Company of Hartford	A	3,128	0	3,128	3,128	0
10664	Endeavour Insurance Company	B	3,119	0	3,119	0	3,119
10017	Arbella Indemnity Insurance Company	A	3,077	0	3,077	3,077	0
19801	Argonaut Insurance Company	A	3,054	0	3,054	3,054	0
26042	Wausau Underwriters Insurance Company	A	3,038	0	3,038	3,038	0
25844	Union Insurance Company	A	3,036	0	3,036	3,036	0
15563	SeaBright Insurance Company	A	2,989	0	2,989	2,989	0
25011	Wesco Insurance Company	A	2,899	0	2,899	2,899	0
11045	Excelsior Insurance Company	A	2,687	0	2,687	2,687	0
24988	Sentry Insurance a Mutual Company	A	2,491	0	2,491	2,491	0
20346	Pacific Indemnity Company	A	2,290	0	2,290	2,290	0
25984	Graphic Arts Mutual Insurance Company	A	2,137	0	2,137	2,137	0
20508	Valley Forge Insurance Company	A	2,112	0	2,112	2,112	0
19259	Selective Insurance Company of South Carolina	A	1,873	0	1,873	1,873	0
20362	Mitsui Sumitomo Insurance Company of America	A	1,860	0	1,860	1,860	0
24147	Old Republic Insurance Company	A	1,831	0	1,831	1,831	0
10804	Continental Western Insurance Company	A	1,746	0	1,746	1,746	0
28460	Sentry Casualty Company	A	1,692	0	1,692	1,692	0
26247	American Guarantee and Liability Insurance Company	A	1,655	0	1,655	1,655	0
13706	Dorchester Mutual Insurance Company	A	1,652	0	1,652	1,652	0
15105	Safety National Casualty Corporation	A	1,649	0	1,649	1,649	0
22306	Massachusetts Bay Insurance Company	A	1,647	0	1,647	1,647	0
19372	Northern Insurance Company of New York	B	1,614	0	1,614	0	1,614
19356	Maryland Casualty Company	B	1,586	0	1,586	0	1,586
13935	Federated Mutual Insurance Company	A	1,532	0	1,532	1,532	0
12416	Protective Insurance Company	A	1,493	0	1,493	1,493	0
16551	Savers Property and Casualty Insurance Company	A	1,373	89	1,284	1,284	0
20230	Central Mutual Insurance Company (OH)	B	1,370	0	1,370	0	1,370
12475	Republic-Franklin Insurance Company	A	1,333	0	1,333	1,333	0
36064	The Hanover American Insurance Company	A	1,329	0	1,329	1,329	0
40177	Paramount Insurance Company	A	1,291	0	1,291	1,291	0
32620	National Interstate Insurance Company	A	1,241	0	1,241	1,241	0
20427	American Casualty Company of Reading, Pennsylvania	A	1,201	0	1,201	1,201	0
24171	The Netherlands Insurance Company	A	1,200	0	1,200	1,200	0
23108	Lumbermen's Underwriting Alliance	A	1,194	0	1,194	1,194	0
19720	American Alternative Insurance Corporation	A	1,151	0	1,151	1,151	0
20397	Vigilant Insurance Company	A	1,137	0	1,137	1,137	0
37257	Praetorian Insurance Company	A	1,137	0	1,137	1,137	0
19305	Assurance Company of America	B	1,132	0	1,132	0	1,132
21172	Vanliner Insurance Company	A	1,077	0	1,077	1,077	0
21970	OneBeacon Insurance Company	A	1,066	0	1,066	1,066	0
21105	The North River Insurance Company	A	1,040	0	1,040	1,040	0
41840	Allmerica Financial Benefit Insurance Company	A	935	0	935	935	0
13978	Florists' Mutual Insurance Company	A	908	0	908	908	0
23329	Merchants Mutual Insurance Company	A	874	0	874	874	0
33588	The First Liberty Insurance Corporation	A	830	0	830	830	0
31348	Crum & Forster Indemnity Company	B	820	0	820	0	820
18767	Church Mutual Insurance Company	B	806	0	806	0	806
37893	Ullico Casualty Company	A	787	0	787	787	0
15067	Quincy Mutual Fire Insurance Company	A	765	0	765	765	0
21180	Sentry Select Insurance Company	A	756	0	756	756	0
23442	Patriot General Insurance Company	A	727	0	727	727	0
24414	General Casualty Company of Wisconsin	A	668	0	668	668	0
28304	Federated Service Insurance Company	A	650	0	650	650	0

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Calendar Year 2012 Direct Written Premiums by Premium Discount Election - Type "A" or Type "B"

NAIC Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	Direct Written Premium (\$000) (4)	Residual Market Written Premium (\$000) (5)	Adjusted Voluntary Written Premium		
					Total Written Premium (\$000) (6)	Type A Written Premium (\$000) (7)	Type B Written Premium (\$000) (8)
11149	Maine Employers' Mutual Insurance Company	B	643	0	643	0	643
20222	All America Insurance Company	A	639	0	639	639	0
37885	XL Specialty Insurance Company	A	638	0	638	638	0
23434	Middlesex Insurance Company	A	616	0	616	616	0
12901	Merchants Preferred Insurance Company	A	586	0	586	586	0
27855	Zurich American Insurance Company of Illinois	A	584	0	584	584	0
13714	Pharmacists Mutual Insurance Company	A	570	0	570	570	0
12904	Tokio Marine & Nichido Fire Insurance Co., Ltd. (United States Branch)	A	568	0	568	568	0
11126	Sompo Japan Insurance Company of America	A	567	0	567	567	0
21865	Associated Indemnity Corporation	B	548	0	548	0	548
18333	Peerless Indemnity Insurance Company	A	525	0	525	525	0
20621	OneBeacon America Insurance Company	A	503	0	503	503	0
10687	Utica National Assurance Company	A	498	0	498	498	0
22136	Great American Insurance Company of New York	A	492	0	492	492	0
21415	Employers Mutual Casualty Company	A	478	0	478	478	0
20648	The Employers' Fire Insurance Company	A	474	0	474	474	0
28886	TRANSGUARD INSURANCE COMPANY OF AMERICA INC.	A	470	0	470	470	0
35696	Harleysville Preferred Insurance Company	A	459	0	459	459	0
44300	Tower Insurance Company of New York	A	456	0	456	456	0
43478	Utica National Insurance Company of Texas	A	445	0	445	445	0
26069	Wausau Business Insurance Company	A	445	0	445	445	0
29939	Main Street America Assurance Company	A	430	0	430	430	0
10120	Everest National Insurance Company	B	422	0	422	0	422
26832	Great American Alliance Insurance Company	A	394	0	394	394	0
42552	NOVA Casualty Company	A	381	0	381	381	0
27120	Trumbull Insurance Company	A	379	0	379	379	0
19704	American States Insurance Company	A	367	0	367	367	0
23396	Amerisure Mutual Insurance Company	B	365	0	365	0	365
12831	State National Insurance Company, Inc.	A	361	0	361	361	0
10800	Premier Group Insurance Company	B	341	0	341	0	341
23582	Harleysville Insurance Company	A	335	0	335	335	0
10665	Ameritrust Insurance Corporation	A	318	0	318	318	0
13269	Zenith Insurance Company	A	274	0	274	274	0
10677	The Cincinnati Insurance Company	A	271	0	271	271	0
22322	Greenwich Insurance Company	A	265	0	265	265	0
20044	Berkshire Hathaway Homestate Insurance Company	A	258	0	258	258	0
21881	National Surety Corporation	A	238	0	238	238	0
35289	The Continental Insurance Company	A	233	0	233	233	0
24074	The Ohio Casualty Insurance Company	A	227	0	227	227	0
21873	Fireman's Fund Insurance Company	A	203	0	203	203	0
16608	New York Marine And General Insurance Company	A	171	0	171	171	0
24554	XL Insurance America, Inc.	A	159	0	159	159	0
41238	Trans Pacific Insurance Company	A	152	0	152	152	0
21857	The American Insurance Company	A	148	0	148	148	0
19690	American Economy Insurance Company	A	137	0	137	137	0
25887	United States Fidelity and Guaranty Company	A	135	0	135	135	0
36234	Preferred Professional Insurance Company	A	134	0	134	134	0
28223	Nationwide Agribusiness Insurance Company	B	132	0	132	0	132
19488	Amerisure Insurance Company	B	128	0	128	0	128
25135	State Automobile Mutual Insurance Company	A	128	0	128	128	0
24449	Regent Insurance Company	A	127	0	127	127	0
25879	Fidelity and Guaranty Insurance Underwriters, Inc.	A	125	0	125	125	0
12866	T.H.E. Insurance Company	B	117	0	117	0	117
38911	Berkley National Insurance Company	A	108	0	108	108	0
40045	StarNet Insurance Company	A	93	0	93	93	0
31895	American Interstate Insurance Company	A	91	0	91	91	0
10642	Cherokee Insurance Company	A	91	0	91	91	0
10166	Accident Fund Insurance Company of America	A	79	0	79	79	0

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Calendar Year 2012 Direct Written Premiums by Premium Discount Election - Type "A" or Type "B"

NAIC Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	Direct Written Premium (\$000) (4)	Residual Market Written Premium (\$000) (5)	Adjusted Voluntary Written Premium		
					Total Written Premium (\$000) (6)	Type A Written Premium (\$000) (7)	Type B Written Premium (\$000) (8)
21849	American Automobile Insurance Company	A	73	0	73	73	0
19984	ACIG Insurance Company	A	63	0	63	63	0
25127	State Auto Property and Casualty Insurance Company	A	55	0	55	55	0
19828	Argonaut-Midwest Insurance Company	A	53	0	53	53	0
15032	GuideOne Mutual Insurance Company	A	51	0	51	51	0
11371	Great West Casualty Company	A	45	0	45	45	0
25143	State Farm Fire and Casualty Company	A	43	0	43	43	0
21709	Truck Insurance Exchange	A	41	0	41	41	0
44393	West American Insurance Company	A	34	0	34	34	0
24066	American Fire and Casualty Company	A	33	0	33	33	0
12304	Accident Fund General Insurance Company	A	33	0	33	33	0
29157	United Wisconsin Insurance Company	A	33	0	33	33	0
26344	Great American Assurance Company	A	28	0	28	28	0
11123	Safety First Insurance Company	A	26	0	26	26	0
36463	Discover Property & Casualty Insurance Company	A	23	0	23	23	0
40517	Advantage Workers Compensation Insurance Company	A	23	0	23	23	0
14982	Penn Millers Insurance Company	A	19	0	19	19	0
21423	Union Insurance Company of Providence	A	17	0	17	17	0
16691	Great American Insurance Company	A	16	0	16	16	0
12305	Accident Fund National Insurance Company	A	16	0	16	16	0
14923	Patrons Mutual Insurance Company of Connecticut	A	12	0	12	12	0
27073	NIPPONKOA Insurance Company Limited (United States Branch)	A	12	0	12	12	0
24732	General Insurance Company of America	A	10	0	10	10	0
24767	St. Paul Fire and Marine Insurance Company	A	10	0	10	10	0
24678	Arrowood Indemnity Company	A	9	0	9	9	0
19070	The Standard Fire Insurance Company	A	8	0	8	8	0
10340	Stonington Insurance Company	B	8	0	8	0	8
29580	Berkley Regional Insurance Company	A	6	0	6	6	0
10510	Carolina Casualty Insurance Company	B	4	0	4	0	4
23612	Midwest Employers Casualty Company	A	4	0	4	4	0
35408	Imperium Insurance Company	B	3	0	3	0	3
22187	Greater New York Mutual Insurance Company	B	3	0	3	0	3
26425	Wausau General Insurance Company	A	3	0	3	3	0
11000	Sentinel Insurance Company, Ltd.	A	2	0	2	2	0
14990	Pennsylvania National Mutual Casualty Insurance Company	B	1	0	1	0	1
34690	Property and Casualty Insurance Company of Hartford	A	0	0	0	0	0
24082	Ohio Security Insurance Company	A	0	0	0	0	0
23876	MAPFRE Insurance Company	A	0	0	0	0	0
19224	St. Paul Protective Insurance Company	A	0	0	0	0	0
32603	Berkley Insurance Company	A	0	0	0	0	0
25054	Hudson Insurance Company	A	0	0	0	0	0
36170	Travelers Casualty Company of Connecticut	A	0	0	0	0	0
11551	Endurance Reinsurance Corporation of America	A	0	0	0	0	0
39357	MetLife Insurance Company of Connecticut	A	0	0	0	0	0
19232	Allstate Insurance Company	A	0	0	0	0	0
10052	Chubb National Insurance Company	A	0	0	0	0	0
19240	Allstate Indemnity Company	A	0	0	0	0	0
11185	Foremost Insurance Company Grand Rapids, Michigan	A	0	0	0	0	0
10205	Mountain Valley Indemnity Company	A	0	0	0	0	0
24775	St. Paul Guardian Insurance Company	A	0	0	0	0	0
25232	21st Century Advantage Insurance Company	B	0	0	0	0	0
36684	Riverport Insurance Company	A	0	0	0	0	0
25496	Torus National Insurance Company	A	0	0	0	0	0
38512	Rampart Insurance Company	A	0	0	0	0	0
10499	CorePointe Insurance Company	A	0	0	0	0	0
40398	American Fuji Fire and Marine Insurance Company	A	0	0	0	0	0
21687	Mid-Century Insurance Company	A	0	0	0	0	0
12513	Professional Liability Insurance Company of America	A	0	0	0	0	0

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Calendar Year 2012 Direct Written Premiums by Premium Discount Election - Type "A" or Type "B"

NAIC Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	Direct Written Premium (\$000) (4)	Residual Market Written Premium (\$000) (5)	Adjusted Voluntary Written Premium		
					Total Written Premium (\$000) (6)	Type A Written Premium (\$000) (7)	Type B Written Premium (\$000) (8)
10502	Meridian Citizens Mutual Insurance Company	A	0	0	0	0	0
24325	York Insurance Company	A	0	0	0	0	0
21750	Pilgrim Insurance Company	B	0	0	0	0	0
33014	Transport Insurance Company	A	0	0	0	0	0
25763	Seaton Insurance Company	A	0	0	0	0	0
34347	Colonial American Casualty & Surety Company	A	0	0	0	0	0
19062	The Automobile Insurance Company of Hartford, Connecticut	A	0	0	0	0	0
34789	21st Century Centennial Insurance Company	A	0	0	0	0	0
12157	Companion Property and Casualty Insurance Company	A	0	0	0	0	0
24791	St. Paul Mercury Insurance Company	A	0	0	0	0	0
21830	New England Insurance Company	A	0	0	0	0	0
36307	The Gray Insurance Company	B	0	0	0	0	0
10641	Endurance American Insurance Company	A	0	0	0	0	0
14974	Pennsylvania Lumbermens Mutual Insurance Company	A	0	0	0	0	0
19879	Security National Insurance Company	A	0	0	0	0	0
38318	Republic Insurance Company	A	0	0	0	0	0
26018	Vermont Mutual Insurance Company	A	0	0	0	0	0
38962	Genesis Insurance Company	A	0	0	0	0	0
13730	Selective Insurance Company of New York	A	0	0	0	0	0
15586	Preserver Insurance Company	A	0	0	0	0	0
11445	United National Casualty Insurance Company	A	0	0	0	0	0
10936	Seneca Insurance Company, Inc.	A	0	0	0	0	0
40843	Universal Underwriters of Texas Insurance Company	A	0	0	0	0	0
26077	Lancer Insurance Company	A	0	0	0	0	0
41483	Farmington Casualty Company	A	0	0	0	0	0
26085	Warner Insurance Company	A	0	0	0	0	0
42048	Diamond State Insurance Company	A	0	0	0	0	0
18538	BancInsure, Inc.	A	0	0	0	0	0
24295	Providence Washington Insurance Company	A	0	0	0	0	0
20052	National Liability & Fire Insurance Company	A	0	0	0	0	0
24899	Alea North America Insurance Company	A	0	0	0	0	0
11512	Employers Compensation Insurance Company	A	0	0	0	0	0
32778	Washington International Insurance Company	A	0	0	0	0	0
26433	Harco National Insurance Company	B	0	0	0	0	0
23337	American European Insurance Company	A	0	0	0	0	0
20095	Bituminous Casualty Corporation	A	0	0	0	0	0
11024	Strathmore Insurance Company	A	0	0	0	0	0
26921	Everest Reinsurance Company	A	0	0	0	0	0
34649	Centre Insurance Company	A	0	0	0	0	0
20109	Bituminous Fire & Marine Insurance Company	B	0	0	0	0	0
34754	The Commerce Insurance Company	B	0	0	0	0	0
18619	Platte River Insurance Company	A	0	0	0	0	0
10062	Covenant Insurance Company	A	0	0	0	0	0
27154	Atlantic Specialty Insurance Company	A	0	0	0	0	0
11231	Generali (United States Branch)	A	0	0	0	0	0
27847	Insurance Company of the West	A	0	0	0	0	0
36137	Travelers Commercial Insurance Company	A	0	0	0	0	0
24740	Safeco Insurance Company of America	A	0	0	0	0	0
23795	21st Century Pacific Insurance Company	B	0	0	0	0	0
22195	Insurance Company of Greater New York	A	0	0	0	0	0
36455	Northbrook Indemnity Company	A	0	0	0	0	0
12190	American Pet Insurance Company	A	0	0	0	0	0
11255	Caterpillar Insurance Company	B	0	0	0	0	0
10014	Affiliated FM Insurance Company	B	0	0	0	0	0
10069	Housing Authority Property Insurance, A Mutual Company	B	0	0	0	0	0
13943	Fitchburg Mutual Insurance Company	A	0	0	0	0	0
38237	American Country Insurance Company	A	0	0	0	0	0
16624	Darwin National Assurance Company	A	0	0	0	0	0

VI 000023

Section VI - Expenses
 Subsection E - Expenses Net of Premium Discount
 1/1/2014

Section VI - E
 Exhibit 4

Calendar Year 2012 Direct Written Premiums by Premium Discount Election - Type "A" or Type "B"

NAIC Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	Direct Written Premium (\$000) (4)	Residual Market Written Premium (\$000) (5)	Adjusted Voluntary Written Premium		
					Total Written Premium (\$000) (6)	Type A Written Premium (\$000) (7)	Type B Written Premium (\$000) (8)
38369	The Northern Assurance Company of America	A	0	0	0	0	0
10212	Allmerica Financial Alliance Insurance Company	A	0	0	0	0	0
23914	Northwestern National Insurance Company	A	0	0	0	0	0
22489	Highlands Insurance Company	A	0	0	0	0	0
38970	Markel Insurance Company	B	0	0	0	0	0
13986	Frankenmuth Mutual Insurance Company	A	0	0	0	0	0
39845	Westport Insurance Corporation	A	0	0	0	0	0
10794	Companion Commercial Insurance Company	A	0	0	0	0	0
24017	The Beacon Mutual Insurance Company	B	0	0	0	0	0
29700	North American Elite Insurance Company	A	0	0	0	0	0
40282	Travelers Commercial Casualty Company	B	0	0	0	0	0
29874	North American Specialty Insurance Company	A	0	0	0	0	0
20613	American Employers' Insurance Company	A	0	0	0	0	0
14486	Liberty Mutual Mid-Atlantic Insurance Company	A	0	0	0	0	0
41181	Universal Underwriters Insurance Company	A	0	0	0	0	0
30830	Arch Indemnity Insurance Company	A	0	0	0	0	0
15024	Preferred Mutual Insurance Company	A	0	0	0	0	0
31003	Tri-State Insurance Company of Minnesota	A	0	0	0	0	0
41513	Foremost Signature Insurance Company	A	0	0	0	0	0
31194	Travelers Casualty and Surety Company of America	A	0	0	0	0	0
41939	Liberty Northwest Insurance Corporation	A	0	0	0	0	0
14613	Montgomery Mutual Insurance Company	A	0	0	0	0	0
12572	Selective Insurance Company of America	A	0	0	0	0	0
44245	21st Century Assurance Company	B	0	0	0	0	0
12725	New England Mutual Insurance Company	A	0	0	0	0	0
19046	Travelers Casualty Insurance Company of America	A	0	0	0	0	0
42650	OneBeacon Midwest Insurance Company	A	0	0	0	0	0
24503	Blue Ridge Insurance Company	A	0	0	0	0	0
Total			1,015,312	160,502	866,150	566,511	299,638

Percentage of Voluntary written premium electing Type A Discount: 65.4%
 Percentage of Voluntary written premium electing Type B Discount: 34.6%

Notes:

- (4) = Annual Statement Exhibit of Premium and Losses
- (5) = consistent with the Annual Statement Exhibit of Premium and Losses
- (6) = (4) - (5), subject to a minimum of 0

VI 000024

Section VI - Expenses
Subsection F - Expense Constant Offset
1/1/2014

Section VI - F
Exhibit 1

Calculation of Expense Constant as Percent of Premium for Prospective Effective Period

(1) Expense Constant Offset for Policy Year 2011	0.958
(2) Expense Constant as Percent of Premium for Policy Year 2011 = 1.0 - (1)	4.2%
(3) Calculated Expense Constant for Policy Year 2011	\$236.90
(4) Factor to Bring Policy Year 2011 Premium to Premium Level of Prospective Effective Period	1.16
(5) Estimated Expense Constant for Prospective Effective Period	\$247.28
(6) Expense Constant as Percent of Premium for Prospective Effective Period = { (2) x [(5) / (3)] } / { [(1) x (4)] + [(2) x ((5) / (3))] }	3.8%

Notes:

(1): Exhibit 2.

(3): Based on Unit Statistical Plan Data

(4): Section III-E, Exhibit 1.

(5): Section D, Exhibit 1.

VI 000025

Section VI - Expenses
 Subsection F - Expense Constant Offset
 1/1/2014

Section VI - F
 Exhibit 2

Expense Constant Offsets

Used in Section I and Section III

Policy Year (1)	Standard Premium Excluding Expense Constant (2)	ARAP at Company Level (3)	Factor to Adjust ARAP from Company Level to DSR Level Premium (4)	Expense Constant (5)	Expense Constant Offset (6)
2010	819,003,765	38,961,752	1.059	41,247,484	0.954
2011	876,766,975	47,817,725	1.059	41,632,372	0.957

Used in the Calculation of Expense Constant as Percent of Premium for Prospective Effective Period

Policy Year (7)	Standard Premium Excluding Expense Constant (8)	ARAP at Company Level (9)	Factor to Adjust ARAP from Company Level to DSR Level Premium (10)	Expense Constant (11)	Expense Constant Offset (12)
2011	748,774,885	41,615,228	1.059	34,744,820	0.958

Notes:

Based on Unit Statistical Plan Data, excluding Large Deductible Policies.

(4) Section III-B, Exhibit 2.

(6) = { (2) + [(3) * (4)] } / [{ (2) + [(3) * (4)] } + (5)]

(10) Section III-B, Exhibit 2.

(12) = { (8) + [(9) * (10)] } / [{ (8) + [(9) * (10)] } + (11)]

The Standard Premium excluding Expense Constant values for Policy Year 2011 used in Section I and Section III differ from those used in the calculation of the Expense Constant because of a differing company mixes.

VI 000026

Section VI - Expenses
Subsection G - Acquisition Expenses
1/1/2014

Section VI - G
Exhibit 1

Provision for Commission and Other Acquisition Expense Including Frictional Reinsurance Expenses

(1)	Other Acquisition and Field Supervision Expense Ratio, Excluding Expense Constants	3.5%
(2)	Selected Average Commission Ratio, Excluding Expense Constants	7.8%
(3)	Selected Frictional Reinsurance Expenses Ratio (relative to Standard plus ARAP premiums, excluding expense constants)	1.0%
(4)	Selected Effect of Incidental Income and EBUP Expense, Excluding of Expense Constants	0.0%
(5)	Commission and Other Acquisition Expense Ratio = (1) + (2) + (3) + (4)	12.4%

Notes:

(1): Exhibit 2.

(2): Exhibit 3.

(3): Exhibit 4, Page 1.

(4): Exhibit 5.

VI 000027

Section VI - Expenses
 Subsection G - Acquisition Expenses
 1/1/2014

Section VI - G
 Exhibit 2

Calculation of Other Acquisition Expense

	Calendar Year		
	2010	2011	2012
(1) Standard Earned Premium Including Expense Constant Premium	789,727,545	864,377,049	919,343,231
(2) ARAP Premium at Company Level	32,074,079	44,268,500	44,128,309
(3) Adjustment Factor to Adjust from Company Level to DSR Level Premium	1.056	1.060	1.057
(4) Standard Earned Premium plus Adjusted ARAP = (1) + [(2) x (3)]	823,604,588	911,313,405	965,980,208
(5) Adjustment for Experience and Merit Rating, ARAP, and Construction Credit Off-balance	1.015	1.001	1.001
(6) Adjustment Factor to Remove the Impact of Loading for Recoupment of Insolvency Fund Assessments	1.001	1.000	1.000
(7) Adjusted Standard Earned Premium plus ARAP = (4) x (5) x (6)	836,734,617	912,557,772	966,917,514
(8) Other Acquisition, Field Supervision, Collection Expenses for Home Office and Branch Office, excluding Commissions	47,146,483	47,616,931	45,082,741
(9) Other Acquisition Expense Ratio = (8) / (7)	5.6%	5.2%	4.7%
(10) Three Year Average		5.2%	
(11) Expense Constant as Percent of Premium for Prospective Effective Period		3.8%	
(12) Other Acquisition Portion of Expense Constant		46.7%	
(13) Percent of Premium due to Portion of Expense Constant for Other Acquisition Expense = (11) x (12)		1.8%	
(14) Other Acquisition and Field Supervision Expense Ratio, Excluding Expense Constants = [(10) - (13)] / [1.0 - (11)]		3.5%	

Notes:

- (1), (2): Aggregate Financial Reconciliation Report Calls, Calendar Years 2010 - 2012.
Reported Premium, plus ARAP, and including Large Deductible Policies at Standard Premium.
- (3): Section III-B, Exhibit 2.
- (5): Section III-B, Exhibit 1.
- (6): Section III-C, Exhibit 1.
- (8): Aggregate Financial Expense Calls, Calendar Years 2010 - 2012.
- (11): Section VI-F, Exhibit 1.
- (12): Section VI-B, Exhibit 3.

VI 000028

Section VI - Expenses
Subsection G - Acquisition Expenses
1/1/2014

Section VI - G
Exhibit 3

Calculation of Average Commission Rate

	Calendar Year		
	2010	2011	2012
(1) Direct Written Premium	704,453,459	790,146,509	810,745,828
(2) Total Commissions for Agents and Brokers	53,177,898	59,326,111	61,397,787
(3) Average Commission Rate = (2) / (1)	7.5%	7.5%	7.6%
(4) Three Year Average		7.5%	
(5) Expense Constant as Percent of Premium for Prospective Effective Period		3.8%	
(6) Average Commission Ratio, Excluding Expense Constants = (5) / [1.0 - (4)]		7.8%	
(7) Selected Average Commission Ratio, Excluding Expense Constants		7.8%	

Notes:

(1): Annual Statement Exhibit of Premium and Losses, Calendar Years 2010 - 2012.

(2): Aggregate Financial Expense Calls, Calendar Years 2010 - 2012.

(5): Section VI-F, Exhibit 1.

VI 000029

Frictional Reinsurance Expenses

Calendar Year	Reinsurer Underwriting Expenses as Percentage of Net Written Premium				
	Commission and Brokerage	Other Acquisition	General Expenses	Taxes	Total Underwriting Expenses = (2) + (3) + (4) + (5)
(1)	(2)	(3)	(4)	(5)	(6)
1998	21.1%	4.8%	3.3%	0.2%	29.4%
1999	18.3%	3.8%	2.7%	0.2%	25.0%
2000	19.3%	3.3%	2.4%	0.8%	25.8%
2001	18.2%	3.8%	2.5%	0.3%	24.8%
2002	20.3%	3.7%	2.7%	0.4%	27.0%
2003	18.7%	4.2%	2.7%	0.6%	26.2%
2004	18.0%	4.0%	2.9%	0.5%	25.4%
2005	26.2%	8.0%	6.4%	0.7%	41.3%
2006	13.3%	4.6%	4.4%	0.5%	22.8%
2007	14.0%	4.9%	4.2%	0.5%	23.6%
2008	18.4%	4.3%	3.9%	0.6%	27.2%
2009	19.8%	2.9%	3.4%	0.2%	26.3%
2010	17.7%	3.2%	3.8%	0.2%	24.9%
2011	19.2%	3.0%	2.8%	0.2%	25.2%
2012	19.1%	3.1%	2.7%	0.3%	25.2%
(7) Average	18.8%	4.1%	3.4%	0.4%	26.7%
(8) Estimated Ceding Commission & Brokerage Rate for Workers' Compensation Non-Proportional Reinsurance	16.4%				
(9) Adjusted Average = (7) - (8)	2.4%	4.1%	3.4%	0.4%	10.3%
(10) Estimated % of Direct Premium Ceded for Workers' Compensation Non-Proportional Reinsurance					13.3%
(11) Implied Frictional Reinsurance Expenses Relative to Direct Premiums (as a %) = Total (9) x (10)					1.36%
(12) Selected Frictional Reinsurance Expenses Ratio (relative to Standard plus ARAP premiums, excluding expense constants)					1.0%

Notes:

(2)-(5): Insurance Expense Exhibit database - By Line Underwriting Experience from Best's Aggregates & Averages for Reinsurance Editions 1999 - 2013.

(8): Page 2, (10).

(10): Page 2, (11).

VI 000030

Section VI - Expenses
 Subsection G - Acquisition Expenses
 1/1/2014

Section VI - G
 Exhibit 4
 Page 2

Estimate of Ceding Commission & Brokerage Rate for Workers' Compensation Non-Proportional Reinsurance

Calendar Year	Written Premiums (000's)			Ratio of Commission & Brokerage Incurred to Written Premium		Commission & Brokerage Expenses Incurred (000's)		
	Direct	Net	Direct - Net = (2) - (3)	Direct	Net	Direct = (2) x (5)	Net = (3) x (6)	Direct - Net = (7) - (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1998	29,136,120	25,683,152	3,452,968	0.077	0.060	2,243,481	1,540,989	702,492
1999	29,524,205	24,653,790	4,870,415	0.082	0.064	2,420,985	1,577,843	843,142
2000	32,780,086	28,240,208	4,539,878	0.082	0.068	2,687,967	1,920,334	767,633
2001	37,333,721	31,520,736	5,812,985	0.084	0.066	3,136,033	2,080,369	1,055,664
2002	43,950,839	38,137,991	5,812,848	0.077	0.066	3,384,215	2,517,107	867,107
2003	50,031,977	43,333,685	6,698,292	0.072	0.063	3,602,302	2,730,022	872,280
2004	51,988,628	45,667,027	6,321,601	0.074	0.063	3,847,158	2,877,023	970,136
2005	53,139,231	46,633,441	6,505,790	0.068	0.056	3,613,468	2,611,473	1,001,995
2006	50,942,134	45,033,012	5,909,122	0.072	0.069	3,667,834	3,107,278	560,556
2007	50,367,861	44,207,021	6,160,840	0.071	0.061	3,576,118	2,696,628	879,490
2008	42,686,615	37,535,546	5,151,069	0.077	0.060	3,286,869	2,252,133	1,034,737
2009	37,879,014	32,642,883	5,236,131	0.079	0.060	2,992,442	1,958,573	1,033,869
2010	37,180,836	32,184,623	4,996,213	0.079	0.060	2,937,286	1,931,077	1,006,209
2011	41,651,380	35,751,070	5,900,310	0.084	0.068	3,498,716	2,431,073	1,067,643
2012	44,555,061	37,992,643	6,562,418	0.084	0.070	3,742,625	2,659,485	1,083,140
Total	633,147,708	549,216,828	83,930,880	0.077	0.064	48,637,499	34,891,406	13,746,093

(10) Estimated Ceding Commission & Brokerage Rate for Workers' Compensation Non-Proportional Reinsurance = Total (9) / Total (4) 16.4%

(11) Estimated % of Direct Premium Ceded for Workers' Compensation Non-Proportional Reinsurance = Total (4) / Total (2) 13.3%

Notes:

(2), (3), (5), (6): Insurance Expense Exhibit database - By Line Underwriting Experience from Best's Aggregates & Averages for Workers' Comp Editions 1999 - 2013.

VI 000031

Section VI - Expenses
 Subsection G - Acquisition Expenses
 1/1/2014

Section VI - G
 Exhibit 5

Effect of Incidental Income and Earned but Uncollected Premium

	Calendar Year		
	2010	2011	2012
(1) Standard Earned Premium Including Expense Constant Premium	789,727,545	864,377,049	919,343,231
(2) ARAP Premium at Company Level	32,074,079	44,268,500	44,128,309
(3) Adjustment Factor to Adjust from Company Level to DSR Level Premium	1.056	1.060	1.057
(4) Standard Earned Premium plus Adjusted ARAP = (1) + [(2) x (3)]	823,604,588	911,313,405	965,980,208
(5) Adjustment for Experience and Merit Rating, ARAP, and Construction Credit Off-balance	1.015	1.001	1.001
(6) Adjustment Factor to Remove the Impact of Loading for Recoupment of Insolvency Fund Assessments	1.001	1.000	1.000
(7) Adjusted Standard Earned Premium plus ARAP = (4) x (5) x (6)	836,734,617	912,557,772	966,917,514
(8) Earned But Uncollected Premium ("EBUP")	13,584,775	12,210,784	11,788,075
(9) Incidental Income	1,848,157	2,422,969	1,818,190
(10) Net Effect of Incidental Income and EBUP Expense = [(8) - (9)] / (7)	1.4%	1.1%	1.0%
(11) Three Year Average		1.2%	
(12) Expense Constant as Percent of Premium for Prospective Effective Period		3.8%	
(13) Effect of Incidental Income and EBUP Expense, Exclusive of Expense Constants = (11) / [1.0 - (12)]		1.2%	
(14) Selected Effect of Incidental Income and EBUP Expense, Excluding of Expense Constants		0.0%	

Notes:

- (1), (2): Aggregate Financial Reconciliation Report Calls, Calendar Years 2010 - 2012.
 Reported Premium and ARAP, including Large Deductible Policies at Standard Premium.
- (3): Section III-B, Exhibit 2.
- (5): Section III-B, Exhibit 1.
- (6): Section III-C, Exhibit 1.
- (8),(9): Aggregate Financial Expense Call.
- (12): Section VI-F, Exhibit 1.

VI 000032

Section VI - Expenses
 Subsection H - Loss Adjustment Expense
 1/1/2014

Section VI - H
 Exhibit 1

Total Loss Adjustment Expense ("LAE") Ratio

		Calendar Year		
		2010	2011	2012
(1)	Direct Incurred Losses	505,369,049	438,403,712	456,985,161
(2)	Direct Incurred Defense and Cost Containment Expense	47,345,742	42,735,995	49,883,422
(3)	Defense and Cost Containment Expense Ratio = (2) / (1)	9.4%	9.7%	10.9%
<hr/>				
(4)	Three Year Average Defense and Cost Containment Expense Ratio = Average of (3)		10.0%	
(5)	Selected Three Year Average Defense and Cost Containment Expense Ratio		10.0%	
<hr/>				
(6)	Direct Incurred Adjusting and Other Expense	47,886,779	46,048,285	43,764,585
(7)	Adjusting and Other Expense Ratio = (6) / (1)	9.5%	10.5%	9.6%
(8)	Factor to Adjust the Direct AO Expense Ratio to a Full Coverage AO Expense Ratio	0.920	0.934	0.934
(9)	Adjusted Adjusting and Other Expense Ratio = (7) x (8)	8.7%	9.8%	8.9%
<hr/>				
(10)	Three Year Average Adjusted Adjusting and Other Expense Ratio = Average of (9)		9.2%	
(11)	Selected Three Year Average Adjusted Adjusting and Other Expense Ratio		9.2%	
(12)	Total Loss Adjustment Expense Ratio (LAE / Loss) = (5) + (11)		19.2%	

Notes:

(1),(2),(6): Aggregate Financial Calendar Year Expense Data Calls, 2010 - 2012.

(8): Section VI-I, Exhibit 1, Page 1.

VI 000033

Section VI - Expenses
 Subsection I - Adjustment for Large Deductible Policies
 1/1/2014

Section VI - I
 Exhibit 1
 Page 1

Adjustment to the Adjusting and Other Expense Provision

	Calendar Year		
	2010	2011	2012
(1) Average Premium Reduction Factor for Large Deductible Policies	0.856	0.844	0.857
(2) Loss Elimination Ratio (LER) for Large Deductible Policies = (1) x 1.103	94.4%	93.1%	94.5%
(3) Market Share (Standard Premium Basis) of Large Deductible Policies	15.8%	13.3%	13.1%
(4) LER for Full Coverage plus Large Deductible Policies = [(2) x (3)] + { 0.0 x [1.0 - (3)] }	14.9%	12.4%	12.4%
(5) Factor to Adjust the Direct Losses to Full Coverage Losses = 1.0 / [1.0 - (4)]	1.175	1.141	1.141
(6) Factor to Adjust the Direct AO Expense to Full Coverage AO Expense = 1.0 / { 1.0 - [0.5 x (4)] }	1.080	1.066	1.066
(7) Factor to Adjust the Direct AO Expense Ratio to a Full Coverage AO Expense Ratio = (6) / (5)	0.920	0.934	0.934

Notes:

(1),(3): Exhibit 2.

(2): 1.103 from Exhibit 1, Page 2.

(6): Assumes 50% of Adjusting & Other expense varies directly with losses.

VI 000034

Section VI - Expenses
 Subsection I - Adjustment for Large Deductible Policies
 1/1/2014

Section VI - I
 Exhibit 1
 Page 2

Loss Elimination Ratio for Large Deductible Policies

		As a % of Standard Premium plus ARAP
(1)	Commission and Other Acquisition Expense Ratio	11.3%
(2)	Premium Discount Ratio	5.5%
(3)	Premium Tax Ratio = 2.28% x [1.0 - (2)]	2.2%
(4)	Profit Provision	0.0%
(5)	Insolvency Fund Assessment	0.0%
(6)	Residual Market Subsidy (Retrospectively-rated policies)	0.2%
(7)	Variable Expense Ratio = (1) + (2) + (3) + (4) + (5) + (6)	19.3%
(8)	Expected Loss Ratio without LAE	63.7%
(9)	Defense and Cost Containment Expense ("DCC")	6.9%
(10)	Adjusting and Other Expenses ("AO")	5.1%
(11)	Variable Adjusting and Other Expenses = 0.5 x (10)	2.6%
(12)	Portion of Expected Loss + LAE Ratio that varies with deductible (ELARD) = (8) + (9) + (11)	73.1%
(13)	LER / D = [1.0 - (7)] / (12)	1.103

D = Average Premium Reduction Factor for Large Deductible Policies
 LER = Loss Elimination Ratio
 ELARD = Loss + DCC + (1/2 x AO)

$D = [LER \times ELARD] / [100\% - (\text{Variable Expense})]$
 $LER = D \times [1.0 - (\text{Variable Expense})] / LER \times (1.0 + DCC + 1/2 \times AO)$

Notes:

Values approved for rates effective 9/1/10.
 (9) = 10.8% x (8), ratio of DCC to Losses from the 9/1/10 filing.
 (10) = 8.1% x (8), ratio of AO to Losses from the 9/1/10 filing.

VI 000035

Section VI - Expenses
 Subsection I - Adjustment for Large Deductible Policies
 1/1/2014

Section VI - I
 Exhibit 2

Average Large Deductible Premium Reduction Factor and Large Deductible Market Share

	Policy Year			
	2009	2010	2011	2012*
(1) Standard Earned Premium Excluding Large Deductible Policies	677,140,287	735,138,085	774,090,028	435,258,995
(2) Earned Premium Net of Deductible Credit for Large Deductible Policies	19,915,985	17,808,740	18,425,833	8,429,416
(3) Standard Earned Premium for Large Deductible Policies	147,490,481	116,152,005	115,400,863	66,208,144
(4) Standard Earned Premium for All Policies = (1) + (3)	824,630,768	851,290,090	889,490,891	501,467,139
(5) Average Premium Reduction Factor for Large Deductible Policies = $1.0 - [(2) / (3)]$	0.865	0.847	0.840	0.873
(6) Market Share (Standard Premium Basis) of Large Deductible Policies = (3) / (4)	17.9%	13.6%	13.0%	13.2%
	Calendar Year			
	2010	2011	2012	
(7) Average Premium Reduction Factor for Large Deductible Policies = Average of PY-1 and PY	0.856	0.844	0.857	
(8) Market Share (Standard Premium Basis) of Large Deductible Policies = Average of PY-1 and PY	15.8%	13.3%	13.1%	

Notes:

- (1): Aggregate Financial Policy Year Call, Policy Year Accumulated Earned Premium – Standard at Bureau DSR Level.
- (2): Aggregate Financial Policy Year Large Deductible Call, Policy Year Accumulated Earned Premium – Net.
- (3): Aggregate Financial Policy Year Large Deductible Call, Policy Year Accumulated Earned Premium – Standard at Bureau DSR Level.
- * Policy Year 2012 is an incomplete Policy Year, valued as of 12/31/2012

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Section VI - Expenses
Subsection J - Expected Loss Ratios Underlying the Proposed Rates & Rating Values
1/1/2014

Section VI - J
Exhibit 1

Expected Loss Ratios Underlying the Proposed Rates & Rating Values

	<u>As a % of Standard Premium plus Adjusted ARAP</u>
(1) Commission and Other Acquisition Expense Ratio	12.4%
(2) Average Premium Discount as a % of Standard Premium + ARAP	5.0%
(3) Premium Tax Ratio = 2.28% x [1.0 - (2)]	2.2%
(4) Variable Expense Ratio = (1) + (2) + (3)	19.5%
(5) Underwriting Profit Provision	3.8%
(6) Permissible Loss, LAE, and Fixed Expense Ratio = 1.0 - [(4) + (5)]	76.7%
(7) Fixed Expense Ratio	4.8%
(8) Expected Loss and Loss Adjustment Expense Ratio = (6) - (7)	71.9%
(9) Total Loss Adjustment Expense Ratio (LAE / Loss)	19.2%
(10) Expected Loss Ratio without Loss Adjustment Expense = (8) / [1.0 + (9)]	60.3%

Notes:

(1): Section VI-G, Exhibit 1.

(2): Section VI-E, Exhibit 1.

(3): 2.28% from Section VI-B, Exhibit 3.

(5): Section VII-A, Exhibit 3.

(7): Section VI-B, Exhibit 1. The Average Fixed Expense Ratio, 5.1%, is divided by [1.0 + indicated rate change], 7.7%, to give the Fixed Expense Ratio underlying the proposed rates.

(9): Section VI-H, Exhibit 1.

UNDERWRITING PROFIT PROVISION

Background

For many years prior to 2003, workers' compensation rate filings in Massachusetts utilized the Myers-Cohn (M-C) model to establish underwriting profit provisions. In the 2003 filing, however, the WCRIBMA relied on a different approach, known as the internal rate of return (IRR) model. The Commissioner approved the use of the IRR in her decision on 2003 rates.¹ The WCRIBMA continues to rely on an IRR model in this filing.

In this filing, the WCRIBMA is introducing an additional analysis, which we call the insurer capital cost (ICC) model, to augment the IRR that is used to set the profit provision in the filing. The ICC model is not a replacement for the IRR; rather, it provides an alternative view of the cash flows from the insurance transaction, taken from the perspective of the insurance company (as opposed to the investor).

Both the IRR and ICC models are variants of the more generic discounted cash flow (DCF) methodology that is the standard investment decision tool relied upon in corporate and managerial finance. Such models have several features that make them particularly appealing for use in rate regulation.

Fundamental principles of economics tell us that the price of insurance should be set to cover the expected value of future costs associated with the risk transfer under

¹ See, for example, page 40: "For the following reasons, we conclude that use of an IRR model for the underwriting profits provisions will be superior to the M-C model."

consideration.² In addition to losses and expenses, one of the costs of insurance is the cost of capital: there must be a provision in the rates that compensates investors for the opportunity cost of the capital committed to the insurance activity. The underwriting profit provision is the component of the rates that, taken along with investment income, should provide insurers with a fair rate of return.

This suggests that to set an underwriting profit provision in insurance rates, one should first establish a fair and reasonable rate of return, and then select a profit provision that produces that fair return. Such an analysis is consistent with the traditional practice in other regulated industries, where rates include allowances for the expected costs of providing the regulated product or service, along with a provision for a fair rate of return on the capital required to produce the regulated product or service. This type of procedure comports with the legal standard under which fair regulation is applied, as articulated in the Hope Natural Gas decision of the U.S. Supreme Court.³ It is also consistent with the procedures relied upon in Massachusetts for the regulation of public utilities.

To that end, the WCRIBMA requested that David Appel and his colleagues at Milliman, Inc. assist the WCRIBMA's staff in developing a procedure for setting the profit

² This is simply the insurance specific application of the general proposition that price should equal marginal cost. This is not only a principle of economics; basic precepts of actuarial science require the same thing. See, for example, the CAS Statement of Principles on Property Casualty Insurance Ratemaking or the Standard of Practice on Rate of Return in Ratemaking.

³ The Hope decision states, in part, that "...the return to the equity owner should be commensurate with the returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital." Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

factor in workers' compensation rates that will yield insurers a fair and reasonable return on the capital invested in support of the insurance transaction. Dr. Appel has performed the following work for the WCRIBMA:

1. He has assisted the WCRIBMA in developing a methodology to estimate the cost of capital, or fair rate of return, insurers should be allowed for bearing the risk of underwriting workers' compensation insurance in Massachusetts.
2. He has assisted the WCRIBMA in developing the two DCF models (IRR and ICC) used in this filing to estimate the underwriting profit factor required to yield the indicated fair rate of return.
3. He has used these models to derive an underwriting profit factor that is consistent with the current cost of capital. This is the underwriting profit provision proposed in this rate filing.

In this filing, the calculated underwriting profit provision is 3.82%. The DCF models and the cost of capital calculation are actuarially sound and produce a rate in the statutorily required range of reasonableness. We therefore recommend that the Commissioner approve their use.

Section VII-A – Summary

Table A1 summarizes the main parameters needed for the calculation of the profit provision.

VII-B– Discounted Cash Flow Models

In Section VII-B we present the DCF models we have constructed and implemented with Dr. Appel's assistance. Exhibit 1 presents the IRR model and the relevant cash flows to investors. Exhibit 2 presents the ICC model and the relevant cash flows to insurers. This section also includes a detailed appendix that shows that the IRR and ICC models are mathematical equivalents and yield the same results.

VII-C – Underwriting Cash Flows

In Section VII-C we estimate the actual underwriting cash flows that accrue to the insurer in each time period. These cash flows include premium, losses and LAE, other expenses, taxes, investment income and surplus. Each one of these cash flows is estimated quarterly over a period of 36 years to calculate the final flow of funds related to the insurance transaction.

Tables C5_1 and C5_2 provide cash flow patterns and amounts for premium collection, payment of losses, LAE and expenses calculated by the WCRIBMA. In previous filings, the WCRIBMA relied on a study from 1977 for the flow patterns of general expenses, other acquisition expenses, premium taxes, and miscellaneous and other taxes. In this filing, the WCRIBMA made distinct assumptions (detailed below) for the payment pattern of each of these various types of expenses. The cash flow patterns for a single policy were converted to a policy year basis for use in DCF models.

General Expenses

We assume that the payment pattern for general expenses is equal to the average of the written premium flow and earned premium flow. This corresponds to an assumption that on average half of the general expense payments are made as premium is written and half are made as premium is earned.

Commission & Brokerage

We assume that the commission and brokerage flow pattern coincides with the collected premium flow.

Other Acquisition Expense

Other acquisition costs are assumed to be paid as follows: one sixth in the period preceding the writing of premium, and five sixths in the period the premium is written.

Premium Taxes

The distribution of premium taxes is assumed to be equal to the written premium pattern with a single period lag.

Miscellaneous and Other Taxes

We assume that the miscellaneous and other taxes flow pattern coincides with written premium flow.

Reinsurance Expenses

We assume that the reinsurance expense flow pattern coincides with the written premium flow.

Premium Discount

We assume that the premium discount flow pattern coincides with the collected premium flow.

VII-D – Capital Needed From Investors

Table D1 derives the amount of capital required to be supplied from investors.

VII-E – Cost of Capital

In Section VII-E we present the cost of capital analysis developed by Dr. Appel, including a detailed appendix describing the methods used. To estimate the cost of capital prior to the 2010 filing, the WCRIBMA relied on a sample of large, publicly traded property/casualty insurers, drawn exclusively from the Value Line Investment Survey, Part 3 (The Ratings and Reports). Since the 2010 filing, the WCRIBMA has expanded the sample to include data on all publicly traded property casualty insurers. These additional data are drawn from the Value Line Investment Survey, Small & Mid Cap Edition, and the Standard & Poor's Compustat database. The Compustat database includes the data from smaller companies not included in ValueLine dataset, and is therefore more representative of the Massachusetts industry's carrier mix than a sample

relying only on the largest publicly traded insurers in the country. The addition of information on a broader range of insurers produces more reliable and robust estimates of the cost of capital, because these data more appropriately reflect the risk associated with smaller carriers.

VII-F – Leverage Ratio

In this filing, the amount of surplus is estimated using a total reserve-to-surplus ratio, as approved in the Commissioner’s decision on 2005 automobile insurance rates and used in workers’ compensation rate filings since 2005.

In calculating the reserves-to-surplus ratio, we use data for the “Commercial Casualty Composite” group of companies as identified in Best’s Aggregates and Averages, 2013 edition. We estimate this ratio by using an average of five years of data for loss and LAE reserves, plus unearned premium reserves. The calculation of the ratio is shown in Exhibit 1.

VII-G - Premium Flow

In the WCRIBMA’s 2008 filing, the WCRIBMA updated the data underlying the premium cash flow pattern in an effort to improve the accuracy of the profit model. In order to construct a new flow, a special premium payment call was made to a representative group of carriers. Each company group was asked to obtain a random sample of fifty complete-year guaranteed cost (non large deductible) policies with policy effective dates in 2004 that include premiums related to Massachusetts’ workers’

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compensation exposures. The 50 randomly selected policies were stratified, based on the total premium for all states covered by the policy, as follows:

Policy Premium Range	Number of Policies in Sample
0 – 9,999	10
10,000 – 199,999	24
Over 200,000	16

If the population of policies in any of the premium ranges was not sufficient to allow for the recommended sample size, the size of the samples for the other premium layers was increased so that 50 policies were sampled in total. The premium flow used in the profit model is shown in Exhibit 1.

VII-H - Expense Weights

In the current filing, separate policy year 2010 and policy year 2011 weights are calculated for general expenses, miscellaneous and other taxes, and loss and loss adjustment expenses. The weights used to combine the various expense flow patterns into final expense flows are calculated using the expense provisions from Section VI. The average of the two policy year weights is used in the DCF models.

Acquisition expenses, premium taxes and premium discounts are treated as varying in proportion to standard premium plus ARAP. Loss adjustment expenses are

treated as varying in proportion to losses. General expenses and other taxes are treated as fixed expenses.

Since the total premium amount will vary with the profit provision, and since losses, loss adjustment expenses and fixed expense amounts are all treated as not varying with premium levels, the proportion of premium attributable to losses, LAE and fixed expenses depends on the underwriting profit provision. Thus their weights relative to those items that vary in proportion to total premium will change as the profit provision does but their weight relative to each other will not.

VII-I - Loss and LAE Flow

The WCRIBMA has updated the data underlying both the medical and the indemnity loss flows used in determining the profit provision. The WCRIBMA has used the most recent available financial aggregate data to derive estimates of the patterns of loss payments. Consistent with other sections of the filing, the WCRIBMA has calculated loss development factors separately for one large carrier. The development factors for the remainder of the industry and for AIG are from Section II, Exhibit 1, Pages 1 and 4. These are used in Exhibit 2 for the calculation of the combined loss flow.

Exhibit 1 shows the calculation of loss and LAE payout pattern used in the DCF models. The Defense and Cost Containment Expense (DCC) flow is assumed to have the same pattern as the loss flow. This corresponds to an assumption that on average DCC payments occur at approximately the same time as claim payments.

The pattern of the Adjusting and Other Expense (AO) flow is assumed to be the same as the average of the loss flow and an earned premium flow. This corresponds to an assumption that on average half of the AO payments are made as accidents occur over the course of the policy effective period and that the other half of the AO payments are made as claims are paid.

The combined loss and LAE flow on a single policy basis used in the profit model, which reflects a weighted average of the medical and indemnity flows, is shown in Exhibit 1. This is then converted to a full policy year basis and appears in Table C5_1 (Section VII-C, Exhibit 5, Page 1).

VII-J - Portfolio Rate of Return

Portfolio Composition

For many years prior to 2005, the mix of securities in the insurance industry asset portfolio was based on data compiled by the Federal Reserve Bank (known as the Federal Reserve Flow of Funds data). A more complete and more reliable source for this information, however, is A.M Best's Aggregates & Averages. Best's is the single most widely recognized source of insurer financial data, and is the source that is routinely relied upon for insurer asset information. Not only are these data compiled directly from insurer annual statements, but they also contain substantially more detail on the mix and maturity of bonds than do the Flow of Funds data. Hence this is a preferred source for estimating the mix of securities in the insurer asset portfolio.

In this filing, WCRIBMA includes “other assets” as an additional category in the portfolio. We begin our calculation of the portfolio rate of return by assigning weights to each of nine categories of assets: cash and short-term investments; government securities and other taxable bonds including industrials; tax exempt bonds including bonds issued by states and territories and special revenue bonds; common stocks; real estate (the sum of real estate investments, offices and sales); preferred stocks; and other assets. We assign weights using data from Best’s Aggregates and Averages Property Casualty, 2013 edition for total US Property and Casualty Industry (Exhibit 1, Page 2). The weights are shown in column (2) of Exhibit 1, Page 1.

Investment Yields

Prior to its 2005 filing the WCRIBMA relied on 12-month average yields to estimate expected future investment income. It is more appropriate, however, to rely on more recent data for this purpose, as it is more likely to be predictive of future investment earnings. In the DCF models used this year (and in the filings from 2005 to present), the WCRIBMA has relied on yields averaged over the last 3 months.

We use the return on 3-month T-bills to estimate the pre-tax return for cash and short-term investments (3-month average from Exhibit 2, Page 3). The pre-tax returns on bonds shown in the next column are taken from Exhibit 2, Page 1. Using industrywide allocations of bonds by class and maturity from Best’s Aggregates and Averages, we calculate (in Exhibit 3) the percentages of bonds in each class. Using yields developed from the data shown on Exhibit 2, Page 3 (calculated on Exhibit 2, Page 2), we calculate

an average yield (based on a 3-month average of yields) for each of the bond categories included in the Best's data (Exhibit 2, Page 1). We derive the pre-tax return on common stocks using a three horizon CAPM calculation, assuming that these assets have a beta of 1.0. The pre-tax return on real estate is the sum of the 3-month treasury rate and the real estate differential of 3.94% taken from Ibbotson and Siegel, "Real Estate Returns: A Comparison with Other Investments". The pre-tax return on preferred stocks is taken from the yield data in Exhibit 2, Page 2. We assume that the pre-tax return and the tax rate on other assets coincide with the pre-tax return and tax rate on preferred stocks.

Market Risk Premium

We use market returns from 1926-2012 to calculate the short term, intermediate term and long term market risk premiums used to calculate the yield on stocks. (As discussed in Section VII-E, these are the same risk premiums used to calculate the cost of capital, which is required for internal consistency in the rate filing.) The calculation, shown on Exhibit 4, uses data drawn from the 2013 Ibbotson & Associates *Valuation Year Book*.

Investment Expenses

The WCRIBMA has relied on the same data source for this value as for the asset portfolio, A.M Best's Aggregates & Averages. This is appropriate. Since investment yields are estimated based on the actual portfolios held by insurers, it is consistent to estimate the reported investment expenses that are associated with those portfolios.

We subtract after-tax investment expenses from after-tax returns in Exhibit 1. In Exhibit 5 we calculate investment expenses using data from Best's Aggregates and Averages. In this filing, the WCRIBMA did not include interest expense and depreciation of real estate in the calculation of total invested expenses.⁴ The pre-tax average investment expense carried to Section VII-J, Exhibit 1, Page 1 is 0.26%.

Tax Rate on Common Stocks

We calculate the effective tax rate on common stock in Exhibit 6. The effective tax rate for capital gains on common stocks is shown in Exhibit 6, Page 2. That rate is based on a 36% turnover ratio, taken from an AIB study of Massachusetts auto insurers' portfolio stock sales. The interest rate used in calculating the present value of the taxes is the weighted average cost of capital from Section VII-E, Exhibit 1. Prior to the 2010 filing the WCRIBMA relied on a 10 year average to calculate the capital gains and dividend weights shown in Exhibit 6, Page 1. In this filing, the WCRIBMA relied on data from 1926 – 2012. This change was made because of the extreme volatility in the financial markets in recent years. Combining a tax rate of 14.18% for common stock dividends and 25.41% on capital gains, we derive an overall average tax rate of 21.45% (Exhibit 6, Page 1).

Exhibit 6, Page 3 displays the calculation of common stock tax rate for different discount rates and turnover rates.

⁴ The State Rating Bureau contested the inclusion of depreciation, interest expense, and aggregate write-ins for investment expenses in the estimation of an investment expense allowance. With respect to depreciation and interest expense, we anticipate objections to their inclusion on the grounds that it would result in double counting. However, we know of no reason to believe including aggregate write-ins presents a double counting problem. For purposes of limiting the debate on investment expenses, the WCRIBMA has opted in this filing to exclude depreciation and interest expense.

Overall Result

The after-tax portfolio rate of return used in this filing is 2.43%.

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Section VII - Profit
Subsection A - Summary
1/1/2014

Section VII-A
Exhibit 1

TABLE A1: ASSUMPTIONS AND PROFIT PROVISION CALCULATION

Underwriting Assumptions:		
(1)	Written Premium	
(a)	Gross - Before Premium Discount	1,000.00
(b)	Net - After Premium Discount	950.17
(2)	Collected Premium Net - After Premium Discount	950.17
(3)	Loss & LAE Ratio	71.89%
(4)	Commission Ratio	7.84%
(5)	Premium Discount	4.98%
(6)	General Expense Ratio	4.22%
(7)	Other Acquisition Expense Ratio	3.53%
(8)	Premium Tax Rate	2.17%
(9)	Reinsurance Expense Ratio	1.00%
(10)	Miscellaneous and Other Taxes	0.54%
Cost of Capital:		
(11)	Weighted Average Cost of Capital	8.21%
Portfolio Rate of Return:		
(12)	After Tax Portfolio Rate of Return	2.43%
Leverage Ratio:		
(13)	Reserves to Surplus Ratio	1.94
Profit Provision:		
(14)	Profit Provision Calculation	3.82%

Notes:

(1b) = (1a) x [1.0 - (5)]

(2) = 1,000 x [1.0 - (5)], where 1,000 is the assumed gross collected premium.

(3) - (10): Section VII-G, Exhibit 1 (average of the two policy years).

(3), (6), (10) are divided by (1.0 + Rate Change).

(11): Section VII-H, Exhibit 1.

(12): Section VII-J, Exhibit 1, page 1.

(13): Section VII-F, Exhibit 1.

(14) = 1.0 - [(3) + (4) + (5) + (6) + (7) + (8) + (9) + (10)]

DISCOUNTED CASH FLOW (DCF) MODELS:

INTERNAL RATE OF RETURN (IRR) AND INSURER CAPITAL COST (ICC)

General Considerations

For more than a decade the WCRIBMA has relied on an internal rate of return (IRR) model to estimate the profit provision that should be included in Massachusetts workers' compensation insurance rates. Once the fair rate of return has been established (based on the cost of capital analyses presented in the filing), the underwriting profit provision can be determined so that the total return on equity (including both underwriting and investment income) is equal to the fair return.

The WCRIBMA's IRR model projects the cash flows attributable to the sale of workers' compensation insurance coverage and calculates the implied rate of return on those cash flows. Virtually every textbook on modern corporate and managerial finance cites the IRR along with the net present value method as the most widely supported investment decision-making rules currently known. Many insurers rely on IRR models to estimate the expected rate of return associated with alternative insurance transactions.

In this filing, the WCRIBMA is introducing an additional analysis, which we call the Insurer Capital Cost (ICC) model, to augment the IRR model used to set the profit provision in the filing. The ICC model is not a replacement for the IRR model. Rather, while it produces exactly the same results as the IRR model, our ICC model provides an alternative view of the cash flows derived from the insurance transaction, taken from the perspective of the insurance company (as opposed to the investor). The purpose of the

ICC model is to clarify the sources and uses of funds related to the sale of workers' compensation policies; detail the capital contributions by investors that are required to finance the underwriting of insurance; and properly recognize the cost of that capital to the insurer.

The IRR and ICC Models

Both the IRR and ICC models are variants of the more generic discounted cash flow (DCF) methodology that is a standard investment decision tool relied upon in corporate and managerial finance. Such models have several features that make them particularly appealing for use in rate regulation.

1. DCF models are prospective and therefore consistent with both actuarial principles and regulatory standards.

Discounted cash flow models, such as the IRR and ICC, attempt to estimate the rate of return attributable to policies sold in the future. From a financial perspective, this is the essence of the rate approval process: to set a price that yields a fair rate of return on the insurance contracts sold under the proposed rates. Alternative approaches, such as accounting models, attempt to estimate the rate of return that will be earned by the insurance company next year, assuming a proposed set of rates is approved. These models may be useful for some purposes, but they are not appropriate for use in rate-setting,

which should focus on the return on the cohort of policies sold under a set of proposed rates.

2. DCF analyses account for all investment income on both policyholder and investor supplied funds.

Both the IRR and ICC model account for investment income in ratemaking and credit the investment income insurers expect to earn in the time period between the sale of policies and the payment of all losses and expenses against otherwise-indicated premium requirements.

Both DCF models account for all such income based on the investment yields insurers can expect to earn when the investible funds are received. However the ICC model is designed so it explicitly identifies and tracks the investible funds derived from both investors and policyholders in order to avoid any confusion regarding the nature of the cash flows from the insurance transaction.

3. DCF analyses account for the time value of money.

The cash flows for some lines of insurance can extend for literally decades after the sale of the policy. In such a case the relative value of the income stream that occurs in future years should be discounted to obtain its present value. Only in this fashion can insurers make rational decisions regarding alternative investment opportunities.

Textbooks on modern financial theory typically recommend discounted cash flow techniques for evaluating investments that pay returns over a period of years into the future. This is because such techniques place all investments on a common footing: that is, they evaluate the future cash flows in the context of the present. This is the only sound basis for comparing alternatives.

4. DCF analyses account for federal income taxes.

The impact of taxes on insurance rates of return can be substantial, particularly given the special provisions of the internal revenue code applied to insurers. These provisions generally affect the timing of taxable income, and the only way to correctly account for them is to look at the flow of taxes over time, which can be readily accomplished using a DCF model.

The IRR and ICC models focus solely on the policy or block of policies that will be sold when the approved rates are actually in effect. These are exactly the policies for which the rate of return should be calculated, as they are the ones to which the premium rates approved in this filing will apply. To calculate the rate of return, the models follow these policies through their lifetime, estimating in each time period the actual cash flows that accrue to the insurer. These cash flows include the following:

- Premiums
- Losses
- Loss Adjustment Expenses
- Other Expenses

- Taxes
- Investment Income
- Surplus

In principle, when an insurer sells a policy it sets into motion a series of events, including the collection of premium; the payment of losses, expenses and taxes; the earning of investment income; and the commitment and later release of surplus. Each one of these cash flows is estimated quarterly over a period of 36 years, to calculate the final flow of funds related to the insurance transaction. In essence the models produce an estimate of the "cash in, cash out" attributable to the policies sold at a given rate.

When a DCF model is developed from the perspective of the investor, as in the IRR model, the relevant cash flows are the ones in and out of the investor's equity account. These include the commitment of equity to support insurance reserves, the provision of additional funds to support the pre-payment of expenses and taxes, the flows of after-tax income arising from both underwriting and investment activities, and the ultimate release of equity as losses are paid and reserves are run-off. Once the final cash flows are known, the internal rate of return is then calculated; it is simply the interest rate that discounts the stream of final investor cash flows to yield a net present value of zero. This can be interpreted as the compound annual rate of return, or the yield to maturity, of the investment.

When a DCF model is developed from the perspective of the insurance company, we call it the ICC model. The main difference between the ICC and the IRR models is that in the ICC model the final cash flows are those that accrue to the insurance company, as opposed to the insurance investor. From the vantage point of

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the insurance company, incoming cash flows arise from funds supplied by investors (initial capital to support reserves and additional capital to prepay expenses and taxes) along with premium revenues from the sale of insurance policies and income from the investment of policyholder and investor supplied funds. Cash then flows out of the company due to the payment of insurance-related losses and expenses, as well as the payments to investors for the cost of the capital they have advanced to the company. (Those payments are the product of the amount of capital invested at the beginning of each quarter and the previously established cost of capital, or fair rate of return.)

When the DCF model is configured as an IRR model (i.e., from the investor perspective), it solves for an underwriting profit factor that produces an internal rate of return equal to the cost of capital. This is appropriate, since an IRR equal to the cost of capital implies that investors earn a fair and reasonable return. However, when the model is configured as an ICC model (i.e., from the insurer perspective), the end result is different, because in the ICC one of the cash outflows is the periodic payment of the cost of capital to investors. Since that cost has already been considered explicitly, the residual cash flows accruing to the insurance company need not incorporate any additional provision for profit. Therefore, instead of solving for the underwriting profit that produces an IRR equal to the cost of capital, the ICC model solves for the underwriting profit factor that produces a net present value of future insurance company cash flows equal to zero. That profit factor is identical to the result obtained when solving for the underwriting profit that produces an IRR to the investor equal to the cost of capital.

IRR and ICC Model Examples:

Although DCF models may appear complex, the underlying concepts are quite straightforward and are common to a wide range of financial analyses. A very simple example illustrates these concepts, beginning with the IRR model.

Consider an investor placing \$120 at risk in support of an insurance policy. This is the initial contribution of equity, from which a series of cash flows will develop. Let us assume that after all the events have taken place this set of policies will pay the investor the following amounts at the end of each indicated time period:

Year	Capital Flow	Income Flow	Total Cash Flow
0	-120.00		-120.00
1	50.00	5.00	55.00
2	40.00	8.40	48.40
3	30.00	9.93	39.93

As indicated in the table, the cash flows are the result of an initial contribution of capital, followed by the earning of income and return of capital in subsequent periods. After year 3 the transaction is over; that is, it produces no further cash flows to the investor. In this case the internal rate of return on the investment is 10%. This is calculated as follows:

IRR Model					
Year	Capital Flow	Income Flow	Total Cash Flow	Discount Factor @ 10%	Total Cash Flow (NPV)
0	-120.00		-120.00	1.0000	-120.00
1	50.00	5.00	55.00	0.9091	50.00
2	40.00	8.40	48.40	0.8264	40.00
3	30.00	9.93	39.93	0.7513	30.00
Total			23.33		0.00

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Ten percent is the interest rate that discounts the set of cash flows to a net present value of zero. Thus, for the investor who makes a \$120 investment today, with the expectation of future cash flows as indicated in the table above, the compound annual return on the equity investment is 10%. While the cash flows that derive from a real insurance transaction are substantially more complicated, the procedure for discounting them to present value is identical.

The same transaction can also be viewed from the perspective of the insurance company, as in the ICC model. In this case the cash flows from the insurance transaction are the same as in the IRR model, but the cost of capital is explicitly charged as an expense against earnings. Because the cost of capital is already recognized as an expense there is no additional return necessary, and therefore the net present value of the cash flows to the insurance company should be zero. That can be seen in the example below:

ICC Model							
Year	Capital Flow	Amount of Capital	Capital Charge	Income Flow	Net Flow To Insurer	Discount Factor @ 10%	Net Flow to Insurer (NPV)
0	-120.00	120.00				1.0000	0.00
1	50.00	70.00	12.00	5.00	-7.00	0.9091	-6.36
2	40.00	30.00	7.00	8.40	1.40	0.8264	1.16
3	30.00	0.00	3.00	9.93	6.93	0.7513	5.21
Total					1.33		0.00

In the ICC model, the 10% charge for the cost of the capital used during each period is explicitly counted as an expense, shown in the column entitled Capital Charge. That expense is charged against the income earned from the insurance transaction, resulting in the final cash flow to the insurer, shown as Net Flow to Insurer above. As can be seen, the net present value of the flow to the insurer is zero, under the identical circumstances (i.e., cash flows) that produced an IRR of exactly 10%. This demonstrates the equivalence of the IRR and ICC models – the cash flows that produce an IRR of 10% also produce an NPV of zero to the insurer, after compensating investors for the cost of their capital.

The IRR and ICC Models for Massachusetts Workers' Compensation Insurance

The IRR model is used in this filing to determine the underwriting profit provision that produces a return on equity equal to the current cost of capital. The ICC model views the insurance cash flows from a different perspective, and solves for the underwriting profit that produces a zero NPV for the insurer, after accounting for the cost of capital paid to the investor as an expense. Both of these DCF models use the cost of capital as the “target” rate of return. If the allowed rates produce an expected return at least equal to the cost of capital, insurers will “invest” by providing adequate capacity and offering coverage in the market. However, when the rate of return falls below the cost of capital, insurers have an incentive to restrict underwriting and withdraw capacity from the market. Thus, from the regulatory perspective, setting an

underwriting profit that yields a rate of return equal to the cost of capital properly balances the interests of insurers and policyholders.

The section below briefly describes the Tables in the filing containing the detailed cash flows underlying the IRR and ICC models. The Tables present the assumptions and parameters underlying the models (Subsection A - Table A1); the development of the final cash flows associated with the alternative IRR/ICC perspectives (Subsection B - Tables B1 and B2); the detailed cash flow patterns and calculations that produce the flows in Tables B1 and B2 (Subsection C - Tables C1 through C5_2); and the flow of capital needed from investors (Subsection D - Table D1).

Table A1 identifies the flows used by the WCRIBMA for premiums, losses and expenses, and summarizes the main parameters needed for the calculation of the profit provision. These inputs apply equally to both the IRR and ICC models.

Table B1 presents the final IRR cash flows; i.e., the cash flows that are relevant when the model is viewed from the perspective of the investor. The cash flow to investors is the sum of the after tax cash flow from underwriting (net of the tax deduction for debt interest), the flow of surplus and the flow of income expected from the investment of reserves and surplus.

Table B2 presents the final ICC cash flows; i.e., the cash flows that are relevant when the model is viewed from the perspective of the insurer. The cash flow to insurers is the sum of the capital charge paid to investors net of the tax deduction for debt interest, the investment return on capital contributed by investors, the investment return

on policyholder funded investable reserves and the after tax underwriting cash flow (net of policyholder funded investable reserves).

Table C1 calculates the policyholder supplied underwriting cash flows, derived as the difference between collected premium and the sum of losses, LAE and total pretax underwriting expenses paid. In addition, federal income taxes on underwriting (calculated in Tables C2_1 through C2_7) are deducted to obtain the post tax cash flows from underwriting.

Tables C2_1 through C2_7 present the tax credits and liabilities arising from insurance operations, with special attention to the provisions of the Internal Revenue Code applicable to property casualty insurers. The details supporting the acceleration of income and discounting of each accident year's losses are provided in Tables C2_1 through C2_4. Table C2_5 calculates the total underwriting tax deductions which are used in Table C2_6 to calculate the federal income tax expense on underwriting. Table C2_7 then calculate the amount of admitted prepaid taxes (DTA's or Deferred Tax Assets. Admitted DTA's are non-cash assets that can be used to fund reserves, resulting in reduced investible balances attributable to reserves.)

Table C3 derives the amount of policyholder supplied funds available for investment, calculated as the sum of loss, LAE and unearned premium reserves less non-cash assets used to support reserves (admitted DTA's and admitted premium receivables). It also derives the additional funds required from investors to support the reserves (i.e., to the extent that the net revenues from underwriting fail to provide

sufficient cash to fully fund required reserves, investors must contribute additional capital).

Table C4 displays the derivation of admitted and non-admitted premium receivables. Statutory accounting rules permit premium balances less than 90 days past due to be carried as balance sheet assets, but balances more than 90 days past due are non-admitted. As with DTA's, admitted assets can be used to support reserves, while non-admitted assets cannot.

Tables C5_1 and C5_2 provide the underlying cash flow patterns from which all the calculations in the IRR and ICC models are derived. These include both cash flows (i.e., premiums collected, losses, LAE and all other expenses paid) as well as accounting flows (premium written and earned, and losses and LAE incurred). (These policy year patterns were developed by the WCRIBMA based on cash flow patterns for a single policy that were converted to a policy year basis.)

Finally, Table D1 derives the amount of capital required to be supplied from investors. Required capital includes the surplus that must stand behind total reserves along with any additional capital amounts required to fund cash shortfalls due to non-admitted DTA's and admitted premium receivables.

DCF Model Results

As shown in Table A1 of this Section, given the assumptions in the filing regarding losses, expenses, investment yields and cash flow patterns, if the underwriting profit provision is set to 3.82%, as proposed by the WCRIBMA,

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Massachusetts workers' compensation insurance would be expected to produce a rate of return on equity equal to the cost of capital of 8.21%. Since the underwriting profit provision is set specifically to yield this fair and reasonable return on equity, if the actuarial projections underlying the rates are reasonable, the rates as filed must be reasonable and satisfy the regulatory requirement that they be neither excessive nor inadequate.

APPENDIX – DCF MODELS

The purpose of this appendix is to demonstrate the equivalence between the two discounted cash flow models, the IRR model and the ICC model, which appear in Section VII – B, Exhibit 1 and Exhibit 2.

IRR MODEL (investor’s perspective)

The relevant cash flows in the IRR model are the following:

- Debt Financing Deduction (DFD)
- Investment Return on Surplus (IR_S)
- Investment Return on Reserves (IR_R)
- After-Tax Underwriting Cash Flow Net of Investable Reserves (UWCF)
- Change in Surplus Contributed by Investor (S)

Given these cash flows, we solve for the profit provision that results in a net present value of cash flows of zero.

$$\text{“IRR” NPV} = \text{PV(DFD)} + \text{PV(IR_S)} + \text{PV(IR_R)} + \text{PV(UWCF)} - \text{PV(S)} = 0$$

ICC MODEL (insurer’s perspective)

The relevant cash flows in the ICC model are the following:

- Debt Financing Deduction (DFD)
- Investment Return on Capital Contributed by Investors (IR_INV)

- Investment Return on Policyholder Funded Investable Reserves (IR_PH)
- After-Tax Underwriting Cash Flow (Net of Policyholder Funded Investable Reserves) (UWCF)
- Capital Charge Paid to Investors (CC)

Given these cash flows, we solve for the profit provision that results in a net present value of cash flows of zero.

$$\text{“ICC” NPV} = \text{PV(DFD)} + \text{PV(IR_INV)} + \text{PV(IR_PH)} + \text{PV(UWCF)} - \text{PV(CC)}$$

Model Equivalence

To prove that the IRR model and the ICC model are equivalent, we need to demonstrate that:

$$\text{“IRR” NPV} = \text{“ICC” NPV} = 0 \quad \text{for a given profit provision}$$

Simplifying the Problem – Comparison of Relevant Cash Flows from the Two

Models

➤ **Debt Financing Deduction:**

Same for IRR and ICC:

$$\text{DFD}_{\text{IRR}} = \text{DFD}_{\text{ICC}}$$

➤ **Total Investable Funds:**

IRR:

- Investable Reserves = Unearned Premium Reserves + Loss & LAE Reserves
– Admitted Premium Receivables – Admitted Prepaid Taxes (DTA)
- Implied Surplus = $\frac{\text{Unearned Premium Reserves} + \text{Loss \& LAE Reserves}}{\text{Reserves to Surplus Ratio}}$

ICC:

- Policyholder Supplied Investable Funds = Investable Reserves - Reserves
Funded by Investors
- Capital Contributed by Investors = Implied Surplus + Reserves Funded by
Investors

Consequently, total investable funds are equal in the two models. Hence, total investment returns are equal as well.

$$IR_{S_{IRR}} + IR_{R_{IRR}} = IR_{INV_{ICC}} + IR_{PH_{ICC}}$$

➤ **After-Tax Underwriting Cash Flow Net of Investable Reserves:**

IRR:

$UWCF_{IRR} = \text{Collected Premium} - \text{Losses \& LAE Paid} - \text{Total Pretax Underwriting Expenses} - \text{Federal Income Tax Expense on Underwriting} - \text{Investable Reserves}$

ICC:

$$\text{UWCF}_{\text{ICC}} = \text{Collected Premium} - \text{Losses \& LAE Paid} - \text{Total Pretax Underwriting Expenses} - \text{Federal Income Tax Expense on Underwriting} - \text{Investor Supplied Reserves}$$

Consequently,

$$\text{UWCF}_{\text{IRR}} = \text{UWCF}_{\text{ICC}} - \text{Change in Investor Supplied Reserves}$$

Note: The sign convention is from perspective of the investor. If the investor has to contribute capital to fund reserves, that would be a negative cash flow to the investor. Subtracting a negative value effectively results in an addition.

Given the results from above, the comparison of the “IRR” NPV and the “ICC” NPV can be simplified to a comparison of:

$$\text{PV(S)} + \text{PV(Change in Investor Supplied Reserves)} = \text{PV(CC)}$$

Moreover, the sum of the surplus contributions and the investor supplied reserves is precisely the capital needed from investors, leaving you with:

$$\text{PV(C)} = \text{PV(CC)}$$

where C is Change in Capital Provided by Investors and CC is Capital Charge Paid to Investors.

PV(C) = PV(CC)

The IRR model and ICC model are mathematically equivalent if $PV(C) = PV(CC)$, where the Capital Charge Paid to Investors for a given period is equal to the contributed capital from the prior period time the cost of capital. This is demonstrated below.

Given:

- C_i is the capital cash flow in period i
- r is the weighted average cost of capital

PROOF OF EQUIVALENCE OF NPV OF CAPITAL CHARGES AND CAPITAL CONTRIBUTIONS

$$\begin{aligned}
 & \sum_{i=1}^n \frac{C_i}{(1+r)^{i-1}} = \sum_{i=1}^{n-1} \frac{(\sum_{j=1}^i C_j) \times r}{(1+r)^i} \\
 & = r \times \left[\frac{C_1}{(1+r)} + \frac{C_1 + C_2}{(1+r)^2} + \frac{C_1 + C_2 + C_3}{(1+r)^3} + \dots + \frac{C_1 + C_2 + C_3 + \dots + C_{n-1}}{(1+r)^{n-1}} \right] \\
 & = r \times \left[\left(\sum_{i=1}^{n-1} \frac{C_1}{(1+r)^i} \right) + \left(\sum_{i=2}^{n-1} \frac{C_2}{(1+r)^i} \right) + \dots + \left(\sum_{i=n-1}^{n-1} \frac{C_{n-1}}{(1+r)^i} \right) \right] \\
 & = r \times \left[C_1 \left(\frac{1}{(1+r)} - \frac{1}{(1+r)^n} \right) + C_2 \left(\frac{1}{(1+r)^2} - \frac{1}{(1+r)^n} \right) + \dots \right. \\
 & \quad \left. + C_{n-1} \left(\frac{1}{(1+r)^{n-1}} - \frac{1}{(1+r)^n} \right) \right] \\
 & = r \times \left[C_1 \left(\frac{1}{r} - \frac{1}{r(1+r)^{n-1}} \right) + C_2 \left(\frac{1}{r(1+r)} - \frac{1}{r(1+r)^{n-1}} \right) + \dots + C_{n-1} \left(\frac{1}{r(1+r)^{n-2}} - \frac{1}{r(1+r)^{n-1}} \right) \right] \\
 & = \left[C_1 \left(1 - \frac{1}{(1+r)^{n-1}} \right) + C_2 \left(\frac{1}{(1+r)} - \frac{1}{(1+r)^{n-1}} \right) + \dots + C_{n-1} \left(\frac{1}{(1+r)^{n-2}} - \frac{1}{(1+r)^{n-1}} \right) \right] \\
 & = C_1 + \frac{C_2}{(1+r)} + \dots + \frac{C_{n-1}}{(1+r)^{n-2}} - \frac{C_1}{(1+r)^{n-1}} - \frac{C_2}{(1+r)^{n-1}} - \dots - \frac{C_{n-1}}{(1+r)^{n-1}} \\
 & = \sum_{i=1}^{n-1} \frac{C_i}{(1+r)^{i-1}} - \frac{(\sum_{i=1}^{n-1} C_i)}{(1+r)^{n-1}} \quad \text{where } \sum_{i=1}^n C_i = 0 \rightarrow \sum_{i=1}^{n-1} C_i = -C_n \\
 & = \sum_{i=1}^{n-1} \frac{C_i}{(1+r)^{i-1}} + \frac{C_n}{(1+r)^{n-1}} \\
 & = \sum_{i=1}^n \frac{C_i}{(1+r)^{i-1}}
 \end{aligned}$$

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TABLE B1: INTERNAL RATE OF RETURN (IRR) MODEL - PRESENT VALUE (PV) NOMINAL CASH FLOWS TO INVESTORS

TIME INTERVAL		POST TAX CASH FROM UW MINUS INVESTABLE RESERVES	BOND INTEREST TAX DEDUCTION FOR INSURERS	NET CASH FLOW FROM UNDERWRITING	CASH POST-TAX INCOME	NET FLOW FROM SURPLUS ACCOUNT	SURPLUS POST-TAX INCOME	CASH FLOWS TO INVESTORS (NOMINAL)	CASH FLOWS TO INVESTORS (PV NOMINAL)
FROM (1)	TO (2)								
01/01/13	03/31/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/01/13	06/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/01/13	09/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/01/13	12/31/13	(1.56)	0.00	(1.56)	0.00	0.00	0.00	(1.56)	(1.47)
01/01/14	03/31/14	(17.97)	0.00	(17.97)	0.05	(137.34)	0.00	(155.27)	(143.49)
04/01/14	06/30/14	(13.07)	0.13	(12.94)	0.33	(95.62)	0.83	(107.41)	(97.33)
07/01/14	09/30/14	(2.60)	0.22	(2.38)	0.83	(83.48)	1.40	(83.62)	(74.29)
10/01/14	12/31/14	11.14	0.29	11.43	1.48	(61.16)	1.90	(46.35)	(40.37)
01/01/15	03/31/15	19.22	0.33	19.55	2.05	46.41	2.27	70.29	60.03
04/01/15	06/30/15	16.09	0.28	16.37	2.45	39.58	1.99	60.41	50.58
07/01/15	09/30/15	6.55	0.24	6.79	2.58	33.01	1.75	44.13	36.23
10/01/15	12/31/15	(17.42)	0.22	(17.21)	2.54	27.16	1.56	14.05	11.31
01/01/16	03/31/16	(7.16)	0.21	(6.95)	2.51	22.24	1.39	19.20	15.15
04/01/16	06/30/16	11.88	0.19	12.08	2.41	19.87	1.26	35.61	27.56
07/01/16	09/30/16	6.36	0.17	6.53	2.19	17.65	1.14	27.51	20.87
10/01/16	12/31/16	3.40	0.15	3.55	1.99	15.68	1.03	22.25	16.56
01/01/17	03/31/17	1.19	0.13	1.32	1.81	13.46	0.94	17.53	12.78
04/01/17	06/30/17	0.51	0.12	0.63	1.65	11.95	0.86	15.09	10.79
07/01/17	09/30/17	0.51	0.11	0.62	1.51	10.53	0.79	13.45	9.43
10/01/17	12/31/17	0.51	0.10	0.61	1.39	9.27	0.72	11.99	8.25
01/01/18	03/31/18	0.27	0.09	0.36	1.28	7.89	0.67	10.20	6.88
04/01/18	06/30/18	0.27	0.09	0.36	1.19	6.98	0.62	9.15	6.05
07/01/18	09/30/18	0.27	0.08	0.35	1.11	6.13	0.58	8.17	5.29
10/01/18	12/31/18	0.27	0.07	0.35	1.04	5.37	0.54	7.30	4.64
01/01/19	03/31/19	0.20	0.07	0.27	0.98	4.47	0.51	6.22	3.88
04/01/19	06/30/19	0.20	0.07	0.26	0.93	3.82	0.48	5.50	3.36
07/01/19	09/30/19	0.20	0.06	0.26	0.88	3.21	0.46	4.81	2.88
10/01/19	12/31/19	0.20	0.06	0.26	0.85	2.66	0.44	4.20	2.47
01/01/20	03/31/20	0.22	0.06	0.27	0.82	2.22	0.42	3.73	2.15
04/01/20	06/30/20	0.22	0.06	0.27	0.79	2.03	0.41	3.50	1.98
07/01/20	09/30/20	0.22	0.05	0.27	0.77	1.86	0.40	3.29	1.82
10/01/20	12/31/20	0.22	0.05	0.27	0.74	1.71	0.39	3.11	1.69
01/01/21	03/31/21	0.16	0.05	0.21	0.72	1.56	0.38	2.87	1.52
04/01/21	06/30/21	0.16	0.05	0.21	0.71	1.46	0.37	2.75	1.43
07/01/21	09/30/21	0.16	0.05	0.21	0.69	1.39	0.36	2.64	1.35
10/01/21	12/31/21	0.16	0.05	0.21	0.67	1.32	0.35	2.55	1.28
01/01/22	03/31/22	0.14	0.05	0.19	0.66	1.20	0.34	2.38	1.17
04/01/22	06/30/22	0.14	0.05	0.19	0.65	1.08	0.33	2.25	1.09
07/01/22	09/30/22	0.14	0.05	0.19	0.63	0.98	0.33	2.13	1.01
10/01/22	12/31/22	0.14	0.04	0.18	0.62	0.89	0.32	2.02	0.94
01/01/23	03/31/23	0.15	0.04	0.20	0.61	0.82	0.32	1.94	0.88
04/01/23	06/30/23	0.15	0.04	0.20	0.60	0.78	0.31	1.89	0.84
07/01/23	09/30/23	0.15	0.04	0.19	0.59	0.76	0.31	1.85	0.81
10/01/23	12/31/23	0.15	0.04	0.19	0.58	0.74	0.30	1.82	0.78
01/01/24	03/31/24	0.14	0.04	0.19	0.57	0.71	0.30	1.76	0.74
04/01/24	06/30/24	0.14	0.04	0.18	0.57	0.69	0.29	1.73	0.71
07/01/24	09/30/24	0.14	0.04	0.18	0.56	0.68	0.29	1.71	0.69
10/01/24	12/31/24	0.14	0.04	0.18	0.55	0.66	0.29	1.68	0.67
01/01/25	03/31/25	0.14	0.04	0.18	0.54	0.65	0.28	1.65	0.64
04/01/25	06/30/25	0.14	0.04	0.18	0.54	0.64	0.28	1.63	0.62
07/01/25	09/30/25	0.14	0.04	0.18	0.53	0.64	0.27	1.62	0.60
10/01/25	12/31/25	0.14	0.04	0.18	0.52	0.64	0.27	1.60	0.59
01/01/26	03/31/26	0.13	0.04	0.17	0.51	0.64	0.27	1.59	0.57
04/01/26	06/30/26	0.13	0.04	0.17	0.51	0.64	0.26	1.57	0.55
07/01/26	09/30/26	0.13	0.04	0.17	0.50	0.65	0.26	1.57	0.54
10/01/26	12/31/26	0.13	0.04	0.17	0.49	0.65	0.25	1.57	0.53
01/01/27	03/31/27	0.13	0.03	0.16	0.48	0.64	0.25	1.54	0.51
04/01/27	06/30/27	0.13	0.03	0.16	0.48	0.63	0.25	1.52	0.49
07/01/27	09/30/27	0.13	0.03	0.16	0.47	0.63	0.24	1.50	0.48
10/01/27	12/31/27	0.13	0.03	0.16	0.46	0.62	0.24	1.48	0.46
01/01/28	03/31/28	0.06	0.03	0.09	0.45	0.58	0.23	1.36	0.42
04/01/28	06/30/28	0.06	0.03	0.09	0.45	0.54	0.23	1.30	0.39
07/01/28	09/30/28	0.06	0.03	0.09	0.44	0.49	0.23	1.25	0.37
10/01/28	12/31/28	0.06	0.03	0.09	0.44	0.45	0.23	1.21	0.35
01/01/29	03/31/29	0.00	0.03	0.03	0.43	0.42	0.22	1.11	0.31
04/01/29	06/30/29	0.00	0.03	0.03	0.43	0.40	0.22	1.08	0.30
07/01/29	09/30/29	0.00	0.03	0.03	0.42	0.39	0.22	1.06	0.29
10/01/29	12/31/29	0.00	0.03	0.03	0.42	0.37	0.22	1.04	0.28
01/01/30	03/31/30	0.00	0.03	0.03	0.41	0.38	0.21	1.04	0.27
04/01/30	06/30/30	0.00	0.03	0.03	0.41	0.40	0.21	1.06	0.27
07/01/30	09/30/30	0.00	0.03	0.03	0.40	0.43	0.21	1.07	0.27
10/01/30	12/31/30	0.00	0.03	0.03	0.40	0.45	0.21	1.09	0.27
01/01/31	03/31/31	0.00	0.03	0.03	0.39	0.43	0.20	1.06	0.26
04/01/31	06/30/31	0.00	0.03	0.03	0.39	0.39	0.20	1.01	0.24
07/01/31	09/30/31	0.00	0.03	0.03	0.38	0.36	0.20	0.97	0.23
10/01/31	12/31/31	0.00	0.03	0.03	0.38	0.33	0.20	0.93	0.21
01/01/32	03/31/32	0.00	0.03	0.03	0.38	0.29	0.19	0.89	0.20
04/01/32	06/30/32	0.00	0.03	0.03	0.37	0.28	0.19	0.87	0.19
07/01/32	09/30/32	0.00	0.03	0.03	0.37	0.26	0.19	0.85	0.18
10/01/32	12/31/32	0.00	0.03	0.03	0.37	0.25	0.19	0.83	0.17
01/01/33	03/31/33	0.00	0.03	0.03	0.36	0.23	0.19	0.80	0.17
04/01/33	06/30/33	0.00	0.03	0.03	0.36	0.21	0.19	0.78	0.16
07/01/33	09/30/33	0.00	0.03	0.03	0.36	0.20	0.18	0.77	0.15
10/01/33	12/31/33	0.00	0.03	0.03	0.36	0.18	0.18	0.75	0.15

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Section VII-B
Exhibit 1

TABLE B1: INTERNAL RATE OF RETURN (IRR) MODEL - PRESENT VALUE (PV) NOMINAL CASH FLOWS TO INVESTORS

TIME INTERVAL		POST TAX CASH FROM UW MINUS INVESTABLE RESERVES (3)	BOND INTEREST TAX DEDUCTION FOR INSURERS (4)	NET CASH FLOW FROM UNDERWRITING (5)	CASH POST-TAX INCOME (6)	NET FLOW FROM SURPLUS ACCOUNT (7)	SURPLUS POST-TAX INCOME (8)	CASH FLOWS TO INVESTORS (NOMINAL) (9)	CASH FLOWS TO INVESTORS (PV NOMINAL) (10)
FROM (1)	TO (2)								
01/01/34	03/31/34	0.00	0.03	0.03	0.35	0.18	0.18	0.74	0.14
04/01/34	06/30/34	0.00	0.03	0.03	0.35	0.18	0.18	0.74	0.14
07/01/34	09/30/34	0.00	0.02	0.03	0.35	0.19	0.18	0.75	0.14
10/01/34	12/31/34	0.00	0.02	0.03	0.35	0.19	0.18	0.75	0.13
01/01/35	03/31/35	0.00	0.02	0.03	0.35	0.25	0.18	0.81	0.14
04/01/35	06/30/35	0.00	0.02	0.03	0.34	0.33	0.18	0.88	0.15
07/01/35	09/30/35	0.00	0.02	0.03	0.34	0.41	0.17	0.96	0.16
10/01/35	12/31/35	0.00	0.02	0.03	0.33	0.49	0.17	1.02	0.17
01/01/36	03/31/36	0.00	0.02	0.03	0.33	0.52	0.17	1.05	0.17
04/01/36	06/30/36	0.00	0.02	0.03	0.32	0.52	0.17	1.03	0.17
07/01/36	09/30/36	0.00	0.02	0.03	0.32	0.52	0.16	1.03	0.16
10/01/36	12/31/36	0.00	0.02	0.03	0.31	0.52	0.16	1.02	0.16
01/01/37	03/31/37	0.00	0.02	0.03	0.30	0.52	0.16	1.01	0.15
04/01/37	06/30/37	0.00	0.02	0.02	0.30	0.52	0.15	1.00	0.15
07/01/37	09/30/37	0.00	0.02	0.02	0.29	0.52	0.15	0.99	0.14
10/01/37	12/31/37	0.00	0.02	0.02	0.29	0.52	0.15	0.98	0.14
01/01/38	03/31/38	0.00	0.02	0.02	0.28	0.52	0.14	0.97	0.13
04/01/38	06/30/38	0.00	0.02	0.02	0.27	0.52	0.14	0.96	0.13
07/01/38	09/30/38	0.00	0.02	0.02	0.27	0.52	0.14	0.95	0.13
10/01/38	12/31/38	0.00	0.02	0.02	0.26	0.52	0.13	0.94	0.12
01/01/39	03/31/39	0.00	0.02	0.02	0.26	0.52	0.13	0.93	0.12
04/01/39	06/30/39	0.00	0.02	0.02	0.25	0.52	0.13	0.92	0.12
07/01/39	09/30/39	0.00	0.02	0.02	0.24	0.52	0.13	0.91	0.11
10/01/39	12/31/39	0.00	0.02	0.02	0.24	0.52	0.12	0.90	0.11
01/01/40	03/31/40	0.00	0.02	0.02	0.23	0.52	0.12	0.89	0.11
04/01/40	06/30/40	0.00	0.02	0.02	0.22	0.52	0.12	0.88	0.10
07/01/40	09/30/40	0.00	0.02	0.02	0.22	0.52	0.11	0.87	0.10
10/01/40	12/31/40	0.00	0.02	0.02	0.21	0.52	0.11	0.87	0.10
01/01/41	03/31/41	0.00	0.01	0.02	0.21	0.52	0.11	0.85	0.09
04/01/41	06/30/41	0.00	0.01	0.02	0.20	0.52	0.10	0.84	0.09
07/01/41	09/30/41	0.00	0.01	0.02	0.19	0.52	0.10	0.83	0.09
10/01/41	12/31/41	0.00	0.01	0.02	0.19	0.52	0.10	0.83	0.09
01/01/42	03/31/42	0.00	0.01	0.02	0.18	0.52	0.09	0.81	0.08
04/01/42	06/30/42	0.00	0.01	0.02	0.18	0.52	0.09	0.80	0.08
07/01/42	09/30/42	0.00	0.01	0.02	0.17	0.52	0.09	0.80	0.08
10/01/42	12/31/42	0.00	0.01	0.02	0.16	0.52	0.08	0.79	0.08
01/01/43	03/31/43	0.00	0.01	0.02	0.16	0.52	0.08	0.78	0.07
04/01/43	06/30/43	0.00	0.01	0.01	0.15	0.52	0.08	0.76	0.07
07/01/43	09/30/43	0.00	0.01	0.01	0.15	0.52	0.07	0.76	0.07
10/01/43	12/31/43	0.00	0.01	0.01	0.14	0.52	0.07	0.75	0.07
01/01/44	03/31/44	0.00	0.01	0.01	0.13	0.52	0.07	0.74	0.06
04/01/44	06/30/44	0.00	0.01	0.01	0.13	0.52	0.07	0.72	0.06
07/01/44	09/30/44	0.00	0.01	0.01	0.12	0.52	0.06	0.72	0.06
10/01/44	12/31/44	0.00	0.01	0.01	0.11	0.52	0.06	0.71	0.06
01/01/45	03/31/45	0.00	0.01	0.01	0.11	0.52	0.06	0.70	0.06
04/01/45	06/30/45	0.00	0.01	0.01	0.10	0.52	0.05	0.69	0.05
07/01/45	09/30/45	0.00	0.01	0.01	0.10	0.52	0.05	0.68	0.05
10/01/45	12/31/45	0.00	0.01	0.01	0.09	0.52	0.05	0.67	0.05
01/01/46	03/31/46	0.00	0.01	0.01	0.08	0.52	0.04	0.66	0.05
04/01/46	06/30/46	0.00	0.01	0.01	0.08	0.52	0.04	0.65	0.05
07/01/46	09/30/46	0.00	0.01	0.01	0.07	0.52	0.04	0.64	0.05
10/01/46	12/31/46	0.00	0.00	0.01	0.07	0.52	0.03	0.63	0.04
01/01/47	03/31/47	0.00	0.00	0.01	0.06	0.52	0.03	0.62	0.04
04/01/47	06/30/47	0.00	0.00	0.01	0.05	0.52	0.03	0.61	0.04
07/01/47	09/30/47	0.00	0.00	0.01	0.05	0.52	0.02	0.60	0.04
10/01/47	12/31/47	0.00	0.00	0.01	0.04	0.52	0.02	0.59	0.04
01/01/48	03/31/48	0.00	0.00	0.00	0.04	0.52	0.02	0.58	0.04
04/01/48	06/30/48	0.00	0.00	0.00	0.03	0.52	0.02	0.57	0.04
07/01/48	09/30/48	0.00	0.00	0.00	0.02	0.52	0.01	0.56	0.03
10/01/48	12/31/48	0.00	0.00	0.00	0.02	0.52	0.01	0.55	0.03
01/01/49	03/31/49	(0.00)	0.00	0.00	0.01	0.43	0.01	0.45	0.03
04/01/49	06/30/49	0.00	0.00	0.00	0.01	0.30	0.00	0.31	0.02
07/01/49	09/30/49	0.00	0.00	0.00	0.00	0.17	0.00	0.18	0.01
10/01/49	12/31/49	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.00
TOTAL		24.80	6.38		76.53	(0.00)	45.02	152.74	0.00

Notes:

(3) = Table C1, (14) - [Table C3, (7), incremental]

(4) = Table B2, (5)

(5) = (3) + (4)

(6) = Table C3, (7)_{t-1} x { [1.0 + Table A1, (12)] ^ 0.25 - 1.0 }

(7) = -1.0 X Table D1, (7), incremental

(8) = Table D1, (7)_{t-1} x { [1.0 + Table A1, (12)] ^ 0.25 - 1.0 }

(9) = (5) + (6) + (7) + (8)

(10) = (9) x (1 + WACC)^{time in years}, based on the time interval with beginning date 01/01/13

WACC is the weighted average cost of capital from Section VII-E, Exhibit 1 which is equal to 8.21%.

The Total PV is equal to zero which implies that the profit provision derived from an investors prospective is equal to the profit provision derived from insurers prospective and is equal to 3.82% from Table A1, (14).

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TABLE B2: INSURER CAPITAL COST (ICC) MODEL - PRESENT VALUE (PV) CASH FLOW TO INSURER

TIME INTERVAL		INVESTOR SUPPLIED	NET CAPITAL CHARGES				SOURCES TO PAY NET CAPITAL CHARGE				CASH FLOW TO INSURER (11)	PV CASH FLOW TO INSURER (12)
							INVESTOR SUPPLIED	POLICYHOLDER SUPPLIED				
			CAPITAL NEEDED FROM INVESTORS (3)	INVESTOR REQUIRED RETURN CAPITAL CHARGE (4)	BOND INTEREST TAX DEDUCTION FOR INSURERS (5)	NET CAPITAL COST TO INSURERS (6)		AFTER TAX INV INCOME ON INVESTOR SUPPLIED FUNDS (7)	POLICYHOLDER SUPPLIED INVESTABLE FUNDS (8)	AFTER TAX INV INCOME ON POLICYHOLDER SUPPLIED FUNDS (9)		
FROM (1)	TO (2)											
01/01/13	03/31/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
04/01/13	06/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
07/01/13	09/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10/01/13	12/31/13	1.56	0.00	0.00	0.00	0.00	6.16	0.00	0.00	0.00	0.00	
01/01/14	03/31/14	156.88	0.03	0.00	0.03	0.01	34.70	0.04	0.00	0.00	0.02	
04/01/14	06/30/14	265.57	3.12	0.13	2.99	0.94	106.20	0.21	0.00	(1.84)	(1.67)	
07/01/14	09/30/14	351.65	5.29	0.22	5.07	1.60	211.55	0.64	0.00	(2.83)	(2.52)	
10/01/14	12/31/14	401.68	7.00	0.29	6.71	2.12	316.84	1.27	0.00	(3.32)	(2.90)	
01/01/15	03/31/15	336.04	8.00	0.33	7.67	2.42	403.29	1.91	0.00	(3.34)	(2.86)	
04/01/15	06/30/15	291.61	6.69	0.28	6.41	2.02	428.59	2.43	11.25	9.28	7.77	
07/01/15	09/30/15	258.61	5.81	0.24	5.57	1.75	421.91	2.58	6.55	5.32	4.37	
10/01/15	12/31/15	248.86	5.15	0.22	4.94	1.56	400.40	2.54	0.00	(0.84)	(0.68)	
01/01/16	03/31/16	233.78	4.96	0.21	4.75	1.50	376.42	2.41	0.00	(0.84)	(0.67)	
04/01/16	06/30/16	202.03	4.66	0.19	4.46	1.41	351.00	2.26	0.00	(0.79)	(0.61)	
07/01/16	09/30/16	178.02	4.02	0.17	3.86	1.22	323.82	2.11	0.00	(0.53)	(0.40)	
10/01/16	12/31/16	158.93	3.55	0.15	3.40	1.07	297.22	1.95	0.00	(0.36)	(0.28)	
01/01/17	03/31/17	144.28	3.17	0.13	3.03	0.96	272.56	1.79	0.00	(0.29)	(0.21)	
04/01/17	06/30/17	131.81	2.87	0.12	2.75	0.87	250.09	1.64	0.00	(0.25)	(0.18)	
07/01/17	09/30/17	120.77	2.63	0.11	2.52	0.79	230.39	1.50	0.00	(0.22)	(0.15)	
10/01/17	12/31/17	110.99	2.41	0.10	2.30	0.73	213.13	1.39	0.00	(0.19)	(0.13)	
01/01/18	03/31/18	102.90	2.21	0.09	2.12	0.67	198.23	1.28	0.07	(0.10)	(0.07)	
04/01/18	06/30/18	95.92	2.05	0.09	1.96	0.62	184.89	1.19	0.27	0.12	0.08	
07/01/18	09/30/18	89.79	1.91	0.08	1.83	0.58	173.22	1.11	0.27	0.13	0.08	
10/01/18	12/31/18	84.42	1.79	0.07	1.71	0.54	163.02	1.04	0.27	0.14	0.09	
01/01/19	03/31/19	79.95	1.68	0.07	1.61	0.51	154.41	0.98	0.20	0.07	0.05	
04/01/19	06/30/19	76.13	1.59	0.07	1.53	0.48	147.05	0.93	0.20	0.08	0.05	
07/01/19	09/30/19	72.92	1.52	0.06	1.45	0.46	140.89	0.88	0.20	0.09	0.05	
10/01/19	12/31/19	70.27	1.45	0.06	1.39	0.44	135.80	0.85	0.20	0.09	0.05	
01/01/20	03/31/20	68.04	1.40	0.06	1.34	0.42	131.46	0.82	0.22	0.11	0.07	
04/01/20	06/30/20	66.01	1.36	0.06	1.30	0.41	127.49	0.79	0.22	0.12	0.07	
07/01/20	09/30/20	64.15	1.31	0.05	1.26	0.40	123.86	0.77	0.22	0.12	0.07	
10/01/20	12/31/20	62.44	1.28	0.05	1.22	0.39	120.52	0.74	0.22	0.12	0.07	
01/01/21	03/31/21	60.89	1.24	0.05	1.19	0.38	117.55	0.72	0.16	0.07	0.04	
04/01/21	06/30/21	59.42	1.21	0.05	1.16	0.37	114.76	0.71	0.16	0.07	0.04	
07/01/21	09/30/21	58.04	1.18	0.05	1.13	0.36	112.12	0.69	0.16	0.07	0.04	
10/01/21	12/31/21	56.71	1.16	0.05	1.11	0.35	109.61	0.67	0.16	0.07	0.04	
01/01/22	03/31/22	55.52	1.13	0.05	1.08	0.34	107.30	0.66	0.14	0.06	0.03	
04/01/22	06/30/22	54.43	1.11	0.05	1.06	0.33	105.21	0.65	0.14	0.06	0.03	
07/01/22	09/30/22	53.45	1.08	0.05	1.04	0.33	103.32	0.63	0.14	0.06	0.03	
10/01/22	12/31/22	52.56	1.06	0.04	1.02	0.32	101.60	0.62	0.14	0.06	0.03	
01/01/23	03/31/23	51.74	1.05	0.04	1.00	0.32	100.00	0.61	0.15	0.08	0.03	
04/01/23	06/30/23	50.96	1.03	0.04	0.99	0.31	98.47	0.60	0.15	0.08	0.03	
07/01/23	09/30/23	50.20	1.01	0.04	0.97	0.31	96.98	0.59	0.15	0.08	0.03	
10/01/23	12/31/23	49.46	1.00	0.04	0.96	0.30	95.54	0.58	0.15	0.08	0.03	
01/01/24	03/31/24	48.76	0.99	0.04	0.94	0.30	94.17	0.57	0.14	0.07	0.03	
04/01/24	06/30/24	48.07	0.97	0.04	0.93	0.29	92.85	0.57	0.14	0.07	0.03	
07/01/24	09/30/24	47.39	0.96	0.04	0.92	0.29	91.54	0.56	0.14	0.07	0.03	
10/01/24	12/31/24	46.73	0.94	0.04	0.90	0.29	90.26	0.55	0.14	0.08	0.03	
01/01/25	03/31/25	46.08	0.93	0.04	0.89	0.28	89.00	0.54	0.14	0.07	0.03	
04/01/25	06/30/25	45.44	0.92	0.04	0.88	0.28	87.76	0.54	0.14	0.07	0.03	
07/01/25	09/30/25	44.80	0.90	0.04	0.87	0.27	86.52	0.53	0.14	0.07	0.03	
10/01/25	12/31/25	44.16	0.89	0.04	0.85	0.27	85.28	0.52	0.14	0.07	0.03	
01/01/26	03/31/26	43.52	0.88	0.04	0.84	0.27	84.05	0.51	0.13	0.07	0.02	
04/01/26	06/30/26	42.89	0.87	0.04	0.83	0.26	82.82	0.51	0.13	0.07	0.02	
07/01/26	09/30/26	42.24	0.85	0.04	0.82	0.26	81.57	0.50	0.13	0.07	0.02	
10/01/26	12/31/26	41.59	0.84	0.04	0.81	0.25	80.31	0.49	0.13	0.07	0.02	
01/01/27	03/31/27	40.94	0.83	0.03	0.79	0.25	79.06	0.48	0.13	0.07	0.02	
04/01/27	06/30/27	40.31	0.82	0.03	0.78	0.25	77.83	0.48	0.13	0.07	0.02	
07/01/27	09/30/27	39.68	0.80	0.03	0.77	0.24	76.62	0.47	0.13	0.07	0.02	
10/01/27	12/31/27	39.06	0.79	0.03	0.76	0.24	75.41	0.46	0.13	0.07	0.02	
01/01/28	03/31/28	38.48	0.78	0.03	0.75	0.23	74.35	0.45	0.06	0.00	0.00	
04/01/28	06/30/28	37.94	0.77	0.03	0.73	0.23	73.38	0.45	0.06	0.00	0.00	
07/01/28	09/30/28	37.45	0.76	0.03	0.72	0.23	72.49	0.44	0.06	0.00	0.00	
10/01/28	12/31/28	37.00	0.75	0.03	0.71	0.23	71.68	0.44	0.06	0.00	0.00	
01/01/29	03/31/29	36.58	0.74	0.03	0.71	0.22	70.92	0.43	0.00	(0.05)	(0.01)	
04/01/29	06/30/29	36.17	0.73	0.03	0.70	0.22	70.20	0.43	0.00	(0.05)	(0.01)	
07/01/29	09/30/29	35.79	0.72	0.03	0.69	0.22	69.50	0.42	0.00	(0.05)	(0.01)	
10/01/29	12/31/29	35.41	0.71	0.03	0.68	0.22	68.82	0.42	0.00	(0.05)	(0.01)	
01/01/30	03/31/30	35.03	0.71	0.03	0.68	0.21	68.08	0.41	0.00	(0.05)	(0.01)	
04/01/30	06/30/30	34.63	0.70	0.03	0.67	0.21	67.30	0.41	0.00	(0.05)	(0.01)	
07/01/30	09/30/30	34.20	0.69	0.03	0.66	0.21	66.46	0.40	0.00	(0.05)	(0.01)	
10/01/30	12/31/30	33.74	0.68	0.03	0.65	0.21	65.58	0.40	0.00	(0.04)	(0.01)	
01/01/31	03/31/31	33.31	0.67	0.03	0.64	0.20	64.74	0.39	0.00	(0.04)	(0.01)	
04/01/31	06/30/31	32.92	0.66	0.03	0.64	0.20	63.97	0.39	0.00	(0.04)	(0.01)	
07/01/31	09/30/31	32.56	0.66	0.03	0.63	0.20	63.28	0.38	0.00	(0.04)	(0.01)	
10/01/31	12/31/31	32.23	0.65	0.03	0.62	0.20	62.64	0.38	0.00	(0.04)	(0.01)	
01/01/32	03/31/32	31.94	0.64	0.03	0.62	0.19	62.07	0.38	0.00	(0.04)	(0.01)	
04/01/32	06/30/32	31.66	0.64	0.03	0.61	0.19	61.54	0.37	0.00	(0.04)	(0.01)	
07/01/32	09/30/32	31.40	0.63	0.03	0.60	0.19	61.03	0.37	0.00	(0.04)	(0.01)	
10/01/32	12/31/32	31.15	0.63	0.03	0.60	0.19	60.55	0.37	0.00	(0.04)	(0.01)	

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TABLE B2: INSURER CAPITAL COST (ICC) MODEL - PRESENT VALUE (PV) CASH FLOW TO INSURER

TIME INTERVAL		INVESTOR SUPPLIED	NET CAPITAL CHARGES			SOURCES TO PAY NET CAPITAL CHARGE				CASH FLOW TO INSURER (11)	PV CASH FLOW TO INSURER (12)
						INVESTOR SUPPLIED	POLICYHOLDER SUPPLIED				
FROM (1)	TO (2)	CAPITAL NEEDED FROM INVESTORS (3)	INVESTOR REQUIRED RETURN CAPITAL CHARGE (4)	BOND INTEREST TAX DEDUCTION FOR INSURERS (5)	NET CAPITAL COST TO INSURERS (6)	AFTER TAX INV INCOME ON INVESTOR SUPPLIED FUNDS (7)	POLICYHOLDER SUPPLIED INVESTABLE FUNDS (8)	AFTER TAX INV INCOME ON POLICYHOLDER SUPPLIED FUNDS (9)	POST TAX CASH FROM UW AVAILABLE TO INVESTORS (10)		
01/01/33	03/31/33	30.93	0.62	0.03	0.59	0.19	60.12	0.36	0.00	(0.04)	(0.01)
04/01/33	06/30/33	30.72	0.62	0.03	0.59	0.19	59.71	0.36	0.00	(0.04)	(0.01)
07/01/33	09/30/33	30.52	0.61	0.03	0.59	0.18	59.33	0.36	0.00	(0.04)	(0.01)
10/01/33	12/31/33	30.34	0.61	0.03	0.58	0.18	58.97	0.36	0.00	(0.04)	(0.01)
01/01/34	03/31/34	30.16	0.60	0.03	0.58	0.18	58.63	0.35	0.00	(0.04)	(0.01)
04/01/34	06/30/34	29.98	0.60	0.03	0.58	0.18	58.27	0.35	0.00	(0.04)	(0.01)
07/01/34	09/30/34	29.79	0.60	0.02	0.57	0.18	57.90	0.35	0.00	(0.04)	(0.01)
10/01/34	12/31/34	29.60	0.59	0.02	0.57	0.18	57.52	0.35	0.00	(0.04)	(0.01)
01/01/35	03/31/35	29.34	0.59	0.02	0.56	0.18	57.03	0.35	0.00	(0.04)	(0.01)
04/01/35	06/30/35	29.01	0.58	0.02	0.56	0.18	56.38	0.34	0.00	(0.04)	(0.01)
07/01/35	09/30/35	28.60	0.58	0.02	0.55	0.17	55.58	0.34	0.00	(0.04)	(0.01)
10/01/35	12/31/35	28.11	0.57	0.02	0.55	0.17	54.63	0.33	0.00	(0.04)	(0.01)
01/01/36	03/31/36	27.59	0.56	0.02	0.54	0.17	53.61	0.33	0.00	(0.04)	(0.01)
04/01/36	06/30/36	27.07	0.55	0.02	0.53	0.17	52.60	0.32	0.00	(0.03)	(0.01)
07/01/36	09/30/36	26.55	0.54	0.02	0.52	0.16	51.59	0.32	0.00	(0.03)	(0.01)
10/01/36	12/31/36	26.02	0.53	0.02	0.51	0.16	50.57	0.31	0.00	(0.03)	(0.01)
01/01/37	03/31/37	25.50	0.52	0.02	0.50	0.16	49.55	0.30	0.00	(0.03)	(0.00)
04/01/37	06/30/37	24.98	0.51	0.02	0.49	0.15	48.54	0.30	0.00	(0.03)	(0.00)
07/01/37	09/30/37	24.46	0.50	0.02	0.48	0.15	47.53	0.29	0.00	(0.03)	(0.00)
10/01/37	12/31/37	23.93	0.49	0.02	0.47	0.15	46.51	0.29	0.00	(0.03)	(0.00)
01/01/38	03/31/38	23.41	0.48	0.02	0.46	0.14	45.49	0.28	0.00	(0.03)	(0.00)
04/01/38	06/30/38	22.89	0.47	0.02	0.45	0.14	44.48	0.27	0.00	(0.03)	(0.00)
07/01/38	09/30/38	22.37	0.46	0.02	0.44	0.14	43.47	0.27	0.00	(0.03)	(0.00)
10/01/38	12/31/38	21.84	0.45	0.02	0.43	0.13	42.45	0.26	0.00	(0.03)	(0.00)
01/01/39	03/31/39	21.32	0.44	0.02	0.42	0.13	41.43	0.26	0.00	(0.03)	(0.00)
04/01/39	06/30/39	20.80	0.42	0.02	0.41	0.13	40.42	0.25	0.00	(0.03)	(0.00)
07/01/39	09/30/39	20.28	0.41	0.02	0.40	0.13	39.41	0.24	0.00	(0.02)	(0.00)
10/01/39	12/31/39	19.76	0.40	0.02	0.39	0.12	38.39	0.24	0.00	(0.02)	(0.00)
01/01/40	03/31/40	19.23	0.39	0.02	0.38	0.12	37.37	0.23	0.00	(0.02)	(0.00)
04/01/40	06/30/40	18.71	0.38	0.02	0.37	0.12	36.36	0.22	0.00	(0.02)	(0.00)
07/01/40	09/30/40	18.19	0.37	0.02	0.36	0.11	35.35	0.22	0.00	(0.02)	(0.00)
10/01/40	12/31/40	17.67	0.36	0.02	0.35	0.11	34.33	0.21	0.00	(0.02)	(0.00)
01/01/41	03/31/41	17.14	0.35	0.01	0.34	0.11	33.31	0.21	0.00	(0.02)	(0.00)
04/01/41	06/30/41	16.63	0.34	0.01	0.33	0.10	32.30	0.20	0.00	(0.02)	(0.00)
07/01/41	09/30/41	16.10	0.33	0.01	0.32	0.10	31.29	0.19	0.00	(0.02)	(0.00)
10/01/41	12/31/41	15.58	0.32	0.01	0.31	0.10	30.27	0.19	0.00	(0.02)	(0.00)
01/01/42	03/31/42	15.06	0.31	0.01	0.30	0.09	29.25	0.18	0.00	(0.02)	(0.00)
04/01/42	06/30/42	14.54	0.30	0.01	0.29	0.09	28.24	0.18	0.00	(0.02)	(0.00)
07/01/42	09/30/42	14.01	0.29	0.01	0.28	0.09	27.23	0.17	0.00	(0.02)	(0.00)
10/01/42	12/31/42	13.49	0.28	0.01	0.27	0.08	26.21	0.16	0.00	(0.02)	(0.00)
01/01/43	03/31/43	12.97	0.27	0.01	0.26	0.08	25.19	0.16	0.00	(0.01)	(0.00)
04/01/43	06/30/43	12.45	0.26	0.01	0.25	0.08	24.18	0.15	0.00	(0.01)	(0.00)
07/01/43	09/30/43	11.93	0.25	0.01	0.24	0.07	23.17	0.15	0.00	(0.01)	(0.00)
10/01/43	12/31/43	11.40	0.24	0.01	0.23	0.07	22.15	0.14	0.00	(0.01)	(0.00)
01/01/44	03/31/44	10.88	0.23	0.01	0.22	0.07	21.13	0.13	0.00	(0.01)	(0.00)
04/01/44	06/30/44	10.36	0.22	0.01	0.21	0.07	20.12	0.13	0.00	(0.01)	(0.00)
07/01/44	09/30/44	9.84	0.21	0.01	0.20	0.06	19.11	0.12	0.00	(0.01)	(0.00)
10/01/44	12/31/44	9.31	0.20	0.01	0.19	0.06	18.09	0.11	0.00	(0.01)	(0.00)
01/01/45	03/31/45	8.79	0.19	0.01	0.18	0.06	17.07	0.11	0.00	(0.01)	(0.00)
04/01/45	06/30/45	8.27	0.18	0.01	0.17	0.05	16.06	0.10	0.00	(0.01)	(0.00)
07/01/45	09/30/45	7.75	0.16	0.01	0.16	0.05	15.05	0.10	0.00	(0.01)	(0.00)
10/01/45	12/31/45	7.22	0.15	0.01	0.15	0.05	14.03	0.09	0.00	(0.01)	(0.00)
01/01/46	03/31/46	6.70	0.14	0.01	0.14	0.04	13.01	0.08	0.00	(0.01)	(0.00)
04/01/46	06/30/46	6.18	0.13	0.01	0.13	0.04	12.00	0.08	0.00	(0.01)	(0.00)
07/01/46	09/30/46	5.66	0.12	0.01	0.12	0.04	10.99	0.07	0.00	(0.00)	(0.00)
10/01/46	12/31/46	5.14	0.11	0.00	0.11	0.03	9.97	0.07	0.00	(0.00)	(0.00)
01/01/47	03/31/47	4.61	0.10	0.00	0.10	0.03	8.95	0.06	0.00	(0.00)	(0.00)
04/01/47	06/30/47	4.09	0.09	0.00	0.09	0.03	7.94	0.05	0.00	(0.00)	(0.00)
07/01/47	09/30/47	3.57	0.08	0.00	0.08	0.02	6.93	0.05	0.00	(0.00)	(0.00)
10/01/47	12/31/47	3.05	0.07	0.00	0.07	0.02	5.91	0.04	0.00	(0.00)	(0.00)
01/01/48	03/31/48	2.53	0.06	0.00	0.06	0.02	4.90	0.04	0.00	(0.00)	(0.00)
04/01/48	06/30/48	2.01	0.05	0.00	0.05	0.02	3.89	0.03	0.00	(0.00)	(0.00)
07/01/48	09/30/48	1.48	0.04	0.00	0.04	0.01	2.88	0.02	0.00	(0.00)	(0.00)
10/01/48	12/31/48	0.96	0.03	0.00	0.03	0.01	1.86	0.02	0.00	(0.00)	(0.00)
01/01/49	03/31/49	0.53	0.02	0.00	0.02	0.01	1.03	0.01	0.00	(0.00)	(0.00)
04/01/49	06/30/49	0.23	0.01	0.00	0.01	0.00	0.45	0.01	0.00	(0.00)	(0.00)
07/01/49	09/30/49	0.06	0.00	0.00	0.00	0.00	0.11	0.00	0.00	(0.00)	(0.00)
10/01/49	12/31/49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.00)	(0.00)
TOTAL		7670.86	152.78	6.38	146.40	46.14	12539.02	75.42	24.80	(0.04)	0.00

Notes:
(3) = Table D1, (9)
(4) = $(3)_{t-1} \times [(1.0 + WACC)^{0.25} - 1.0]$,
where WACC is the weighted average cost of capital from Section VII-E, Exhibit 1 which is equal to 8.21%
(5) = $(3)_{t-1} \times [(1.0 + Debt\ Capital\ Cost)^{0.25} - 1.0] \times Debt\ Capital\ Share \times 0.35$,
where Debt Capital Cost=4.66% and Debt Capital Share=21%, from Section VII-E, Exhibit 1.
(6) = (4) - (5)
(7) = $(3)_{t-1} \times [(1.0 + Table\ A1, (12))^{0.25} - 1.0]$
(8) = Table C3, (10)
(9) = $(8)_{t-1} \times [(1.0 + Table\ A1, (12))^{0.25} - 1.0]$
(10) = Table C3, (9)
(11) = $-1.0 \times [(6) - (7) - (9) - (10)]$
(12) = $(11) \times (1 + WACC)^{time\ in\ years}$, based on the time interval with beginning date 01/01/13,
where WACC is the weighted average cost of capital from Section VII-E, Exhibit 1 which is equal to 8.21%.

VII 000039

TABLE C1: POLICYHOLDER SUPPLIED - UNDERWRITING (UW) CASH FLOWS

TIME INTERVAL		COLLECTED PREMIUM NET (3)	LOSS & LAE PAYOUT (4)	UNDERWRITING EXPENSES								PRE TAX CASH FLOWS FROM UW (12)	FEDERAL INCOME TAX EXPENSE ON UW (13)	POST TAX CASH FLOWS FROM UW (14)
FROM (1)	TO (2)			COMMISS. & BROKER. (5)	GENERAL EXPENSES (6)	OTHER ACQ. EXPENSES (7)	PREMIUM TAXES (8)	MISC. AND OTHER TAXES (9)	REINS. EXPENSES (10)	TOTAL PRETAX UW EXPENSES (11)				
01/01/13	03/31/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/01/13	06/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/01/13	09/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/01/13	12/31/13	7.72	0.00	0.64	0.00	1.77	0.00	0.00	0.00	2.40	5.31	(0.84)	6.16	6.16
01/01/14	03/31/14	72.77	7.63	6.00	7.30	10.24	0.00	1.62	3.00	28.17	36.97	8.43	28.54	28.54
04/01/14	06/30/14	134.68	17.68	11.11	7.28	8.48	6.50	1.30	2.40	37.07	79.93	8.43	71.50	71.50
07/01/14	09/30/14	183.00	28.19	15.10	8.63	8.39	5.19	1.31	2.41	41.04	113.78	8.43	105.35	105.35
10/01/14	12/31/14	191.48	37.57	15.80	9.34	6.45	5.23	1.19	2.19	40.19	113.72	8.43	105.29	105.29
01/01/15	03/31/15	150.31	42.89	12.40	4.32	0.00	4.74	0.00	0.00	21.47	85.94	(0.51)	86.45	86.45
04/01/15	06/30/15	90.25	43.73	7.45	3.03	0.00	0.00	0.00	0.00	10.48	36.04	(0.51)	36.54	36.54
07/01/15	09/30/15	50.34	45.07	4.15	1.74	0.00	0.00	0.00	0.00	5.90	(0.63)	(0.51)	(0.13)	(0.13)
10/01/15	12/31/15	27.11	46.29	2.24	0.59	0.00	0.00	0.00	0.00	2.83	(22.02)	(0.51)	(21.51)	(21.51)
01/01/16	03/31/16	19.56	43.24	1.61	0.00	0.00	0.00	0.00	0.00	1.61	(25.29)	(1.30)	(23.98)	(23.98)
04/01/16	06/30/16	12.97	38.62	1.07	0.00	0.00	0.00	0.00	0.00	1.07	(26.73)	(1.30)	(25.42)	(25.42)
07/01/16	09/30/16	6.36	34.31	0.52	0.00	0.00	0.00	0.00	0.00	0.52	(28.48)	(1.30)	(27.17)	(27.17)
10/01/16	12/31/16	2.82	30.49	0.23	0.00	0.00	0.00	0.00	0.00	0.23	(27.91)	(1.30)	(26.60)	(26.60)
01/01/17	03/31/17	0.81	26.16	0.07	0.00	0.00	0.00	0.00	0.00	0.07	(25.42)	(0.76)	(24.66)	(24.66)
04/01/17	06/30/17	0.00	23.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(23.23)	(0.76)	(22.47)	(22.47)
07/01/17	09/30/17	0.00	20.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(20.46)	(0.76)	(19.71)	(19.71)
10/01/17	12/31/17	0.00	18.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(18.01)	(0.76)	(17.26)	(17.26)
01/01/18	03/31/18	0.00	15.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(15.34)	(0.51)	(14.83)	(14.83)
04/01/18	06/30/18	0.00	13.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(13.57)	(0.51)	(13.07)	(13.07)
07/01/18	09/30/18	0.00	11.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(11.91)	(0.51)	(11.40)	(11.40)
10/01/18	12/31/18	0.00	10.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(10.44)	(0.51)	(9.93)	(9.93)
01/01/19	03/31/19	0.00	8.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(8.68)	(0.27)	(8.41)	(8.41)
04/01/19	06/30/19	0.00	7.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(7.43)	(0.27)	(7.16)	(7.16)
07/01/19	09/30/19	0.00	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(6.23)	(0.27)	(5.96)	(5.96)
10/01/19	12/31/19	0.00	5.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(5.17)	(0.27)	(4.90)	(4.90)
01/01/20	03/31/20	0.00	4.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(4.32)	(0.20)	(4.12)	(4.12)
04/01/20	06/30/20	0.00	3.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(3.95)	(0.20)	(3.75)	(3.75)
07/01/20	09/30/20	0.00	3.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(3.62)	(0.20)	(3.42)	(3.42)
10/01/20	12/31/20	0.00	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(3.32)	(0.20)	(3.12)	(3.12)
01/01/21	03/31/21	0.00	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(3.02)	(0.22)	(2.81)	(2.81)
04/01/21	06/30/21	0.00	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(2.85)	(0.22)	(2.63)	(2.63)
07/01/21	09/30/21	0.00	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(2.70)	(0.22)	(2.48)	(2.48)
10/01/21	12/31/21	0.00	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(2.57)	(0.22)	(2.35)	(2.35)
01/01/22	03/31/22	0.00	2.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(2.32)	(0.16)	(2.17)	(2.17)
04/01/22	06/30/22	0.00	2.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(2.11)	(0.16)	(1.95)	(1.95)
07/01/22	09/30/22	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.91)	(0.16)	(1.75)	(1.75)
10/01/22	12/31/22	0.00	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.74)	(0.16)	(1.58)	(1.58)
01/01/23	03/31/23	0.00	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.59)	(0.14)	(1.45)	(1.45)
04/01/23	06/30/23	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.52)	(0.14)	(1.38)	(1.38)
07/01/23	09/30/23	0.00	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.47)	(0.14)	(1.33)	(1.33)
10/01/23	12/31/23	0.00	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.43)	(0.14)	(1.29)	(1.29)
01/01/24	03/31/24	0.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.37)	(0.15)	(1.22)	(1.22)
04/01/24	06/30/24	0.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.34)	(0.15)	(1.18)	(1.18)
07/01/24	09/30/24	0.00	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.31)	(0.15)	(1.16)	(1.16)
10/01/24	12/31/24	0.00	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.29)	(0.15)	(1.14)	(1.14)
01/01/25	03/31/25	0.00	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.26)	(0.14)	(1.12)	(1.12)
04/01/25	06/30/25	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.25)	(0.14)	(1.10)	(1.10)
07/01/25	09/30/25	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.24)	(0.14)	(1.10)	(1.10)
10/01/25	12/31/25	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.24)	(0.14)	(1.10)	(1.10)
01/01/26	03/31/26	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.24)	(0.14)	(1.10)	(1.10)
04/01/26	06/30/26	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.24)	(0.14)	(1.10)	(1.10)
07/01/26	09/30/26	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.25)	(0.14)	(1.11)	(1.11)
10/01/26	12/31/26	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.27)	(0.14)	(1.13)	(1.13)
01/01/27	03/31/27	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.25)	(0.13)	(1.12)	(1.12)
04/01/27	06/30/27	0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.23)	(0.13)	(1.10)	(1.10)
07/01/27	09/30/27	0.00	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.22)	(0.13)	(1.09)	(1.09)
10/01/27	12/31/27	0.00	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.21)	(0.13)	(1.08)	(1.08)
01/01/28	03/31/28	0.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.13)	(0.13)	(1.00)	(1.00)
04/01/28	06/30/28	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.04)	(0.13)	(0.91)	(0.91)
07/01/28	09/30/28	0.00	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.96)	(0.13)	(0.83)	(0.83)
10/01/28	12/31/28	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.88)	(0.13)	(0.76)	(0.76)
01/01/29	03/31/29	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.82)	(0.06)	(0.76)	(0.76)
04/01/29	06/30/29	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.78)	(0.06)	(0.72)	(0.72)
07/01/29	09/30/29	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.75)	(0.06)	(0.69)	(0.69)
10/01/29	12/31/29	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.73)	(0.06)	(0.67)	(0.67)
01/01/30	03/31/30	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.74)	(0.00)	(0.74)	(0.74)
04/01/30	06/30/30	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.78)	(0.00)	(0.78)	(0.78)
07/01/30	09/30/30	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.84)	(0.00)	(0.83)	(0.83)
10/01/30	12/31/30	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.88)	(0.00)	(0.88)	(0.88)
01/01/31	03/31/31	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.84)	(0.00)	(0.84)	(0.84)
04/01/31	06/30/31	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.77)	(0.00)	(0.76)	(0.76)
07/01/31	09/30/31	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.70)	(0.00)	(0.69)	(0.69)
10/01/31	12/31/31	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.64)	(0.00)	(0.63)	(0.63)
01/01/32	03/31/32	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.57)	(0.00)	(0.57)	(0.57)
04/01/32	06/30/32	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.54)	(0.00)	(0.53)	(0.53)
07/01/32	09/30/32	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.51)	(0.00)	(0.50)	(0.50)
10/01/32	12/31/32	0.00	0.48	0.00	0.00									

VII 000040

TABLE C1: POLICYHOLDER SUPPLIED - UNDERWRITING (UW) CASH FLOWS

TIME INTERVAL		COLLECTED PREMIUM NET (3)	LOSS & LAE PAYOUT (4)	UNDERWRITING EXPENSES							PRE TAX CASH FLOWS FROM UW (12)	FEDERAL INCOME TAX EXPENSE ON UW (13)	POST TAX CASH FLOWS FROM UW (14)
				COMMISS. & BROKER. (5)	GENERAL EXPENSES (6)	OTHER ACQ. EXPENSES (7)	PREMIUM TAXES (8)	MISC. AND OTHER TAXES (9)	REINS. EXPENSES (10)	TOTAL PRETAX UW EXPENSES (11)			
FROM (1)	TO (2)												
10/01/36	12/31/36	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/37	03/31/37	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/37	06/30/37	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/37	09/30/37	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/37	12/31/37	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/38	03/31/38	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/38	06/30/38	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/38	09/30/38	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/38	12/31/38	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/39	03/31/39	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/39	06/30/39	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/39	09/30/39	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/39	12/31/39	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/40	03/31/40	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/40	06/30/40	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/40	09/30/40	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/40	12/31/40	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/41	03/31/41	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/41	06/30/41	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/41	09/30/41	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/41	12/31/41	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/42	03/31/42	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/42	06/30/42	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/42	09/30/42	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/42	12/31/42	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/43	03/31/43	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/43	06/30/43	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/43	09/30/43	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/43	12/31/43	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/44	03/31/44	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/44	06/30/44	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/44	09/30/44	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/44	12/31/44	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/45	03/31/45	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/45	06/30/45	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/45	09/30/45	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/45	12/31/45	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/46	03/31/46	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/46	06/30/46	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/46	09/30/46	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/46	12/31/46	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/47	03/31/47	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/47	06/30/47	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/47	09/30/47	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/47	12/31/47	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/48	03/31/48	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
04/01/48	06/30/48	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
07/01/48	09/30/48	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.01)	(0.00)	(1.01)
10/01/48	12/31/48	0.00	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(1.02)	(0.00)	(1.02)
01/01/49	03/31/49	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.83)	(0.00)	(0.83)
04/01/49	06/30/49	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.58)	(0.00)	(0.58)
07/01/49	09/30/49	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.34)	(0.00)	(0.34)
10/01/49	12/31/49	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(0.11)	(0.00)	(0.11)
TOTAL		950.17	718.95	78.41	42.25	35.32	21.66	5.42	10.00	193.06	38.16	13.36	24.80

Notes:
 (3) = Table A1, (2) x Table C5_1, (3)
 (4) = Table A1, (3) x Table A1, (1a) x Table C5_1, (4)
 (5) = Table A1, (4) x Table A1, (1a) x Table C5_1, (5)
 (6) = Table A1, (6) x Table A1, (1a) x Table C5_1, (6)
 (7) = Table A1, (7) x Table A1, (1a) x Table C5_1, (7)
 (8) = Table A1, (8) x Table A1, (1a) x Table C5_1, (8)
 (9) = Table A1, (10) x Table A1, (1a) x Table C5_1, (9)
 (10) = Table A1, (9) x Table A1, (1a) x Table C5_1, (10)
 (11) = (5) + (6) + (7) + (8) + (9) + (10)
 (12) = (3) - (4) - (11)
 (13) = Table C2_6, (6), annual tax expense allocated to the model time periods.
 (14) = (12) - (13)

TABLE C2_1: FEDERAL INCOME TAXES - TAXABLE PREMIUM REVENUE

TIME INTERVAL		WRITTEN PREMIUM NET (3)	UNEARNED PREMIUM RESERVES (4)	CHANGE IN UNEARNED PREMIUM RESERVES (5)	TAX DEDUCTIBLE CHANGE IN UNEARNED PREMIUM RESERVES (6)	NON TAX DEDUCTIBLE CHANGE IN UNEARNED PREMIUM RESERVES (7)	TAXABLE PREMIUM REVENUE (8)
FROM (1)	TO (2)						
01/01/13	12/31/13	0.00	0.00	0.00	0.00	0.00	0.00
01/01/14	12/31/14	950.17	432.31	432.31	345.84	86.46	604.33
01/01/15	12/31/15	0.00	0.00	(432.31)	(345.84)	(86.46)	345.84
01/01/16	12/31/16	0.00	0.00	0.00	0.00	0.00	0.00
01/01/17	12/31/17	0.00	0.00	0.00	0.00	0.00	0.00
01/01/18	12/31/18	0.00	0.00	0.00	0.00	0.00	0.00
01/01/19	12/31/19	0.00	0.00	0.00	0.00	0.00	0.00
01/01/20	12/31/20	0.00	0.00	0.00	0.00	0.00	0.00
01/01/21	12/31/21	0.00	0.00	0.00	0.00	0.00	0.00
01/01/22	12/31/22	0.00	0.00	0.00	0.00	0.00	0.00
01/01/23	12/31/23	0.00	0.00	0.00	0.00	0.00	0.00
01/01/24	12/31/24	0.00	0.00	0.00	0.00	0.00	0.00
01/01/25	12/31/25	0.00	0.00	0.00	0.00	0.00	0.00
01/01/26	12/31/26	0.00	0.00	0.00	0.00	0.00	0.00
01/01/27	12/31/27	0.00	0.00	0.00	0.00	0.00	0.00
01/01/28	12/31/28	0.00	0.00	0.00	0.00	0.00	0.00
01/01/29	12/31/29	0.00	0.00	0.00	0.00	0.00	0.00
01/01/30	12/31/30	0.00	0.00	0.00	0.00	0.00	0.00
01/01/31	12/31/31	0.00	0.00	0.00	0.00	0.00	0.00
01/01/32	12/31/32	0.00	0.00	0.00	0.00	0.00	0.00
01/01/33	12/31/33	0.00	0.00	0.00	0.00	0.00	0.00
01/01/34	12/31/34	0.00	0.00	0.00	0.00	0.00	0.00
01/01/35	12/31/35	0.00	0.00	0.00	0.00	0.00	0.00
01/01/36	12/31/36	0.00	0.00	0.00	0.00	0.00	0.00
01/01/37	12/31/37	0.00	0.00	0.00	0.00	0.00	0.00
01/01/38	12/31/38	0.00	0.00	0.00	0.00	0.00	0.00
01/01/39	12/31/39	0.00	0.00	0.00	0.00	0.00	0.00
01/01/40	12/31/40	0.00	0.00	0.00	0.00	0.00	0.00
01/01/41	12/31/41	0.00	0.00	0.00	0.00	0.00	0.00
01/01/42	12/31/42	0.00	0.00	0.00	0.00	0.00	0.00
01/01/43	12/31/43	0.00	0.00	0.00	0.00	0.00	0.00
01/01/44	12/31/44	0.00	0.00	0.00	0.00	0.00	0.00
01/01/45	12/31/45	0.00	0.00	0.00	0.00	0.00	0.00
01/01/46	12/31/46	0.00	0.00	0.00	0.00	0.00	0.00
01/01/47	12/31/47	0.00	0.00	0.00	0.00	0.00	0.00
01/01/48	12/31/48	0.00	0.00	0.00	0.00	0.00	0.00
01/01/49	12/31/49	0.00	0.00	0.00	0.00	0.00	0.00
01/01/50	12/31/50	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL		950.17	432.31	0.00	0.00	0.00	950.17

Notes:
 (3) = Table A1, (1b) x Percentage of Premium written in corresponding year
 (4) = Table A1, (1b) x Percentage of Unearned Premium in corresponding year
 (5) = (4), incremental
 (6) = 0.8 x (5)
 (7) = 0.2 x (5)
 (8) = (3) - (6)

TABLE C2_2: DERIVATION OF DISCOUNTED LOSS & LAE RESERVES

ACCIDENT YEAR									
2014									
TIME INTERVAL		IRS DISCOUNT FACTOR	UNDISCOUNTED			DISCOUNTED			LOSS & LAE PAID DURING PERIOD
			LOSS & LAE UNPAID BEG OF PERIOD	LOSS & LAE UNPAID END OF PERIOD	CHANGE IN UNDISCOUNTED LOSS & LAE RESERVES	LOSS & LAE UNPAID BEG OF PERIOD	LOSS & LAE UNPAID END OF PERIOD	CHANGE IN DISCOUNTED LOSS & LAE RESERVES	
FROM	TO		(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)	(2)	(3)							
01/01/13	12/31/13	0.9034	0.00						
01/01/14	12/31/14	0.8894	313.80	313.80	313.80	0.00	283.49	283.49	78.05
01/01/15	12/31/15	0.8894	313.80	213.77	(100.02)	283.49	190.12	(93.37)	100.02
01/01/16	12/31/16	0.8795	213.77	146.17	(67.60)	190.12	128.56	(61.56)	67.60
01/01/17	12/31/17	0.8753	146.17	106.16	(40.01)	128.56	92.92	(35.64)	40.01
01/01/18	12/31/18	0.8738	106.16	82.96	(23.20)	92.92	72.49	(20.43)	23.20
01/01/19	12/31/19	0.8701	82.96	71.35	(11.61)	72.49	62.08	(10.41)	11.61
01/01/20	12/31/20	0.8782	71.35	64.03	(7.32)	62.08	56.23	(5.85)	7.32
01/01/21	12/31/21	0.8891	64.03	58.41	(5.62)	56.23	51.94	(4.30)	5.62
01/01/22	12/31/22	0.8956	58.41	54.58	(3.83)	51.94	48.88	(3.06)	3.83
01/01/23	12/31/23	0.9086	54.58	51.46	(3.12)	48.88	46.76	(2.12)	3.12
01/01/24	12/31/24	0.9224	51.46	48.65	(2.81)	46.76	44.88	(1.88)	2.81
01/01/25	12/31/25	0.9372	48.65	45.95	(2.70)	44.88	43.07	(1.81)	2.70
01/01/26	12/31/26	0.9530	45.95	43.21	(2.75)	43.07	41.18	(1.89)	2.75
01/01/27	12/31/27	0.9703	43.21	40.57	(2.63)	41.18	39.37	(1.81)	2.63
01/01/28	12/31/28	0.9894	40.57	38.63	(1.94)	39.37	38.22	(1.15)	1.94
01/01/29	12/31/29	0.9894	38.63	37.04	(1.59)	38.22	36.64	(1.57)	1.59
01/01/30	12/31/30	0.9894	37.04	35.14	(1.89)	36.64	34.77	(1.87)	1.89
01/01/31	12/31/31	0.9894	35.14	33.74	(1.40)	34.77	33.38	(1.39)	1.40
01/01/32	12/31/32	0.9894	33.74	32.70	(1.05)	33.38	32.35	(1.04)	1.05
01/01/33	12/31/33	0.9894	32.70	31.92	(0.78)	32.35	31.58	(0.77)	0.78
01/01/34	12/31/34	0.9894	31.92	31.10	(0.81)	31.58	30.77	(0.81)	0.81
01/01/35	12/31/35	0.9894	31.10	29.10	(2.01)	30.77	28.79	(1.98)	2.01
01/01/36	12/31/36	0.9894	29.10	26.88	(2.21)	28.79	26.60	(2.19)	2.21
01/01/37	12/31/37	0.9894	26.88	24.67	(2.21)	26.60	24.41	(2.19)	2.21
01/01/38	12/31/38	0.9894	24.67	22.46	(2.21)	24.41	22.22	(2.19)	2.21
01/01/39	12/31/39	0.9894	22.46	20.24	(2.21)	22.22	20.03	(2.19)	2.21
01/01/40	12/31/40	0.9894	20.24	18.03	(2.21)	20.03	17.84	(2.19)	2.21
01/01/41	12/31/41	0.9894	18.03	15.82	(2.21)	17.84	15.65	(2.19)	2.21
01/01/42	12/31/42	0.9894	15.82	13.61	(2.21)	15.65	13.46	(2.19)	2.21
01/01/43	12/31/43	0.9894	13.61	11.39	(2.21)	13.46	11.27	(2.19)	2.21
01/01/44	12/31/44	0.9894	11.39	9.18	(2.21)	11.27	9.08	(2.19)	2.21
01/01/45	12/31/45	0.9894	9.18	6.97	(2.21)	9.08	6.89	(2.19)	2.21
01/01/46	12/31/46	0.9894	6.97	4.76	(2.21)	6.89	4.71	(2.19)	2.21
01/01/47	12/31/47	0.9894	4.76	2.54	(2.21)	4.71	2.52	(2.19)	2.21
01/01/48	12/31/48	0.9894	2.54	0.33	(2.21)	2.52	0.33	(2.19)	2.21
01/01/49	12/31/49	0.9894	0.33	0.00	(0.33)	0.33	0.00	(0.33)	0.33
01/01/50	12/31/50	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL			1,787.34	1,787.34	0.00	1,643.47	1,643.47	0.00	391.84

- Notes:
- (3): Discount factors specified in IRS Internal Revenue Bulletin 2013-49.
 - (4) = (5)_{t-1}
 - (5) = (10), Total - (10), cumulative
 - (6) = (5) - (4)
 - (7) = (8)_{t-1}
 - (8) = (3) x (5)
 - (9) = (8) - (7)
 - (10) = Table A1, (3) x Table A1, (1a) x Loss & LAE Flow (from Section VII-I, Exhibit 1) for each accident year

TABLE C2_3: DERIVATION OF DISCOUNTED LOSS & LAE RESERVES

ACCIDENT YEAR									
2015									
TIME INTERVAL		IRS DISCOUNT FACTOR	UNDISCOUNTED			DISCOUNTED			LOSS & LAE PAID DURING PERIOD
			LOSS & LAE UNPAID BEG OF PERIOD	LOSS & LAE UNPAID END OF PERIOD	CHANGE IN UNDISCOUNTED LOSS & LAE RESERVES	LOSS & LAE UNPAID BEG OF PERIOD	LOSS & LAE UNPAID END OF PERIOD	CHANGE IN DISCOUNTED LOSS & LAE RESERVES	
FROM	TO	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
01/01/13	12/31/13		0.00	0.00	0.00	0.00	0.00	0.00	
01/01/14	12/31/14			0.00	0.00	0.00	0.00	0.00	
01/01/15	12/31/15	0.9034	0.00	236.12	236.12	0.00	213.32	213.32	90.98
01/01/16	12/31/16	0.8894	236.12	157.06	(79.06)	213.32	139.68	(73.63)	79.06
01/01/17	12/31/17	0.8795	157.06	109.20	(47.86)	139.68	96.05	(43.64)	47.86
01/01/18	12/31/18	0.8753	109.20	81.14	(28.06)	96.05	71.02	(25.02)	28.06
01/01/19	12/31/19	0.8738	81.14	65.23	(15.91)	71.02	57.00	(14.02)	15.91
01/01/20	12/31/20	0.8701	65.23	57.35	(7.89)	57.00	49.90	(7.10)	7.89
01/01/21	12/31/21	0.8782	57.35	51.83	(5.52)	49.90	45.52	(4.38)	5.52
01/01/22	12/31/22	0.8891	51.83	47.58	(4.25)	45.52	42.31	(3.21)	4.25
01/01/23	12/31/23	0.8956	47.58	44.69	(2.90)	42.31	40.02	(2.29)	2.90
01/01/24	12/31/24	0.9086	44.69	42.19	(2.50)	40.02	38.33	(1.69)	2.50
01/01/25	12/31/25	0.9224	42.19	39.89	(2.30)	38.33	36.79	(1.54)	2.30
01/01/26	12/31/26	0.9372	39.89	37.64	(2.25)	36.79	35.27	(1.52)	2.25
01/01/27	12/31/27	0.9530	37.64	35.35	(2.28)	35.27	33.69	(1.58)	2.28
01/01/28	12/31/28	0.9703	35.35	33.29	(2.07)	33.69	32.30	(1.40)	2.07
01/01/29	12/31/29	0.9894	33.29	31.80	(1.49)	32.30	31.46	(0.84)	1.49
01/01/30	12/31/30	0.9894	31.80	30.45	(1.35)	31.46	30.12	(1.34)	1.35
01/01/31	12/31/31	0.9894	30.45	28.91	(1.54)	30.12	28.60	(1.52)	1.54
01/01/32	12/31/32	0.9894	28.91	27.86	(1.05)	28.60	27.57	(1.03)	1.05
01/01/33	12/31/33	0.9894	27.86	27.06	(0.80)	27.57	26.78	(0.79)	0.80
01/01/34	12/31/34	0.9894	27.06	26.43	(0.63)	26.78	26.15	(0.63)	0.63
01/01/35	12/31/35	0.9894	26.43	25.55	(0.89)	26.15	25.27	(0.88)	0.89
01/01/36	12/31/36	0.9894	25.55	23.70	(1.85)	25.27	23.45	(1.83)	1.85
01/01/37	12/31/37	0.9894	23.70	21.85	(1.85)	23.45	21.62	(1.83)	1.85
01/01/38	12/31/38	0.9894	21.85	20.00	(1.85)	21.62	19.79	(1.83)	1.85
01/01/39	12/31/39	0.9894	20.00	18.16	(1.85)	19.79	17.96	(1.83)	1.85
01/01/40	12/31/40	0.9894	18.16	16.31	(1.85)	17.96	16.14	(1.83)	1.85
01/01/41	12/31/41	0.9894	16.31	14.46	(1.85)	16.14	14.31	(1.83)	1.85
01/01/42	12/31/42	0.9894	14.46	12.62	(1.85)	14.31	12.48	(1.83)	1.85
01/01/43	12/31/43	0.9894	12.62	10.77	(1.85)	12.48	10.65	(1.83)	1.85
01/01/44	12/31/44	0.9894	10.77	8.92	(1.85)	10.65	8.83	(1.83)	1.85
01/01/45	12/31/45	0.9894	8.92	7.07	(1.85)	8.83	7.00	(1.83)	1.85
01/01/46	12/31/46	0.9894	7.07	5.23	(1.85)	7.00	5.17	(1.83)	1.85
01/01/47	12/31/47	0.9894	5.23	3.38	(1.85)	5.17	3.34	(1.83)	1.85
01/01/48	12/31/48	0.9894	3.38	1.53	(1.85)	3.34	1.52	(1.83)	1.85
01/01/49	12/31/49	0.9894	1.53	0.00	(1.53)	1.52	0.00	(1.52)	1.53
01/01/50	12/31/50	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL			1,400.64	1,400.64	0.00	1,289.43	1,289.43	0.00	327.11

Notes:

(3): Discount factors specified in IRS Internal Revenue Bulletin 2013-49.

(4) = (5)_{t-1}

(5) = (10), Total - (10), cumulative

(6) = (5) - (4)

(7) = (8)_{t-1}

(8) = (3) x (5)

(9) = (8) - (7)

(10) = Table A1, (3) x Table A1, (1a) x Loss & LAE Flow (from Section VII-I, Exhibit 1) for each accident year

TABLE C2_4: DERIVATION OF DISCOUNTED LOSS & LAE RESERVES

ACCIDENT YEAR 2016									
TIME INTERVAL		IRS DISCOUNT FACTOR	UNDISCOUNTED			DISCOUNTED			LOSS & LAE PAID DURING PERIOD
			LOSS & LAE UNPAID BEG OF PERIOD	LOSS & LAE UNPAID END OF PERIOD	CHANGE IN UNDISCOUNTED LOSS & LAE RESERVES	LOSS & LAE UNPAID BEG OF PERIOD	LOSS & LAE UNPAID END OF PERIOD	CHANGE IN DISCOUNTED LOSS & LAE RESERVES	
FROM	TO		(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)	(2)	(3)							
1/1/2013	12/31/2013		0.00	0.00	0.00	0.00	0.00	0.00	
1/1/2014	12/31/2014		0.00	0.00	0.00	0.00	0.00	0.00	
1/1/2015	12/31/2015		0.00	0.00	0.00	0.00	0.00	0.00	
1/1/2016	12/31/2016	0.9034	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2017	12/31/2017	0.8894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2018	12/31/2018	0.8795	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2019	12/31/2019	0.8753	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2020	12/31/2020	0.8738	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2021	12/31/2021	0.8701	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2022	12/31/2022	0.8782	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2023	12/31/2023	0.8891	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2024	12/31/2024	0.8956	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2025	12/31/2025	0.9086	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2026	12/31/2026	0.9224	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2027	12/31/2027	0.9372	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2028	12/31/2028	0.9530	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2029	12/31/2029	0.9703	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2030	12/31/2030	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2031	12/31/2031	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2032	12/31/2032	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2033	12/31/2033	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2034	12/31/2034	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2035	12/31/2035	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2036	12/31/2036	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2037	12/31/2037	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2038	12/31/2038	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2039	12/31/2039	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2040	12/31/2040	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2041	12/31/2041	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2042	12/31/2042	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2043	12/31/2043	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2044	12/31/2044	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2045	12/31/2045	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2046	12/31/2046	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2047	12/31/2047	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2048	12/31/2048	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2049	12/31/2049	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/1/2050	12/31/2050	0.9894	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL			0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

(3): Discount factors specified in IRS Internal Revenue Bulletin 2013-49.

(4) = (5)_{t-1}

(5) = (10), Total - (10), cumulative

(6) = (5) - (4)

(7) = (8)_{t-1}

(8) = (3) x (5)

(9) = (8) - (7)

(10) = Table A1, (3) x Table A1, (1a) x Loss & LAE Flow (from Section VII-I, Exhibit 1) for each accident year

TABLE C2_5: FEDERAL INCOME TAXES - UNDERWRITING (UW) TAX DEDUCTIONS

TIME INTERVAL		LOSS & LAE PAID DURING PERIOD	CHANGE IN DISCOUNTED LOSS & LAE RESERVES	TAX DEDUCTIBLE LOSS & LAE	TAX DEDUCTIBLE UW EXPENSES	TOTAL UW TAX DEDUCTIONS
FROM (1)	TO (2)	(3)	(4)	(5)	(6)	(7)
01/01/13	12/31/13	0.00	0.00	0.00	2.40	2.40
01/01/14	12/31/14	78.05	283.49	361.54	146.47	508.00
01/01/15	12/31/15	191.00	119.95	310.96	40.68	351.64
01/01/16	12/31/16	146.66	(135.19)	11.47	3.44	14.91
01/01/17	12/31/17	87.87	(79.28)	8.59	0.07	8.66
01/01/18	12/31/18	51.26	(45.46)	5.80	0.00	5.80
01/01/19	12/31/19	27.52	(24.43)	3.09	0.00	3.09
01/01/20	12/31/20	15.21	(12.95)	2.26	0.00	2.26
01/01/21	12/31/21	11.14	(8.67)	2.46	0.00	2.46
01/01/22	12/31/22	8.08	(6.27)	1.81	0.00	1.81
01/01/23	12/31/23	6.02	(4.41)	1.61	0.00	1.61
01/01/24	12/31/24	5.31	(3.57)	1.74	0.00	1.74
01/01/25	12/31/25	5.00	(3.35)	1.65	0.00	1.65
01/01/26	12/31/26	5.00	(3.41)	1.59	0.00	1.59
01/01/27	12/31/27	4.92	(3.39)	1.53	0.00	1.53
01/01/28	12/31/28	4.01	(2.55)	1.47	0.00	1.47
01/01/29	12/31/29	3.08	(2.41)	0.67	0.00	0.67
01/01/30	12/31/30	3.24	(3.21)	0.03	0.00	0.03
01/01/31	12/31/31	2.94	(2.91)	0.03	0.00	0.03
01/01/32	12/31/32	2.09	(2.07)	0.02	0.00	0.02
01/01/33	12/31/33	1.58	(1.56)	0.02	0.00	0.02
01/01/34	12/31/34	1.45	(1.43)	0.02	0.00	0.02
01/01/35	12/31/35	2.89	(2.86)	0.03	0.00	0.03
01/01/36	12/31/36	4.06	(4.02)	0.04	0.00	0.04
01/01/37	12/31/37	4.06	(4.02)	0.04	0.00	0.04
01/01/38	12/31/38	4.06	(4.02)	0.04	0.00	0.04
01/01/39	12/31/39	4.06	(4.02)	0.04	0.00	0.04
01/01/40	12/31/40	4.06	(4.02)	0.04	0.00	0.04
01/01/41	12/31/41	4.06	(4.02)	0.04	0.00	0.04
01/01/42	12/31/42	4.06	(4.02)	0.04	0.00	0.04
01/01/43	12/31/43	4.06	(4.02)	0.04	0.00	0.04
01/01/44	12/31/44	4.06	(4.02)	0.04	0.00	0.04
01/01/45	12/31/45	4.06	(4.02)	0.04	0.00	0.04
01/01/46	12/31/46	4.06	(4.02)	0.04	0.00	0.04
01/01/47	12/31/47	4.06	(4.02)	0.04	0.00	0.04
01/01/48	12/31/48	4.06	(4.02)	0.04	0.00	0.04
01/01/49	12/31/49	1.86	(1.84)	0.02	0.00	0.02
01/01/50	12/31/50	0.00	0.00	0.00	0.00	0.00
TOTAL		718.95	0.00	718.95	193.06	912.01

Notes:

(3) = Table C2_2, (10) + Table C2_3, (10) + Table C2_4, (10)

(4) = Table C2_2, (9) + Table C2_3, (9) + Table C2_4, (9)

(5) = (3) + (4)

(6) = Table C1, (11) by tax year

(7) = (5) + (6)

TABLE C2_6: FEDERAL INCOME TAX EXPENSE ON UNDERWRITING

TIME INTERVAL		TAXABLE PREMIUM REVENUE	TOTAL UW TAX DEDUCTIONS	TAX BASIS NET UW GAIN	FEDERAL INCOME TAX EXPENSE ON UW
FROM (1)	TO (2)	(3)	(4)	(5)	(6)
01/01/13	12/31/13	0.00	2.40	(2.40)	(0.84)
01/01/14	12/31/14	604.33	508.00	96.33	33.71
01/01/15	12/31/15	345.84	351.64	(5.79)	(2.03)
01/01/16	12/31/16	0.00	14.91	(14.91)	(5.22)
01/01/17	12/31/17	0.00	8.66	(8.66)	(3.03)
01/01/18	12/31/18	0.00	5.80	(5.80)	(2.03)
01/01/19	12/31/19	0.00	3.09	(3.09)	(1.08)
01/01/20	12/31/20	0.00	2.26	(2.26)	(0.79)
01/01/21	12/31/21	0.00	2.46	(2.46)	(0.86)
01/01/22	12/31/22	0.00	1.81	(1.81)	(0.63)
01/01/23	12/31/23	0.00	1.61	(1.61)	(0.56)
01/01/24	12/31/24	0.00	1.74	(1.74)	(0.61)
01/01/25	12/31/25	0.00	1.65	(1.65)	(0.58)
01/01/26	12/31/26	0.00	1.59	(1.59)	(0.56)
01/01/27	12/31/27	0.00	1.53	(1.53)	(0.54)
01/01/28	12/31/28	0.00	1.47	(1.47)	(0.51)
01/01/29	12/31/29	0.00	0.67	(0.67)	(0.23)
01/01/30	12/31/30	0.00	0.03	(0.03)	(0.01)
01/01/31	12/31/31	0.00	0.03	(0.03)	(0.01)
01/01/32	12/31/32	0.00	0.02	(0.02)	(0.01)
01/01/33	12/31/33	0.00	0.02	(0.02)	(0.01)
01/01/34	12/31/34	0.00	0.02	(0.02)	(0.01)
01/01/35	12/31/35	0.00	0.03	(0.03)	(0.01)
01/01/36	12/31/36	0.00	0.04	(0.04)	(0.02)
01/01/37	12/31/37	0.00	0.04	(0.04)	(0.02)
01/01/38	12/31/38	0.00	0.04	(0.04)	(0.02)
01/01/39	12/31/39	0.00	0.04	(0.04)	(0.02)
01/01/40	12/31/40	0.00	0.04	(0.04)	(0.02)
01/01/41	12/31/41	0.00	0.04	(0.04)	(0.02)
01/01/42	12/31/42	0.00	0.04	(0.04)	(0.02)
01/01/43	12/31/43	0.00	0.04	(0.04)	(0.02)
01/01/44	12/31/44	0.00	0.04	(0.04)	(0.02)
01/01/45	12/31/45	0.00	0.04	(0.04)	(0.02)
01/01/46	12/31/46	0.00	0.04	(0.04)	(0.02)
01/01/47	12/31/47	0.00	0.04	(0.04)	(0.02)
01/01/48	12/31/48	0.00	0.04	(0.04)	(0.02)
01/01/49	12/31/49	0.00	0.02	(0.02)	(0.01)
01/01/50	12/31/50	0.00	0.00	0.00	0.00
TOTAL		950.17	912.01	38.16	13.36

Notes:

(3) = Table C2_1, (8)

(4) = Table C2_5, (7)

(5) = (3) - (4)

(6) = 0.35 x (5), where 0.35 is the Federal income tax rate.

TABLE C2_7: ADMITTED PREPAID TAX (DEFERRED TAX ASSET - DTA)

TIME INTERVAL		AY 2014		AY 2015		AY 2016		DISCOUNT UNWOUND DURING PERIOD (9)	DTA ASSOCIATED WITH LOSS & LAE RESERVE (10)	UNEARNED PREMIUM RESERVE (11)	DTA ASSOCIATED WITH UNEARNED PREMIUM RESERVE (12)	ADMITTED PREPAID TAX (DTA) (13)
		CHANGE IN DISCOUNTED LOSS & LAE (3)	LOSS & LAE PAID DURING PERIOD (4)	CHANGE IN DISCOUNTED LOSS & LAE (5)	LOSS & LAE PAID DURING PERIOD (6)	CHANGE IN DISCOUNTED LOSS & LAE (7)	LOSS & LAE PAID DURING PERIOD (8)					
FROM (1)	TO (2)											
01/01/13	12/31/13							0.00	0.00			0.00
01/01/14	12/31/14							0.00	2.33	432.31	30.26	32.59
01/01/15	12/31/15	(93.37)	100.02					6.66	4.01	0.00	0.00	4.01
01/01/16	12/31/16	(61.56)	67.60	(73.63)	79.06			11.47	3.01	0.00	0.00	3.01
01/01/17	12/31/17	(35.64)	40.01	(43.64)	47.86	0.00	0.00	8.59	2.03	0.00	0.00	2.03
01/01/18	12/31/18	(20.43)	23.20	(25.02)	28.06	0.00	0.00	5.80	1.08	0.00	0.00	1.08
01/01/19	12/31/19	(10.41)	11.61	(14.02)	15.91	0.00	0.00	3.09	0.79	0.00	0.00	0.79
01/01/20	12/31/20	(5.85)	7.32	(7.10)	7.89	0.00	0.00	2.26	0.86	0.00	0.00	0.86
01/01/21	12/31/21	(4.30)	5.62	(4.38)	5.52	0.00	0.00	2.46	0.63	0.00	0.00	0.63
01/01/22	12/31/22	(3.06)	3.83	(3.21)	4.25	0.00	0.00	1.81	0.56	0.00	0.00	0.56
01/01/23	12/31/23	(2.12)	3.12	(2.29)	2.90	0.00	0.00	1.61	0.61	0.00	0.00	0.61
01/01/24	12/31/24	(1.88)	2.81	(1.69)	2.50	0.00	0.00	1.74	0.58	0.00	0.00	0.58
01/01/25	12/31/25	(1.81)	2.70	(1.54)	2.30	0.00	0.00	1.65	0.56	0.00	0.00	0.56
01/01/26	12/31/26	(1.89)	2.75	(1.52)	2.25	0.00	0.00	1.59	0.54	0.00	0.00	0.54
01/01/27	12/31/27	(1.81)	2.63	(1.58)	2.28	0.00	0.00	1.53	0.51	0.00	0.00	0.51
01/01/28	12/31/28	(1.15)	1.94	(1.40)	2.07	0.00	0.00	1.47	0.23	0.00	0.00	0.23
01/01/29	12/31/29	(1.57)	1.59	(0.84)	1.49	0.00	0.00	0.67	0.01	0.00	0.00	0.01
01/01/30	12/31/30	(1.87)	1.89	(1.34)	1.35	0.00	0.00	0.03	0.01	0.00	0.00	0.01
01/01/31	12/31/31	(1.39)	1.40	(1.52)	1.54	0.00	0.00	0.03	0.01	0.00	0.00	0.01
01/01/32	12/31/32	(1.04)	1.05	(1.03)	1.05	0.00	0.00	0.02	0.01	0.00	0.00	0.01
01/01/33	12/31/33	(0.77)	0.78	(0.79)	0.80	0.00	0.00	0.02	0.01	0.00	0.00	0.01
01/01/34	12/31/34	(0.81)	0.81	(0.63)	0.63	0.00	0.00	0.02	0.01	0.00	0.00	0.01
01/01/35	12/31/35	(1.98)	2.01	(0.88)	0.89	0.00	0.00	0.03	0.02	0.00	0.00	0.02
01/01/36	12/31/36	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/37	12/31/37	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/38	12/31/38	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/39	12/31/39	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/40	12/31/40	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/41	12/31/41	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/42	12/31/42	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/43	12/31/43	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/44	12/31/44	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/45	12/31/45	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/46	12/31/46	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/47	12/31/47	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.02	0.00	0.00	0.02
01/01/48	12/31/48	(2.19)	2.21	(1.83)	1.85	0.00	0.00	0.04	0.01	0.00	0.00	0.01
01/01/49	12/31/49	(0.33)	0.33	(1.52)	1.53	0.00	0.00	0.02	0.00	0.00	0.00	0.00
01/01/50	12/31/50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

- (3) = Table C2_2, (9), the initial value is not relevant in calculating the discount unwound during period.
- (4) = Table C2_2, (10)
- (5) = Table C2_3, (9), the initial value is not relevant in calculating the discount unwound during period.
- (6) = Table C2_3, (10)
- (7) = Table C2_4, (9), the initial value is not relevant in calculating the discount unwound during period.
- (8) = Table C2_4, (10)
- (9) = (3) + (4) + (5) + (6) + (7) + (8)
- (10) = $0.35 \times (9)_{t+1}$, where 0.35 is the Federal income tax rate.
- (11) = Table C2_1, (4)
- (12) = $0.2 \times 0.35 \times (11)$, 0.35 is the Federal income tax rate and 20% of unearned premiums is taxable.
- (13) = (10) + (12)

VII 000048

TABLE C3: POLICYHOLDER SUPPLIED INVESTABLE FUNDS

TIME INTERVAL		UNEARNED PREMIUM RESERVES (3)	LOSS & LAE RESERVES (4)	ADMITTED PREMIUM RECEIVABLES (5)	ADMITTED PREPAID TAX (DTA) (6)	INVESTABLE RESERVES (7)	CUMULATIVE POST TAX CASH FLOW FROM UW (8)	POST TAX CASH FROM UW AVAILABLE TO INVESTORS (9)	POLICYHOLDER SUPPLIED INVESTABLE FUNDS (10)	RESERVES FUNDED BY INVESTORS (11)
FROM (1)	TO (2)									
01/01/13	03/31/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04/01/13	06/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07/01/13	09/30/13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/01/13	12/31/13	0.00	0.00	(7.72)	0.00	7.72	6.16	0.00	6.16	1.56
01/01/14	03/31/14	242.02	24.95	204.59	8.15	54.23	34.70	0.00	34.70	19.53
04/01/14	06/30/14	370.09	82.77	297.75	16.30	138.81	106.20	0.00	106.20	32.61
07/01/14	09/30/14	440.16	174.97	343.93	24.44	246.76	211.55	0.00	211.55	35.20
10/01/14	12/31/14	436.16	297.86	360.52	32.59	340.91	316.84	0.00	316.84	24.07
01/01/15	03/31/15	241.67	402.13	210.21	25.45	408.14	403.29	0.00	403.29	4.85
04/01/15	06/30/15	105.19	461.67	119.96	18.30	428.59	439.83	11.25	428.59	0.00
07/01/15	09/30/15	26.75	475.94	69.62	11.16	421.91	439.71	6.55	421.91	0.00
10/01/15	12/31/15	0.00	449.89	28.05	4.01	417.82	418.20	0.00	400.40	17.42
01/01/16	03/31/16	0.00	406.65	1.89	3.76	401.00	394.22	0.00	376.42	24.58
04/01/16	06/30/16	0.00	368.03	0.82	3.51	363.70	368.80	0.00	351.00	12.70
07/01/16	09/30/16	0.00	333.72	0.30	3.26	330.16	341.62	0.00	323.82	6.34
10/01/16	12/31/16	0.00	303.23	0.07	3.01	300.16	315.02	0.00	297.22	2.93
01/01/17	03/31/17	0.00	277.07	0.00	2.76	274.30	290.36	0.00	272.56	1.74
04/01/17	06/30/17	0.00	253.84	0.00	2.52	251.32	267.89	0.00	250.09	1.23
07/01/17	09/30/17	0.00	233.38	0.00	2.28	231.10	248.18	0.00	230.39	0.71
10/01/17	12/31/17	0.00	215.36	0.00	2.03	213.33	230.93	0.00	213.13	0.20
01/01/18	03/31/18	0.00	200.02	0.00	1.79	198.23	216.10	0.07	198.23	0.00
04/01/18	06/30/18	0.00	186.45	0.00	1.56	184.89	203.03	0.27	184.89	0.00
07/01/18	09/30/18	0.00	174.54	0.00	1.32	173.22	191.63	0.27	173.22	0.00
10/01/18	12/31/18	0.00	164.10	0.00	1.08	163.02	181.70	0.27	163.02	0.00
01/01/19	03/31/19	0.00	155.42	0.00	1.01	154.41	173.29	0.20	154.41	0.00
04/01/19	06/30/19	0.00	147.98	0.00	0.94	147.05	166.12	0.20	147.05	0.00
07/01/19	09/30/19	0.00	141.75	0.00	0.86	140.89	160.16	0.20	140.89	0.00
10/01/19	12/31/19	0.00	136.59	0.00	0.79	135.80	155.26	0.20	135.80	0.00
01/01/20	03/31/20	0.00	132.27	0.00	0.81	131.46	151.14	0.22	131.46	0.00
04/01/20	06/30/20	0.00	128.32	0.00	0.83	127.49	147.39	0.22	127.49	0.00
07/01/20	09/30/20	0.00	124.70	0.00	0.84	123.86	143.97	0.22	123.86	0.00
10/01/20	12/31/20	0.00	121.38	0.00	0.86	120.52	140.85	0.22	120.52	0.00
01/01/21	03/31/21	0.00	118.36	0.00	0.80	117.55	138.04	0.16	117.55	0.00
04/01/21	06/30/21	0.00	115.51	0.00	0.75	114.76	135.41	0.16	114.76	0.00
07/01/21	09/30/21	0.00	112.81	0.00	0.69	112.12	132.93	0.16	112.12	0.00
10/01/21	12/31/21	0.00	110.25	0.00	0.63	109.61	130.57	0.16	109.61	0.00
01/01/22	03/31/22	0.00	107.92	0.00	0.62	107.30	128.41	0.14	107.30	0.00
04/01/22	06/30/22	0.00	105.81	0.00	0.60	105.21	126.46	0.14	105.21	0.00
07/01/22	09/30/22	0.00	103.90	0.00	0.58	103.32	124.71	0.14	103.32	0.00
10/01/22	12/31/22	0.00	102.17	0.00	0.56	101.60	123.13	0.14	101.60	0.00
01/01/23	03/31/23	0.00	100.58	0.00	0.57	100.00	121.68	0.15	100.00	0.00
04/01/23	06/30/23	0.00	99.05	0.00	0.59	98.47	120.30	0.15	98.47	0.00
07/01/23	09/30/23	0.00	97.58	0.00	0.60	96.98	118.96	0.15	96.98	0.00
10/01/23	12/31/23	0.00	96.15	0.00	0.61	95.54	117.67	0.15	95.54	0.00
01/01/24	03/31/24	0.00	94.77	0.00	0.60	94.17	116.45	0.14	94.17	0.00
04/01/24	06/30/24	0.00	93.44	0.00	0.59	92.85	115.27	0.14	92.85	0.00
07/01/24	09/30/24	0.00	92.13	0.00	0.58	91.54	114.11	0.14	91.54	0.00
10/01/24	12/31/24	0.00	90.83	0.00	0.58	90.26	112.97	0.14	90.26	0.00
01/01/25	03/31/25	0.00	89.57	0.00	0.57	89.00	111.85	0.14	89.00	0.00
04/01/25	06/30/25	0.00	88.33	0.00	0.57	87.76	110.75	0.14	87.76	0.00
07/01/25	09/30/25	0.00	87.08	0.00	0.56	86.52	109.65	0.14	86.52	0.00
10/01/25	12/31/25	0.00	85.84	0.00	0.56	85.28	108.55	0.14	85.28	0.00
01/01/26	03/31/26	0.00	84.60	0.00	0.55	84.05	107.45	0.13	84.05	0.00
04/01/26	06/30/26	0.00	83.36	0.00	0.55	82.82	106.35	0.13	82.82	0.00
07/01/26	09/30/26	0.00	82.11	0.00	0.54	81.57	105.24	0.13	81.57	0.00
10/01/26	12/31/26	0.00	80.84	0.00	0.54	80.31	104.11	0.13	80.31	0.00
01/01/27	03/31/27	0.00	79.59	0.00	0.53	79.06	102.99	0.13	79.06	0.00
04/01/27	06/30/27	0.00	78.36	0.00	0.52	77.83	101.89	0.13	77.83	0.00
07/01/27	09/30/27	0.00	77.14	0.00	0.52	76.62	100.81	0.13	76.62	0.00
10/01/27	12/31/27	0.00	75.93	0.00	0.51	75.41	99.73	0.13	75.41	0.00
01/01/28	03/31/28	0.00	74.79	0.00	0.44	74.35	98.72	0.06	74.35	0.00
04/01/28	06/30/28	0.00	73.75	0.00	0.37	73.38	97.81	0.06	73.38	0.00
07/01/28	09/30/28	0.00	72.80	0.00	0.30	72.49	96.98	0.06	72.49	0.00
10/01/28	12/31/28	0.00	71.91	0.00	0.23	71.68	96.23	0.06	71.68	0.00
01/01/29	03/31/29	0.00	71.10	0.00	0.18	70.92	95.47	0.00	70.92	0.00
04/01/29	06/30/29	0.00	70.32	0.00	0.12	70.20	94.75	0.00	70.20	0.00
07/01/29	09/30/29	0.00	69.57	0.00	0.07	69.50	94.06	0.00	69.50	0.00
10/01/29	12/31/29	0.00	68.84	0.00	0.01	68.82	93.39	0.00	68.82	0.00
01/01/30	03/31/30	0.00	68.09	0.00	0.01	68.08	92.64	0.00	68.08	0.00
04/01/30	06/30/30	0.00	67.31	0.00	0.01	67.30	91.86	0.00	67.30	0.00
07/01/30	09/30/30	0.00	66.47	0.00	0.01	66.46	91.03	0.00	66.46	0.00
10/01/30	12/31/30	0.00	65.59	0.00	0.01	65.58	90.15	0.00	65.58	0.00
01/01/31	03/31/31	0.00	64.75	0.00	0.01	64.74	89.31	0.00	64.74	0.00
04/01/31	06/30/31	0.00	63.98	0.00	0.01	63.97	88.55	0.00	63.97	0.00
07/01/31	09/30/31	0.00	63.29	0.00	0.01	63.28	87.86	0.00	63.28	0.00
10/01/31	12/31/31	0.00	62.65	0.00	0.01	62.64	87.22	0.00	62.64	0.00
01/01/32	03/31/32	0.00	62.08	0.00	0.01	62.07	86.65	0.00	62.07	0.00
04/01/32	06/30/32	0.00	61.54	0.00	0.01	61.54	86.12	0.00	61.54	0.00
07/01/32	09/30/32	0.00	61.04	0.00	0.01	61.03	85.61	0.00	61.03	0.00
10/01/32	12/31/32	0.00	60.56	0.00	0.01	60.55	85.14	0.00	60.55	0.00
01/01/33	03/31/33	0.00	60.12	0.00	0.01	60.12	84.70	0.00	60.12	0.00

TABLE C3: POLICYHOLDER SUPPLIED INVESTABLE FUNDS

TIME INTERVAL		UNEARNED PREMIUM RESERVES (3)	LOSS & LAE RESERVES (4)	ADMITTED PREMIUM RECEIVABLES (5)	ADMITTED PREPAID TAX (DTA) (6)	INVESTABLE RESERVES (7)	CUMULATIVE POST TAX CASH FLOW FROM UW (8)	POST TAX CASH FROM UW AVAILABLE TO INVESTORS (9)	POLICYHOLDER SUPPLIED INVESTABLE FUNDS (10)	RESERVES FUNDED BY INVESTORS (11)
FROM (1)	TO (2)									
04/01/33	06/30/33	0.00	59.72	0.00	0.01	59.71	84.30	0.00	59.71	0.00
07/01/33	09/30/33	0.00	59.34	0.00	0.01	59.33	83.92	0.00	59.33	0.00
10/01/33	12/31/33	0.00	58.98	0.00	0.01	58.97	83.57	0.00	58.97	0.00
01/01/34	03/31/34	0.00	58.63	0.00	0.01	58.63	83.22	0.00	58.63	0.00
04/01/34	06/30/34	0.00	58.28	0.00	0.01	58.27	82.87	0.00	58.27	0.00
07/01/34	09/30/34	0.00	57.91	0.00	0.01	57.90	82.50	0.00	57.90	0.00
10/01/34	12/31/34	0.00	57.53	0.00	0.01	57.52	82.12	0.00	57.52	0.00
01/01/35	03/31/35	0.00	57.04	0.00	0.01	57.03	81.63	0.00	57.03	0.00
04/01/35	06/30/35	0.00	56.40	0.00	0.01	56.38	80.99	0.00	56.38	0.00
07/01/35	09/30/35	0.00	55.59	0.00	0.01	55.58	80.19	0.00	55.58	0.00
10/01/35	12/31/35	0.00	54.64	0.00	0.02	54.63	79.24	0.00	54.63	0.00
01/01/36	03/31/36	0.00	53.63	0.00	0.02	53.61	78.23	0.00	53.61	0.00
04/01/36	06/30/36	0.00	52.62	0.00	0.02	52.60	77.23	0.00	52.60	0.00
07/01/36	09/30/36	0.00	51.60	0.00	0.02	51.59	76.21	0.00	51.59	0.00
10/01/36	12/31/36	0.00	50.58	0.00	0.02	50.57	75.20	0.00	50.57	0.00
01/01/37	03/31/37	0.00	49.57	0.00	0.02	49.55	74.19	0.00	49.55	0.00
04/01/37	06/30/37	0.00	48.56	0.00	0.02	48.54	73.18	0.00	48.54	0.00
07/01/37	09/30/37	0.00	47.54	0.00	0.02	47.53	72.17	0.00	47.53	0.00
10/01/37	12/31/37	0.00	46.52	0.00	0.02	46.51	71.15	0.00	46.51	0.00
01/01/38	03/31/38	0.00	45.51	0.00	0.02	45.49	70.14	0.00	45.49	0.00
04/01/38	06/30/38	0.00	44.50	0.00	0.02	44.48	69.14	0.00	44.48	0.00
07/01/38	09/30/38	0.00	43.48	0.00	0.02	43.47	68.13	0.00	43.47	0.00
10/01/38	12/31/38	0.00	42.46	0.00	0.02	42.45	67.11	0.00	42.45	0.00
01/01/39	03/31/39	0.00	41.45	0.00	0.02	41.43	66.10	0.00	41.43	0.00
04/01/39	06/30/39	0.00	40.44	0.00	0.02	40.42	65.09	0.00	40.42	0.00
07/01/39	09/30/39	0.00	39.42	0.00	0.02	39.41	64.08	0.00	39.41	0.00
10/01/39	12/31/39	0.00	38.40	0.00	0.02	38.39	63.06	0.00	38.39	0.00
01/01/40	03/31/40	0.00	37.39	0.00	0.02	37.37	62.05	0.00	37.37	0.00
04/01/40	06/30/40	0.00	36.38	0.00	0.02	36.36	61.05	0.00	36.36	0.00
07/01/40	09/30/40	0.00	35.36	0.00	0.02	35.35	60.04	0.00	35.35	0.00
10/01/40	12/31/40	0.00	34.34	0.00	0.02	34.33	59.02	0.00	34.33	0.00
01/01/41	03/31/41	0.00	33.33	0.00	0.02	33.31	58.01	0.00	33.31	0.00
04/01/41	06/30/41	0.00	32.32	0.00	0.02	32.30	57.00	0.00	32.30	0.00
07/01/41	09/30/41	0.00	31.30	0.00	0.02	31.29	55.99	0.00	31.29	0.00
10/01/41	12/31/41	0.00	30.28	0.00	0.02	30.27	54.97	0.00	30.27	0.00
01/01/42	03/31/42	0.00	29.27	0.00	0.02	29.25	53.96	0.00	29.25	0.00
04/01/42	06/30/42	0.00	28.26	0.00	0.02	28.24	52.96	0.00	28.24	0.00
07/01/42	09/30/42	0.00	27.24	0.00	0.02	27.23	51.95	0.00	27.23	0.00
10/01/42	12/31/42	0.00	26.22	0.00	0.02	26.21	50.93	0.00	26.21	0.00
01/01/43	03/31/43	0.00	25.21	0.00	0.02	25.19	49.92	0.00	25.19	0.00
04/01/43	06/30/43	0.00	24.20	0.00	0.02	24.18	48.91	0.00	24.18	0.00
07/01/43	09/30/43	0.00	23.18	0.00	0.02	23.17	47.90	0.00	23.17	0.00
10/01/43	12/31/43	0.00	22.16	0.00	0.02	22.15	46.89	0.00	22.15	0.00
01/01/44	03/31/44	0.00	21.15	0.00	0.02	21.13	45.87	0.00	21.13	0.00
04/01/44	06/30/44	0.00	20.14	0.00	0.02	20.12	44.87	0.00	20.12	0.00
07/01/44	09/30/44	0.00	19.12	0.00	0.02	19.11	43.86	0.00	19.11	0.00
10/01/44	12/31/44	0.00	18.10	0.00	0.02	18.09	42.84	0.00	18.09	0.00
01/01/45	03/31/45	0.00	17.09	0.00	0.02	17.07	41.83	0.00	17.07	0.00
04/01/45	06/30/45	0.00	16.08	0.00	0.02	16.06	40.82	0.00	16.06	0.00
07/01/45	09/30/45	0.00	15.06	0.00	0.02	15.05	39.81	0.00	15.05	0.00
10/01/45	12/31/45	0.00	14.04	0.00	0.02	14.03	38.80	0.00	14.03	0.00
01/01/46	03/31/46	0.00	13.03	0.00	0.02	13.01	37.78	0.00	13.01	0.00
04/01/46	06/30/46	0.00	12.02	0.00	0.02	12.00	36.78	0.00	12.00	0.00
07/01/46	09/30/46	0.00	11.00	0.00	0.02	10.99	35.77	0.00	10.99	0.00
10/01/46	12/31/46	0.00	9.98	0.00	0.02	9.97	34.75	0.00	9.97	0.00
01/01/47	03/31/47	0.00	8.97	0.00	0.02	8.95	33.74	0.00	8.95	0.00
04/01/47	06/30/47	0.00	7.96	0.00	0.02	7.94	32.73	0.00	7.94	0.00
07/01/47	09/30/47	0.00	6.94	0.00	0.02	6.93	31.72	0.00	6.93	0.00
10/01/47	12/31/47	0.00	5.92	0.00	0.02	5.91	30.71	0.00	5.91	0.00
01/01/48	03/31/48	0.00	4.91	0.00	0.01	4.90	29.69	0.00	4.90	0.00
04/01/48	06/30/48	0.00	3.90	0.00	0.01	3.89	28.69	0.00	3.89	0.00
07/01/48	09/30/48	0.00	2.88	0.00	0.01	2.88	27.68	0.00	2.88	0.00
10/01/48	12/31/48	0.00	1.86	0.00	0.01	1.86	26.66	0.00	1.86	0.00
01/01/49	03/31/49	0.00	1.03	0.00	0.01	1.03	25.83	0.00	1.03	0.00
04/01/49	06/30/49	0.00	0.45	0.00	0.00	0.45	25.25	0.00	0.45	0.00
07/01/49	09/30/49	0.00	0.11	0.00	0.00	0.11	24.92	0.00	0.11	0.00
10/01/49	12/31/49	0.00	0.00	0.00	0.00	0.00	24.80	0.00	0.00	0.00
TOTAL		1,862.04	12,688.08	1,630.02	195.41	12,724.70	15,757.56	24.80	12,539.02	185.68

Notes:

- (3) = Table A1, (1b) x [Table C5_2, (6) - Table C5_2, (7)]
- (4) = Table A1, (1a) x Table A1, (3) x [Table C5_2, (8) - Table C5_1, (13)]
- (5) = Table C4, (7)
- (6) = Table C2_7, (13), DTA allocated to the model time periods.
- (7) = (3) + (4) - (5) - (6)
- (8) = Table C1, (14), cumulative
- (9) = max{ 0, [(8) - (9)t-1, cumulative - (7)] }
- (10) = (8) - (9), cumulative
- (11) = (7) - (10)

TABLE C4: ADMITTED PREMIUM RECEIVABLES

TIME INTERVAL		CUMULATIVE		COLLECTED PREMIUM MINUS PRIOR PERIOD EARNED PREMIUM (5)	NONADMITTED PREMIUM RECEIVABLES (6)	ADMITTED PREMIUM RECEIVABLES (7)
		EARNED PREMIUM NET (3)	COLLECTED PREMIUM NET (4)			
FROM (1)	TO (2)					
01/01/13	03/31/13	0.00	0.00	0.00	0.00	0.00
04/01/13	06/30/13	0.00	0.00	0.00	0.00	0.00
07/01/13	09/30/13	0.00	0.00	0.00	0.00	0.00
10/01/13	12/31/13	0.00	7.72	7.72	0.00	(7.72)
01/01/14	03/31/14	43.05	80.49	80.49	0.00	204.59
04/01/14	06/30/14	142.83	215.17	172.11	0.00	297.75
07/01/14	09/30/14	301.94	398.17	255.34	0.00	343.93
10/01/14	12/31/14	514.01	589.65	287.70	0.00	360.52
01/01/15	03/31/15	708.50	739.96	225.95	0.00	210.21
04/01/15	06/30/15	844.98	830.21	121.71	0.00	119.96
07/01/15	09/30/15	923.42	880.55	35.56	0.00	69.62
10/01/15	12/31/15	950.17	907.65	(15.76)	14.46	28.05
01/01/16	03/31/16	950.17	927.22	(22.95)	21.06	1.89
04/01/16	06/30/16	950.17	940.19	(9.98)	9.16	0.82
07/01/16	09/30/16	950.17	946.54	(3.63)	3.33	0.30
10/01/16	12/31/16	950.17	949.36	(0.81)	0.75	0.07
01/01/17	03/31/17	950.17	950.17	0.00	0.00	0.00
04/01/17	06/30/17	950.17	950.17	0.00	0.00	0.00
07/01/17	09/30/17	950.17	950.17	0.00	0.00	0.00
10/01/17	12/31/17	950.17	950.17	0.00	0.00	0.00
01/01/18	03/31/18	950.17	950.17	0.00	0.00	0.00
04/01/18	06/30/18	950.17	950.17	0.00	0.00	0.00
07/01/18	09/30/18	950.17	950.17	0.00	0.00	0.00
10/01/18	12/31/18	950.17	950.17	0.00	0.00	0.00
01/01/19	03/31/19	950.17	950.17	0.00	0.00	0.00
04/01/19	06/30/19	950.17	950.17	0.00	0.00	0.00
07/01/19	09/30/19	950.17	950.17	0.00	0.00	0.00
10/01/19	12/31/19	950.17	950.17	0.00	0.00	0.00
01/01/20	03/31/20	950.17	950.17	0.00	0.00	0.00
04/01/20	06/30/20	950.17	950.17	0.00	0.00	0.00
07/01/20	09/30/20	950.17	950.17	0.00	0.00	0.00
10/01/20	12/31/20	950.17	950.17	0.00	0.00	0.00
01/01/21	03/31/21	950.17	950.17	0.00	0.00	0.00
04/01/21	06/30/21	950.17	950.17	0.00	0.00	0.00
07/01/21	09/30/21	950.17	950.17	0.00	0.00	0.00
10/01/21	12/31/21	950.17	950.17	0.00	0.00	0.00
01/01/22	03/31/22	950.17	950.17	0.00	0.00	0.00
04/01/22	06/30/22	950.17	950.17	0.00	0.00	0.00
07/01/22	09/30/22	950.17	950.17	0.00	0.00	0.00
10/01/22	12/31/22	950.17	950.17	0.00	0.00	0.00
01/01/23	03/31/23	950.17	950.17	0.00	0.00	0.00
04/01/23	06/30/23	950.17	950.17	0.00	0.00	0.00
07/01/23	09/30/23	950.17	950.17	0.00	0.00	0.00
10/01/23	12/31/23	950.17	950.17	0.00	0.00	0.00
01/01/24	03/31/24	950.17	950.17	0.00	0.00	0.00
04/01/24	06/30/24	950.17	950.17	0.00	0.00	0.00
07/01/24	09/30/24	950.17	950.17	0.00	0.00	0.00
10/01/24	12/31/24	950.17	950.17	0.00	0.00	0.00
01/01/25	03/31/25	950.17	950.17	0.00	0.00	0.00
04/01/25	06/30/25	950.17	950.17	0.00	0.00	0.00
07/01/25	09/30/25	950.17	950.17	0.00	0.00	0.00
10/01/25	12/31/25	950.17	950.17	0.00	0.00	0.00
01/01/26	03/31/26	950.17	950.17	0.00	0.00	0.00
04/01/26	06/30/26	950.17	950.17	0.00	0.00	0.00
07/01/26	09/30/26	950.17	950.17	0.00	0.00	0.00
10/01/26	12/31/26	950.17	950.17	0.00	0.00	0.00
01/01/27	03/31/27	950.17	950.17	0.00	0.00	0.00
04/01/27	06/30/27	950.17	950.17	0.00	0.00	0.00
07/01/27	09/30/27	950.17	950.17	0.00	0.00	0.00
10/01/27	12/31/27	950.17	950.17	0.00	0.00	0.00
01/01/28	03/31/28	950.17	950.17	0.00	0.00	0.00
04/01/28	06/30/28	950.17	950.17	0.00	0.00	0.00
07/01/28	09/30/28	950.17	950.17	0.00	0.00	0.00
10/01/28	12/31/28	950.17	950.17	0.00	0.00	0.00
01/01/29	03/31/29	950.17	950.17	0.00	0.00	0.00
04/01/29	06/30/29	950.17	950.17	0.00	0.00	0.00
07/01/29	09/30/29	950.17	950.17	0.00	0.00	0.00
10/01/29	12/31/29	950.17	950.17	0.00	0.00	0.00
01/01/30	03/31/30	950.17	950.17	0.00	0.00	0.00
04/01/30	06/30/30	950.17	950.17	0.00	0.00	0.00
07/01/30	09/30/30	950.17	950.17	0.00	0.00	0.00
10/01/30	12/31/30	950.17	950.17	0.00	0.00	0.00
01/01/31	03/31/31	950.17	950.17	0.00	0.00	0.00
04/01/31	06/30/31	950.17	950.17	0.00	0.00	0.00
07/01/31	09/30/31	950.17	950.17	0.00	0.00	0.00
10/01/31	12/31/31	950.17	950.17	0.00	0.00	0.00
01/01/32	03/31/32	950.17	950.17	0.00	0.00	0.00
04/01/32	06/30/32	950.17	950.17	0.00	0.00	0.00
07/01/32	09/30/32	950.17	950.17	0.00	0.00	0.00
10/01/32	12/31/32	950.17	950.17	0.00	0.00	0.00
01/01/33	03/31/33	950.17	950.17	0.00	0.00	0.00

TABLE C4: ADMITTED PREMIUM RECEIVABLES

TIME INTERVAL		CUMULATIVE		COLLECTED PREMIUM MINUS PRIOR PERIOD EARNED PREMIUM (5)	NONADMITTED PREMIUM RECEIVABLES (6)	ADMITTED PREMIUM RECEIVABLES (7)
		EARNED PREMIUM NET (3)	COLLECTED PREMIUM NET (4)			
FROM (1)	TO (2)					
04/01/33	06/30/33	950.17	950.17	0.00	0.00	0.00
07/01/33	09/30/33	950.17	950.17	0.00	0.00	0.00
10/01/33	12/31/33	950.17	950.17	0.00	0.00	0.00
01/01/34	03/31/34	950.17	950.17	0.00	0.00	0.00
04/01/34	06/30/34	950.17	950.17	0.00	0.00	0.00
07/01/34	09/30/34	950.17	950.17	0.00	0.00	0.00
10/01/34	12/31/34	950.17	950.17	0.00	0.00	0.00
01/01/35	03/31/35	950.17	950.17	0.00	0.00	0.00
04/01/35	06/30/35	950.17	950.17	0.00	0.00	0.00
07/01/35	09/30/35	950.17	950.17	0.00	0.00	0.00
10/01/35	12/31/35	950.17	950.17	0.00	0.00	0.00
01/01/36	03/31/36	950.17	950.17	0.00	0.00	0.00
04/01/36	06/30/36	950.17	950.17	0.00	0.00	0.00
07/01/36	09/30/36	950.17	950.17	0.00	0.00	0.00
10/01/36	12/31/36	950.17	950.17	0.00	0.00	0.00
01/01/37	03/31/37	950.17	950.17	0.00	0.00	0.00
04/01/37	06/30/37	950.17	950.17	0.00	0.00	0.00
07/01/37	09/30/37	950.17	950.17	0.00	0.00	0.00
10/01/37	12/31/37	950.17	950.17	0.00	0.00	0.00
01/01/38	03/31/38	950.17	950.17	0.00	0.00	0.00
04/01/38	06/30/38	950.17	950.17	0.00	0.00	0.00
07/01/38	09/30/38	950.17	950.17	0.00	0.00	0.00
10/01/38	12/31/38	950.17	950.17	0.00	0.00	0.00
01/01/39	03/31/39	950.17	950.17	0.00	0.00	0.00
04/01/39	06/30/39	950.17	950.17	0.00	0.00	0.00
07/01/39	09/30/39	950.17	950.17	0.00	0.00	0.00
10/01/39	12/31/39	950.17	950.17	0.00	0.00	0.00
01/01/40	03/31/40	950.17	950.17	0.00	0.00	0.00
04/01/40	06/30/40	950.17	950.17	0.00	0.00	0.00
07/01/40	09/30/40	950.17	950.17	0.00	0.00	0.00
10/01/40	12/31/40	950.17	950.17	0.00	0.00	0.00
01/01/41	03/31/41	950.17	950.17	0.00	0.00	0.00
04/01/41	06/30/41	950.17	950.17	0.00	0.00	0.00
07/01/41	09/30/41	950.17	950.17	0.00	0.00	0.00
10/01/41	12/31/41	950.17	950.17	0.00	0.00	0.00
01/01/42	03/31/42	950.17	950.17	0.00	0.00	0.00
04/01/42	06/30/42	950.17	950.17	0.00	0.00	0.00
07/01/42	09/30/42	950.17	950.17	0.00	0.00	0.00
10/01/42	12/31/42	950.17	950.17	0.00	0.00	0.00
01/01/43	03/31/43	950.17	950.17	0.00	0.00	0.00
04/01/43	06/30/43	950.17	950.17	0.00	0.00	0.00
07/01/43	09/30/43	950.17	950.17	0.00	0.00	0.00
10/01/43	12/31/43	950.17	950.17	0.00	0.00	0.00
01/01/44	03/31/44	950.17	950.17	0.00	0.00	0.00
04/01/44	06/30/44	950.17	950.17	0.00	0.00	0.00
07/01/44	09/30/44	950.17	950.17	0.00	0.00	0.00
10/01/44	12/31/44	950.17	950.17	0.00	0.00	0.00
01/01/45	03/31/45	950.17	950.17	0.00	0.00	0.00
04/01/45	06/30/45	950.17	950.17	0.00	0.00	0.00
07/01/45	09/30/45	950.17	950.17	0.00	0.00	0.00
10/01/45	12/31/45	950.17	950.17	0.00	0.00	0.00
01/01/46	03/31/46	950.17	950.17	0.00	0.00	0.00
04/01/46	06/30/46	950.17	950.17	0.00	0.00	0.00
07/01/46	09/30/46	950.17	950.17	0.00	0.00	0.00
10/01/46	12/31/46	950.17	950.17	0.00	0.00	0.00
01/01/47	03/31/47	950.17	950.17	0.00	0.00	0.00
04/01/47	06/30/47	950.17	950.17	0.00	0.00	0.00
07/01/47	09/30/47	950.17	950.17	0.00	0.00	0.00
10/01/47	12/31/47	950.17	950.17	0.00	0.00	0.00
01/01/48	03/31/48	950.17	950.17	0.00	0.00	0.00
04/01/48	06/30/48	950.17	950.17	0.00	0.00	0.00
07/01/48	09/30/48	950.17	950.17	0.00	0.00	0.00
10/01/48	12/31/48	950.17	950.17	0.00	0.00	0.00
01/01/49	03/31/49	950.17	950.17	0.00	0.00	0.00
04/01/49	06/30/49	950.17	950.17	0.00	0.00	0.00
07/01/49	09/30/49	950.17	950.17	0.00	0.00	0.00
10/01/49	12/31/49	950.17	950.17	0.00	0.00	0.00

Notes:

- (3) = Table A1, (1b) x Table C5_2, (7)
- (4) = Table A1, (1b) x Table C5_1, (12)
- (5) = (4) - (3)_{t-1}, t-1 implies that is nonadmitted if not received in 90 days.
- (6) = max{ 0, -(5) x [1.0 - Table A1, (4) x Table A1, (1a) / Table A1, (1b)] }
- (7) = Table A1, (1b) x [Table C5_2, (6) - Table C5_1, (12)] - (6)

TABLE C5_1: POLICYHOLDER SUPPLIED - UNDERWRITING CASH FLOW PATTERNS

TIME INTERVAL		COLLECTED PREMIUM	LOSS & LAE PAYOUT	COMMISS. & BROKER.	GENERAL EXPENSES	OTHER ACQ. EXPENSES	PREMIUM TAXES	MISC. AND OTHER TAXES	REINS. EXPENSES	PREMIUM DISCOUNT	CUMULATIVE	
FROM	TO										COLLECTED PREMIUM	LOSS & LAE PAYOUT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
01/01/13	03/31/13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
04/01/13	06/30/13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
07/01/13	09/30/13	0.00%	0.00%	0.0000%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10/01/13	12/31/13	0.81%	0.00%	0.8123%	0.00%	5.00%	0.00%	0.00%	0.00%	0.81%	0.81%	0.00%
01/01/14	03/31/14	7.66%	1.06%	7.6584%	17.27%	29.00%	0.00%	30.00%	30.00%	7.66%	8.47%	1.06%
04/01/14	06/30/14	14.17%	2.46%	14.1746%	17.24%	24.00%	30.00%	23.98%	23.98%	14.17%	22.65%	3.52%
07/01/14	09/30/14	19.26%	3.92%	19.2599%	20.43%	23.75%	23.98%	24.12%	24.12%	19.26%	41.91%	7.44%
10/01/14	12/31/14	20.15%	5.23%	20.1519%	22.11%	18.25%	24.12%	21.90%	21.90%	20.15%	62.06%	12.67%
01/01/15	03/31/15	15.82%	5.97%	15.8190%	10.23%	0.00%	21.90%	0.00%	0.00%	15.82%	77.88%	18.63%
04/01/15	06/30/15	9.50%	6.08%	9.4985%	7.18%	0.00%	0.00%	0.00%	0.00%	9.50%	87.37%	24.72%
07/01/15	09/30/15	5.30%	6.27%	5.2978%	4.13%	0.00%	0.00%	0.00%	0.00%	5.30%	92.67%	30.99%
10/01/15	12/31/15	2.85%	6.44%	2.8529%	1.41%	0.00%	0.00%	0.00%	0.00%	2.85%	95.53%	37.42%
01/01/16	03/31/16	2.06%	6.01%	2.0590%	0.00%	0.00%	0.00%	0.00%	0.00%	2.06%	97.58%	43.44%
04/01/16	06/30/16	1.36%	5.37%	1.3648%	0.00%	0.00%	0.00%	0.00%	0.00%	1.36%	98.95%	48.81%
07/01/16	09/30/16	0.67%	4.77%	0.6690%	0.00%	0.00%	0.00%	0.00%	0.00%	0.67%	99.62%	53.58%
10/01/16	12/31/16	0.30%	4.24%	0.2963%	0.00%	0.00%	0.00%	0.00%	0.00%	0.30%	99.91%	57.82%
01/01/17	03/31/17	0.09%	3.64%	0.0855%	0.00%	0.00%	0.00%	0.00%	0.00%	0.09%	100.00%	61.46%
04/01/17	06/30/17	0.00%	3.23%	0.0000%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	64.69%
07/01/17	09/30/17	0.00%	2.85%	0.0000%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	67.54%
10/01/17	12/31/17	0.00%	2.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	70.04%
01/01/18	03/31/18	0.00%	2.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	72.18%
04/01/18	06/30/18	0.00%	1.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	74.07%
07/01/18	09/30/18	0.00%	1.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	75.72%
10/01/18	12/31/18	0.00%	1.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	77.17%
01/01/19	03/31/19	0.00%	1.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	78.38%
04/01/19	06/30/19	0.00%	1.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	79.42%
07/01/19	09/30/19	0.00%	0.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	80.28%
10/01/19	12/31/19	0.00%	0.72%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	81.00%
01/01/20	03/31/20	0.00%	0.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	81.60%
04/01/20	06/30/20	0.00%	0.55%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	82.15%
07/01/20	09/30/20	0.00%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	82.65%
10/01/20	12/31/20	0.00%	0.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	83.12%
01/01/21	03/31/21	0.00%	0.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	83.54%
04/01/21	06/30/21	0.00%	0.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	83.93%
07/01/21	09/30/21	0.00%	0.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	84.31%
10/01/21	12/31/21	0.00%	0.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	84.67%
01/01/22	03/31/22	0.00%	0.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	84.99%
04/01/22	06/30/22	0.00%	0.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	85.28%
07/01/22	09/30/22	0.00%	0.27%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	85.55%
10/01/22	12/31/22	0.00%	0.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	85.79%
01/01/23	03/31/23	0.00%	0.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	86.01%
04/01/23	06/30/23	0.00%	0.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	86.22%
07/01/23	09/30/23	0.00%	0.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	86.43%
10/01/23	12/31/23	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	86.63%
01/01/24	03/31/24	0.00%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	86.82%
04/01/24	06/30/24	0.00%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	87.00%
07/01/24	09/30/24	0.00%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	87.19%
10/01/24	12/31/24	0.00%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	87.37%
01/01/25	03/31/25	0.00%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	87.54%
04/01/25	06/30/25	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	87.71%
07/01/25	09/30/25	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	87.89%
10/01/25	12/31/25	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	88.06%
01/01/26	03/31/26	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	88.23%
04/01/26	06/30/26	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	88.40%
07/01/26	09/30/26	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	88.58%
10/01/26	12/31/26	0.00%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	88.76%
01/01/27	03/31/27	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	88.93%
04/01/27	06/30/27	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	89.10%
07/01/27	09/30/27	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	89.27%
10/01/27	12/31/27	0.00%	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	89.44%
01/01/28	03/31/28	0.00%	0.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	89.60%
04/01/28	06/30/28	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	89.74%
07/01/28	09/30/28	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	89.87%
10/01/28	12/31/28	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.00%
01/01/29	03/31/29	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.11%
04/01/29	06/30/29	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.22%
07/01/29	09/30/29	0.00%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.32%
10/01/29	12/31/29	0.00%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.43%
01/01/30	03/31/30	0.00%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.53%
04/01/30	06/30/30	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.64%
07/01/30	09/30/30	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.75%
10/01/30	12/31/30	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.88%
01/01/31	03/31/31	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	90.99%
04/01/31	06/30/31	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.10%
07/01/31	09/30/31	0.00%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.20%
10/01/31	12/31/31	0.00%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.29%
01/01/32	03/31/32	0.00%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.37%
04/01/32	06/30/32	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.44%
07/01/32	09/30/32	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.51%
10/01/32	12/31/32	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.58%
01/01/33	03/31/33	0.00%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.64%
04/01/33	06/30/33	0.00%	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.69%
07/01/33	09/30/33	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.75%

TABLE C5_1: POLICYHOLDER SUPPLIED - UNDERWRITING CASH FLOW PATTERNS

TIME INTERVAL		COLLECTED PREMIUM	LOSS & LAE PAYOUT	COMMISS. & BROKER.	GENERAL EXPENSES	OTHER ACQ. EXPENSES	PREMIUM TAXES	MISC. AND OTHER TAXES	REINS. EXPENSES	PREMIUM DISCOUNT	CUMULATIVE	
FROM (1)	TO (2)										COLLECTED PREMIUM (12)	LOSS & LAE PAYOUT (13)
10/01/33	12/31/33	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.80%
01/01/34	03/31/34	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.84%
04/01/34	06/30/34	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.89%
07/01/34	09/30/34	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	91.95%
10/01/34	12/31/34	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.00%
01/01/35	03/31/35	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.07%
04/01/35	06/30/35	0.00%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.16%
07/01/35	09/30/35	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.27%
10/01/35	12/31/35	0.00%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.40%
01/01/36	03/31/36	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.54%
04/01/36	06/30/36	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.68%
07/01/36	09/30/36	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.82%
10/01/36	12/31/36	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	92.96%
01/01/37	03/31/37	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	93.11%
04/01/37	06/30/37	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	93.25%
07/01/37	09/30/37	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	93.39%
10/01/37	12/31/37	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	93.53%
01/01/38	03/31/38	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	93.67%
04/01/38	06/30/38	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	93.81%
07/01/38	09/30/38	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	93.95%
10/01/38	12/31/38	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	94.09%
01/01/39	03/31/39	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	94.24%
04/01/39	06/30/39	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	94.38%
07/01/39	09/30/39	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	94.52%
10/01/39	12/31/39	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	94.66%
01/01/40	03/31/40	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	94.80%
04/01/40	06/30/40	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	94.94%
07/01/40	09/30/40	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	95.08%
10/01/40	12/31/40	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	95.22%
01/01/41	03/31/41	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	95.36%
04/01/41	06/30/41	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	95.50%
07/01/41	09/30/41	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	95.65%
10/01/41	12/31/41	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	95.79%
01/01/42	03/31/42	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	95.93%
04/01/42	06/30/42	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	96.07%
07/01/42	09/30/42	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	96.21%
10/01/42	12/31/42	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	96.35%
01/01/43	03/31/43	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	96.49%
04/01/43	06/30/43	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	96.63%
07/01/43	09/30/43	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	96.78%
10/01/43	12/31/43	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	96.92%
01/01/44	03/31/44	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	97.06%
04/01/44	06/30/44	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	97.20%
07/01/44	09/30/44	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	97.34%
10/01/44	12/31/44	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	97.48%
01/01/45	03/31/45	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	97.62%
04/01/45	06/30/45	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	97.76%
07/01/45	09/30/45	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	97.90%
10/01/45	12/31/45	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	98.05%
01/01/46	03/31/46	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	98.19%
04/01/46	06/30/46	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	98.33%
07/01/46	09/30/46	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	98.47%
10/01/46	12/31/46	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	98.61%
01/01/47	03/31/47	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	98.75%
04/01/47	06/30/47	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	98.89%
07/01/47	09/30/47	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.03%
10/01/47	12/31/47	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.18%
01/01/48	03/31/48	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.32%
04/01/48	06/30/48	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.46%
07/01/48	09/30/48	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.60%
10/01/48	12/31/48	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.74%
01/01/49	03/31/49	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.86%
04/01/49	06/30/49	0.00%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.94%
07/01/49	09/30/49	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	99.98%
10/01/49	12/31/49	0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
TOTAL		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Notes:
 (3): The premium collection pattern for a single policy from Section VII-G, Exhibit 1, converted to a full policy year basis.
 (4): The loss & LAE payout pattern for a single policy from Section VII-I, Exhibit 1, converted to a full policy year basis.
 (5), (11) = (3)
 (6) = 0.5 x Table C5_2, (3) + 0.5 x Table C5_2, (4)
 (7) = 1/6 x Table C5_2, (3)_{t+1} + 5/6 x Table C5_2, (3)_t
 (8) = Table C5_2, (3)_{t-1}
 (9), (10) = Table C5_2, (3)
 (12) = (3), cumulative
 (13) = (4), cumulative

TABLE C5.2: ADDITIONAL PREMIUM AND LOSS PATTERNS

TIME INTERVAL		WRITTEN PREMIUM (3)	EARNED PREMIUM (4)	LOSS & LAE INCURRED (5)	CUMULATIVE		
FROM (1)	TO (2)				WRITTEN PREMIUM (6)	EARNED PREMIUM (7)	LOSS & LAE INCURRED (8)
01/01/13	03/31/13		0.00%	0.00%	0.00%	0.00%	0.00%
04/01/13	06/30/13		0.00%	0.00%	0.00%	0.00%	0.00%
07/01/13	09/30/13		0.00%	0.00%	0.00%	0.00%	0.00%
10/01/13	12/31/13		0.00%	0.00%	0.00%	0.00%	0.00%
01/01/14	03/31/14	30.00%	4.53%	4.53%	30.00%	4.53%	4.53%
04/01/14	06/30/14	23.98%	10.50%	10.50%	53.98%	15.03%	15.03%
07/01/14	09/30/14	24.12%	16.75%	16.75%	78.10%	31.78%	31.78%
10/01/14	12/31/14	21.90%	22.32%	22.32%	100.00%	54.10%	54.10%
01/01/15	03/31/15		20.47%	20.47%	100.00%	74.57%	74.57%
04/01/15	06/30/15		14.36%	14.36%	100.00%	88.93%	88.93%
07/01/15	09/30/15		8.25%	8.25%	100.00%	97.18%	97.18%
10/01/15	12/31/15		2.82%	2.82%	100.00%	100.00%	100.00%
01/01/16	03/31/16		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/16	06/30/16		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/16	09/30/16		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/16	12/31/16		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/17	03/31/17		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/17	06/30/17		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/17	09/30/17		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/17	12/31/17		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/18	03/31/18		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/18	06/30/18		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/18	09/30/18		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/18	12/31/18		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/19	03/31/19		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/19	06/30/19		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/19	09/30/19		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/19	12/31/19		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/20	03/31/20		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/20	06/30/20		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/20	09/30/20		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/20	12/31/20		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/21	03/31/21		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/21	06/30/21		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/21	09/30/21		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/21	12/31/21		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/22	03/31/22		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/22	06/30/22		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/22	09/30/22		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/22	12/31/22		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/23	03/31/23		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/23	06/30/23		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/23	09/30/23		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/23	12/31/23		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/24	03/31/24		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/24	06/30/24		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/24	09/30/24		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/24	12/31/24		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/25	03/31/25		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/25	06/30/25		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/25	09/30/25		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/25	12/31/25		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/26	03/31/26		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/26	06/30/26		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/26	09/30/26		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/26	12/31/26		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/27	03/31/27		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/27	06/30/27		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/27	09/30/27		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/27	12/31/27		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/28	03/31/28		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/28	06/30/28		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/28	09/30/28		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/28	12/31/28		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/29	03/31/29		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/29	06/30/29		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/29	09/30/29		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/29	12/31/29		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/30	03/31/30		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/30	06/30/30		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/30	09/30/30		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/30	12/31/30		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/31	03/31/31		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/31	06/30/31		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/31	09/30/31		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/31	12/31/31		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/32	03/31/32		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/32	06/30/32		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/32	09/30/32		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/32	12/31/32		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/33	03/31/33		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/33	06/30/33		0.00%	0.00%	100.00%	100.00%	100.00%

VII 000055

TABLE C5.2: ADDITIONAL PREMIUM AND LOSS PATTERNS

TIME INTERVAL		WRITTEN PREMIUM (3)	EARNED PREMIUM (4)	LOSS & LAE INCURRED (5)	CUMULATIVE		
FROM (1)	TO (2)				WRITTEN PREMIUM (6)	EARNED PREMIUM (7)	LOSS & LAE INCURRED (8)
07/01/33	09/30/33		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/33	12/31/33		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/34	03/31/34		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/34	06/30/34		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/34	09/30/34		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/34	12/31/34		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/35	03/31/35		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/35	06/30/35		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/35	09/30/35		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/35	12/31/35		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/36	03/31/36		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/36	06/30/36		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/36	09/30/36		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/36	12/31/36		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/37	03/31/37		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/37	06/30/37		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/37	09/30/37		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/37	12/31/37		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/38	03/31/38		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/38	06/30/38		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/38	09/30/38		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/38	12/31/38		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/39	03/31/39		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/39	06/30/39		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/39	09/30/39		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/39	12/31/39		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/40	03/31/40		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/40	06/30/40		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/40	09/30/40		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/40	12/31/40		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/41	03/31/41		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/41	06/30/41		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/41	09/30/41		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/41	12/31/41		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/42	03/31/42		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/42	06/30/42		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/42	09/30/42		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/42	12/31/42		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/43	03/31/43		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/43	06/30/43		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/43	09/30/43		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/43	12/31/43		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/44	03/31/44		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/44	06/30/44		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/44	09/30/44		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/44	12/31/44		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/45	03/31/45		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/45	06/30/45		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/45	09/30/45		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/45	12/31/45		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/46	03/31/46		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/46	06/30/46		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/46	09/30/46		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/46	12/31/46		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/47	03/31/47		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/47	06/30/47		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/47	09/30/47		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/47	12/31/47		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/48	03/31/48		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/48	06/30/48		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/48	09/30/48		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/48	12/31/48		0.00%	0.00%	100.00%	100.00%	100.00%
01/01/49	03/31/49		0.00%	0.00%	100.00%	100.00%	100.00%
04/01/49	06/30/49		0.00%	0.00%	100.00%	100.00%	100.00%
07/01/49	09/30/49		0.00%	0.00%	100.00%	100.00%	100.00%
10/01/49	12/31/49		0.00%	0.00%	100.00%	100.00%	100.00%
TOTAL		100.00%	100.00%	100.00%			

Notes:

- (3): Based on Unit Statistical Plan Data.
- (4): Single policy earned premium is earned uniformly through the one year policy term and then converted to a policy year basis.
- (5): We assume that the loss & LAE incurred pattern coincides with the earned premium pattern.
- (6) = (3), cumulative
- (7) = (4), cumulative
- (8) = (5), cumulative

TABLE D1: CAPITAL NEEDED FROM INVESTORS

TIME INTERVAL		UNEARNED PREMIUM RESERVES (3)	LOSS & LAE RESERVES (4)	TOTAL RESERVES (5)	RESERVES TO SURPLUS RATIO (6)	IMPLIED SURPLUS (7)	RESERVES FUNDED BY INVESTORS (8)	CAPITAL NEEDED FROM INVESTORS (9)
FROM (1)	TO (2)							
01/01/13	03/31/13	0.00	0.00	0.00	1.94	0.00	0.00	0.00
04/01/13	06/30/13	0.00	0.00	0.00	1.94	0.00	0.00	0.00
07/01/13	09/30/13	0.00	0.00	0.00	1.94	0.00	0.00	0.00
10/01/13	12/31/13	0.00	0.00	0.00	1.94	0.00	1.56	1.56
01/01/14	03/31/14	242.02	24.95	266.97	1.94	137.34	19.53	156.88
04/01/14	06/30/14	370.09	82.77	452.85	1.94	232.97	32.61	265.57
07/01/14	09/30/14	440.16	174.97	615.13	1.94	316.45	35.20	351.65
10/01/14	12/31/14	436.16	297.86	734.02	1.94	377.61	24.07	401.68
01/01/15	03/31/15	241.67	402.13	643.80	1.94	331.20	4.85	336.04
04/01/15	06/30/15	105.19	461.67	566.85	1.94	291.61	0.00	291.61
07/01/15	09/30/15	26.75	475.94	502.69	1.94	258.61	0.00	258.61
10/01/15	12/31/15	0.00	449.89	449.89	1.94	231.44	17.42	248.86
01/01/16	03/31/16	0.00	406.65	406.65	1.94	209.20	24.58	233.78
04/01/16	06/30/16	0.00	368.03	368.03	1.94	189.33	12.70	202.03
07/01/16	09/30/16	0.00	333.72	333.72	1.94	171.68	6.34	178.02
10/01/16	12/31/16	0.00	303.23	303.23	1.94	155.99	2.93	158.93
01/01/17	03/31/17	0.00	277.07	277.07	1.94	142.53	1.74	144.28
04/01/17	06/30/17	0.00	253.84	253.84	1.94	130.59	1.23	131.81
07/01/17	09/30/17	0.00	233.38	233.38	1.94	120.06	0.71	120.77
10/01/17	12/31/17	0.00	215.36	215.36	1.94	110.79	0.20	110.99
01/01/18	03/31/18	0.00	200.02	200.02	1.94	102.90	0.00	102.90
04/01/18	06/30/18	0.00	186.45	186.45	1.94	95.92	0.00	95.92
07/01/18	09/30/18	0.00	174.54	174.54	1.94	89.79	0.00	89.79
10/01/18	12/31/18	0.00	164.10	164.10	1.94	84.42	0.00	84.42
01/01/19	03/31/19	0.00	155.42	155.42	1.94	79.95	0.00	79.95
04/01/19	06/30/19	0.00	147.98	147.98	1.94	76.13	0.00	76.13
07/01/19	09/30/19	0.00	141.75	141.75	1.94	72.92	0.00	72.92
10/01/19	12/31/19	0.00	136.59	136.59	1.94	70.27	0.00	70.27
01/01/20	03/31/20	0.00	132.27	132.27	1.94	68.04	0.00	68.04
04/01/20	06/30/20	0.00	128.32	128.32	1.94	66.01	0.00	66.01
07/01/20	09/30/20	0.00	124.70	124.70	1.94	64.15	0.00	64.15
10/01/20	12/31/20	0.00	121.38	121.38	1.94	62.44	0.00	62.44
01/01/21	03/31/21	0.00	118.36	118.36	1.94	60.89	0.00	60.89
04/01/21	06/30/21	0.00	115.51	115.51	1.94	59.42	0.00	59.42
07/01/21	09/30/21	0.00	112.81	112.81	1.94	58.04	0.00	58.04
10/01/21	12/31/21	0.00	110.25	110.25	1.94	56.71	0.00	56.71
01/01/22	03/31/22	0.00	107.92	107.92	1.94	55.52	0.00	55.52
04/01/22	06/30/22	0.00	105.81	105.81	1.94	54.43	0.00	54.43
07/01/22	09/30/22	0.00	103.90	103.90	1.94	53.45	0.00	53.45
10/01/22	12/31/22	0.00	102.17	102.17	1.94	52.56	0.00	52.56
01/01/23	03/31/23	0.00	100.58	100.58	1.94	51.74	0.00	51.74
04/01/23	06/30/23	0.00	99.05	99.05	1.94	50.96	0.00	50.96
07/01/23	09/30/23	0.00	97.58	97.58	1.94	50.20	0.00	50.20
10/01/23	12/31/23	0.00	96.15	96.15	1.94	49.46	0.00	49.46
01/01/24	03/31/24	0.00	94.77	94.77	1.94	48.76	0.00	48.76
04/01/24	06/30/24	0.00	93.44	93.44	1.94	48.07	0.00	48.07
07/01/24	09/30/24	0.00	92.13	92.13	1.94	47.39	0.00	47.39
10/01/24	12/31/24	0.00	90.83	90.83	1.94	46.73	0.00	46.73
01/01/25	03/31/25	0.00	89.57	89.57	1.94	46.08	0.00	46.08
04/01/25	06/30/25	0.00	88.33	88.33	1.94	45.44	0.00	45.44
07/01/25	09/30/25	0.00	87.08	87.08	1.94	44.80	0.00	44.80
10/01/25	12/31/25	0.00	85.84	85.84	1.94	44.16	0.00	44.16
01/01/26	03/31/26	0.00	84.60	84.60	1.94	43.52	0.00	43.52
04/01/26	06/30/26	0.00	83.36	83.36	1.94	42.89	0.00	42.89
07/01/26	09/30/26	0.00	82.11	82.11	1.94	42.24	0.00	42.24
10/01/26	12/31/26	0.00	80.84	80.84	1.94	41.59	0.00	41.59
01/01/27	03/31/27	0.00	79.59	79.59	1.94	40.94	0.00	40.94
04/01/27	06/30/27	0.00	78.36	78.36	1.94	40.31	0.00	40.31
07/01/27	09/30/27	0.00	77.14	77.14	1.94	39.68	0.00	39.68
10/01/27	12/31/27	0.00	75.93	75.93	1.94	39.06	0.00	39.06
01/01/28	03/31/28	0.00	74.79	74.79	1.94	38.48	0.00	38.48
04/01/28	06/30/28	0.00	73.75	73.75	1.94	37.94	0.00	37.94
07/01/28	09/30/28	0.00	72.80	72.80	1.94	37.45	0.00	37.45
10/01/28	12/31/28	0.00	71.91	71.91	1.94	37.00	0.00	37.00
01/01/29	03/31/29	0.00	71.10	71.10	1.94	36.58	0.00	36.58
04/01/29	06/30/29	0.00	70.32	70.32	1.94	36.17	0.00	36.17
07/01/29	09/30/29	0.00	69.57	69.57	1.94	35.79	0.00	35.79
10/01/29	12/31/29	0.00	68.84	68.84	1.94	35.41	0.00	35.41
01/01/30	03/31/30	0.00	68.09	68.09	1.94	35.03	0.00	35.03
04/01/30	06/30/30	0.00	67.31	67.31	1.94	34.63	0.00	34.63
07/01/30	09/30/30	0.00	66.47	66.47	1.94	34.20	0.00	34.20
10/01/30	12/31/30	0.00	65.59	65.59	1.94	33.74	0.00	33.74
01/01/31	03/31/31	0.00	64.75	64.75	1.94	33.31	0.00	33.31
04/01/31	06/30/31	0.00	63.98	63.98	1.94	32.92	0.00	32.92
07/01/31	09/30/31	0.00	63.29	63.29	1.94	32.56	0.00	32.56
10/01/31	12/31/31	0.00	62.65	62.65	1.94	32.23	0.00	32.23
01/01/32	03/31/32	0.00	62.08	62.08	1.94	31.94	0.00	31.94
04/01/32	06/30/32	0.00	61.54	61.54	1.94	31.66	0.00	31.66
07/01/32	09/30/32	0.00	61.04	61.04	1.94	31.40	0.00	31.40
10/01/32	12/31/32	0.00	60.56	60.56	1.94	31.15	0.00	31.15
01/01/33	03/31/33	0.00	60.12	60.12	1.94	30.93	0.00	30.93
04/01/33	06/30/33	0.00	59.72	59.72	1.94	30.72	0.00	30.72

TABLE D1: CAPITAL NEEDED FROM INVESTORS

TIME INTERVAL		UNEARNED PREMIUM RESERVES (3)	LOSS & LAE RESERVES (4)	TOTAL RESERVES (5)	RESERVES TO SURPLUS RATIO (6)	IMPLIED SURPLUS (7)	RESERVES FUNDED BY INVESTORS (8)	CAPITAL NEEDED FROM INVESTORS (9)
FROM (1)	TO (2)							
07/01/33	09/30/33	0.00	59.34	59.34	1.94	30.52	0.00	30.52
10/01/33	12/31/33	0.00	58.98	58.98	1.94	30.34	0.00	30.34
01/01/34	03/31/34	0.00	58.63	58.63	1.94	30.16	0.00	30.16
04/01/34	06/30/34	0.00	58.28	58.28	1.94	29.98	0.00	29.98
07/01/34	09/30/34	0.00	57.91	57.91	1.94	29.79	0.00	29.79
10/01/34	12/31/34	0.00	57.53	57.53	1.94	29.60	0.00	29.60
01/01/35	03/31/35	0.00	57.04	57.04	1.94	29.34	0.00	29.34
04/01/35	06/30/35	0.00	56.40	56.40	1.94	29.01	0.00	29.01
07/01/35	09/30/35	0.00	55.59	55.59	1.94	28.60	0.00	28.60
10/01/35	12/31/35	0.00	54.64	54.64	1.94	28.11	0.00	28.11
01/01/36	03/31/36	0.00	53.63	53.63	1.94	27.59	0.00	27.59
04/01/36	06/30/36	0.00	52.62	52.62	1.94	27.07	0.00	27.07
07/01/36	09/30/36	0.00	51.60	51.60	1.94	26.55	0.00	26.55
10/01/36	12/31/36	0.00	50.58	50.58	1.94	26.02	0.00	26.02
01/01/37	03/31/37	0.00	49.57	49.57	1.94	25.50	0.00	25.50
04/01/37	06/30/37	0.00	48.56	48.56	1.94	24.98	0.00	24.98
07/01/37	09/30/37	0.00	47.54	47.54	1.94	24.46	0.00	24.46
10/01/37	12/31/37	0.00	46.52	46.52	1.94	23.93	0.00	23.93
01/01/38	03/31/38	0.00	45.51	45.51	1.94	23.41	0.00	23.41
04/01/38	06/30/38	0.00	44.50	44.50	1.94	22.89	0.00	22.89
07/01/38	09/30/38	0.00	43.48	43.48	1.94	22.37	0.00	22.37
10/01/38	12/31/38	0.00	42.46	42.46	1.94	21.84	0.00	21.84
01/01/39	03/31/39	0.00	41.45	41.45	1.94	21.32	0.00	21.32
04/01/39	06/30/39	0.00	40.44	40.44	1.94	20.80	0.00	20.80
07/01/39	09/30/39	0.00	39.42	39.42	1.94	20.28	0.00	20.28
10/01/39	12/31/39	0.00	38.40	38.40	1.94	19.76	0.00	19.76
01/01/40	03/31/40	0.00	37.39	37.39	1.94	19.23	0.00	19.23
04/01/40	06/30/40	0.00	36.38	36.38	1.94	18.71	0.00	18.71
07/01/40	09/30/40	0.00	35.36	35.36	1.94	18.19	0.00	18.19
10/01/40	12/31/40	0.00	34.34	34.34	1.94	17.67	0.00	17.67
01/01/41	03/31/41	0.00	33.33	33.33	1.94	17.14	0.00	17.14
04/01/41	06/30/41	0.00	32.32	32.32	1.94	16.63	0.00	16.63
07/01/41	09/30/41	0.00	31.30	31.30	1.94	16.10	0.00	16.10
10/01/41	12/31/41	0.00	30.28	30.28	1.94	15.58	0.00	15.58
01/01/42	03/31/42	0.00	29.27	29.27	1.94	15.06	0.00	15.06
04/01/42	06/30/42	0.00	28.26	28.26	1.94	14.54	0.00	14.54
07/01/42	09/30/42	0.00	27.24	27.24	1.94	14.01	0.00	14.01
10/01/42	12/31/42	0.00	26.22	26.22	1.94	13.49	0.00	13.49
01/01/43	03/31/43	0.00	25.21	25.21	1.94	12.97	0.00	12.97
04/01/43	06/30/43	0.00	24.20	24.20	1.94	12.45	0.00	12.45
07/01/43	09/30/43	0.00	23.18	23.18	1.94	11.93	0.00	11.93
10/01/43	12/31/43	0.00	22.16	22.16	1.94	11.40	0.00	11.40
01/01/44	03/31/44	0.00	21.15	21.15	1.94	10.88	0.00	10.88
04/01/44	06/30/44	0.00	20.14	20.14	1.94	10.36	0.00	10.36
07/01/44	09/30/44	0.00	19.12	19.12	1.94	9.84	0.00	9.84
10/01/44	12/31/44	0.00	18.10	18.10	1.94	9.31	0.00	9.31
01/01/45	03/31/45	0.00	17.09	17.09	1.94	8.79	0.00	8.79
04/01/45	06/30/45	0.00	16.08	16.08	1.94	8.27	0.00	8.27
07/01/45	09/30/45	0.00	15.06	15.06	1.94	7.75	0.00	7.75
10/01/45	12/31/45	0.00	14.04	14.04	1.94	7.22	0.00	7.22
01/01/46	03/31/46	0.00	13.03	13.03	1.94	6.70	0.00	6.70
04/01/46	06/30/46	0.00	12.02	12.02	1.94	6.18	0.00	6.18
07/01/46	09/30/46	0.00	11.00	11.00	1.94	5.66	0.00	5.66
10/01/46	12/31/46	0.00	9.98	9.98	1.94	5.14	0.00	5.14
01/01/47	03/31/47	0.00	8.97	8.97	1.94	4.61	0.00	4.61
04/01/47	06/30/47	0.00	7.96	7.96	1.94	4.09	0.00	4.09
07/01/47	09/30/47	0.00	6.94	6.94	1.94	3.57	0.00	3.57
10/01/47	12/31/47	0.00	5.92	5.92	1.94	3.05	0.00	3.05
01/01/48	03/31/48	0.00	4.91	4.91	1.94	2.53	0.00	2.53
04/01/48	06/30/48	0.00	3.90	3.90	1.94	2.01	0.00	2.01
07/01/48	09/30/48	0.00	2.88	2.88	1.94	1.48	0.00	1.48
10/01/48	12/31/48	0.00	1.86	1.86	1.94	0.96	0.00	0.96
01/01/49	03/31/49	0.00	1.03	1.03	1.94	0.53	0.00	0.53
04/01/49	06/30/49	0.00	0.45	0.45	1.94	0.23	0.00	0.23
07/01/49	09/30/49	0.00	0.11	0.11	1.94	0.06	0.00	0.06
10/01/49	12/31/49	0.00	0.00	0.00	1.94	0.00	0.00	0.00
TOTAL		1,862.04	12,688.08	14,550.12		7,485.19	185.68	7,670.86

Notes:

- (3) = Table A1, (1b) x [Table C5_2, (6) - Table C5_2, (7)]
- (4) = Table A1, (1a) x Table 1, (3) x [Table C5_2, (8) - Table C5_1, (13)]
- (5) = (3) + (4)
- (6) = Table A1, (13)
- (7) = (5) / (6)
- (8) = Table C3, (11)
- (9) = (7) + (8)

COST OF CAPITAL

The first step in setting an underwriting profit factor under a rate of return standard is to determine the fair and reasonable return that should be allowed for bearing the risk of underwriting workers' compensation insurance in Massachusetts. In the context of insurance ratemaking, a "fair and reasonable return" has traditionally been interpreted to mean the cost of the equity capital required to support insurance operations.¹ However, in her Decision on 2003 rates, the Commissioner endorsed the use of a weighted average cost of capital that includes the impact of debt capital at the insurance holding company level.² To narrow the debate again this year, the WCRIBMA has used a weighted average cost of capital in its derivation of the profit provision.

Calculating the weighted average cost of capital is simply a matter of separately calculating the cost of equity capital and the cost of debt capital, and then using appropriate weights to combine the two estimates.

Equity. Several methods have been used to estimate the cost of equity capital for a regulated firm or industry. However, it is widely agreed that methods that rely on market data are preferred, on both a theoretical and pragmatic basis, to those that are based

¹ Insurance operating companies typically carry no debt on their balance sheets; that is, the capital of the operating companies is all equity capital.

² See, for example, page 52: "We agree that estimates of the cost of capital should reflect debt/equity financing at the holding company level."

on accounting data. Indeed, it is market requirements that suggest use of the term "cost of capital," as the phrase refers to the cost to the firm of attracting investment funds in capital markets.

As in the past, the WCRIBMA has relied on the two most prominent market based methodologies to estimate the cost of equity capital for the WCRIBMA: the DCF (discounted cash flow) model and the traditional, single factor CAPM (capital asset pricing model). These two methods have been widely recognized as the leading approaches for estimating the cost of equity capital in the US economy, and as a result, each method has explicitly been given equal weight in the estimation process.

To apply the CAPM and DCF models in the context of insurance regulation, a sample of firms that investors would view as representative of the risks and required returns for property/casualty insurers was selected. In prior years, the WCRIBMA has relied on a sample of large, publicly traded property/casualty insurers that was drawn exclusively from the Value Line Investment Survey. In this filing, consistent with the 2010, 2011 and 2012 filings, the WCRIBMA has expanded the sample of companies to include firms drawn from two additional data sources: those included in the property/casualty insurance industry group in the Value Line Investment Survey, Small & Mid Cap Edition and also all property and casualty companies in Standard & Poor's Compustat database with SIC codes 6300 – 6399 and revenue in SIC codes 6331 or 6351. (Standard & Poor's Compustat database is used by institutional money managers and analysts around the world. Compustat provides vital company, index, and industry information that supports financial models and proprietary company and industry analysis.)

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The resulting sample is the largest sample of publicly traded insurers which can reasonably be used to estimate the cost of capital.

Based on these data, the cost of equity capital was calculated for the full sample of 92 property/casualty insurers. This calculation provides an estimate of the fair rate of return for the average risk activity in which property/casualty insurers are engaged. Based on the average of the DCF and CAPM results, Dr. Appel determined that investors currently require a return on equity of at least 9.14% for bearing the risk of underwriting property/casualty insurance, as shown below.

DCF	8.95 %
CAPM	9.32%
Average	9.14%

Given these results, the WCRIBMA has used a cost of equity capital of 9.14% as the best estimate of the required equity return for the average risk activity in which property/casualty insurers are engaged.

Debt. To conform to the 2003 Commissioner’s decision, the WCRIBMA estimates the cost of debt capital for property/casualty insurers, as well as the share of debt in their capital structure. In this filing we estimate the cost of debt capital by using current market yields (as opposed to embedded yields) for long term corporate bonds. We

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calculate the three month average yield of AA Industrials using the Mergent Bond Record. The result, 4.66%, is shown in Section VII-J, Exhibit 2, Page 3, line (15). We also used a different approach in calculating the debt/equity proportion. In this filing we use the book value of capital (as opposed to market value).³ For this group of 92 insurers, the share of non-equity capital in the corporate capital structure is 21%, as shown in Section VII – E, Exhibit 4. Thus, the weighted average cost of capital is 8.21%, as shown below:

$$(21\% \times 4.66\%) + (79\% \times 9.14\%) = 8.21\%$$

Since the cost of capital is the required return for the average risk activity in which insurers are engaged, the question naturally arises as to whether workers' compensation insurance in Massachusetts is of average risk when compared to all lines of insurance. To the extent that this line of business is viewed as riskier than average, the cost of capital would be higher than average as well. There are several reasons why workers' compensation might be viewed as riskier than the average activity in which property/casualty insurers are engaged. Among them are these:

1. Workers' compensation is subject to unlimited liability; there are neither per claim, per occurrence or aggregate loss limits under the policy terms. This is in

³ The WCRIBMA believes that market value capital weights are more appropriate than book value capital weights for estimating a weighted average cost of capital. However, in this rate filing, in hopes of limiting the debate on profit, we adopted the method espoused by the Commissioner in the 9/1/2012 decision on rates.

contrast to the typical property/casualty insurance contract, in which all these limits may apply.

2. Workers' compensation is a "long-tailed" line of business, meaning that the payment of losses may extend for many years beyond the sale date of the policy. It is a well-known principle of statistics that the longer the time horizon of a forecast, the greater the expected error in the estimate. Thus the forecast of ultimate losses in this line is subject to greater risk than in many other lines of business.
3. Workers' compensation has a substantial exposure to medical inflation, which has been more rapid and less predictable than general inflation.
4. Workers' compensation is subject to the risk of occupational disease, which can lead to substantial and inherently unpredictable losses in the future.
5. Workers' compensation is subject to the phenomenon of "benefit utilization," which refers to the observation that as benefits become more generous, workers increase their utilization of the system. While the term has traditionally been applied to indemnity benefits (as benefits increase both claim frequency and duration increase) it is equally applicable to medical benefits. Since medical costs are covered with no deductibles or co-payments, workers' compensation

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has become an increasingly attractive alternative to health insurance for coverage of any workplace illness or injury.

While these characteristics suggest that workers' compensation is of above-average risk, the WCRIBMA has made no attempt to quantify the difference in risk, nor has such additional risk been reflected in its estimate of the cost of capital used in deriving the underwriting profit provision, making its provision conservative.

The results of the analysis for the full sample of property/casualty insurers are contained in exhibits to this section, and a more detailed explanation of the models is contained in the accompanying appendix.

APPENDIX: COST OF CAPITAL

A. INTRODUCTION

This appendix is intended to provide a more detailed description of the cost of capital methods selected by the WCRIBMA to derive the estimated cost of capital that is required to determine the underwriting profit provision in this filing.

The generally recognized standards for determining a fair rate of return for a regulated enterprise were articulated in two cases before the U.S. Supreme Court - Bluefield Waterworks and Hope Natural Gas. In Bluefield, the Court stated:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties

Bluefield Waterworks & Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679, 692-693 (1923). In Hope, the Court further stated:

From the investor or company point of view, it is important that there be enough revenue not only for operating expenses, but also for the capital

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costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with the returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

These decisions set forth the two basic standards of fairness under which regulated industries must operate: first, the rate of return to the equity holder should equal that which can be expected to be earned by investors in businesses of similar risk; and second, the rate of return must be sufficient to assure the continued attraction of capital. In essence these criteria, when reasonably applied, balance the interests of consumers of the regulated product or service, and investors, who provide the capital needed to operate the enterprise.

There are several methods that have been used to estimate the fair rate of return, or cost of capital, for a regulated firm or industry. However, it is widely agreed that methods that rely on market data are preferred, on both a theoretical and pragmatic basis, to those that are based on accounting data. Indeed, it is market requirements that suggest use of the term "cost of capital," as the phrase refers to the cost to the firm of attracting investment funds in capital markets. That cost, of course, is the return that

the firm must pay and investors expect to earn as a result of placing their capital at risk in the enterprise. For this reason, Dr. Appel used the two most prominent market-based methodologies to derive the cost of capital estimates for this filing. The first of these is known as the Discounted Cash Flow (DCF) model (sometimes called the Gordon growth model or the dividend valuation model), and the second is a specific form of Risk Premium Analysis known as the Capital Asset Pricing Model (CAPM).

Dr. Appel used DCF and CAPM approaches to obtain independent estimates of the cost of capital, so as not to place undue reliance on any single methodology. Moreover, he used these two models because economic and financial theory strongly support the use of market data to determine required rates of return, and these are the most prominent market-based methods currently available. Reliance on market data is critical for three reasons.

1. Such information reflects the consensus of all investors regarding the risk and required returns on different securities. Thus, the potential for the biases and perceptions of the analyst to overstate or understate the fair rate of return is minimized.
2. The alternative to market data is to use historical accounting data to estimate the cost of capital. This procedure is seriously flawed because it is not prospective and does not necessarily reflect the returns that are of ultimate concern to investors – those that can be earned in the market.

3. The use of market-based models is consistent with the dictates of Hope, in the sense that Hope instructs us to consider investor requirements when determining the fair and reasonable rate of return. (For example, "the return to the equity owner should be commensurate with the returns on investments in other enterprises having corresponding risks.")

In effect, these market based models provide an initial estimate of the "opportunity cost" of placing capital at risk in support of workers' compensation insurance in Massachusetts. Opportunity cost is among the most basic concepts in economics. It refers to the fact that resources have a variety of potential uses, and by using a resource in a particular endeavor an investor forgoes the returns that are available in other, alternative activities. Thus, the opportunity cost of capital (otherwise termed the cost of capital) is the return available from employing that capital in its next best alternative use. This is, of course, the return that investors have forgone by using their capital in support of Massachusetts workers' compensation insurance activities.

It is entirely appropriate to begin an estimate of Massachusetts workers' compensation insurers' cost of capital by evaluating the cost of capital for comparable insurers in the U.S. economy. To the extent that these firms are viewed by investors as being of equivalent risk, they will provide a reasonable starting point for estimating the appropriate cost of capital in this case. However, it is also necessary to consider the specific characteristics of the insurance coverage at issue in this proceeding, before

determining whether the cost of capital for any sample of insurers is a reasonable estimate to be used in the present rate-setting exercise. Should Massachusetts workers' compensation insurance be viewed as differing in risk from the average line of coverage, then the cost of capital may have to be adjusted.

B. METHODOLOGY

The Discounted Cash Flow (DCF) model and a specific form of Risk Premium Analysis (RPA) known as the Capital Asset Pricing Model (CAPM) were used to estimate the cost of capital. These are the most widely recognized methods for estimating the cost of capital in regulatory proceedings. The DCF analysis is the leading model used by practitioners to estimate the required rate of return in regulatory rate proceedings, while RPA analysis is the leading approach used by academics, both for estimating the cost of capital and explaining capital market behavior. Each one provides a reasonable basis for estimating the cost of capital, and each should be accorded equal weight in the process.

Turning to the discounted cash flow (DCF) model first, the DCF is based upon the presumption that the cost of an investment, typically the price of a stock, must equal the present value of the cash flows from the investment. The logic of this assumption is as follows: investors are willing to pay the current price for a share of stock only if the present value of the expected cash flows emanating from that investment are equal to that price. If the present value of the cash flows were greater (less) than the current price, investors would bid the price up (down).

The cash flows arising from the purchase of a share of stock are the dividend payments and capital gains the investor expects to receive in the future. If the security is expected to be held in perpetuity, then the stock price can be expressed as the sum of the discounted dividends:

$$P_0 = [D_1/(1+k)] + [D_2/(1+k)^2] + [D_3/(1+k)^3] + \dots$$

where P_0 is the price of the stock, D_i is the dividend in period i , and k is the investor's implicit discount rate, or cost of capital. If dividends are expected to grow at a constant annual rate, g , in the future, then the dividend in time period i is simply the current dividend, D_0 , times the growth factor $(1+g)^i$. It can be shown, by suitable mathematical manipulation, that the DCF can be characterized by

$$k = (D_1 / P_0) + g,$$

where D_1/P_0 is the dividend yield expected in the first year and g is the expected growth rate in dividends. It can also be shown that even if the investor expects to sell the security at some later date, the price at that time will be equal to present value of future dividend flows. Therefore any expected future capital gain will be impounded in the current estimates of future dividends.

Turning to the second model used to calculate the cost of capital, the specific form of Risk Premium Analysis (RPA) known as the Capital Asset Pricing Model (CAPM), it should be noted that risk premium analysis is a technique which attempts to

estimate the cost of capital by calculating the incremental return investors require to hold a particular security, as opposed to another, less risky asset. While the DCF estimates the cost of capital directly, by looking at expected cash flows and market prices, risk premium analysis estimates required returns by evaluating the relative risk of alternative investments. Obviously, those investments with greater risk require greater returns.

The single factor version of the Capital Asset Pricing Model (CAPM) is one specific form of risk premium analysis, which begins with the assumption that there is a risk-free asset, which is typically taken to be a U.S. Treasury security. It then estimates the relative risk of alternative securities to measure the "risk premium" investors require to hold these risky assets. In the classical application of the CAPM, the relative risk of a particular security is measured by a value known as the "beta for market risk" (otherwise known as simply beta) which is an estimate of the relative volatility of that security's returns (or price) compared with the volatility of the entire market (usually proxied by the New York Stock Exchange index or the S&P 500). The information on the beta is used in the following manner to estimate investors' required rate of return:

$$K = r_f + (\beta \times r_D)$$

where r_f is the risk-free yield, β is the beta for market risk, and r_D is the market risk premium.

As noted above, the beta coefficient is a measure of the relative volatility, or riskiness, of an investment, compared with the market average. If an individual stock has a beta of 1.5, for example, the stock has a tendency to be 50% more volatile than the market as a whole. This implies that if the market as a whole goes up (down) by 10% this stock has a tendency to go up (down) by 15%.

The market risk premium is the average difference between the returns on the market portfolio and the returns on the riskless asset. For example, over the period 1926 - 2012 a diversified portfolio of common stocks earned an annual return which averaged 8.24 percentage points higher than the return on U.S. Treasury bills. Therefore, an individual security of exactly average risk (i.e., with a beta of 1) would be expected to earn 8.24 percentage points more than a T-bill. In addition to the T-bill, however, it is also reasonable to consider alternative-term securities, and to measure the risk premium relative to them. In fact, this type of procedure is frequently recommended when the time horizon of the investment is relatively long, as is often the case with an investment in insurance.

There are at least three reasons to be concerned about the use of a beta for market risk to measure risk for present purposes. First, it is important to note that beta, as typically estimated, does not properly account for "interest rate risk" (that is, the risk that an investment will fluctuate with changes in interest rates). Since investments in property/casualty insurance stocks are subject to considerable interest rate risk, this means that the CAPM underestimates the cost of capital for the property/casualty insurance industry. Second, it is well known that small stocks tend to earn higher

returns than their market betas would predict. Thus, to the extent that property casualty insurers are smaller than typical firms, the cost of capital derived using the single factor CAPM would tend to understate the required return. Finally, it is also well known that firms with relatively high book to market value ratios tend to produce higher returns than their betas would predict. Therefore, since property casualty insurers tend to have relatively high book to market ratios, the single factor CAPM would tend to understate required returns.

C. RESULTS

In estimating the cost of capital Dr. Appel relied on financial data for a sample of publicly traded property/casualty insurers, drawn from the Value Line Investment Survey and Standard & Poor's Compustat database. The Value Line Investment Survey is an independent investment advisory service that provides weekly reports on approximately 1,700 publicly traded stocks. In addition, it provides in depth quarterly reports on each of the firms it covers, which contain a wealth of historical and forecast information on each security. In terms of numbers of subscribers and annual revenues Value Line is the largest such service in the world. In addition, Value Line is the data source most widely relied upon by experts estimating the cost of capital in regulatory proceedings.

The data Dr. Appel used were drawn from Value Line's "Insurance-Property/Casualty" group of companies. This is one among nearly 100 groups that are established by Value Line so that they can report simultaneously on a set of companies, which are affected by common economic, social, and financial forces.

The Standard & Poor's Compustat ("Research Insight") program is one of the most complete and current databases of North American and Canadian companies that provides the annual and quarterly income statement, balance sheet, cash flows, and supplemental data items on most publicly held companies. Compustat's financial data items are collected from a wide variety of sources including: news wire services, news releases, shareholder reports, direct company contacts, and quarterly and annual documents filed with the Securities and Exchange Commission. Compustat files also contain information on aggregates, industry segments, banks, market prices, dividends, and earnings. Dr. Appel used all property and casualty companies in Standard & Poor's Compustat database with SIC codes 6300 – 6399 and revenue in SIC codes 6331 or 6351. His estimates are based on the most recent available data, from October 2013.

The DCF model requires an estimate of the current dividend yield and the expected growth rate in dividends. The sum of these is the estimated cost of capital.

To estimate the dividend yield, Dr. Appel utilized estimates for the expected first year dividend yield provided by Value Line and Compustat. If there was no information for a specific company in these two sources he checked Yahoo to see if they provided an estimate. Since the annual DCF model requires an estimate of the dividends payable during the first year of the investment, and Value Line's expected first year dividend yield is defined as the estimated dividends payable in the coming year divided by the current share price of the stock, it is precisely the correct value to use in the DCF model. However, for the companies from Compustat and the Value Line Investment Survey, Small and Mid Cap Edition, the dividend yield is defined as the current annual

dividend divided by the current share price, not the coming year's dividend as is required in the model. As a consequence, for those companies, an additional adjustment has been made: to estimate the dividends payable during the first year of the investment the current annual dividends are multiplied by $1.0 + 0.5 \times \text{Dividend Growth Rate}$ (derived in Section VII-C Exhibit 2, Page 1)⁴.

To estimate the dividend growth rate, Dr. Appel averaged the results from two different techniques, one called the “growth forecast” method, and the other termed “fundamental analysis”. The first, “growth forecast” method, relies on estimates of growth based on historical earnings and dividend data along with analysts' forecasts of growth in these variables. The second, “fundamental analysis” relies on estimating a firm's sustainable growth based on the rate at which it retains and reinvests earnings. For each of these approaches, Dr. Appel relied on long term (i.e., ten-year) and short term (five-year) historical information, along with Value Line analysts' forecasts and Yahoo forecasts. When calculating the expected growth rate, Dr. Appel averaged the results based on these three data sources.

It is appropriate to assume that when evaluating future growth prospects, investors will consider all available information in forming their estimates. This suggests that historical growth in dividends and earnings per share will be of some significance in forming expectations about future growth. At the same time, analysts are an important

⁴ Stock dividends are generally paid quarterly but increased only once a year; thus, depending on the timing, a company's dividend may be increased in the current quarter, or up to four quarters in the future. The growth rate is multiplied by 0.5 year to account for the fact that on average, across a large sample of companies, dividends will be increased approximately one half year in the future.

source of information for investors, and their estimates of future growth are followed closely by the investment community.

As regards fundamental analysis, the premise is that sustainable growth in the future can arise from two sources: retained earnings and issuance of new stock at prices different than book value. In the first case, retained earnings can be reinvested to produce earnings, which will be used to pay higher dividends in the future. In the second case, the proceeds from the sale of stock at prices above book value can also be used for new investment, and the profits ultimately will be used to pay higher dividends in the future. Thus, the fundamental analysis computes the expected growth rate as the sum of the earnings retained as a percentage of common equity and a stock issuance adjustment factor, as follows:

$$g = (b \times r) + (s \times v)$$

where: b = retention ratio (retained earnings/profit)

r = return on equity

s = fraction of shares to be issued

v = (market/book) - 1.

The results of the DCF analysis for the sample of property/casualty insurers are contained in summary form in section VII-E, Exhibit 2, Page 1 of the filing, with the details of the calculations contained in Exhibit 2, Page 2. These DCF models indicate that the current property/casualty insurance cost of equity capital averages 8.95%.

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To illustrate the calculation, consider the model shown in section VII-E, Exhibit 2, Page 1. In this model, the first-year dividend yield is 1.94%, and the expected growth rate in dividends is 7.02%. Accordingly, the required rate of return (k) in this DCF model is equal to:

$$k = (D_1 / P_0) + g, \text{ or}$$
$$8.95\% = 1.94\% + 7.02\%$$

Turning now to the CAPM, the model begins with the assumption that there is a risk-free asset, which is typically taken to be a U.S. Treasury security. It then estimates the relative risk of alternative securities, measured by their “beta,” to measure the “risk premium” investors require to hold the risky assets. This information is used in the following manner to estimate investors' required rate of return:

$$K = r_f + (\beta \times r_D)$$

where r_f is the risk-free yield, β is the beta coefficient, and r_D is the market risk premium. In this case, Dr. Appel relied on an average of three CAPM estimates, where the different estimates arise from the choices of short-, intermediate- or long-term Treasuries as the risk-free rate.

As regards the estimate of the beta coefficient for the representative sample of 92 property/casualty insurers, the beta coefficient for this sample of companies ranges from 0.4 to 2.61, and averages 1.04. This is shown on Section VII-E, Exhibit 3, Page 2.

Dr. Appel relied on three estimates of the risk-free yield, based on the yields on one-month US Treasury bills, 5-year US Treasury notes and 20-year US Treasury bonds, the standard choices for the riskless security used in practical applications of the CAPM. In implementing this model he chose to average the yields on these securities for the period from July through September 2013. This procedure obtains a representative estimate of current interest rates, and avoids any anomalous results that might arise due to unusual interest rate volatility. During this period the yields on one-month Treasury bills averaged 0.03%, while the yields on 5- and 20-year Treasuries averaged 1.51% and 3.44% respectively.

Combining the information concerning the recent yields on U.S. Treasury securities, beta coefficients for the property/casualty insurance industry, and the historical differential between risk-free and equity investments, Dr. Appel's best estimate of investors' required return on equity is 9.32%.

To illustrate this calculation, consider the results for the short term CAPM below:

$$K = r_f + (\beta \times r_d) , \text{ or}$$
$$8.56\% = 0.03\% + (1.04 \times 8.24\%)$$

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Each of the other calculations (i.e., the intermediate and long horizon CAPM's) is performed identically. The results from these three models are averaged to produce a 9.32% CAPM cost of capital.

Based on all this information, Dr. Appel's single best estimate of the cost of equity capital for property/casualty insurance is 9.14%, which is the average of the results from the DCF and CAPM analyses. However, because traditional estimates of beta fail to account for interest rate risk, the CAPM estimates of the cost of capital will be understated.

Finally, consistent with the 2003 Commissioner's decision, the WCRIBMA estimated the share of debt and equity in insurer capital structures, and estimate the cost of debt, so as to calculate a weighted average cost of capital for use in ratemaking.⁵ The details of these calculations are contained in Section VII-E, Exhibit 4 and Section VII-J, Exhibit 2, Page 3, line (15). As these exhibits show, debt accounts for approximately 21% of insurer capital, while common equity accounts for 79% of capital.

Given the equity cost, as shown above, of 9.14%, and the debt cost of 4.66%, the weighted average cost of capital is 8.21%, as shown below:

$$(21\% \times 4.66\%) + (79\% \times 9.14\%) = 8.21\%$$

⁵ It is typical in insurance regulation to use the cost of equity capital alone as the target return in ratemaking. Since the cost of debt is lower than the cost of equity, the weighted average cost of capital will be lower than the cost of equity alone, and hence the rate indication is lower as well.

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Section VII - Profit
Subsection E - Cost of Capital
1/1/2014

Section VII - E
Exhibit 1

Cost of Capital: Summary Exhibit for Property-Casualty Insurance Companies

(1) Discounted Cash Flow	8.95%
(2) Capital Asset Pricing Model	9.32%
(3) Equity Capital Cost	9.14%
(4) Debt Capital Cost	4.66%
(5) Capital Structure	
(a) Equity Capital Share	79%
(b) Debt Capital Share	21%
(6) Weighted Average Cost of Capital (WACC)	8.21%

Notes:

(1): Exhibit 2, page 1

(2): Exhibit 3, page 1

(3) = [(1) + (2)] / 2.0

(4): Section VII-J, Exhibit 2, page 3, line (15).

(5): Exhibit 5

(6) = [(3) x (5a)] + [(4) x (5b)]

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Section VII - Profit
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Section VII - E
Exhibit 2
Page 1

Cost of Capital Estimate Using Discounted Cash Flow (DCF) Analysis

DCF Cost of Capital: $K = D_1 / P_0 + g$

where:

K = cost of capital

D_1 / P_0 = estimated dividend yield to be declared the next 12 months

g = dividend growth rate

(1) Estimated Dividend Yield	1.94
(2) Growth Forecast { = [(a) + (b)] / 2.0 }	5.47
(a) Dividend Component	6.71
(b) Earnings Component	4.22
(3) Fundamental Analysis [= (a) + (b)]	8.57
(a) Retention to book	8.82
(b) Stock issuance factor	-0.26
(4) Dividend Growth Rate { = [(2) + (3)] / 2.0 }	7.02
(5) Cost of Capital [= (1) + (4)]	8.95

Notes:

(1): Page 2, Column (2)

(2a): Page 2, average of columns (3) through (5)

(2b): Page 2, average of columns (6) through (8)

(3a): Page 2, average of columns (9) through (11)

(3b): Page 2, column (15)

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Section VII - Profit
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Section VII - E
Exhibit 2
Page 2

Discounted Cash Flow (DCF) Analysis: Parameter Estimation

Property/Casualty Insurance Companies (1)	Dividend Yield (2)	Average Dividend Growth Rate			Average Earnings Growth Rate			Average Earnings Retention Rates Retained Earnings as a Percent of Common Equity			Stock Issuance Adjustment Factor			
		Annual Rate of Change			Annual Rate of Change						2013	2016 - 2018	2016 - 2018	Stock Issuance
		Past 10 Years (3)	Past 5 Years (4)	Forecast (5)	Past 10 Years (6)	Past 5 Years (7)	Forecast (8)	Past 10 Years (9)	Past 5 Years (10)	Forecast (11)	Shares (12)	Shares (13)	Market/ Book (14)	Adjustment Factor (15)
ACE LTD	2.30	10.00	7.00	4.50	20.50	11.50	5.00	11.60	10.44	7.50	338.00	338.00	0.75	0.00
AFFIRMATIVE INS HOLDINGS INC	Nil	NA	NA	NA	NA	NA	10.00	5.66	0.10	NA	NA	NA	NA	NA
ALLEGHANY CORP	Nil	NA	NA	Nil	NA	8.00	13.50	5.71	4.06	7.00	17.00	17.00	1.06	0.00
ALLIANZ SE -ADR	3.89	-3.64	12.10	NA	10.23	-9.70	7.40	6.41	4.92	NA	NA	NA	NA	NA
ALLIED WORLD ASSURANCE CO AG	2.28	NA	37.50	NA	NA	7.00	12.95	14.44	12.48	NA	NA	NA	NA	NA
ALLSTATE CORP	2.10	1.00	-9.00	7.50	1.50	-12.50	15.50	8.85	5.48	8.50	460.00	420.00	1.25	-0.56
AMERICAN FINANCIAL GROUP INC	1.50	1.50	12.00	9.50	17.50	5.00	7.00	9.33	9.68	6.50	88.50	86.00	0.93	0.05
AMERICAN INTERNATIONAL GROUP	0.85	NA	NA	NA	-14.40	-34.80	11.46	11.59	13.97	NA	NA	NA	NA	NA
AMERICAN NATIONAL INSURANCE	3.25	0.55	0.46	NA	8.96	-6.85	NA	3.81	2.51	NA	NA	NA	NA	NA
AMERICAN OVERSEAS GROUP LTD	Nil	NA	NA	NA	NA	-34.20	13.00	12.23	16.19	NA	NA	NA	NA	NA
AMERICAN SAFETY INS HLDG LTD	Nil	NA	NA	NA	16.39	-6.08	NA	8.14	5.12	NA	NA	NA	NA	NA
AMERISAFE INC	0.90	NA	NA	NA	NA	8.50	10.00	13.26	11.52	NA	NA	NA	NA	NA
AMTRUST FINANCIAL SERVICES	1.45	NA	50.00	NA	NA	17.50	15.00	16.60	16.12	NA	NA	NA	NA	NA
ARCH CAPITAL GROUP LTD	Nil	NA	NA	NA	36.72	9.00	10.15	17.75	14.10	NA	NA	NA	NA	NA
ARGO GROUP INTL HOLDINGS LTD	1.45	NA	NA	NA	NA	NA	10.00	7.20	4.73	NA	NA	NA	NA	NA
ASPEN INSURANCE HOLDINGS LTD	2.05	NA	0.66	NA	NA	-4.32	-3.65	9.75	6.59	NA	NA	NA	NA	NA
ASSURANT INC	1.91	NA	13.23	NA	-12.20	-0.97	9.00	9.26	7.94	NA	NA	NA	NA	NA
ASSURED GUARANTY LTD	2.21	NA	11.38	NA	2.02	101.80	3.00	8.64	6.75	NA	NA	NA	NA	NA
ATLANTIC AMERICAN CORP	0.51	NA	NA	NA	2.00	-7.31	NA	5.50	2.40	NA	NA	NA	NA	NA
AVIVA PLC -ADR	4.75	NA	NA	NA	NA	NA	NA	6.66	6.66	NA	NA	NA	NA	NA
AXIS CAPITAL HOLDINGS LTD	2.39	NA	7.81	NA	2.46	-4.36	5.45	11.66	8.59	NA	NA	NA	NA	NA
BALDWIN & LYONS -CL B	4.45	16.04	-8.50	NA	-2.30	-25.50	8.00	5.95	5.27	NA	NA	NA	NA	NA
BERKLEY (W R) CORP	1.00	11.50	14.00	8.50	29.50	-5.50	12.50	14.21	9.74	10.00	135.00	130.00	1.30	-0.28
BERKSHIRE HATHAWAY	Nil	NA	NA	Nil	24.00	25.00	9.00	NA	NA	NA	2460.00	2400.00	1.35	-0.22
CHUBB CORP	2.10	8.50	9.00	3.50	19.00	0.50	8.00	9.99	8.88	8.50	255.00	250.00	1.30	-0.15
CINCINNATI FINANCIAL CORP	3.70	8.50	6.00	1.00	2.00	-16.00	13.50	3.85	1.83	5.00	163.00	163.00	1.43	0.00
CITIZENS INC	Nil	NA	NA	NA	7.18	-2.29	NA	5.45	4.96	NA	NA	NA	NA	NA
CNA FINANCIAL CORP	2.30	NA	NA	23.00	NA	-5.00	14.50	6.36	5.86	7.00	269.00	270.00	1.05	0.00
DONEGAL GROUP INC	2.59	8.84	9.00	NA	-2.04	-22.50	10.00	5.94	2.25	NA	NA	NA	NA	NA
EASTERN INSURANCE HLDGS INC	1.87	NA	4.57	NA	NA	-0.31	12.00	4.70	4.73	NA	NA	NA	NA	NA
EMC INSURANCE GROUP INC	2.88	2.53	3.45	NA	13.68	-12.60	5.00	8.76	7.75	NA	NA	NA	NA	NA
EMPLOYERS HOLDINGS INC	0.93	NA	6.00	NA	NA	-2.50	10.00	16.90	14.42	NA	NA	NA	NA	NA
ENDURANCE SPECIALTY HOLDINGS	2.47	NA	2.78	NA	-6.50	-8.99	9.00	12.26	7.78	NA	NA	NA	NA	NA
ERIE INDEMNITY CO -CL A	3.20	13.50	9.50	3.50	3.00	-4.50	7.50	9.21	6.38	11.50	46.00	45.00	3.15	-1.18
EVEREST RE GROUP LTD	1.37	21.23	14.24	NA	8.92	2.34	14.55	12.00	10.04	NA	NA	NA	NA	NA
FAIRFAX FINANCIAL HOLDINGS	2.54	NA	40.14	NA	NA	2.11	15.00	12.19	11.08	NA	NA	NA	NA	NA
FEDERATED NATIONAL HLDG CO	1.31	NA	NA	NA	NA	NA	NA	17.22	6.30	NA	NA	NA	NA	NA
FIRST ACCEPTANCE CORP	Nil	NA	NA	NA	NA	NA	NA	8.84	3.97	NA	NA	NA	NA	NA
FIRST AMERICAN FINANCIAL CP	2.04	NA	NA	NA	NA	NA	-13.00	5.33	5.33	NA	NA	NA	NA	NA
GENWORTH FINANCIAL INC	Nil	NA	NA	NA	NA	-31.60	5.00	4.77	1.24	NA	NA	NA	NA	NA
GLOBAL INDEMNITY PLC	Nil	NA	NA	NA	NA	-27.00	10.00	9.19	7.50	NA	NA	NA	NA	NA
GREENLIGHT CAPITAL RE LTD	Nil	NA	NA	NA	NA	-2.92	10.00	11.35	11.01	NA	NA	NA	NA	NA
HALLMARK FINANCIAL SERVICES	Nil	NA	NA	NA	-34.80	NA	15.00	7.35	5.68	NA	NA	NA	NA	NA
HANOVER INSURANCE GROUP INC	2.50	14.50	39.50	7.00	-5.50	NA	27.50	6.36	6.40	7.50	45.00	45.00	1.06	0.00
HARTFORD FINANCIAL SERVICES	2.00	-10.50	-27.20	NA	-10.60	-32.90	8.80	9.84	4.87	NA	NA	NA	NA	NA
HCC INSURANCE HOLDINGS INC	2.10	14.50	15.00	6.00	14.00	6.00	8.00	10.40	8.72	7.50	95.00	85.00	1.10	-0.27
HCI GROUP INC	3.00	NA	NA	NA	NA	NA	NA	20.02	20.02	NA	NA	NA	NA	NA
HILLTOP HOLDINGS INC	Nil	NA	NA	NA	-29.40	-39.20	3.00	40.13	0.00	NA	NA	NA	NA	NA
HORACE MANN EDUCATORS CORP	2.84	0.77	1.54	NA	15.84	1.56	8.00	7.36	6.93	NA	NA	NA	NA	NA
INFINITY PROPERTY & CAS CORP	2.07	NA	19.50	NA	46.60	-1.50	9.00	10.08	6.54	NA	NA	NA	NA	NA
KEMPER CORP/DE	2.96	-5.17	-11.90	NA	-1.78	-11.90	10.00	4.36	3.64	NA	NA	NA	NA	NA
KINGSTONE COS INC	3.14	NA	NA	NA	NA	38.21	NA	20.82	17.58	NA	NA	NA	NA	NA
KINGSWAY FINANCIAL SVCS INC	Nil	NA	NA	NA	NA	NA	10.00	14.37	0.00	NA	NA	NA	NA	NA
LOEWS CORP	0.55	2.98	1.77	NA	6.76	-4.71	8.80	9.91	9.57	NA	NA	NA	NA	NA
MAIDEN HOLDINGS LTD	3.15	NA	NA	NA	NA	NA	12.00	3.78	3.78	NA	NA	NA	NA	NA

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Discounted Cash Flow (DCF) Analysis: Parameter Estimation

Property/Casualty Insurance Companies (1)	Dividend Yield (2)	Average Dividend Growth Rate			Average Earnings Growth Rate			Average Earnings Retention Rates Retained Earnings as a Percent of Common Equity			Stock Issuance Adjustment Factor			
		Annual Rate of Change			Annual Rate of Change						2013	2016 - 2018	2016 - 2018	Stock Issuance
		Past 10 Years (3)	Past 5 Years (4)	Forecast (5)	Past 10 Years (6)	Past 5 Years (7)	Forecast (8)	Past 10 Years (9)	Past 5 Years (10)	Forecast (11)	Shares (12)	Shares (13)	Market/ Book (14)	Adjustment Factor (15)
MARKEL CORP	Nil	NA	NA	Nil	NA	NA	9.50	8.95	7.22	7.00	14.00	14.00	0.97	0.00
MBIA INC	Nil	NA	NA	NA	NA	-52.30	10.00	14.87	21.46	NA	NA	NA	NA	NA
MEADOWBROOK INS GROUP INC	1.27	NA	NA	NA	NA	-0.37	10.00	7.61	6.18	NA	NA	NA	NA	NA
MERCURY GENERAL CORP	5.60	9.50	7.00	2.00	2.50	-9.00	8.00	6.06	2.07	2.50	55.05	55.40	1.33	0.05
METLIFE INC	2.43	13.79	3.71	NA	11.73	-5.00	8.63	9.69	6.28	NA	NA	NA	NA	NA
MGIC INVESTMENT CORP/WI	Nil	NA	NA	NA	NA	4.99	10.00	12.65	0.00	NA	NA	NA	NA	NA
MONTPELIER RE HOLDINGS	1.83	NA	-30.20	NA	-11.50	NA	7.05	16.85	16.52	NA	NA	NA	NA	NA
NATIONAL INTERSTATE CORP	1.76	NA	19.50	NA	7.06	-0.50	12.50	17.36	8.86	NA	NA	NA	NA	NA
NATIONAL SEC GROUP INC	1.61	-4.22	-11.10	NA	NA	NA	NA	4.98	5.37	NA	NA	NA	NA	NA
NAVIGATORS GROUP INC	Nil	NA	NA	NA	12.63	-2.50	12.00	8.61	6.86	NA	NA	NA	NA	NA
OLD REPUBLIC INTL CORP	5.10	8.50	4.00	1.00	NA	NA	10.00	7.20	0.00	5.00	260.00	260.00	1.10	0.00
ONEBEACON INSURANCE GROUP	6.00	NA	15.00	NA	NA	-16.00	5.00	7.72	5.78	NA	NA	NA	NA	NA
PARTNERRE LTD	2.90	7.66	7.29	NA	28.60	-3.55	4.10	13.91	13.55	NA	NA	NA	NA	NA
PLATINUM UNDERWRITERS HLDG	0.55	NA	0.00	NA	6.47	2.62	8.00	13.39	13.99	NA	NA	NA	NA	NA
PROASSURANCE CORP	2.17	NA	NA	NA	29.35	18.00	5.00	12.02	12.20	NA	NA	NA	NA	NA
PROGRESSIVE CORP-OHIO	1.10	33.00	NMF	7.00	12.00	-5.50	15.50	19.73	13.18	18.50	600.00	575.00	2.70	-1.80
PROTECTIVE LIFE CORP	1.95	1.21	-5.67	NA	4.38	-1.62	8.00	8.12	7.00	NA	NA	NA	NA	NA
RADIAN GROUP INC	0.07	-17.90	-34.00	NA	NA	39.21	15.00	15.85	25.44	NA	NA	NA	NA	NA
RENAISSANCERE HOLDINGS LTD	1.28	6.91	4.36	NA	7.48	7.50	6.49	19.56	20.01	NA	NA	NA	NA	NA
RLI CORP	1.70	14.00	10.00	3.50	12.00	0.50	3.00	11.13	10.24	6.50	21.00	16.00	1.05	-0.33
SAFETY INSURANCE GROUP INC	4.86	NA	17.00	NA	-9.74	-14.50	15.00	10.52	5.00	NA	NA	NA	NA	NA
SELECTIVE INS GROUP INC	2.30	5.50	3.50	2.50	2.50	-19.50	20.50	7.09	3.85	6.50	56.00	57.00	1.15	0.07
STATE AUTO FINANCIAL CORP	2.17	16.65	9.00	NA	NA	NA	8.00	11.07	0.10	NA	NA	NA	NA	NA
SWISS RE LTD -ADR	4.70	NA	NA	NA	-16.50	-2.38	NA	7.58	5.94	NA	NA	NA	NA	NA
SYMETRA FINANCIAL CORP	2.09	NA	NA	NA	NA	18.11	8.60	6.84	6.84	NA	NA	NA	NA	NA
TOKIO MARINE HOLDINGS -ADR	1.95	15.36	13.42	NA	NA	NA	NA	2.60	2.94	NA	NA	NA	NA	NA
TOWER GROUP INTL LTD	4.55	NA	40.50	NA	1.38	-5.00	13.00	13.26	9.53	NA	NA	NA	NA	NA
TRAVELERS COS INC	2.50	4.00	10.00	5.00	36.00	0.50	9.50	8.30	7.92	7.50	370.00	320.00	1.15	-0.53
TRIPLE-S MANAGEMENT CORP	Nil	NA	NA	NA	NA	6.82	11.20	9.91	8.88	NA	NA	NA	NA	NA
UNICO AMERICAN CORP	8.80	NA	NA	NA	NA	-19.50	NA	9.24	4.43	NA	NA	NA	NA	NA
UNITED FIRE GROUP INC	2.59	5.25	5.00	NA	NA	-15.00	10.00	9.75	3.90	NA	NA	NA	NA	NA
UNITED INSURANCE HOLDINGS CO	1.41	NA	NA	NA	NA	-40.80	NA	22.11	16.05	NA	NA	NA	NA	NA
UNIVERSAL INSURANCE HLDGS	4.55	60.01	18.50	NA	NA	2.50	NA	33.11	12.30	NA	NA	NA	NA	NA
VALIDUS HOLDINGS LTD	3.36	NA	NA	NA	NA	-3.09	15.58	14.48	12.07	NA	NA	NA	NA	NA
WESTAIM CORP	Nil	NA	NA	NA	NA	NA	NA	7.31	7.78	NA	NA	NA	NA	NA
WHITE MTNS INS GROUP LTD	0.18	-0.64	-34.00	NA	NA	-10.10	-7.70	9.31	9.69	NA	NA	NA	NA	NA
XL GROUP PLC	1.90	-13.00	-25.00	8.50	5.50	2.00	17.00	8.35	7.28	6.50	305.00	305.00	0.73	0.00
Average	1.94	7.64	6.40	6.09	6.62	-3.49	9.52	10.77	7.99	7.71	302.63	292.57	1.30	-0.26

Notes:

Sources: Value Line Investment Survey (VLIS), Part 3, The Ratings & Reports, September 13, 2013
Value Line Investment Survey, Part 2, Small and Mid Cap Edition, September 6, 2013
Compustat Database (Version as of September 30, 2013)
<http://finance.yahoo.com> (data available on October 17, 2013)

All companies with Nil values pay no dividends.

NMF = Not a Meaningful Figure

(2): The dividend yields needed for the DCF Analysis relate dividends at time 1, D_1 , to stock prices at time 0, P_0 . Dividend yields from Compustat and VLIS, Small and Mid Cap Edition, must be adjusted because they are derived from the ratio of dividends at time 0, D_0 , to stock price at time zero, P_0 . D_1 is estimated from D_0 as follows:

$$D_1 = D_0 \times [1.0 + (0.5 \times \text{Dividend Growth Rate})] \quad \text{where Dividend Growth Rate} = 7.02\% \text{ from Page 1.}$$

(12), (13): in millions.

(15) = $[(14) - 1.0] \times \{ [(13) / (12)]^{(t)} - 1.0 \} \times 100$, where t is 0.25 for the years between midyear 2013 and midyear 2017.

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Cost of Capital Estimate Using Capital Asset Pricing Model Analysis

$$\text{Cost of Capital: } K = r_f + (\beta \times r_d)$$

Time Horizon (1)	Risk-Free Yield (r_f) (2)	Market Risk Premium (r_d) (3)	Beta Coefficient (β) (4)	Estimated Cost of Capital (K) (5)
Short-Term	0.03	8.24	1.04	8.56
Intermediate-Term	1.51	7.24	1.04	9.01
Long-Term	3.44	6.70	1.04	10.39
Average	1.66	7.39	1.04	9.32

Notes:

(2): Section VII-J, Exhibit 2, page 3

Short-Term = average yield on 1-month U.S. Treasury Constant Maturities (line (3))

Intermediate-Term = average yield on 5-year U.S. Treasury (line (9))

Long-Term = average yield on 20-year U.S. Treasury (line (12))

(3): Section VII-J, Exhibit 4

Short-Term = S&P 500 total returns minus U.S. Treasury Bill total returns

Intermediate-Term = S&P 500 total returns minus Intermediate-Term Government Bonds income returns

Long-Term = S&P 500 total returns minus Long-Term Government Bonds income returns

(4): Average Beta Coefficient (Page 2).

(5) = (2) + [(4) x (3)]

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Capital Asset Pricing Model - Beta Coefficient

<u>Property/Casualty Insurance Companies</u>	<u>Beta Coefficients</u>
ACE LTD	0.80
AFFIRMATIVE INS HOLDINGS INC	1.20
ALLEGHANY CORP	0.80
ALLIANZ SE -ADR	1.65
ALLIED WORLD ASSURANCE CO AG	0.70
ALLSTATE CORP	1.10
AMERICAN FINANCIAL GROUP INC	1.05
AMERICAN INTERNATIONAL GROUP	2.41
AMERICAN NATIONAL INSURANCE	1.24
AMERICAN OVERSEAS GROUP LTD	1.79
AMERICAN SAFETY INS HLDG LTD	1.06
AMERISAFE INC	0.80
AMTRUST FINANCIAL SERVICES	1.00
ARCH CAPITAL GROUP LTD	0.60
ARGO GROUP INTL HOLDINGS LTD	0.75
ASPEN INSURANCE HOLDINGS LTD	0.85
ASSURANT INC	1.34
ASSURED GUARANTY LTD	2.09
ATLANTIC AMERICAN CORP	0.94
AVIVA PLC -ADR	1.27
AXIS CAPITAL HOLDINGS LTD	0.86
BALDWIN & LYONS -CL B	0.55
BERKLEY (W R) CORP	0.65
BERKSHIRE HATHAWAY	0.80
CHUBB CORP	0.80
CINCINNATI FINANCIAL CORP	0.90
CITIZENS INC	0.78
CNA FINANCIAL CORP	1.30
DONEGAL GROUP INC	0.50
EASTERN INSURANCE HLDGS INC	0.95
EMC INSURANCE GROUP INC	0.82
EMPLOYERS HOLDINGS INC	0.95
ENDURANCE SPECIALTY HOLDINGS	0.86
ERIE INDEMNITY CO -CL A	0.70
EVEREST RE GROUP LTD	0.73
FAIRFAX FINANCIAL HOLDINGS	0.84
FEDERATED NATIONAL HLDG CO	0.76
FIRST ACCEPTANCE CORP	0.66
FIRST AMERICAN FINANCIAL CP	0.93
GENWORTH FINANCIAL INC	2.41
GLOBAL INDEMNITY PLC	0.90
GREENLIGHT CAPITAL RE LTD	1.01
HALLMARK FINANCIAL SERVICES	0.80
HANOVER INSURANCE GROUP INC	0.80
HARTFORD FINANCIAL SERVICES	2.40
HCC INSURANCE HOLDINGS INC	0.85
HCI GROUP INC	0.70
HILLTOP HOLDINGS INC	0.51
HORACE MANN EDUCATORS CORP	1.28
INFINITY PROPERTY & CAS CORP	0.70
KEMPER CORP/DE	1.23
KINGSTONE COS INC	0.78
KINGSWAY FINANCIAL SVCS INC	1.37
LOEWS CORP	1.15
MAIDEN HOLDINGS LTD	0.48

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Capital Asset Pricing Model - Beta Coefficient

<u>Property/Casualty Insurance Companies</u>	<u>Beta Coefficients</u>
MARKEL CORP	0.75
MBIA INC	1.86
MEADOWBROOK INS GROUP INC	0.92
MERCURY GENERAL CORP	0.65
METLIFE INC	1.81
MGIC INVESTMENT CORP/WI	2.61
MONTPELIER RE HOLDINGS	0.79
NATIONAL INTERSTATE CORP	0.85
NATIONAL SEC GROUP INC	0.77
NAVIGATORS GROUP INC	0.65
OLD REPUBLIC INTL CORP	1.05
ONEBEACON INSURANCE GROUP	0.80
PARTNERRE LTD	0.72
PLATINUM UNDERWRITERS HLDG	0.78
PROASSURANCE CORP	0.75
PROGRESSIVE CORP-OHIO	0.95
PROTECTIVE LIFE CORP	2.38
RADIAN GROUP INC	2.39
RENAISSANCERE HOLDINGS LTD	0.64
RLI CORP	0.75
SAFETY INSURANCE GROUP INC	0.70
SELECTIVE INS GROUP INC	0.95
STATE AUTO FINANCIAL CORP	0.95
SWISS RE LTD -ADR	1.82
SYMETRA FINANCIAL CORP	1.14
TOKIO MARINE HOLDINGS -ADR	0.96
TOWER GROUP INTL LTD	0.70
TRAVELERS COS INC	0.80
TRIPLE-S MANAGEMENT CORP	1.03
UNICO AMERICAN CORP	0.40
UNITED FIRE GROUP INC	0.95
UNITED INSURANCE HOLDINGS CO	0.82
UNIVERSAL INSURANCE HLDGS	1.05
VALIDUS HOLDINGS LTD	0.61
WESTAIM CORP	1.03
WHITE MTNS INS GROUP LTD	0.97
XL GROUP PLC	1.45
Average	1.04

Sources: Value Line Investment Survey (VLIS), Part 3, The Ratings & Reports, September 13, 2013
Value Line Investment Survey, Part 2, Small and Mid Cap Edition, September 6, 2013
Compustat Database (Version as of September 30, 2013)

Capital Structure Ratios of Property-Casualty Insurance Companies

Property/Casualty Insurance Companies (1)	Total Debt \$ in millions (2)	Preferred Stock \$ in millions (3)	Total Debt Capital =(2) + (3) (4)	Common Equity \$ in millions (5)	Equity Capital Share (6)	Debt Capital Share (7)
ACE LTD	5,070.0	0.0	5,070.0	27,531.0	0.84	0.16
AFFIRMATIVE INS HOLDINGS INC	183.7	0.0	183.7	-133.3	NA	NA
ALLEGHANY CORP	1,811.5	0.0	1,811.5	6,403.8	0.78	0.22
ALLIANZ SE -ADR	26,968.0	0.0	26,968.0	70,615.0	0.72	0.28
ALLIED WORLD ASSURANCE CO AG	798.2	0.0	798.2	3,326.3	0.81	0.19
ALLSTATE CORP	6,112.0	0.0	6,112.0	20,580.0	0.77	0.23
AMERICAN FINANCIAL GROUP INC	953.0	0.0	953.0	4,578.0	0.83	0.17
AMERICAN INTERNATIONAL GROUP	48,500.0	0.0	48,500.0	98,002.0	0.67	0.33
AMERICAN NATIONAL INSURANCE	163.4	0.0	163.4	3,827.8	0.96	0.04
AMERICAN OVERSEAS GROUP LTD	59.7	0.0	59.7	70.0	0.54	0.46
AMERICAN SAFETY INS HLDG LTD	39.2	0.0	39.2	337.3	0.90	0.10
AMERISAFE INC	0.0	0.0	0.0	381.2	1.00	0.00
AMTRUST FINANCIAL SERVICES	761.6	0.0	761.6	1,144.1	0.60	0.40
ARCH CAPITAL GROUP LTD	406.9	325.0	731.9	4,843.9	0.87	0.13
ARGO GROUP INTL HOLDINGS LTD	400.9	0.0	400.9	1,514.1	0.79	0.21
ASPEN INSURANCE HOLDINGS LTD	499.1	0.0	499.1	3,488.2	0.87	0.13
ASSURANT INC	972.4	0.0	972.4	5,185.4	0.84	0.16
ASSURED GUARANTY LTD	836.0	0.0	836.0	4,994.0	0.86	0.14
ATLANTIC AMERICAN CORP	41.2	0.1	41.3	105.7	0.72	0.28
AVIVA PLC -ADR	16,492.9	325.2	16,818.2	13,341.3	0.44	0.56
AXIS CAPITAL HOLDINGS LTD	995.2	502.8	1,498.1	5,276.9	0.78	0.22
BALDWIN & LYONS -CL B	10.0	0.0	10.0	346.7	0.97	0.03
BERKLEY (W R) CORP	2,236.2	0.0	2,236.2	4,306.2	0.66	0.34
BERKSHIRE HATHAWAY	62,736.0	0.0	62,736.0	187,647.0	0.75	0.25
CHUBB CORP	3,575.0	0.0	3,575.0	15,827.0	0.82	0.18
CINCINNATI FINANCIAL CORP	931.0	0.0	931.0	5,453.0	0.85	0.15
CITIZENS INC	0.0	0.0	0.0	263.1	1.00	0.00
CNA FINANCIAL CORP	2,570.0	0.0	2,570.0	12,314.0	0.83	0.17
DONEGAL GROUP INC	72.5	0.0	72.5	400.0	0.85	0.15
EASTERN INSURANCE HLDGS INC	0.0	0.0	0.0	135.9	1.00	0.00
EMC INSURANCE GROUP INC	44.1	0.0	44.1	401.2	0.90	0.10
EMPLOYERS HOLDINGS INC	112.0	0.0	112.0	539.4	0.83	0.17
ENDURANCE SPECIALTY HOLDINGS	527.3	17.2	544.5	2,693.4	0.83	0.17
ERIE INDEMNITY CO -CL A	0.0	0.0	0.0	642.0	1.00	0.00
EVEREST RE GROUP LTD	818.2	0.0	818.2	6,733.5	0.89	0.11
FAIRFAX FINANCIAL HOLDINGS	3,048.6	1,166.4	4,215.0	7,654.7	0.64	0.36

Capital Structure Ratios of Property-Casualty Insurance Companies

Property/Casualty Insurance Companies (1)	Total Debt \$ in millions (2)	Preferred Stock \$ in millions (3)	Total Debt Capital =(2) + (3) (4)	Common Equity \$ in millions (5)	Equity Capital Share (6)	Debt Capital Share (7)
FEDERATED NATIONAL HLDG CO	6.0	0.0	6.0	65.9	0.92	0.08
FIRST ACCEPTANCE CORP	40.3	0.0	40.3	72.8	0.64	0.36
FIRST AMERICAN FINANCIAL CP	229.8	0.0	229.8	2,348.1	0.91	0.09
GENWORTH FINANCIAL INC	7,178.0	0.0	7,178.0	16,537.0	0.70	0.30
GLOBAL INDEMNITY PLC	84.9	0.0	84.9	806.6	0.90	0.10
GREENLIGHT CAPITAL RE LTD	0.0	0.0	0.0	821.7	1.00	0.00
HALLMARK FINANCIAL SERVICES	58.2	0.0	58.2	220.5	0.79	0.21
HANOVER INSURANCE GROUP INC	849.4	0.0	849.4	2,595.4	0.75	0.25
HARTFORD FINANCIAL SERVICES	7,287.0	556.0	7,843.0	21,891.0	0.74	0.26
HCC INSURANCE HOLDINGS INC	583.9	0.0	583.9	3,542.6	0.86	0.14
HCI GROUP INC	0.0	0.0	0.0	121.3	1.00	0.00
HILLTOP HOLDINGS INC	948.5	114.1	1,062.5	1,030.4	0.49	0.51
HORACE MANN EDUCATORS CORP	237.8	0.0	237.8	1,245.8	0.84	0.16
INFINITY PROPERTY & CAS CORP	277.9	0.0	277.9	656.2	0.70	0.30
KEMPER CORP/DE	616.3	0.0	616.3	2,161.7	0.78	0.22
KINGSTONE COS INC	1.2	0.0	1.2	16.3	0.93	0.07
KINGSWAY FINANCIAL SVCS INC	61.2	0.0	61.2	65.1	0.52	0.48
LOEWS CORP	9,210.0	0.0	9,210.0	19,459.0	0.68	0.32
MAIDEN HOLDINGS LTD	333.8	150.0	483.8	865.2	0.64	0.36
MARKEL CORP	1,492.6	0.0	1,492.6	3,888.7	0.72	0.28
MBIA INC	11,328.0	0.0	11,328.0	3,173.0	0.22	0.78
MEADOWBROOK INS GROUP INC	159.4	0.0	159.4	558.3	0.78	0.22
MERCURY GENERAL CORP	140.0	0.0	140.0	1,842.5	0.93	0.07
METLIFE INC	32,966.0	1.0	32,967.0	64,452.0	0.66	0.34
MGIC INVESTMENT CORP/WI	824.5	0.0	824.5	196.9	0.19	0.81
MONTPELIER RE HOLDINGS	537.9	150.0	687.9	1,479.4	0.68	0.32
NATIONAL INTERSTATE CORP	12.0	0.0	12.0	353.9	0.97	0.03
NATIONAL SEC GROUP INC	26.6	0.0	26.6	30.2	0.53	0.47
NAVIGATORS GROUP INC	114.4	0.0	114.4	879.5	0.88	0.12
OLD REPUBLIC INTL CORP	572.9	0.0	572.9	3,596.2	0.86	0.14
ONEBEACON INSURANCE GROUP	292.9	0.0	292.9	1,014.5	0.78	0.22
PARTNERRE LTD	821.0	35.8	856.7	6,897.7	0.89	0.11
PLATINUM UNDERWRITERS HLDG	250.0	0.0	250.0	1,894.5	0.88	0.12
PROASSURANCE CORP	125.0	0.0	125.0	2,270.6	0.95	0.05
PROGRESSIVE CORP-OHIO	2,063.1	0.0	2,063.1	6,007.0	0.74	0.26
PROTECTIVE LIFE CORP	2,676.6	0.0	2,676.6	4,615.2	0.63	0.37

Capital Structure Ratios of Property-Casualty Insurance Companies

Property/Casualty Insurance Companies (1)	Total Debt \$ in millions (2)	Preferred Stock \$ in millions (3)	Total Debt Capital =(2) + (3) (4)	Common Equity \$ in millions (5)	Equity Capital Share (6)	Debt Capital Share (7)
RADIAN GROUP INC	772.4	0.0	772.4	736.3	0.49	0.51
RENAISSANCERE HOLDINGS LTD	394.9	400.0	794.9	3,103.1	0.80	0.20
RLI CORP	100.0	0.0	100.0	796.4	0.89	0.11
SAFETY INSURANCE GROUP INC	0.0	0.0	0.0	694.4	1.00	0.00
SELECTIVE INS GROUP INC	307.4	0.0	307.4	1,090.6	0.78	0.22
STATE AUTO FINANCIAL CORP	115.9	0.0	115.9	737.2	0.86	0.14
SWISS RE LTD -ADR	19,898.0	0.0	19,898.0	34,002.0	0.63	0.37
SYMETRA FINANCIAL CORP	449.4	0.0	449.4	3,630.1	0.89	0.11
TOKIO MARINE HOLDINGS -ADR	0.0	0.0	0.0	0.0	NA	NA
TOWER GROUP INTL LTD	449.7	0.0	449.7	980.8	0.69	0.31
TRAVELERS COS INC	6,350.0	0.0	6,350.0	25,405.0	0.80	0.20
TRIPLE-S MANAGEMENT CORP	131.3	0.0	131.3	761.9	0.85	0.15
UNICO AMERICAN CORP	0.0	0.0	0.0	70.4	1.00	0.00
UNITED FIRE GROUP INC	0.0	0.0	0.0	729.2	1.00	0.00
UNITED INSURANCE HOLDINGS CO	15.9	0.0	15.9	88.0	0.85	0.15
UNIVERSAL INSURANCE HLDGS	46.2	0.0	46.2	163.5	0.78	0.22
VALIDUS HOLDINGS LTD	787.8	0.0	787.8	4,020.8	0.84	0.16
WESTAIM CORP	0.0	0.0	0.0	34.8	1.00	0.00
WHITE MTNS INS GROUP LTD	769.0	0.0	769.0	3,731.8	0.83	0.17
XL GROUP PLC	1,895.2	0.0	1,895.2	10,510.1	0.85	0.15
Average					0.79	0.21

Notes:

Source: Compustat Database (Version as of September 30, 2013)

(6) = (5) / [(4) + (5)]

(7) = 1.0 - (6)

VII 000089

Section VII - Profit
Subsection F - Leverage Ratio
1/1/2014

Section VII - F
Exhibit 1

Loss & LAE and Unearned Premium Reserves to Surplus Ratio (\$ in Millions)

Year End (1)	Loss & LAE Reserves (2)	Unearned Premium Reserves (3)	Surplus (4)	Ratio = [(2) + (3)] / (4) (5)
2008	250,739	72,868	153,705	2.11
2009	248,826	70,905	170,040	1.88
2010	249,390	70,830	170,983	1.87
2011	254,749	72,496	168,366	1.94
2012	258,809	76,476	174,892	1.92
Average				1.94

Notes:

(2), (4): Best's Aggregates and Averages, 2013 edition, page 127.

(3): Data for Unearned Premium were provided by AM Best after a request from WCRIBMA.

VII 000090

Section VII - Profit
 Subsection G - Premium Flow
 1/1/2014

Section VII - G
 Exhibit 1

Single Policy
 Determination of Selected Premium Flow From Premium Collection Special Call

Time Interval		Net Premium Ranges									Weighted Average Selected Collection Pattern (12)
		0 - 9,999			10,000 - 199,999			200,000 +			
		Actual Premium Collection Pattern		Weight (5)	Actual Premium Collection Pattern		Weight (8)	Actual Premium Collection Pattern		Weight (11)	
From (1)	To (2)	Actual (3)	Selected (4)		Actual (6)	Selected (7)		Actual (9)	Selected (10)		
01/01/13	03/31/13	0.0%	0.0%	26.0%	0.1%	0.0%	48.5%	0.0%	0.0%	25.4%	0.0%
04/01/13	06/30/13	0.0%	0.0%	26.0%	0.0%	0.0%	48.5%	0.2%	0.0%	25.4%	0.0%
07/01/13	09/30/13	0.1%	0.0%	26.0%	0.1%	0.0%	48.5%	0.0%	0.0%	25.4%	0.0%
10/01/13	12/31/13	11.2%	11.2%	26.0%	2.7%	2.7%	48.5%	1.1%	1.0%	25.4%	4.5%
01/01/14	03/31/14	38.1%	38.1%	26.0%	34.5%	34.5%	48.5%	37.8%	37.8%	25.4%	36.3%
04/01/14	06/30/14	22.6%	22.6%	26.0%	26.0%	26.0%	48.5%	22.4%	22.4%	25.4%	24.2%
07/01/14	09/30/14	15.4%	15.4%	26.0%	20.5%	20.5%	48.5%	20.1%	20.1%	25.4%	19.1%
10/01/14	12/31/14	4.0%	4.0%	26.0%	5.7%	5.7%	48.5%	7.4%	7.5%	25.4%	5.7%
01/01/15	03/31/15	2.2%	2.2%	26.0%	1.8%	1.8%	48.5%	3.1%	3.0%	25.4%	2.2%
04/01/15	06/30/15	2.8%	2.8%	26.0%	4.0%	4.0%	48.5%	5.6%	5.6%	25.4%	4.1%
07/01/15	09/30/15	1.9%	1.9%	26.0%	2.2%	2.2%	48.5%	1.9%	1.9%	25.4%	2.0%
10/01/15	12/31/15	1.1%	1.1%	26.0%	1.2%	1.5%	48.5%	0.2%	0.5%	25.4%	1.1%
01/01/16	03/31/16	0.1%	0.7%	26.0%	0.2%	1.1%	48.5%	0.0%	0.2%	25.4%	0.8%
04/01/16	06/30/16	0.0%	0.0%	26.0%	0.1%	0.0%	48.5%	0.1%	0.0%	25.4%	0.0%
07/01/16	09/30/16	0.0%	0.0%	26.0%	0.0%	0.0%	48.5%	0.1%	0.0%	25.4%	0.0%
10/01/16	12/31/16	0.0%	0.0%	26.0%	0.0%	0.0%	48.5%	0.0%	0.0%	25.4%	0.0%
01/01/17	03/31/17	0.2%	0.0%	26.0%	0.2%	0.0%	48.5%	0.0%	0.0%	25.4%	0.0%
04/01/17	06/30/17	0.2%	0.0%	26.0%	0.4%	0.0%	48.5%	0.0%	0.0%	25.4%	0.0%
07/01/17	09/30/17	0.1%	0.0%	26.0%	0.3%	0.0%	48.5%	0.0%	0.0%	25.4%	0.0%
Total											100.0%

Notes:

(5), (8), (11) are calculated using Unit Statistical Plan data for PY 2011.

(3), (6), (9) are from the premium collection special call.

(12) = [(4) x (5)] + [(7) x (8)] + [(10) x (11)]

VII 000091

Section VII - Profit
Subsection H - Expense Weights
1/1/2014

Section VII - H
Exhibit 1

Cash Flow Weights

Item of Expense Allowance (% of Standard Premium plus ARAP)	Policy Year		Average
	2010	2011	
(1) Expected Losses	65.36%	64.56%	64.96%
(2) Expected Loss Adjustment Expense (LAE):	12.53%	12.37%	12.45%
(a) Defense and Cost Containment Expense	6.54%	6.46%	6.50%
(b) Adjusting and Other Expense	5.98%	5.91%	5.95%
(3) Expected Losses + Expected LAE [= (1) + (2)]	77.89%	76.93%	77.41%
(4) Fixed Expenses	5.20%	5.07%	5.13%
(a) General Expenses	4.61%	4.49%	4.55%
(b) Miscellaneous and Other Taxes	0.59%	0.58%	0.58%
(5) Variable Expenses [= (5a) + (5b) + (5c)]	19.52%	19.52%	19.52%
(a) Total Acquisition	12.37%	12.37%	12.37%
(i) Commissions	7.84%	7.84%	7.84%
(ii) Other Acquisition	3.53%	3.53%	3.53%
(iii) Reinsurance Expenses	1.00%	1.00%	1.00%
(iv) Incidental Income and Earned but Uncollected Premium	0.00%	0.00%	0.00%
(b) Premium Tax	2.17%	2.17%	2.17%
(c) Premium Discount	4.98%	4.98%	4.98%
(6) Total Expenses [= (4) + (5)]	24.72%	24.59%	24.65%

Notes:

- (1): Policy Year 2010 and Policy Year 2011 Expected Losses are based on the loss ratios projected to the prospective policy period adjusted by the factor to remove the residual market subsidy associated with large deductible policies from Section I-B, Exhibit 1.
- (2): Expected LAE = Expected Losses x 0.192 where 0.192 is the LAE ratio calculated in VI-K, Exhibit 1.
- (2a), (2b): Loss Adjustment Expense split between DCC and AO is $0.522 = 0.1 / 0.192$ and $0.478 = 1 - 0.522$ where 0.1 is three year average ratio of DCC to loss from Section VI-K, Exhibit 1, line (4) and LAE ratio = 0.192 from Section VI-K, Exhibit 1, line (10).
- (4): Section VI-B, Exhibit 1 times the factor to reflect the impact of large deductible policies, from Section I-D, Exhibit 1, Page 1.
- (4a), (4b): Policy Year 2010 Fixed Expenses split between General Expenses and Other Taxes based on \$34,551,865 General Expenses and \$4,428,747 Other Taxes. Policy Year 2011 General Expenses split based on \$34,226,450 General Expenses and \$4,387,036 Other Taxes. See VI-B, Exhibit 1, columns (12) & (13).
- (5a): Section VI-J, Exhibit 1.
- (5b), (5c): Section VI-A, Exhibit 1.

VII 000092

Section VII - Profit
 Subsection I - Loss & LAE Flow
 1/1/2014

Section VII - I
 Exhibit 1

Single Policy
 Loss & Loss Adjustment Expense (LAE) Flow

Time Interval		Earned Premium (3)	Loss Flow (4)	DCC Flow (5) = (4)	AO Flow (6) = [(3) + (4)] / 2.0	Loss & LAE Payout (7)
From (1)	To (2)					
01/01/13	03/31/13	0.0000	0.0000	0.0000	0.0000	0.0000
04/01/13	06/30/13	0.0000	0.0000	0.0000	0.0000	0.0000
07/01/13	09/30/13	0.0000	0.0000	0.0000	0.0000	0.0000
10/01/13	12/31/13	0.0000	0.0000	0.0000	0.0000	0.0000
01/01/14	03/31/14	0.2500	0.0509	0.0509	0.1504	0.0585
04/01/14	06/30/14	0.2500	0.0509	0.0509	0.1504	0.0585
07/01/14	09/30/14	0.2500	0.0509	0.0509	0.1504	0.0585
10/01/14	12/31/14	0.2500	0.0509	0.0509	0.1504	0.0585
01/01/15	03/31/15	0.0000	0.0673	0.0673	0.0337	0.0647
04/01/15	06/30/15	0.0000	0.0673	0.0673	0.0337	0.0647
07/01/15	09/30/15	0.0000	0.0673	0.0673	0.0337	0.0647
10/01/15	12/31/15	0.0000	0.0673	0.0673	0.0337	0.0647
01/01/16	03/31/16	0.0000	0.0409	0.0409	0.0205	0.0393
04/01/16	06/30/16	0.0000	0.0409	0.0409	0.0205	0.0393
07/01/16	09/30/16	0.0000	0.0409	0.0409	0.0205	0.0393
10/01/16	12/31/16	0.0000	0.0409	0.0409	0.0205	0.0393
01/01/17	03/31/17	0.0000	0.0240	0.0240	0.0120	0.0231
04/01/17	06/30/17	0.0000	0.0240	0.0240	0.0120	0.0231
07/01/17	09/30/17	0.0000	0.0240	0.0240	0.0120	0.0231
10/01/17	12/31/17	0.0000	0.0240	0.0240	0.0120	0.0231
01/01/18	03/31/18	0.0000	0.0139	0.0139	0.0069	0.0133
04/01/18	06/30/18	0.0000	0.0139	0.0139	0.0069	0.0133
07/01/18	09/30/18	0.0000	0.0139	0.0139	0.0069	0.0133
10/01/18	12/31/18	0.0000	0.0139	0.0139	0.0069	0.0133
01/01/19	03/31/19	0.0000	0.0066	0.0066	0.0033	0.0064
04/01/19	06/30/19	0.0000	0.0066	0.0066	0.0033	0.0064
07/01/19	09/30/19	0.0000	0.0066	0.0066	0.0033	0.0064
10/01/19	12/31/19	0.0000	0.0066	0.0066	0.0033	0.0064
01/01/20	03/31/20	0.0000	0.0045	0.0045	0.0023	0.0044
04/01/20	06/30/20	0.0000	0.0045	0.0045	0.0023	0.0044
07/01/20	09/30/20	0.0000	0.0045	0.0045	0.0023	0.0044
10/01/20	12/31/20	0.0000	0.0045	0.0045	0.0023	0.0044
01/01/21	03/31/21	0.0000	0.0036	0.0036	0.0018	0.0034
04/01/21	06/30/21	0.0000	0.0036	0.0036	0.0018	0.0034
07/01/21	09/30/21	0.0000	0.0036	0.0036	0.0018	0.0034
10/01/21	12/31/21	0.0000	0.0036	0.0036	0.0018	0.0034
01/01/22	03/31/22	0.0000	0.0024	0.0024	0.0012	0.0023
04/01/22	06/30/22	0.0000	0.0024	0.0024	0.0012	0.0023
07/01/22	09/30/22	0.0000	0.0024	0.0024	0.0012	0.0023
10/01/22	12/31/22	0.0000	0.0024	0.0024	0.0012	0.0023
01/01/23	03/31/23	0.0000	0.0020	0.0020	0.0010	0.0019
04/01/23	06/30/23	0.0000	0.0020	0.0020	0.0010	0.0019
07/01/23	09/30/23	0.0000	0.0020	0.0020	0.0010	0.0019
10/01/23	12/31/23	0.0000	0.0020	0.0020	0.0010	0.0019
01/01/24	03/31/24	0.0000	0.0018	0.0018	0.0009	0.0018
04/01/24	06/30/24	0.0000	0.0018	0.0018	0.0009	0.0018
07/01/24	09/30/24	0.0000	0.0018	0.0018	0.0009	0.0018
10/01/24	12/31/24	0.0000	0.0018	0.0018	0.0009	0.0018
01/01/25	03/31/25	0.0000	0.0018	0.0018	0.0009	0.0017
04/01/25	06/30/25	0.0000	0.0018	0.0018	0.0009	0.0017
07/01/25	09/30/25	0.0000	0.0018	0.0018	0.0009	0.0017
10/01/25	12/31/25	0.0000	0.0018	0.0018	0.0009	0.0017
01/01/26	03/31/26	0.0000	0.0018	0.0018	0.0009	0.0018
04/01/26	06/30/26	0.0000	0.0018	0.0018	0.0009	0.0018
07/01/26	09/30/26	0.0000	0.0018	0.0018	0.0009	0.0018
10/01/26	12/31/26	0.0000	0.0018	0.0018	0.0009	0.0018
01/01/27	03/31/27	0.0000	0.0017	0.0017	0.0009	0.0017
04/01/27	06/30/27	0.0000	0.0017	0.0017	0.0009	0.0017
07/01/27	09/30/27	0.0000	0.0017	0.0017	0.0009	0.0017
10/01/27	12/31/27	0.0000	0.0017	0.0017	0.0009	0.0017
01/01/28	03/31/28	0.0000	0.0012	0.0012	0.0006	0.0012
04/01/28	06/30/28	0.0000	0.0012	0.0012	0.0006	0.0012
07/01/28	09/30/28	0.0000	0.0012	0.0012	0.0006	0.0012
10/01/28	12/31/28	0.0000	0.0012	0.0012	0.0006	0.0012
01/01/29	03/31/29	0.0000	0.0010	0.0010	0.0005	0.0010
04/01/29	06/30/29	0.0000	0.0010	0.0010	0.0005	0.0010
07/01/29	09/30/29	0.0000	0.0010	0.0010	0.0005	0.0010
10/01/29	12/31/29	0.0000	0.0010	0.0010	0.0005	0.0010
01/01/30	03/31/30	0.0000	0.0013	0.0013	0.0006	0.0012
04/01/30	06/30/30	0.0000	0.0013	0.0013	0.0006	0.0012
07/01/30	09/30/30	0.0000	0.0013	0.0013	0.0006	0.0012
10/01/30	12/31/30	0.0000	0.0013	0.0013	0.0006	0.0012
01/01/31	03/31/31	0.0000	0.0009	0.0009	0.0004	0.0008
04/01/31	06/30/31	0.0000	0.0009	0.0009	0.0004	0.0008
07/01/31	09/30/31	0.0000	0.0009	0.0009	0.0004	0.0008
10/01/31	12/31/31	0.0000	0.0009	0.0009	0.0004	0.0008
01/01/32	03/31/32	0.0000	0.0007	0.0007	0.0003	0.0006
04/01/32	06/30/32	0.0000	0.0007	0.0007	0.0003	0.0006

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Section VII - Profit
 Subsection I - Loss & LAE Flow
 1/1/2014

Section VII - I
 Exhibit 1

Single Policy Loss & Loss Adjustment Expense (LAE) Flow

Time Interval		Earned Premium (3)	Loss Flow (4)	DCC Flow (5) = (4)	AO Flow (6) = [(3) + (4)] / 2.0	Loss & LAE Payout (7)
From (1)	To (2)					
07/01/32	09/30/32	0.0000	0.0007	0.0007	0.0003	0.0006
10/01/32	12/31/32	0.0000	0.0007	0.0007	0.0003	0.0006
01/01/33	03/31/33	0.0000	0.0005	0.0005	0.0002	0.0005
04/01/33	06/30/33	0.0000	0.0005	0.0005	0.0002	0.0005
07/01/33	09/30/33	0.0000	0.0005	0.0005	0.0002	0.0005
10/01/33	12/31/33	0.0000	0.0005	0.0005	0.0002	0.0005
01/01/34	03/31/34	0.0000	0.0005	0.0005	0.0003	0.0005
04/01/34	06/30/34	0.0000	0.0005	0.0005	0.0003	0.0005
07/01/34	09/30/34	0.0000	0.0005	0.0005	0.0003	0.0005
10/01/34	12/31/34	0.0000	0.0005	0.0005	0.0003	0.0005
01/01/35	03/31/35	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/35	06/30/35	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/35	09/30/35	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/35	12/31/35	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/36	03/31/36	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/36	06/30/36	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/36	09/30/36	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/36	12/31/36	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/37	03/31/37	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/37	06/30/37	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/37	09/30/37	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/37	12/31/37	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/38	03/31/38	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/38	06/30/38	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/38	09/30/38	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/38	12/31/38	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/39	03/31/39	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/39	06/30/39	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/39	09/30/39	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/39	12/31/39	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/40	03/31/40	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/40	06/30/40	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/40	09/30/40	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/40	12/31/40	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/41	03/31/41	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/41	06/30/41	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/41	09/30/41	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/41	12/31/41	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/42	03/31/42	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/42	06/30/42	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/42	09/30/42	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/42	12/31/42	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/43	03/31/43	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/43	06/30/43	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/43	09/30/43	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/43	12/31/43	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/44	03/31/44	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/44	06/30/44	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/44	09/30/44	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/44	12/31/44	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/45	03/31/45	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/45	06/30/45	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/45	09/30/45	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/45	12/31/45	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/46	03/31/46	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/46	06/30/46	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/46	09/30/46	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/46	12/31/46	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/47	03/31/47	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/47	06/30/47	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/47	09/30/47	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/47	12/31/47	0.0000	0.0015	0.0015	0.0007	0.0014
01/01/48	03/31/48	0.0000	0.0015	0.0015	0.0007	0.0014
04/01/48	06/30/48	0.0000	0.0015	0.0015	0.0007	0.0014
07/01/48	09/30/48	0.0000	0.0015	0.0015	0.0007	0.0014
10/01/48	12/31/48	0.0000	0.0015	0.0015	0.0007	0.0014
(8) Relative Weights			1.0000	0.1001	0.0916	

Notes:

- (3): Single policy earned premium is earned uniformly through the one year policy term.
- (4): Exhibit 3, (16). Annual values divided by 4.0.
- (7): Loss & LAE Payout = (1.000 x (4) + 0.1001 x (5) + 0.0916 x (6)) / (1.000 + 0.1001 + 0.0916)
- (8): DCC relative weight = 1.000 x 0.192 x 0.522; AO relative weight = 1.000 x 0.192 x 0.478
 where 0.192 is the LAE factor calculated in Section VI-K, Exhibit 1 and 0.522, 0.478
 are the DCC and AO relative weights from Section VI-K, Exhibit 1.

Loss Payment Pattern

Age In Months	Remainder of Industry							AIG							Total	
	Indemnity Unadjusted LDF to Ult (2)	Indemnity % Paid =1.0 / (2) (3)	Indemnity Incremental % Paid (3) - 1st Diff (4)	Medical LDF to Ult (5)	Medical %Paid =1.0 / (5) (6)	Medical Incremental % Paid (6) - 1st Diff (7)	Indemnity & Medical Incremental % Paid (8)	Indemnity Unadjusted LDF to Ult (9)	Indemnity % Paid =1.0 / (9) (10)	Indemnity Incremental % Paid (10) - 1st Diff (11)	Medical LDF to Ult (12)	Medical %Paid =1.0 / (12) (13)	Medical Incremental % Paid (13) - 1st Diff (14)	Indemnity & Medical Incremental % Paid (15)	Indemnity & Medical Incremental % Paid (16)	
12	6.997	14.29%	14.29%	2.943	33.98%	33.98%	21.81%	10.465	9.56%	9.56%	3.389	29.51%	29.51%	15.34%	20.36%	
24	2.454	40.75%	26.46%	1.543	64.79%	30.81%	28.12%	3.373	29.65%	20.09%	1.694	59.05%	29.54%	22.83%	26.93%	
36	1.627	61.45%	20.70%	1.354	73.86%	9.07%	16.26%	2.035	49.13%	19.48%	1.450	68.98%	9.93%	16.72%	16.36%	
48	1.355	73.82%	12.37%	1.293	77.35%	3.49%	8.97%	1.571	63.64%	14.51%	1.349	74.15%	5.17%	11.80%	9.61%	
60	1.238	80.75%	6.94%	1.263	79.17%	1.83%	4.98%	1.369	73.04%	9.40%	1.299	77.00%	2.85%	7.50%	5.55%	
72	1.202	83.20%	2.44%	1.242	80.54%	1.37%	2.03%	1.267	78.92%	5.88%	1.265	79.08%	2.08%	4.78%	2.65%	
84	1.171	85.43%	2.24%	1.228	81.43%	0.89%	1.72%	1.227	81.48%	2.56%	1.246	80.26%	1.18%	2.16%	1.82%	
96	1.151	86.87%	1.44%	1.215	82.29%	0.86%	1.22%	1.191	83.95%	2.48%	1.224	81.69%	1.44%	2.18%	1.43%	
108	1.141	87.61%	0.74%	1.201	83.25%	0.96%	0.82%	1.172	85.31%	1.36%	1.204	83.06%	1.37%	1.36%	0.94%	
120	1.135	88.11%	0.50%	1.190	84.03%	0.78%	0.61%	1.151	86.90%	1.58%	1.185	84.37%	1.30%	1.50%	0.81%	
132	1.129	88.57%	0.46%	1.179	84.85%	0.82%	0.60%	1.137	87.95%	1.06%	1.164	85.95%	1.58%	1.21%	0.74%	
144	1.122	89.11%	0.54%	1.166	85.79%	0.94%	0.69%	1.128	88.69%	0.73%	1.151	86.85%	0.90%	0.78%	0.71%	
156	1.116	89.61%	0.50%	1.151	86.89%	1.11%	0.73%	1.120	89.30%	0.62%	1.138	87.88%	1.03%	0.74%	0.73%	
168	1.112	89.90%	0.29%	1.140	87.76%	0.86%	0.51%	1.106	90.42%	1.12%	1.115	89.71%	1.83%	1.32%	0.69%	
180	1.108	90.24%	0.34%	1.131	88.39%	0.64%	0.45%	1.100	90.88%	0.46%	1.103	90.65%	0.94%	0.60%	0.49%	
192	1.105	90.51%	0.27%	1.122	89.10%	0.70%	0.44%	1.096	91.20%	0.32%	1.099	90.98%	0.33%	0.32%	0.41%	
204	1.100	90.91%	0.40%	1.115	89.70%	0.60%	0.48%	1.086	92.08%	0.88%	1.098	91.11%	0.13%	0.66%	0.52%	
216	1.095	91.29%	0.38%	1.108	90.24%	0.54%	0.44%	1.087	92.00%	-0.08%	1.095	91.35%	0.24%	0.01%	0.35%	
228	1.092	91.55%	0.27%	1.103	90.67%	0.43%	0.33%	1.087	92.01%	0.01%	1.093	91.49%	0.14%	0.05%	0.27%	
240	1.089	91.84%	0.29%	1.101	90.86%	0.19%	0.25%	1.087	92.01%	0.00%	1.093	91.52%	0.02%	0.01%	0.20%	
252	1.087	91.98%	0.14%	1.094	91.42%	0.56%	0.30%	1.087	91.98%	-0.03%	1.094	91.42%	-0.10%	-0.05%	0.22%	
264			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
276			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
288			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
300			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
312			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
324			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
336			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
348			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
360			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
372			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
384			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
396			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
408			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
420			0.57%			0.61%	0.59%			0.57%			0.61%	0.58%	0.59%	
Total			100.00%			100.00%	100.00%			100.00%			100.00%	100.00%	100.00%	

Notes:

(2), (5): Section II - E, Exhibit 1, Page 1.

(8) = (4) x 61.81% + (7) x 38.19%, where 61.81% and 38.19% are indemnity and medical estimated ultimate losses respectively, from Section II - A, Exhibit 1, Page 2.

(9), (12): Section II - E, Exhibit 1, Page 4.

(15) = (11) x 71.03% + (14) x 28.97%, where 71.03% and 28.97% are indemnity and medical estimated ultimate losses respectively, from Section II - A, Exhibit 1, Page 3.

(16) = (8) x 77.53% + (17) x 22.47%, where 77.53% and 22.47% are estimated ultimate losses for Remainder of Industry and Company A respectively, from Section II - A, Exhibit 1, Pages 2 and 3.

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Section VII - Profit
 Subsection J - Portfolio Rate of Return
 1/1/2014

Section VII - J
 Exhibit 1
 Page 1

Calculation of Portfolio Rate of Return

Asset Class (1)	Proportion (2)	Pre-tax Return (3)	Tax Rate (4)	After-tax Return (5)
Cash and Short-term Investments	6.07%	0.03%	35.00%	0.02%
Governments	11.21%	1.10%	35.00%	0.71%
States & Territories	10.09%	1.86%	5.25%	1.76%
Special Revenue	19.30%	1.95%	5.25%	1.84%
Industrials	25.93%	1.85%	35.00%	1.20%
Common Stocks	18.17%	9.05%	21.45%	7.11%
Real Estate	0.74%	3.97%	35.00%	2.58%
Preferred Stocks	0.84%	4.90%	14.18%	4.21%
Other Assets	7.66%	4.90%	14.18%	4.21%
(6) Total	100.00%	3.26%	20.36%	2.60%
(7) Investment Expenses		0.26%	35.00%	0.17%
(8) Portfolio Rate of Return		3.00%	19.10%	2.43%

Notes:

(2): Page 2, Total US Property/Casualty Industry.

(3): Pretax bond returns are from Exhibit 2, page 1.

Cash and short term investments: using short horizon CAPM with beta=0.00. Exhibit 2, Page 3, line (2).

Pretax return for Common Stock: $r_f + b \times \text{MRP}$ with $b=1.00$ and three horizons. MRP from Exhibit 4 and r_f from Exhibit 2,

Page 3, line (4) for short-term, line (9) for intermediate-term and line (12) for long-term horizon.

9.05% = average (8.24% + 0.03%, 7.24% + 1.51%, 6.7% + 3.44%)

Pretax return for Real Estate: 3 month treasury rate, 0.03% Exhibit 2, page 3, line (4) plus the real estate differential, 3.94% from Ibbotson and Siegel, "Real Estate Returns: A Comparison with Other Investments".

Pretax return for Preferred Stock: yield on A rated preferred stock from Mergent Bond Record (Exhibit 2, page 3, line (17)).

Pretax return for Other Assets: equal to the pretax return for Preferred Stock.

(4): Governments and Other taxable bonds taxed at Federal Tax Rate of 0.35.

Tax rate for Tax Exempt Bonds = 0.15×0.35

Tax rate for Preferred stock = $(0.30 \times 0.35) + (0.70 \times 0.15 \times 0.35)$

Tax rate for Common Stocks from Exhibit 6, page 1.

Tax rate for Other Assets = Tax rate for Preferred stock = $(0.30 \times 0.35) + (0.70 \times 0.15 \times 0.35)$

(5) = (3) x [1.0 - (4)]

(7): Exhibit 5.

(8) = (6) - (7)

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Section VII - Profit
 Subsection J - Portfolio Rate of Return
 1/1/2014

Section VII - J
 Exhibit 1
 Page 2

Asset Distribution for Property-Casualty Industry

Assets (1)	Net Admitted Assets (\$000) (2)	Share = (2) / (4) (3)
Cash and Short Term Investments	85,845,098	6.07%
Bonds:	940,596,410	66.52%
Governments		11.21%
States & Territories		10.09%
Special Revenue		19.30%
Industrials		25.93%
Common Stocks	256,869,000	18.17%
Real Estate	10,466,627	0.74%
Preferred Stocks	11,946,802	0.84%
Other Invested Assets	108,246,983	7.66%
(4) Total	1,413,970,920	100.00%

Notes:

Source: Best's Aggregates and Averages, 2013 edition, page 140.

(2): Real estate is sum of: properties occupied by the company, properties held for the production of income and properties held for sale.

None of the values include investments in affiliates.

The Bond Share in total is 66.52%. This is allocated to the subcategories (Governments, States & Territories, Special Revenue and Industrials) by multiplying 66.52% by the adjusted bond weights from Exhibit 3.

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Calculation of Pretax Returns on Bonds

% of Bonds (adjusted for removal of Other Bonds category) by Class, by Maturity for P/C Industry				
Term to Maturity in years	Governments	States and Territories	Special Revenue	Industrials
0.5	3.97%	0.87%	2.68%	4.51%
3	7.99%	6.40%	11.42%	17.59%
7	2.96%	4.59%	7.56%	13.07%
15	1.18%	2.76%	4.95%	1.37%
25	0.76%	0.54%	2.40%	2.44%
Total	16.85%	15.16%	29.01%	38.97%

As of	Term to Maturity in years	Yield Data			
		Governments	States and Territories	Special Revenue	Industrials
Jul-13	0.5	0.07%	0.13%	0.13%	0.19%
	3	0.64%	0.78%	0.78%	1.01%
	7	1.99%	2.27%	2.25%	2.75%
	15	2.95%	3.38%	3.45%	3.74%
	25	3.46%	3.99%	4.27%	4.30%
Aug-13	0.5	0.07%	0.10%	0.10%	0.18%
	3	0.70%	0.82%	0.82%	1.08%
	7	2.15%	2.40%	2.41%	2.96%
	15	3.12%	3.54%	3.65%	3.98%
	25	3.63%	4.18%	4.51%	4.55%
Sep-13	0.5	0.04%	0.09%	0.08%	0.15%
	3	0.78%	0.90%	0.91%	1.05%
	7	2.22%	2.45%	2.50%	2.75%
	15	3.17%	3.57%	3.74%	3.87%
	25	3.66%	4.22%	4.59%	4.57%
Jul-13 Aug-13 Sep-13 Average	All	Weighted Yields			
		1.03%	1.78%	1.84%	1.80%
		1.11%	1.87%	1.96%	1.92%
		1.15%	1.93%	2.04%	1.83%
	Average	1.10%	1.86%	1.95%	1.85%

Notes:

% of Bonds by Class and by Maturity for P/C Industry are from Exhibit 3.

Yield Data are from Page 2.

Example of Weighted Yield calculation for Jul-13, States and Territories:

$$1.78 = (0.13 \times 0.87 + 0.78 \times 6.4 + 2.27 \times 4.59 + 3.38 \times 2.76 + 3.99 \times 0.54) / 15.16$$

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Section VII - Profit
 Subsection J - Portfolio Rate of Return
 1/1/2014

Section VII - J
 Exhibit 2
 Page 2

Calculation of Yield Data

Term to Maturity in Years	Jul-13	Aug-13	Sep-13	Formulas used to derive the yields (reference to data on page 3)
Governments				
0.5	0.07%	0.07%	0.04%	=(5)
3	0.64%	0.70%	0.78%	=(8)
7	1.99%	2.15%	2.22%	=(10)
10	2.58%	2.74%	2.81%	=(11)
20	3.31%	3.49%	3.53%	=(12)
30	3.61%	3.76%	3.79%	=(13)
States and Territories				
0.5	0.13%	0.10%	0.09%	=(5) + 9.5/9.0 x [(25) - (6)] - 0.5/9.0 x [(26) - (11)]
3	0.78%	0.82%	0.90%	=(8) + 7.0/9.0 x [(25) - (6)] + 2.0/9.0 x [(26) - (11)]
7	2.27%	2.40%	2.45%	=(10) + 1.0/3.0 x [(25) - (6)] + 2.0/3.0 x [(26) - (11)]
10	2.96%	3.10%	3.13%	=(26)
20	3.79%	3.98%	4.01%	=(12) + 0.5 x [(26) - (11)] + 0.5 x [(27) - (13)]
30	4.18%	4.39%	4.43%	=(27)
Special Revenue				
0.5	0.13%	0.10%	0.08%	=(5) + 29.5/29.0 x [(25) - (6)] - 0.5/29.0 x [(24) - (13)]
3	0.78%	0.82%	0.91%	=(8) + 27.0/29.0 x [(25) - (6)] + 2.0/29.0 x [(24) - (13)]
7	2.25%	2.41%	2.50%	=(10) + 23.0/29.0 x [(25) - (6)] + 6.0/29.0 x [(24) - (13)]
10	2.93%	3.10%	3.20%	=(11) + 20.0/29.0 x [(25) - (6)] + 9.0/29.0 x [(24) - (13)]
20	3.97%	4.20%	4.28%	=(12) + 10.0/29.0 x [(25) - (6)] + 19.0/29.0 x [(24) - (13)]
30	4.57%	4.81%	4.90%	=(24)
Industrial				
0.5	0.19%	0.18%	0.15%	=(5) + 26.0/27.0 x [(1) - (2)] + 1.0/27.0 x [(19) - (10)]
3	1.01%	1.08%	1.05%	=(8) + 16.0/27.0 x [(1) - (2)] + 11.0/27.0 x [(19) - (10)]
7	2.75%	2.96%	2.75%	=(19)
10	3.35%	3.57%	3.40%	=(11) + 20.0/23.0 x [(19) - (10)] + 3.0/23.0 x [(15) - (13)]
20	4.13%	4.38%	4.33%	=(12) + 10.0/23.0 x [(19) - (10)] + 13.0/23.0 x [(15) - (13)]
30	4.47%	4.72%	4.80%	=(15)

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Yield Data

	Jul-13	Aug-13	Sep-13	Average
FEDERAL RESERVE STATISTICAL RELEASE				
Commercial Paper				
(1) 3-month	0.14%	0.12%	0.11%	0.12%
U.S. Govt Securities - Secondary Market				
(2) 3-month	0.04%	0.04%	0.02%	0.03%
Treasury Constant Maturities				
(3) 1-month	0.02%	0.04%	0.02%	0.03%
(4) 3-month	0.04%	0.04%	0.02%	0.03%
(5) 6-month	0.07%	0.07%	0.04%	0.06%
(6) 1-year	0.12%	0.13%	0.12%	0.12%
(7) 2-year	0.34%	0.36%	0.40%	0.37%
(8) 3-year	0.64%	0.70%	0.78%	0.71%
(9) 5-year	1.40%	1.52%	1.60%	1.51%
(10) 7-year	1.99%	2.15%	2.22%	2.12%
(11) 10-year	2.58%	2.74%	2.81%	2.71%
(12) 20-year	3.31%	3.49%	3.53%	3.44%
(13) 30-year	3.61%	3.76%	3.79%	3.72%
Corporate Bonds - Moody's Seasoned				
(14) Conventional Mortgages	4.37%	4.46%	4.49%	4.44%
MERGENT BOND RECORD				
Long-Term Corporate Bond Yields (avg maturity at least 20 yrs)				
(15) Aa Industrial	4.47%	4.72%	4.80%	4.66%
(16) Aa Public Utility	4.44%	4.53%	4.58%	4.52%
YAHOO				
(17) Preferred Stock	5.00%	4.97%	4.74%	4.90%
S&P's CREDIT WEEK				
Aa Industrial				
(18) 5-year to maturity	2.05%	2.30%	2.05%	2.13%
(19) 7-year to maturity (= (18) + 0.4 x [(20) - (18)])	2.75%	2.96%	2.75%	2.82%
(20) 10-year to maturity	3.80%	3.95%	3.80%	3.85%
(21) 30-year to maturity (= (15))	4.47%	4.72%	4.80%	4.66%
A Public Utility				
(22) 7-year to maturity (= [(19) / (21)] x (23)])	2.73%	2.84%	2.62%	2.73%
(23) 30-year to maturity (= (16))	4.44%	4.53%	4.58%	4.52%
VALUE LINE INVESTMENT SURVEY (Part II)				
Municipal Bond Yields				
Bond Buyer Indexes				
(24) 20-Bond Index (GOs)	4.57%	4.81%	4.90%	4.76%
General Obligation Bonds (GOs)				
(25) 1-year Aaa	0.19%	0.18%	0.18%	0.19%
(26) 10-year Aaa	2.96%	3.10%	3.13%	3.06%
(27) 25/30-year Aaa	4.18%	4.39%	4.43%	4.33%

Note:

Sources: Various issues of Federal Reserve Statistical Release, H.15 , Mergent Bond Record, Standard & Poor's Credit Week and Value Line Investment Survey, Part II, and <http://finance.yahoo.com>.

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 Exhibit 3

Bond Distribution by Class and by Maturity for Property-Casualty Industry

2012 Industry Totals (\$000)

Term to Maturity in Years	Governments	States and Territories	Special Revenue	Industrials	Other Bonds	Total Bonds
0.5	37,375,426	8,221,742	25,208,907	42,471,292	4,936,960	118,214,328
3	75,255,295	60,310,556	107,544,717	165,632,024	385,090	409,127,682
7.5	27,885,978	43,204,005	71,221,716	123,075,197	5,154,965	270,541,861
15	11,092,083	25,992,412	46,627,533	12,948,980	273,521	96,934,529
25	7,116,610	5,066,850	22,641,183	22,938,090	1,436,387	59,199,120
Total	158,725,392	142,795,565	273,244,056	367,065,583	12,186,923	954,017,520

% of Bonds by Class, by Maturity for P/C Industry

Term to Maturity in Years	Governments	States and Territories	Special Revenue	Industrials	Other Bonds	Total Bonds
0.5	3.92%	0.86%	2.64%	4.45%	0.52%	12.39%
3	7.89%	6.32%	11.27%	17.36%	0.04%	42.88%
7.5	2.92%	4.53%	7.47%	12.90%	0.54%	28.36%
15	1.16%	2.72%	4.89%	1.36%	0.03%	10.16%
25	0.75%	0.53%	2.37%	2.40%	0.15%	6.21%
Total	16.64%	14.97%	28.64%	38.48%	1.28%	100.00%

% of Bonds (adjusted for removal of Other Bonds category) by Class, by Maturity for P/C Industry

Term to Maturity in Years	Governments	States and Territories	Special Revenue	Industrials	Total Bonds
0.5	3.97%	0.87%	2.68%	4.51%	12.03%
3	7.99%	6.40%	11.42%	17.59%	43.40%
7.5	2.96%	4.59%	7.56%	13.07%	28.18%
15	1.18%	2.76%	4.95%	1.37%	10.26%
25	0.76%	0.54%	2.40%	2.44%	6.13%
Total	16.85%	15.16%	29.01%	38.97%	100.00%

Notes:

Source: Best's Aggregates and Averages - Property-Casualty, 2013, pages 199-200.

Bonds less than a year adjusted to remove cash and short term investments.

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Market Risk Premium

Year (1)	Large Company Stocks Total Returns (2)	Long-Term Government Bonds Income Returns (3)	Intermediate-Term Government Bonds Income Returns (4)	Short-Term Total Returns (5)	Long-Term Market Risk Premium = (2) - (3) (6)	Intermediate-Term Market Risk Premium = (2) - (4) (7)	Short-Term Market Risk Premium = (2) - (5) (8)
1926	11.62	3.73	3.78	3.27	7.89	7.84	8.35
1927	37.49	3.41	3.49	3.12	34.08	34.00	34.37
1928	43.61	3.22	3.64	3.56	40.39	39.97	40.05
1929	-8.42	3.47	4.07	4.75	-11.89	-12.49	-13.17
1930	-24.90	3.32	3.30	2.41	-28.22	-28.20	-27.31
1931	-43.34	3.33	3.16	1.07	-46.67	-46.50	-44.41
1932	-8.19	3.69	3.63	0.96	-11.88	-11.82	-9.15
1933	53.99	3.12	2.83	0.30	50.87	51.16	53.69
1934	-1.44	3.18	2.93	0.16	-4.62	-4.37	-1.60
1935	47.67	2.81	2.02	0.17	44.86	45.65	47.50
1936	33.92	2.77	1.44	0.18	31.15	32.48	33.74
1937	-35.03	2.66	1.48	0.31	-37.69	-36.51	-35.34
1938	31.12	2.64	1.82	-0.02	28.48	29.30	31.14
1939	-0.41	2.40	1.31	0.02	-2.81	-1.72	-0.43
1940	-9.78	2.23	0.90	0.00	-12.01	-10.68	-9.78
1941	-11.59	1.94	0.67	0.06	-13.53	-12.26	-11.65
1942	20.34	2.46	0.76	0.27	17.88	19.58	20.07
1943	25.90	2.44	1.56	0.35	23.46	24.34	25.55
1944	19.75	2.46	1.44	0.33	17.29	18.31	19.42
1945	36.44	2.34	1.19	0.33	34.10	35.25	36.11
1946	-8.07	2.04	1.08	0.35	-10.11	-9.15	-8.42
1947	5.71	2.13	1.21	0.50	3.58	4.50	5.21
1948	5.50	2.40	1.56	0.81	3.10	3.94	4.69
1949	18.79	2.25	1.36	1.10	16.54	17.43	17.69
1950	31.71	2.12	1.39	1.20	29.59	30.32	30.51
1951	24.02	2.38	1.98	1.49	21.64	22.04	22.53
1952	18.37	2.66	2.19	1.66	15.71	16.18	16.71
1953	-0.99	2.84	2.55	1.82	-3.83	-3.54	-2.81
1954	52.62	2.79	1.60	0.86	49.83	51.02	51.76
1955	31.56	2.75	2.45	1.57	28.81	29.11	29.99
1956	6.56	2.99	3.05	2.46	3.57	3.51	4.10
1957	-10.78	3.44	3.59	3.14	-14.22	-14.37	-13.92
1958	43.36	3.27	2.93	1.54	40.09	40.43	41.82
1959	11.96	4.01	4.18	2.95	7.95	7.78	9.01
1960	0.47	4.26	4.15	2.66	-3.79	-3.68	-2.19
1961	26.89	3.83	3.54	2.13	23.06	23.35	24.76
1962	-8.73	4.00	3.73	2.73	-12.73	-12.46	-11.46
1963	22.80	3.89	3.71	3.12	18.91	19.09	19.68
1964	16.48	4.15	4.00	3.54	12.33	12.48	12.94
1965	12.45	4.19	4.15	3.93	8.26	8.30	8.52
1966	-10.06	4.49	4.93	4.76	-14.55	-14.99	-14.82
1967	23.98	4.59	4.88	4.21	19.39	19.10	19.77
1968	11.06	5.50	5.49	5.21	5.56	5.57	5.85
1969	-8.50	5.95	6.65	6.58	-14.45	-15.15	-15.08
1970	3.86	6.74	7.49	6.52	-2.88	-3.63	-2.66
1971	14.30	6.32	5.75	4.39	7.98	8.55	9.91
1972	18.99	5.87	5.75	3.84	13.12	13.24	15.15
1973	-14.69	6.51	6.58	6.93	-21.20	-21.27	-21.62
1974	-26.47	7.27	7.24	8.00	-33.74	-33.71	-34.47
1975	37.23	7.99	7.35	5.80	29.24	29.88	31.43
1976	23.93	7.89	7.10	5.08	16.04	16.83	18.85

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Market Risk Premium

Year (1)	Large Company Stocks Total Returns (2)	Long-Term Government Bonds Income Returns (3)	Intermediate-Term Government Bonds Income Returns (4)	Short-Term Total Returns (5)	Long-Term Market Risk Premium = (2) - (3) (6)	Intermediate-Term Market Risk Premium = (2) - (4) (7)	Short-Term Market Risk Premium = (2) - (5) (8)
1977	-7.16	7.14	6.49	5.12	-14.30	-13.65	-12.28
1978	6.57	7.90	7.83	7.18	-1.33	-1.26	-0.61
1979	18.61	8.86	9.04	10.38	9.75	9.57	8.23
1980	32.50	9.97	10.55	11.24	22.53	21.95	21.26
1981	-4.92	11.55	12.97	14.71	-16.47	-17.89	-19.63
1982	21.55	13.50	12.81	10.54	8.05	8.74	11.01
1983	22.56	10.38	10.35	8.80	12.18	12.21	13.76
1984	6.27	11.74	11.68	9.85	-5.47	-5.41	-3.58
1985	31.73	11.25	10.29	7.72	20.48	21.44	24.01
1986	18.67	8.98	7.72	6.16	9.69	10.95	12.51
1987	5.25	7.92	7.47	5.47	-2.67	-2.22	-0.22
1988	16.61	8.97	8.24	6.35	7.64	8.37	10.26
1989	31.69	8.81	8.46	8.37	22.88	23.23	23.32
1990	-3.10	8.19	8.15	7.81	-11.29	-11.25	-10.91
1991	30.47	8.22	7.43	5.60	22.25	23.04	24.87
1992	7.62	7.26	6.27	3.51	0.36	1.35	4.11
1993	10.08	7.17	5.53	2.90	2.91	4.55	7.18
1994	1.32	6.59	6.07	3.90	-5.27	-4.75	-2.58
1995	37.58	7.60	6.69	5.60	29.98	30.89	31.98
1996	22.96	6.18	5.82	5.21	16.78	17.14	17.75
1997	33.36	6.64	6.14	5.26	26.72	27.22	28.10
1998	28.58	5.83	5.29	4.86	22.75	23.29	23.72
1999	21.04	5.57	5.30	4.68	15.47	15.74	16.36
2000	-9.10	6.50	6.19	5.89	-15.60	-15.29	-14.99
2001	-11.89	5.53	4.27	3.83	-17.42	-16.16	-15.72
2002	-22.10	5.59	3.98	1.65	-27.69	-26.08	-23.75
2003	28.68	4.80	2.85	1.02	23.88	25.83	27.66
2004	10.88	5.02	3.28	1.20	5.86	7.60	9.68
2005	4.91	4.69	3.92	2.98	0.22	0.99	1.93
2006	15.79	4.68	4.54	4.80	11.11	11.25	10.99
2007	5.49	4.86	4.44	4.66	0.63	1.05	0.83
2008	-37.00	4.45	2.96	1.60	-41.45	-39.96	-38.60
2009	26.46	3.47	2.01	0.10	22.99	24.45	26.36
2010	15.06	4.25	1.92	0.12	10.81	13.14	14.94
2011	2.11	3.81	1.58	0.04	-1.70	0.53	2.07
2012	16.00	2.40	0.58	0.06	13.60	15.42	15.94
Average	11.82	5.12	4.58	3.58	6.70	7.24	8.24

Notes:

Source: Ibbotson SBBI, 2013 Valuation Yearbook.

(2): Table B-1: Large Company Stocks, Total Returns, pages 182-183.

(3): Table B-7: Long Term Government Bonds Income Returns, page 194-195.

(4): Table B-11: Intermediate Term Government Bonds, Income Returns, pages 202-203.

(5): Table B-14: US Treasury Bills, Total Returns, pages 208-209.

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 Exhibit 5

Investment Expense to Invested Assets Ratio

Calendar Year (1)	Total Investment Expense Incurred (\$000) (2)	Aggregate Write-ins (\$000) (3)	Total Deductions = (2) + (3) (4)	Total Cash and Invested Assets (\$000) (5)	Ratio = (4) / (5) (6)
2003	2,618,719	524,392	3,143,111	967,703,877	0.32%
2004	2,510,188	578,543	3,088,731	1,086,486,764	0.28%
2005	2,583,504	598,809	3,182,313	1,170,135,319	0.27%
2006	2,738,201	654,734	3,392,935	1,264,555,809	0.27%
2007	2,829,153	655,075	3,484,228	1,330,400,451	0.26%
2008	2,799,958	281,611	3,081,569	1,246,387,298	0.25%
2009	2,811,669	216,379	3,028,048	1,302,970,319	0.23%
2010	3,065,150	197,863	3,263,013	1,359,025,844	0.24%
2011	3,138,189	186,536	3,324,725	1,374,110,208	0.24%
2012	3,201,888	172,506	3,374,394	1,427,203,029	0.24%
Average	2,829,662	406,645	3,236,307	1,252,897,892	0.26%

Notes:

Source: Best's Aggregates and Averages.

(1) - (4): Exhibit of Net Investment Income, page 150 (calendar year 2012).

(6): Exhibit of Assets, page 140 (calendar year 2012).

Calculation of Common Stock Total Return Tax Rate

Year (1)	Income Returns (2)	Capital Appreciation Returns (3)
1926	5.41%	5.72%
1927	5.71%	30.91%
1928	4.81%	37.88%
1929	3.98%	-11.91%
1930	4.57%	-28.48%
1931	5.35%	-47.07%
1932	6.16%	-15.15%
1933	6.39%	46.59%
1934	4.46%	-5.94%
1935	4.95%	41.37%
1936	5.36%	27.92%
1937	4.66%	-38.59%
1938	4.83%	25.21%
1939	4.69%	-5.45%
1940	5.36%	-15.29%
1941	6.71%	-17.86%
1942	6.79%	12.43%
1943	6.24%	19.45%
1944	5.48%	13.80%
1945	4.97%	30.72%
1946	4.09%	-11.87%
1947	5.49%	0.00%
1948	6.08%	-0.65%
1949	7.50%	10.26%
1950	8.77%	21.78%
1951	6.91%	16.46%
1952	5.93%	11.78%
1953	5.46%	-6.62%
1954	6.21%	45.02%
1955	4.56%	26.40%
1956	3.83%	2.62%
1957	3.84%	-14.31%
1958	4.38%	38.06%
1959	3.31%	8.48%
1960	3.26%	-2.97%
1961	3.48%	23.13%
1962	2.98%	-11.81%
1963	3.61%	18.89%
1964	3.33%	12.97%
1965	3.21%	9.06%
1966	3.11%	-13.09%
1967	3.64%	20.09%
1968	3.18%	7.66%
1969	2.98%	-11.36%
1970	3.33%	0.10%
1971	3.49%	10.63%
1972	2.95%	15.79%
1973	2.86%	-17.37%
1974	3.69%	-29.72%
1975	5.37%	31.55%
1976	4.49%	19.15%
1977	4.35%	-11.50%
1978	5.33%	1.06%
1979	5.89%	12.31%
1980	5.74%	25.77%
1981	4.88%	-9.73%
1982	5.61%	14.76%
1983	5.04%	17.27%
1984	4.57%	1.40%

Calculation of Common Stock Total Return Tax Rate

Year (1)	Income Returns (2)	Capital Appreciation Returns (3)
1985	4.72%	26.33%
1986	3.92%	14.62%
1987	3.64%	2.03%
1988	3.99%	12.40%
1989	4.03%	27.25%
1990	3.43%	-6.56%
1991	3.76%	26.31%
1992	2.98%	4.46%
1993	2.91%	7.06%
1994	2.83%	-1.54%
1995	3.04%	34.11%
1996	2.43%	20.26%
1997	2.10%	31.01%
1998	1.67%	26.67%
1999	1.36%	19.53%
2000	1.11%	-10.14%
2001	1.18%	-13.04%
2002	1.39%	-23.37%
2003	1.99%	26.38%
2004	1.76%	8.99%
2005	1.84%	3.00%
2006	2.01%	13.62%
2007	1.96%	3.53%
2008	1.92%	-38.49%
2009	2.48%	23.45%
2010	2.02%	12.78%
2011	2.13%	0.00%
2012	2.50%	13.41%
Average	4.08%	7.49%

	Dividend	Capital Gains
(4) Weights	35.24%	64.76%
(5) Tax Rate	14.18%	25.41%
(6) Common Stock Tax Rate		21.45%

Notes:

Source: Ibbotson SBBI, 2013 Valuation Yearbook.

(2): Table B-2: Large Company Stocks, Income Returns, pages 184-185.

(3): Table B-3: Large Company Stocks, Capital Appreciation Returns, pages 186-187.

(5) = Dividend Tax Rate = $0.3 \times 0.35 + 0.7 \times 0.35 \times 0.15$

Capital Gains Tax Rate is from page 2.

Calculation of Capital Gains Tax Rate

(1) Turnover Rate	36.00%
(2) Weighted Average Cost of Capital	8.21%
(3) Marginal Tax Rate	35.00%
(4) Annual Expected Capital Gains Rate	7.49%

Year (5)	Investment Basis (6) _{t-1} x [1.0 - (1)] (6)	Investment Value		Investment Sold (8) x (1) (9)	Realized Capital Gains [(8) - (6)] x (1) (10)	Taxes Paid (10) x (3) (11)	Present Value of the Taxes (12)
		Beg of Year (8) _{t-1} - (9) _{t-1} (7)	End of Year (7) x [1.0 + (4)] (8)				
0	1,000,000.00	1,000,000.00	1,074,916.09	386,969.79	26,969.79	9,439.43	9,074.36
1	640,000.00	687,946.30	739,484.55	266,214.44	35,814.44	12,535.05	11,136.21
2	409,600.00	473,270.11	508,725.66	183,141.24	35,685.24	12,489.83	10,254.36
3	262,144.00	325,584.42	349,975.93	125,991.34	31,619.50	11,066.82	8,396.83
4	167,772.16	223,984.60	240,764.65	86,675.27	26,277.30	9,197.05	6,448.84
5	107,374.18	154,089.37	165,633.15	59,627.93	20,973.23	7,340.63	4,756.72
6	68,719.48	106,005.21	113,946.71	41,020.82	16,281.80	5,698.63	3,412.60
7	43,980.47	72,925.90	78,389.22	28,220.12	12,387.15	4,335.50	2,399.36
8	28,147.50	50,169.10	53,927.57	19,413.93	9,280.83	3,248.29	1,661.31
9	18,014.40	34,513.65	37,099.27	13,355.74	6,870.56	2,404.69	1,136.57
10	11,529.22	23,743.54	25,522.31	9,188.03	5,037.51	1,763.13	770.13
11	7,378.70	16,334.28	17,557.98	6,320.87	3,664.54	1,282.59	517.73
12	4,722.37	11,237.11	12,078.95	4,348.42	2,648.37	926.93	345.78
13	3,022.31	7,730.53	8,309.67	2,991.48	1,903.45	666.21	229.67
14	1,934.28	5,318.19	5,716.60	2,057.98	1,361.64	476.57	151.83
15	1,237.94	3,658.63	3,932.72	1,415.78	970.12	339.54	99.97
16	792.28	2,516.94	2,705.50	973.98	688.76	241.07	65.59
17	507.06	1,731.52	1,861.24	670.05	487.50	170.63	42.91
18	324.52	1,191.19	1,280.43	460.96	344.13	120.44	27.99
19	207.69	819.48	880.87	317.11	242.34	84.82	18.22
20	132.92	563.76	605.99	605.99	473.07	165.57	32.86
Total					239,981.25	83,993.44	60,979.83

(13) Implied Tax Rate on Capital Gains 25.41%

Notes:

- (1): Turnover Rate is based on AIB Stock Turnover Study of 1988 transactions. (2001 AIB Profit Filing, R2000-10, 100H-3, Exhibits 15 and 16)
- (2): Interest Rate is the weighted average cost of capital, Section VII - E, Exhibit 1.
- (4): Page 1.
- (10) Year 20 : All remaining capital gains are assumed realized in year 20.
- (12) = (11) x { [1.0 + (2)]ⁿ - [(5) + 0.5] }
- (13) = (12) Total / (10) Total

Calculation of Common Stock Tax Rate for Different Discount Rates and Turnover Rates

		Discount Rate											
		4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
Turnover Rate	0.10	17.99%	16.44%	15.13%	14.01%	13.05%	12.23%	11.52%	10.90%	10.37%	9.90%	9.49%	9.13%
	0.15	19.59%	18.22%	17.03%	15.99%	15.08%	14.29%	13.58%	12.95%	12.40%	11.90%	11.46%	11.06%
	0.20	21.07%	19.88%	18.83%	17.89%	17.05%	16.30%	15.62%	15.01%	14.45%	13.95%	13.49%	13.06%
	0.25	22.31%	21.29%	20.38%	19.54%	18.78%	18.09%	17.45%	16.87%	16.33%	15.84%	15.38%	14.96%
	0.30	23.29%	22.42%	21.62%	20.89%	20.21%	19.58%	19.00%	18.46%	17.95%	17.48%	17.04%	16.63%
	0.35	24.05%	23.30%	22.61%	21.97%	21.37%	20.80%	20.27%	19.78%	19.31%	18.87%	18.46%	18.07%
	0.40	24.64%	24.00%	23.40%	22.83%	22.30%	21.79%	21.32%	20.87%	20.44%	20.04%	19.65%	19.29%
	0.45	25.10%	24.55%	24.03%	23.53%	23.06%	22.61%	22.19%	21.78%	21.39%	21.02%	20.67%	20.33%
	0.50	25.48%	25.00%	24.54%	24.11%	23.69%	23.29%	22.91%	22.55%	22.20%	21.86%	21.54%	21.23%
	0.55	25.79%	25.38%	24.98%	24.59%	24.22%	23.87%	23.53%	23.20%	22.89%	22.59%	22.29%	22.01%
	0.60	26.05%	25.69%	25.34%	25.00%	24.68%	24.37%	24.06%	23.77%	23.49%	23.22%	22.95%	22.70%
	0.65	26.28%	25.96%	25.65%	25.36%	25.07%	24.79%	24.53%	24.27%	24.01%	23.77%	23.53%	23.30%
	0.70	26.47%	26.19%	25.92%	25.67%	25.41%	25.17%	24.93%	24.70%	24.48%	24.26%	24.05%	23.84%



**THE WORKERS' COMPENSATION
RATING AND INSPECTION BUREAU**

**MASSACHUSETTS
WORKERS' COMPENSATION
INSURANCE RATE FILING**

Volume 2 of 3

Section VIII	F-Class Rate Recommendation
Section IX	Classification Pricing
Section X	Experience Rating
Section XI	Miscellaneous Rating Values
Section XII	Retrospective Rating Plans
Section XIII	Data

Recommended Effective Date: January 1, 2014
Filing Date: December 27, 2013

F-CLASS RATE RECOMMENDATION

Background and Summary

The United States Longshore and Harbor Workers (USL&HW) Act is a federal law that offers benefits to longshoremen, harbor workers, and other employees engaged in loading, unloading, repairing and building a vessel while working on the vessel or any adjoining navigable waters. F-Classes were created for risks that have considerable USL&HW exposure. Since the benefit provisions for F-Classes are different than those prescribed by Massachusetts workers' compensation law, rates for these classifications are calculated separately from Massachusetts state class codes.

To allow movement toward the levels indicated by the data, while acknowledging that the volume of F-Class historical data is not fully credible, this section of the filing recommends that average rates for F-Class classifications be decreased by 13.4% for the policy period beginning January 1, 2014.

Indicated Rate Change

The ratemaking methodology used for F-Classes is similar to that used in the statewide rate indication: we compare an indicated loss, LAE, loss based assessment, and fixed expense ratio to a permissible loss, LAE, loss based assessment, and fixed expense ratio. Consistent with prior F-Class filings, the indication is derived using the latest five years of Unit Statistical Plan data. Premium and losses are adjusted for the effects of trend, development, changes in benefits, and changes in rates. The resulting

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indicated adjusted loss ratio is loaded for loss adjustment expenses, loss based assessments associated with the USL&HW Act Special Fund (“Special Fund Assessment”), and fixed expenses. The expense provisions, with the exception of the Special Fund Assessment, are taken from Section I. The Special Fund Assessment is currently calculated by the NCCI as 15.1% of incurred indemnity losses covered under the USL&HW Act.

Complement of Credibility

Due to the limited amount of F-Class experience, the rate change derived from the historical experience is not fully credible. As recommended by the AG in the 2012 rate hearing, in this filing we use a credibility-weighted formula to derive the F-Class rate revision. The credibility assigned to the historical data is calculated as:

$$Z = \text{square root (number of claims in experience base / full credibility standard)}$$

Using a full credibility standard of 4,000.¹

The complement of credibility calculation shown in Section VIII-A Exhibit 2 adjusts the current rates forward for net loss trend, accounts for changes in benefits and Special Funds Assessments since the last revision, and incorporates the expense and profit provisions used in the general rate revision.

Calculation of Adjusted Standard Earned Premium

To derive an indicated loss ratio, the premiums from policy years 2007 - 2011 must be projected to the level expected to prevail during the prospective effective

¹ Credibility formula and full credibility standard from 2012 AG filing page 22.

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period. This is done by first extending the reported exposures using the currently effective rates. Since the reported exposures may be subject to further development as a consequence of delayed premium audits, premium development factors are applied. Next, factors are applied to reflect the expected impacts of experience rating, merit rating and ARAP. Note that no wage trend adjustment is made to premiums because the trend applied in the calculation of adjusted losses is net of the impact of estimated wage trend.

In Section VIII-B, each policy year's premium is adjusted to the prevailing level and then all five years are summed to a five year total. This total will be used with the five year total of adjusted losses calculated in Section VIII-C to calculate the indicated loss ratio in Section VIII-A.

Calculation of Adjusted Total Losses

Within Section VIII-C, the losses from policy years 2007 - 2011 are converted to the level expected to prevail during the prospective effective period. Given the differences in benefits and the applicability of the Special Fund Assessment, claims associated with the USL&HW Act and claims associated with the Massachusetts workers' compensation law are adjusted separately. Moreover, indemnity and medical loss data are adjusted separately because of differences in loss development and trend. Losses are adjusted for changes in benefit levels, loss development to ultimate, and trend (in excess of expected wage trend). Factors are also applied for the loading of loss adjustment expenses and the Special Fund Assessment resulting in estimates of

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the sum of loss, LAE and loss based assessments. Note that the conversion factors used to adjust F-Class losses related to the state workers compensation law are the same ones used in the development of class rates in Section IX.

Calculation of Law Amendment Factors

Injured workers in the F-Classes can receive benefits paid under either state law or federal law. Therefore, law amendment factors for both are needed in the derivation of the conversion factors used in Section VIII-C. Law amendment factors related to the USL&HW Act are taken from Section IV–F. (These were derived from the estimated effects of federal law amendments reported in NCCI’s Annual Statistical Bulletin.) The law amendment factors related to state workers compensation benefits (and reflected in the conversion factors taken from Section IX) are derived in Section IV-A.

Calculation of Loss Development Factors

The reported losses used in the indication include losses paid and payable under the state workers compensation law and under the USL&HW Act. Since the differing benefit levels can affect development patterns, the losses related to the state workers compensation law are developed separately from losses related to the USL&HW Act. For USL&HW Act claims, NCCI loss development factors were utilized in Section VIII-E. For state workers compensation claims, the development factors are consistent with those used in Section IX.

Calculation of Trend Factors

Trend factors adjust for changes in wage levels, claim frequency, and average claim size between the historical period and the prospective effective period. The trend factors used in developing the F-Class indication are consistent with the premium and loss trends selected in Section IX-B, Exhibit 3.

Calculation of Class Rates

There are 14 F-Classes in Massachusetts for which we update class pure premium relativities in a manner similar to that used in Section IX.

The Massachusetts indicated pure premiums are derived from the latest five years of Unit Statistical Plan loss and payroll data. This is the same loss data that underlies the F-Class indication in Subsection A. The losses are adjusted for the appropriate law level changes, development to ultimate, the proposed 19.2% loss adjustment expense factor, and the Special Federal Fund Assessment. These adjustment factors are shown in Section VIII-E.

The countrywide relativities are calculated using the same countrywide data set used in Section IX. Pitch Factors are used to adjust the countrywide data to the same law level, LAE and Special Federal Fund Assessment level as the Massachusetts indicated pure premiums. The calculation of Pitch Factors is described in Section IX-A.

The relativities underlying present rates are calculated from the pure premiums underlying the last revision, adjusted to reflect the impact of benefit changes and trend

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to the prospective effective period. These adjustment factors are shown on Exhibit 2 of Subsection F.

This section uses the same classical credibility method and parameters used in Section IX. The Massachusetts full credibility standards come from Section IX-D and are expected losses of \$22,950,000 and \$6,000,000 for indemnity and medical losses respectively. The countrywide full credibility standards also come from Section IX-D and correspond to countrywide claim counts of 1,150 and 1,000 for indemnity and medical losses respectively.

After the formula pure premium relativity is calculated, the proposed manual rates are calculated. Proposed manual rates are subject to swing limits of $\pm 20\%$ surrounding the benefit change and half the experience change (see Section VIII-H). This is similar to the method used by NCCI and the same as the method used for Massachusetts state classes, as outlined in Section IX-H.

Proposed F-Class Rates and Rating Values

Minimum Premium, Expected Loss Rates and D-Ratios are calculated using the methodology and factors from Section IX and X.

Pricing Example

Section VIII-I contains a sample rate calculation for Class 6874, Painting: Ship Hull. Exhibit 1 of Section VIII-I details the calculation of the Massachusetts indicated pure premium relativity. Exhibit 2 of Section VIII-I details the calculation of the

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countrywide relativity. Exhibit 3 of Section VIII-I shows the calculation of the credibilities and the formula relativities. Exhibit 4 of Section VIII-I shows the derivation of the proposed average rate, manual rate and rating values.

USL&HW Coverage Percentage

The USL&HW Coverage Percentage is a factor applied to classification rates which do not anticipate operations subject to the USL&HW Act. If operations under such classifications involve some employees subject to the USL&HW Act, the manual rate and minimum premium are increased by the USL&HW Coverage Percentage for Manual Rates and the Expected Loss Rate is increased by the USL&HW Coverage Percentage for Expected Loss Rates.

The calculation of the proposed USL&HW Coverage Percentages are shown in Section VIII-J. The “Differential in Benefits” from the 9/1/2010 USL&HW Coverage Percentage is the starting point. Using the state and federal benefit level changes which have occurred since then and the projected benefit level changes from Section IV-A and IV-F, the revised differential in benefits is calculated on line (4) of Section VIII-J. The impact of the differential in benefits is then combined with the impact of the Special Fund Assessment to derive the USL&HW Coverage Percentage for Manual Rates on line (10) of Section VIII-J. The USL&HW Coverage Percentage for Expected Loss Rates does not include the impact of the Special Funds Assessment.

Federal Tax Multiplier

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Section VIII – Rate Recommendation
Subsection A – F-Class Rate Recommendation
1/1/2014

Section VIII-A
Page 8

The Federal Tax Multiplier is to be used in retrospective rating for those classes subject to the USL&HW Act. A Federal Tax Multiplier is needed to reflect the impact of the Special Fund Assessment applicable to indemnity losses paid under the USL&HW Act. This filing recommends a Federal Tax Multiplier of 1.051. The calculation is shown in Section VIII-K.

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Section VIII - F-Class Recommendation
Subsection A - Indicated Rate Change
1/1/2014

Section VIII-A
Exhibit 1

F-Class Rate Review Overall Indicated Rate Change

(1)	5-Year Adjusted Standard Plus ARAP Earned Premium	12,985,151
(2)	5-Year Adjusted Losses, LAE, and LBA	4,109,783
(3)	5-Year Adjusted Loss, LAE, and LBA Ratio = (2) / (1)	31.6%
(4)	Fixed Expense Ratio	5.1%
(5)	Indicated Policy Year 1/1/2014 Loss, LAE, Fixed Expense Ratio = (3) + (4)	36.8%
(6)	Variable Expense Ratio	19.5%
(7)	Profit and Contingencies	3.8%
(8)	Permissible Loss, LAE, LBA, and Fixed Expense Ratio = 1.000 - [(6) + (7)]	76.7%
(9)	Indicated Average Rate Change = [(5) / (8)] - 1.000	-52.0%
(10)	Rate Changed based on Trended On-Level Expected Loss Ratio	-2.8%
(11)	5-Year Total Claim Count	185
(12)	Credibility of the Indicated Average Rate Change = [(11) / 4,000] ^{0.5}	21.5%
(13)	Credibility Weighted Average Rate Change = [(9) x (12)] + { (10) x [100% - (12)] }	-13.4%

Notes:

- (1): Section VIII-B, Exhibit 1.
- (2): Section VIII-C, Exhibit 1, Page 2 and 4.
- (4): Average of Fixed Expense Ratios for 2 PYs from Section VI-B, Exhibit 1.
- (6): Section VI-A, Exhibit 1.
- (7): Section VII-A, Exhibit 1.
- (10): Exhibit 2.
- (11): Unit Statistical Plan Data.

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Section VIII - F-Class Recommendation
 Subsection A - Indicated Rate Change
 1/1/2014

Section VIII-A
 Exhibit 2

F-Class Rate Review Complement of Credibility based on Trended On-Level Expected Loss Ratio

(1)	State Class Expected Loss and LAE Ratio from Prior Revision		75.7%
(2)	Loss Adjustment Expense Ratio from Prior Revision		1.189
(3)	Special Fund Assessment Rate as a % of Federal Indemnity Losses from Pr		22.1%
		<u>Indemnity</u>	<u>Medical</u>
(4)	Federal Indemnity/Medical Losses as % of Total Federal Losses	62.1%	37.9%
(5)	F-Class Expected Loss Ratio from Prior Revision $= (1) / \{ (4) \text{ for Indemnity } \times [(2) + (3)] + (4) \text{ for Medical } \times (2) \}$		57.1%
(6)	Benefit Level Change Factor	1.012	1.000
(7)	Net Indemnity/Medical Trend	-2.1%	-1.4%
(8)	Years since Prior Revision	3.333	3.333
(9)	Trended On-Level Loss Ratio $= (4) \times (5) \times (6) \times [1.000 + (7)] ^ (8)$	33.4%	20.6%
(10)	Special Fund Assessment Rate as a % of Federal Indemnity Losses		15.1%
(11)	Loss Adjustment Expense Factor		1.192
(12)	Trended Loss, LAE and LBA Ratio $= [(9) \text{ for indemnity } \times (10)] + [(9) \text{ Total } \times (11)]$		69.4%
(13)	Fixed Expense Ratio		5.1%
(14)	Trended Loss, LAE and Fixed Expense Ratio $= (12) + (13)$		74.5%
(15)	Variable Expense Ratio		19.5%
(16)	Underwriting Profit Provision		3.8%
(17)	Permissible Loss, LAE, LBA, and Fixed Expense Ratio $= 1.000 - [(15) + (16)]$		76.7%
(18)	Indicated Average Rate Change $= [(14) / (17)] - 1.000$		-2.8%

Notes:

- (1): Section VI-A, Exhibit 1 of 2010 Stipulation.
- (2), (3), (4): Section VIII-J, Exhibit 1 of 2010 Stipulation.
- (6): Section VIII-F, Exhibit 2.
- (7): Section V-A, Exhibit 1.
- (10): Section VIII-E, Exhibit 1, Page 2.
- (11), (15),(16): Section VI-A, Exhibit 1.
- (13): Average of Fixed Expense Ratios for 2 PYs from Section VI-B, Exhibit 1.

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Section VIII - F-Class Recommendation
Subsection B - Adjusted Premium
1/1/2014

Section VIII-B
Exhibit 1

5 Year Adjusted Standard Plus ARAP Earned Premium

Policy Year (1)	Manual Premium (2)	Premium Development Factor (3)	Experience & Merit Rating Adjustment (4)	ARAP Adjustment (5)	Total Adj Standard Plus ARAP Premium (6)
2007	2,977,802	1.000	0.997	1.049	3,114,343
2008	1,991,795	1.000	0.997	1.049	2,083,626
2009	2,141,868	1.000	0.997	1.049	2,240,773
2010	2,838,803	1.000	0.997	1.049	2,969,703
2011	2,479,620	0.994	0.997	1.049	2,576,705
Total	12,429,888				12,985,151

Notes:

(2): Section VIII-F, Exhibit 1, Page 3.

(3): Section V-E, Exhibit 1.

(4): The offset for Merit Rating and Average Experience Modification from the 9/1/2010 Stipulation.

(5): The offset for ARAP from the 9/1/2010 Stipulation.

(6) = (2) x (3) x (4) x (5)

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Section VIII - F-Class Recommendation
 Subsection C - Adjusted Losses
 1/1/2014

Section VIII-C
 Exhibit 1
 Page 1

Calculation of Adjusted Indemnity and Medical Losses Federal Losses

(A). Unit Statistical Plan Limited Reported Losses

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	455,207	102,896	188,867	134,524	24,189
Temporary Total	107,967	49,851	41,784	39,520	28,955
Medical					
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	473,440	76,036	70,958	129,031	7,500
Temporary Total	86,895	67,191	37,344	56,153	40,275
Medical Only	37,073	6,461	10,371	28,196	38,309

(B). Unit Statistical Plan Converted Unlimited Losses

Converted unlimited Losses are Limited Losses after the application of Primary, Excess and Secondary Conversion Factors.

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	722,589	162,336	294,066	283,593	61,200
Temporary Total	178,385	82,206	70,432	84,966	75,694
Medical					
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	774,276	131,131	114,963	247,597	14,724
Temporary Total	158,018	116,131	60,444	95,867	70,492
Medical Only	42,616	7,859	14,196	37,867	55,734

Note:

(B): Exhibit G.

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Section VIII - F-Class Recommendation
 Subsection C - Adjusted Losses
 1/1/2014

Section VIII-C
 Exhibit 1
 Page 2

Calculation of Adjusted Indemnity and Medical Losses Federal Losses

(C). Investment Income Offset Factor

The impact from this factor needs to be removed from the Federal Conversion Factors.

Indemnity	Investment Income Offset Factor
Fatal	0.870
Permanent Total	0.836
Permanent Partial	1.017
Temporary Total	1.023
Medical	
Fatal	1.000
Permanent Total	0.840
Permanent Partial	1.021
Temporary Total	1.027
Medical Only	1.000

(D). Adjusted Losses

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	710,509	159,622	289,150	278,852	60,177
Temporary Total	174,424	80,381	68,869	83,080	74,014
Medical					
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	758,154	128,400	112,569	242,442	14,417
Temporary Total	153,865	113,079	58,855	93,347	68,640
Medical Only	42,616	7,859	14,196	37,867	55,734
Adjusted Losses, LAE, LBA	3,881,116				

Notes:

(C): Section IX - B, Exhibit 4.

(D) = (B) / (C)

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Section VIII - F-Class Recommendation
 Subsection C - Adjusted Losses
 1/1/2014

Section VIII-C
 Exhibit 1
 Page 3

Calculation of Adjusted Indemnity and Medical Losses State Losses

(A). Unit Statistical Plan Limited Reported Losses

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	0	110,839	0	0	0
Temporary Total	0	4,816	0	0	0
Medical					
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	0	6,024	0	0	0
Temporary Total	0	5,138	0	0	0
Medical Only	0	6,830	0	0	0

(B). Unit Statistical Plan Converted Unlimited Losses

Unlimited Losses are Limited Losses after the application of Primary, Excess and Secondary Conversion Factors.

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	0	175,449	0	0	0
Temporary Total	0	7,337	0	0	0
Medical					
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Major Permanent Partial	0	30,279	0	0	0
Minor Permanent Partial	0	0	0	0	0
Temporary Total	0	10,248	0	0	0
Medical Only	0	9,350	0	0	0

Notes:

(B): Exhibit G.

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Section VIII - F-Class Recommendation
 Subsection C - Adjusted Losses
 1/1/2014

Section VIII-C
 Exhibit 1
 Page 4

Calculation of Adjusted Indemnity and Medical Losses State Losses

(C). Investment Income Offset Factor

The impact from this factor needs to be removed from the State Conversion Factors.

Indemnity	Investment Income Offset Factor
Fatal	0.870
Permanent Total	0.836
Permanent Partial	1.017
Temporary Total	1.023
Medical	
Fatal	1.000
Permanent Total	0.840
Permanent Partial	1.021
Temporary Total	1.027
Medical Only	1.000

(D). Adjusted Losses

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	0	172,516	0	0	0
Temporary Total	0	7,174	0	0	0
Medical					
Fatal	0	0	0	0	0
Permanent Total	0	0	0	0	0
Permanent Partial	0	29,649	0	0	0
Temporary Total	0	9,979	0	0	0
Medical Only	0	9,350	0	0	0
Adjusted Losses, LAE	228,667				

Notes:

(C): Section IX-B, Exhibit 4.

(D) = (B) / (C)

VIII 000016

Section VIII - F-Class Recommendation
Subsection D - Proposed Rates
1/1/2014

Section VIII-D
Exhibit 1

Proposed Rates and Rating Values to be Effective 1/1/2014

Class Code (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
6801	11.29	500	0	3.97	0.21
6824	9.77	500	0	3.33	0.21
6826	10.47	500	0	3.68	0.21
6843	15.59	500	0	4.91	0.18
6872	27.48	500	0	8.66	0.20
6874	24.03	500	0	7.57	0.19
7309	26.05	500	0	8.21	0.20
7313	16.68	500	0	5.26	0.15
7317	15.94	500	0	5.02	0.18
7327	36.49	500	0	11.50	0.20
7350	18.87	500	0	6.42	0.20
8709	6.47	476	0	2.04	0.21
8726	6.25	469	0	2.20	0.22
9077	5.20	341	0	1.98	0.22

Notes:

(2),(3): Calculated as per Section VIII-I, Exhibit 4.

(4): F-Classes have no loss constant.

(5),(6): Calculated as per Section X.

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Section VIII - F-Class Recommendation
 Subsection E - Conversion/Excess Loss Factors
 1/1/2014

Section VIII-E
 Exhibit 1
 Page 1

Calculation of Indemnity and Medical Conversion Factors Federal Losses

(A). Benefit Level Adjustment Factors

The following factors are used to bring MA Unit Statistical Plan losses to the benefit level of the proposed effective policy year period.

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	1.048	1.036	1.026	1.022	1.018
Permanent Total	1.031	1.024	1.019	1.016	1.012
Major Permanent Partial	1.010	1.008	1.008	1.007	1.006
Temporary Total	1.031	1.024	1.019	1.016	1.012
Medical					
All Injury Types	1.000	1.000	1.000	1.000	1.000

(B). Loss Development Factors

The following factors are used to bring MA Unit Statistical Plan losses from first through fifth report to an ultimate basis.

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Likely	1.130	1.189	1.309	1.577	2.952
Not Likely	1.012	1.039	1.115	1.267	1.731
Medical					
Likely	1.278	1.321	1.387	1.483	1.777
Not Likely	1.029	1.030	1.040	1.065	1.134

(C). Trend Factors

The following factors trend the MA Unit Statistical Plan losses from the reported period to the proposed effective period for new rates.

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
All Injury Types	0.921	0.913	0.885	0.924	0.937
Medical					
Lost Time Medical	0.975	1.011	0.903	0.936	0.966
Medical Only	0.729	0.778	0.838	0.855	0.900

(D). Primary Conversion Factors (PCF)

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal - LD	1.091	1.124	1.188	1.489	2.817
Fatal - NLD	0.977	0.982	1.012	1.196	1.652
Permanent Total	1.073	1.111	1.180	1.480	2.801
Permanent Partial - LD	1.051	1.094	1.167	1.467	2.783
Permanent Partial - NLD	0.941	0.956	0.994	1.179	1.632
Temporary Total - LD	1.073	1.111	1.180	1.480	2.801
Temporary Total - NLD	0.961	0.971	1.005	1.189	1.642
Medical					
Lost Time Medical -LD	1.246	1.336	1.252	1.389	1.717
Lost Time Medical -NLD	1.003	1.042	0.939	0.997	1.096
Medical - NLD	0.750	0.801	0.872	0.911	1.020

Notes:

- (A): Section IV-F, Exhibit 1.
- (B): NCCI.
- (C): Section IX-B, Exhibit 3.
- (D) = (A) x (B) x (C)

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Section VIII - F-Class Recommendation
 Subsection E - Conversion/Excess Loss Factors
 1/1/2014

Section VIII-E
 Exhibit 1
 Page 2

Calculation of Indemnity and Medical Conversion Factors Federal Losses

(A). Loss Adjustment Expense Factor

The following factor is applied to include the proposed loss adjustment expense.

	Indemnity	Medical
Loss Adjustment Expense Factor	1.192	1.192

(B). Loss Based Assessments (Special Fund Assessment)

	Indemnity	Medical
Loss Based Assessments	0.151	0.000

(C). Investment Income Offset Factor

The following factor is applied to adjust for investment income.

	Investment Income Offset Factor
Indemnity	
Fatal	0.870
Permanent Total	0.836
Permanent Partial	1.017
Temporary Total	1.023
Medical	
Fatal	1.000
Permanent Total	0.840
Permanent Partial	1.021
Temporary Total	1.027
Medical Only	1.000

(D). Secondary Conversion Factors (SCF)

Indemnity	
Fatal	1.169
Permanent Total	1.123
Permanent Partial	1.366
Temporary Total	1.373
Medical	
Fatal	1.192
Permanent Total	1.001
Permanent Partial	1.217
Temporary Total	1.224
Medical Only	1.192

Notes:

- (A): Section VI-A, Exhibit 1.
- (B): NCCI Tax and Assessment Directory.
- (C): Section IX-B, Exhibit 4.
- (D) = [(A) + (B)] x (C)

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Section VIII - F-Class Recommendation
 Subsection E - Conversion/Excess Loss Factors
 1/1/2014

Section VIII-E
 Exhibit 1
 Page 3

Calculation of Indemnity and Medical Conversion Factors State Losses

The MA Indicated Pure Premium Relativities are calculated from exposure and loss data for the latest available 5 policy years of Unit Statistical Plan data. Below are adjustment factors used to put the losses at the level proposed in this filing.

(A). Primary State Conversion Factors

Remainder of Industry	Policy Year				
	2007	2008	2009	2010	2011
Indemnity					
Fatal - LD	0.980	0.987	1.006	1.192	1.729
Fatal - NLD	0.964	0.968	0.976	1.119	1.454
Permanent Total	0.988	0.993	1.011	1.198	1.735
Permanent Partial - LD	1.008	1.008	1.023	1.213	1.752
Permanent Partial - NLD	0.992	0.988	0.993	1.139	1.473
Temporary Total - LD	0.975	0.984	1.002	1.188	1.725
Temporary Total - NLD	0.959	0.964	0.972	1.115	1.451
Medical					
Lost Time Medical - LD	1.193	1.251	1.138	1.237	1.375
Lost Time Medical - NLD	1.041	1.065	0.930	0.982	1.051
Medical - NLD	0.779	0.819	0.864	0.897	0.978
Company A					
Indemnity					
Fatal - LD	0.975	1.018	1.112	1.415	2.401
Fatal - NLD	0.963	0.992	1.040	1.283	1.927
Permanent Total	0.982	1.023	1.118	1.421	2.409
Permanent Partial - LD	1.003	1.039	1.132	1.440	2.432
Permanent Partial - NLD	0.991	1.012	1.058	1.306	1.952
Temporary Total - LD	0.970	1.014	1.108	1.410	2.396
Temporary Total - NLD	0.958	0.988	1.037	1.279	1.923
Medical					
Lost Time Medical - LD	1.081	1.133	1.061	1.196	1.457
Lost Time Medical - NLD	1.017	1.047	0.919	0.978	1.089
Medical - NLD	0.761	0.805	0.854	0.893	1.014

(B). Secondary State Conversion Factors

Indemnity	
Fatal	1.038
Permanent Total	0.997
Permanent Partial	1.212
Temporary Total	1.219
Medical	
Fatal	1.192
Permanent Total	1.001
Permanent Partial	1.217
Temporary Total	1.224
Medical Only	1.192

Notes:

- (A): Section IX-B, Exhibit 1, Page 2.
 (B): Section IX-B, Exhibit 1, Page 3.

Calculation of Converted Limited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
Federal Industry Group
All Classes

Policy Year (1)	Injury Type (2)	Indemnity				Limited Losses				Converted Limited Losses				Total (12)				
		Likely (3)		Not Likely (4)		Likely (5)		Not Likely (6)		Likely (8)		Not Likely (9)			Likely (10)		Not Likely (11)	
		Total (7)		Total (7)		Total (7)		Total (7)		Total (7)		Total (7)			Total (7)		Total (7)	
2007	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	186,357	190,772	0	0	61,372	287,494	0	0	195,873	179,574	0	0	76,476	288,447	0	0	740,370
	4	5,284	72,794	0	0	12,263	112,311	0	0	5,554	68,521	0	0	15,281	112,683	0	0	202,039
	5	0	107,967	0	0	0	86,895	0	0	0	103,748	0	0	0	87,183	0	0	190,931
	6	0	0	0	0	0	37,073	0	0	0	0	0	0	0	27,819	0	0	27,819
2008	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	110,839	50,941	0	0	6,024	30,105	0	0	111,696	48,713	0	0	7,534	31,364	0	0	199,307
	4	27,111	24,844	0	0	10,527	35,404	0	0	29,668	23,757	0	0	14,066	36,885	0	0	104,376
	5	0	54,667	0	0	0	72,329	0	0	0	53,055	0	0	0	75,473	0	0	128,528
	6	0	0	0	0	0	13,291	0	0	0	0	0	0	0	10,766	0	0	10,766
2009	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	180,958	0	0	0	57,923	0	0	0	179,810	0	0	0	54,368	0	0	234,178
	4	0	7,909	0	0	0	13,035	0	0	0	7,859	0	0	0	12,235	0	0	20,094
	5	0	41,784	0	0	0	37,344	0	0	0	41,989	0	0	0	35,052	0	0	77,041
	6	0	0	0	0	0	10,371	0	0	0	0	0	0	0	9,041	0	0	9,041
2010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	46,687	63,511	0	0	49,107	60,214	0	0	68,495	74,862	0	0	68,194	60,050	0	0	271,601
	4	24,326	0	0	0	19,710	0	0	35,689	0	0	0	0	27,371	0	0	0	63,060
	5	23,018	16,502	0	0	15,356	40,797	0	0	34,068	19,623	0	0	21,325	40,686	0	0	115,702
	6	0	0	0	0	0	28,196	0	0	0	0	0	0	0	25,677	0	0	25,677
2011	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	0	24,189	0	0	0	7,500	0	0	0	39,477	0	0	0	8,220	0	0	47,697
	5	0	28,955	0	0	0	40,275	0	0	0	47,557	0	0	0	44,140	0	0	91,697
	6	0	0	0	0	0	38,309	0	0	0	0	0	0	0	39,088	0	0	39,088
All Years, All Injury		423,622	865,793	174,359	1,008,866	2,472,640	481,043	888,545	230,247	999,177	2,599,012							

Notes:
 (3),(4),(5),(6): Unit Statistical Plan data, excluding Large Deductibles.
 (8), (9), (10), (11): Limited Incurred Losses x Primary Conversion Factors from Section VIII-E, Exhibit 1, Page 1.
 (12) = (8) + (9) + (10) + (11)

Section VIII - F-Class Recommendation
Subsection F - Proposed Pure Premium Relativities
1/1/2014

Calculation of Converted Unlimited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
Federal Industry Group
All Classes

Policy Year (1)	Injury Type (2)	Adjusted Excess Losses						Converted Unlimited Losses						Total (12)	Exposure (13)
		Indemnity			Medical			Indemnity			Medical				
		Likely (3)	Not Likely (4)	Total (7)	Likely (5)	Not Likely (6)	Total (7)	Likely (8)	Not Likely (9)	Total (10)	Likely (10)	Not Likely (11)	Total (12)		
2007	1	0	0	0	0	0	0	0	0	0	0	0	0	0	198,853
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	31,330	36,191	30,902	78,323	176,746	310,245	294,627	130,680	446,364	1,181,916				
	4	1,642	10,490	7,160	26,939	46,231	9,826	107,890	27,311	169,922	314,949				
	5	0	26,160	0	41,934	68,094	0	178,385	0	158,018	336,403				
	6	0	0	0	7,943	7,943	0	0	0	42,616	42,616				
2008	1	0	0	0	0	0	0	0	0	0	0	0	0	0	165,845
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	33,032	7,792	17,339	10,506	68,669	175,449	77,157	30,279	50,957	333,842				
	4	4,702	4,251	5,111	9,816	23,880	46,933	38,246	23,338	56,836	165,353				
	5	0	12,830	0	27,790	40,620	0	89,543	0	126,379	215,922				
	6	0	0	0	3,673	3,673	0	0	0	17,209	17,209				
2009	1	0	0	0	0	0	0	0	0	0	0	0	0	0	174,035
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	0	25,361	0	21,695	47,056	0	280,161	0	92,570	372,731				
	4	0	2,324	0	6,165	8,489	0	13,905	0	22,393	36,298				
	5	0	9,303	0	14,336	23,639	0	70,432	0	60,444	130,876				
	6	0	0	0	2,872	2,872	0	0	0	14,196	14,196				
2010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	196,077
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	10,956	11,974	20,278	18,853	62,061	108,491	118,574	107,672	96,026	430,763				
	4	5,709	0	8,701	0	14,410	56,528	0	43,900	0	100,428				
	5	5,449	2,736	7,208	9,114	24,507	54,264	30,702	34,919	60,947	180,832				
	6	0	0	0	6,099	6,099	0	0	0	37,867	37,867				
2011	1	0	0	0	0	0	0	0	0	0	0	0	0	0	182,680
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	0	5,342	0	3,878	9,220	0	61,200	0	14,724	75,924				
	5	0	7,567	0	13,459	21,026	0	75,694	0	70,492	146,186				
	6	0	0	0	7,681	7,681	0	0	0	55,734	55,734				
(14) All Years and Injury Types		92,820	162,321	96,699	311,076	662,916	761,736	1,436,516	398,099	1,593,694	4,190,045				
(15) Pure Premium							0.830	1.566	0.434	1.737	4.567				

Notes:
 (3), (4) = $0.7 \times [\text{Excess Factor} - 1.0] \times \text{Indemnity Converted Limited Losses}$. Excess Factor from Section IX-B, Exhibit 5 and Indemnity Converted Limited Losses from Page 1, Columns (8) and (9).
 (5), (6) = $[\text{Excess Factor} - 1.0] \times \text{Medical Converted Limited Losses} + 0.3 \times [\text{Excess Factor} - 1.0] \times \text{Indemnity Converted Limited Losses}$. Excess Factor from Section IX-B, Exhibit 5 and Medical Converted Limited Losses from Page 1, Columns (10) and (11).
 (7) = (3) + (4) + (5) + (6)
 (8), (9), (10), (11): (Converted Limited Losses from Page 1 + Adjusted Excess Losses) x Secondary Conversion Factors from Section IX - E, Exhibit 1, Page 2.
 (12) = (8) + (9) + (10) + (11)
 (13): From Page 3.
 (15): Pure Premium calculated as the All Years, All Injury Types Adjusted Converted Losses divided by the All Years, All Injury Types Exposure.

Calculation of Manual Premium by Extension of Exposures
Federal Industry Group
All Classes

Class Code	Exposure By Policy Year					Current Rate	Manual Premium					Total = (7) x (8) (14)	
	2007 (2)	2008 (3)	2009 (4)	2010 (5)	2011 (6)		Total (7)	2007 = (2) x (8) (9)	2008 = (3) x (8) (10)	2009 = (4) x (8) (11)	2010 = (5) x (8) (12)		2011 = (6) x (8) (13)
6801	0	0	0	936	2,923	3,859	0	0	0	0	11,326	35,368	46,694
6824	54,273	29,050	33,905	37,433	42,935	197,596	552,499	295,729	345,153	381,068	381,068	437,078	2,011,527
6826	11,246	21,363	18,412	16,268	3,416	70,705	130,004	246,956	212,843	188,058	188,058	39,489	817,350
6843	0	0	0	0	0	0	0	0	0	0	0	0	0
6872	36,719	9,252	12,357	11,986	9,147	79,461	1,276,352	321,600	429,529	416,633	416,633	317,950	2,762,064
6874	483	1,979	1,650	24,396	7,171	35,679	15,765	64,595	53,856	796,285	796,285	234,061	1,164,563
7309	6,675	6,901	6,828	5,877	15,897	42,178	236,228	244,226	241,643	207,987	207,987	562,595	1,492,679
7313	0	0	0	0	0	0	0	0	0	0	0	0	0
7317	1,010	1,868	3,892	2,289	1,974	11,033	14,180	26,227	54,644	32,138	32,138	27,715	154,903
7327	403	220	121	120	150	1,014	12,948	7,069	3,888	4,820	3,856	4,820	32,580
7350	11,213	11,119	11,007	11,242	11,522	56,103	186,248	184,687	182,826	186,730	186,730	191,380	931,871
8709	536	8,004	2,265	2,783	2,909	16,497	3,489	52,106	14,745	18,117	18,117	18,938	107,395
8726	76,295	76,089	83,598	82,747	84,636	403,365	550,087	548,602	602,742	596,606	596,606	610,226	2,908,262
9077	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	198,853	165,845	174,035	196,077	182,680	917,490	2,977,802	1,991,795	2,141,868	2,838,803	2,479,620	2,479,620	12,429,888

Notes:
(2) - (7): Unit Statistical Plan data.
(8): Section VIII-D, Exhibit 1 of the 9/1/2010 Stipulation.

Section VIII - F-Class Recommendation
 Subsection F - Proposed Pure Premium Relativities
 1/1/2014

Section VIII-F
 Exhibit 2

Calculation of Pure Premium Underlying Present Rate Factor

Industry Group (1)	Injury Type (2)	Uncapped Rate Level Factor (3)	Industry Group Pure Premium From Previous Revision (4)	Percent of Pure Premium = $(4) / [\text{Total of (4)}]$ (5)	Expected Loss and LAE Ratio (6)	Loss Based Assessment Change Factor (7)	Benefit Level Change Factor (8)	Trend (9)	Pure Premium Underlying Present Rate Factor = $(3) \times (5) \times (6) \times (7) \times (8) \times (9)$ (10)
Federal	Indemnity	17,488	10,381	0.575	0.757	0.964	1,012	0.930	6,911
	Medical	17,488	7,666	0.425	0.757	0.964	1,000	0.953	5,165
	Total		18,047						

Notes:

- (3): Section VIII-H, Exhibit 1 of the 9/1/2010 Stipulation.
- (4): Based on the most recently filed pure premium relativities for F-Class.
- (6): Section VI-A, Exhibit 1 of the 9/1/2010 Stipulation.
- (7): Change in load from Section VIII-K, Exhibit 1 and the 9/1/2010 Stipulation.
- (8): Weighted average of Section IV-A, Exhibit 1 and Section IV-F, Exhibit 1.
- (9): Section V-A, Exhibit 1.

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Section VIII - F-Class Recommendation
 Subsection F - Proposed Pure Premium Relativities
 1/1/2014

Section VIII-F
 Exhibit 3

Calculation of Pure Premiums Underlying Present Rate Federal Industry Group

Class Code	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity	Medical	Indemnity	Medical	Total = (4) + (5)
(1)	(2)	(3)	(4)	(5)	(6)
6801	0.783	1.023	5.408	5.281	10.690
6824	0.534	0.514	3.693	2.654	6.346
6826	0.526	0.693	3.635	3.579	7.214
6843	1.115	1.158	7.707	5.979	13.686
6872	2.365	2.946	16.345	15.217	31.562
6874	1.903	1.392	13.154	7.187	20.341
7309	2.073	1.496	14.324	7.726	22.051
7313	1.259	0.755	8.704	3.899	12.603
7317	6.296	3.488	43.512	18.013	61.525
7327	1.859	1.495	12.848	7.723	20.571
7350	0.863	0.852	5.962	4.400	10.362
8709	0.361	0.303	2.497	1.563	4.060
8726	0.371	0.348	2.564	1.799	4.363
9077	0.201	1.116	1.392	5.762	7.154

Notes:

(2), (3): Section VIII-H, Exhibit 2 of the 09/01/2010 Stipulation.

(4), (5) = (2),(3) x Pure Premium Underlying Present Rate Factors from Exhibit 2.

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Section VIII - F-Class Recommendation
 Subsection G - Class Relativities
 1/1/2014

Section VIII - G
 Exhibit 1

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Federal Class Codes		
6801 BOAT BUILDING - WOOD - NOC & DRIVERS: US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	936	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	2,923	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	3,859	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.060	0.100	.
(15) Countrywide Pure Premium:	0.546	0.400	0.946
(16) Countrywide Indicated Relativity:	0.245	0.224	.
(17) Countrywide Credibility:	0.100	0.110	.
(18) Countrywide Lost-Time Claims:	4.000	.	.
(19) Pure Premium Underlying Present Rate:	5.408	5.281	10.690
(20) Relativity to Underlying Present Rate:	0.939	1.277	.
(21) Credibility to Underlying Relativity:	0.840	0.790	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	0.814	1.034	.
(24) Balanced Formula Relativity:	0.829	1.030	0.925

Class(es):		Effective: 1/1/2014							Federal Class Codes		
6824 BOAT BUILDING OR REPAIRING & DRIVERS: US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	54,273	0	20	0	42,846	0	39,954	82,800	0.789	0.736	1.526
2008	29,050	0	6	0	24,298	0	67,354	91,652	0.836	2.319	3.155
2009	33,905	0	7	0	0	0	7,008	7,008	0.000	0.207	0.207
2010	37,433	1	12	56,528	123,785	43,900	111,393	335,606	4.817	4.149	8.966
2011	42,935	0	5	0	5,931	0	5,904	11,834	0.138	0.138	0.276
MA Total:	197,596	1	50	56,528	196,860	43,900	231,613	528,901	1.282	1.394	2.677

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.535	0.642	.
(14) Massachusetts Credibility:	0.250	0.380	.
(15) Countrywide Pure Premium:	2.227	2.295	4.522
(16) Countrywide Indicated Relativity:	1.001	1.286	.
(17) Countrywide Credibility:	0.380	0.310	.
(18) Countrywide Lost-Time Claims:	135.00	.	.
(19) Pure Premium Underlying Present Rate:	3.693	2.654	6.346
(20) Relativity to Underlying Present Rate:	0.641	0.642	.
(21) Credibility to Underlying Relativity:	0.370	0.310	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	0.752	0.842	.
(24) Balanced Formula Relativity:	0.766	0.839	0.801

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 Subsection G - Class Relativities
 1/1/2014

Section VIII - G
 Exhibit 2

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Federal Class Codes		
6826 MARINA & DRIVERS: US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	11,246	0	1	0	0	0	74	74	0.000	0.007	0.007
2008	21,363	1	10	2,703	17,263	5,029	55,140	80,133	0.935	2.816	3.751
2009	18,412	0	5	0	236,031	0	100,095	336,125	12.820	5.437	18,256
2010	16,268	0	1	0	0	0	8,288	8,288	0.000	0.509	0.509
2011	3,416	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	70,704	1	17	2,703	253,293	5,029	163,596	424,620	3.621	2.385	6.006

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.511	1.099	.
(14) Massachusetts Credibility:	0.170	0.280	.
(15) Countrywide Pure Premium:	1.853	1.144	2.996
(16) Countrywide Indicated Relativity:	0.833	0.641	.
(17) Countrywide Credibility:	0.230	0.240	.
(18) Countrywide Lost-Time Claims:	29.000	.	.
(19) Pure Premium Underlying Present Rate:	3.635	3.579	7.214
(20) Relativity to Underlying Present Rate:	0.631	0.866	.
(21) Credibility to Underlying Relativity:	0.600	0.480	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	0.827	0.877	.
(24) Balanced Formula Relativity:	0.843	0.874	0.858

Class(es):		Effective: 1/1/2014							Federal Class Codes		
6843 SHIP BUILDING-IRON OR STEEL-NOC & DRIVERS: US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	0	0	0	0	0	0	0	0			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	13.555	4.306	17.861
(16) Countrywide Indicated Relativity:	6.094	2.412	.
(17) Countrywide Credibility:	0.500	0.500	.
(18) Countrywide Lost-Time Claims:	511.00	.	.
(19) Pure Premium Underlying Present Rate:	7.707	5.979	13.686
(20) Relativity to Underlying Present Rate:	1.339	1.446	.
(21) Credibility to Underlying Relativity:	0.500	0.500	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	3.716	1.929	.
(24) Balanced Formula Relativity:	3.788	1.922	2.901

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Section VIII - G
 Exhibit 3

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Federal Class Codes			
6872 SHIP REPAIR CONVERSION- ALL OP & DR: US ACT												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	36,719	1	22	9,826	261,109	27,311	170,979	469,225	7,379	5,400	12,779	
2008	9,252	1	17	175,449	57,578	30,279	63,639	326,945	25,187	10,151	35,338	
2009	12,357	0	0	0	0	0	0	0	0,000	0,000	0,000	
2010	11,986	0	5	0	0	0	6,297	6,297	0,000	0,525	0,525	
2011	9,147	0	1	0	11,532	0	13,579	25,110	1,261	1,484	2,745	
MA Total:	79,461	2	45	185,276	330,219	57,590	254,493	827,577	6,487	3,927	10,415	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.708	1.809	.
(14) Massachusetts Credibility:	0.320	0.530	.
(15) Countrywide Pure Premium:	3.213	2.411	5.624
(16) Countrywide Indicated Relativity:	1.444	1.351	.
(17) Countrywide Credibility:	0.340	0.240	.
(18) Countrywide Lost-Time Claims:	303.00	.	.
(19) Pure Premium Underlying Present Rate:	16.345	15.217	31.562
(20) Relativity to Underlying Present Rate:	2.839	3.680	.
(21) Credibility to Underlying Relativity:	0.340	0.230	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	2.323	2.129	.
(24) Balanced Formula Relativity:	2.367	2.122	2.251

Class(es):		Effective: 1/1/2014							Federal Class Codes			
6874 PAINTING: SHIP HULLS - US ACT												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	483	0	0	0	0	0	0	0	0,000	0,000	0,000	
2008	1,979	0	0	0	0	0	0	0	0,000	0,000	0,000	
2009	1,650	0	1	0	0	0	5,199	5,199	0,000	3,150	3,150	
2010	24,396	0	0	0	0	0	0	0	0,000	0,000	0,000	
2011	7,171	0	1	0	0	0	144	144	0,000	0,020	0,020	
MA Total:	35,679	0	2	0	0	0	5,342	5,342	0,000	0,150	0,150	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.069	.
(14) Massachusetts Credibility:	0.210	0.280	.
(15) Countrywide Pure Premium:	4.690	4.555	9.245
(16) Countrywide Indicated Relativity:	2.109	2.551	.
(17) Countrywide Credibility:	0.220	0.230	.
(18) Countrywide Lost-Time Claims:	25.000	.	.
(19) Pure Premium Underlying Present Rate:	13.154	7.187	20.341
(20) Relativity to Underlying Present Rate:	2.284	1.738	.
(21) Credibility to Underlying Relativity:	0.570	0.490	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	1.766	1.458	.
(24) Balanced Formula Relativity:	1.800	1.453	1.635

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Section VIII - G
 Exhibit 4

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Federal Class Codes		
7309 STEVEDORING: NOC - US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	6.675	0	2	0	10.556	0	27.977	38.533	1.582	4.192	5.773
2008	6.901	0	1	0	7.867	0	6.097	13.964	1.140	0.883	2.023
2009	6.828	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	5.877	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	15.897	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	42.178	0	3	0	18.423	0	34.074	52.497	0.437	0.808	1.245

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.182	0.372	.
(14) Massachusetts Credibility:	0.230	0.310	.
(15) Countrywide Pure Premium:	3.826	4.149	7.976
(16) Countrywide Indicated Relativity:	1.720	2.324	.
(17) Countrywide Credibility:	0.390	0.350	.
(18) Countrywide Lost-Time Claims:	133.00	.	.
(19) Pure Premium Underlying Present Rate:	14.324	7.726	22.051
(20) Relativity to Underlying Present Rate:	2.488	1.868	.
(21) Credibility to Underlying Relativity:	0.380	0.340	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	1.658	1.564	.
(24) Balanced Formula Relativity:	1.690	1.559	1.628

Class(es):		Effective: 1/1/2014							Federal Class Codes		
7313 COAL DOCK OPERATION & STEVEDORING: US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	0	0	0	0	0	0	0	0			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	19.444	1.249	20.693
(16) Countrywide Indicated Relativity:	8.741	0.700	.
(17) Countrywide Credibility:	0.250	0.260	.
(18) Countrywide Lost-Time Claims:	35.000	.	.
(19) Pure Premium Underlying Present Rate:	8.704	3.899	12.603
(20) Relativity to Underlying Present Rate:	1.512	0.943	.
(21) Credibility to Underlying Relativity:	0.750	0.740	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	3.319	0.880	.
(24) Balanced Formula Relativity:	3.383	0.876	2.191

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 Subsection G - Class Relativities
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Section VIII - G
 Exhibit 5

Calculation of Class Relativities

Class(es): 7317 STEVEDORING: BY HAND OR HAND TRUCKS: US ACT									Effective: 1/1/2014			Federal Class Codes		
Converted Unlimited Losses														
Amount														
Claim Count				Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	1,010	0	1	0	0	0	605	605	0.000	0.600	0.600			
2008	1,868	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	3,892	0	6	0	52,356	0	53,647	106,002	13,452	13,783	27,235			
2010	2,289	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	1,974	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	11,033	0	7	0	52,356	0	54,252	106,608	4,745	4,917	9,663			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.981	2.265	.
(14) Massachusetts Credibility:	0.210	0.260	.
(15) Countrywide Pure Premium:	8.864	1.719	10.583
(16) Countrywide Indicated Relativity:	3.985	0.963	.
(17) Countrywide Credibility:	0.400	0.370	.
(18) Countrywide Lost-Time Claims:	126.00	.	.
(19) Pure Premium Underlying Present Rate:	43.512	18.013	61.525
(20) Relativity to Underlying Present Rate:	7.557	4.356	.
(21) Credibility to Underlying Relativity:	0.390	0.370	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	4.957	2.557	.
(24) Balanced Formula Relativity:	5.052	2.548	3.862

Class(es): 7327 STEVEDORING: CONTAINERIZED FREIGHT & DRIVERS: US ACT									Effective: 1/1/2014			Federal Class Codes		
Converted Unlimited Losses														
Amount														
Claim Count				Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	403	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	220	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	121	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	120	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	150	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	1,014	0	0	0	0	0	0	0	0.000	0.000	0.000			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.050	0.070	.
(15) Countrywide Pure Premium:	25.797	20.657	46.454
(16) Countrywide Indicated Relativity:	11.598	11.571	.
(17) Countrywide Credibility:	0.220	0.230	.
(18) Countrywide Lost-Time Claims:	25.000	.	.
(19) Pure Premium Underlying Present Rate:	12.848	7.723	20.571
(20) Relativity to Underlying Present Rate:	2.231	1.868	.
(21) Credibility to Underlying Relativity:	0.730	0.700	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	4.180	3.969	.
(24) Balanced Formula Relativity:	4.261	3.955	4.115

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Section VIII - G
 Exhibit 6

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Federal Class Codes		
7350 FREIGHT HANDLING NOC: US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	11,213	1	0	310,245	0	130,680	0	440,925	27,669	11,655	39,324
2008	11,119	1	2	44,230	97,939	18,309	58,322	218,801	12,786	6,892	19,679
2009	11,007	0	3	0	76,112	0	23,654	99,766	6,915	2,149	9,064
2010	11,242	2	0	162,754	0	142,591	0	305,345	14,478	12,684	27,162
2011	11,522	0	0	0	0	0	0	0	0,000	0,000	0,000
MA Total:	56,102	4	5	517,230	174,051	291,580	81,977	1,064,838	12,322	6,659	18,981

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	5.143	3.067	.
(14) Massachusetts Credibility:	0.180	0.280	.
(15) Countrywide Pure Premium:	6.813	4.579	11.392
(16) Countrywide Indicated Relativity:	3.063	2.565	.
(17) Countrywide Credibility:	0.300	0.320	.
(18) Countrywide Lost-Time Claims:	59.000	.	.
(19) Pure Premium Underlying Present Rate:	5.962	4.400	10.362
(20) Relativity to Underlying Present Rate:	1.035	1.064	.
(21) Credibility to Underlying Relativity:	0.520	0.400	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	2.383	2.105	.
(24) Balanced Formula Relativity:	2.429	2.098	2.271

Class(es):		Effective: 1/1/2014							Federal Class Codes		
8709 STEVEDORING:TALLIERS & CHECKING CLERKS: US ACT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	536	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	8,004	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	2,265	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	2,783	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	2,909	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	16,496	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.080	0.110	.
(15) Countrywide Pure Premium:	1.912	1.992	3.904
(16) Countrywide Indicated Relativity:	0.860	1.116	.
(17) Countrywide Credibility:	0.260	0.280	.
(18) Countrywide Lost-Time Claims:	41.000	.	.
(19) Pure Premium Underlying Present Rate:	2.497	1.563	4.060
(20) Relativity to Underlying Present Rate:	0.434	0.378	.
(21) Credibility to Underlying Relativity:	0.660	0.610	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	0.510	0.543	.
(24) Balanced Formula Relativity:	0.520	0.541	0.530

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Section VIII - G
 Exhibit 7

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Federal Class Codes			
8726 STEAMSHIP LINE OR AGENCY-PORT EMP: SPRVSR, CAPTNS, ENGRS, STWR												
Converted Unlimited Losses												
Amount												
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	76,295	0	19	0	266,390	0	577,331	843,721	3,492	7,567	11,059	
2008	76,089	0	3	0	0	0	829	829	0,000	0,011	0,011	
2009	83,598	0	0	0	0	0	0	0	0,000	0,000	0,000	
2010	82,747	0	9	0	25,492	0	68,862	94,353	0,308	0,832	1,140	
2011	84,636	0	17	0	119,432	0	121,324	240,757	1,411	1,433	2,845	
MA Total:	403,366	0	48	0	411,314	0	768,347	1,179,661	1,020	1,905	2,925	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.426	0.877	.
(14) Massachusetts Credibility:	0.290	0.430	.
(15) Countrywide Pure Premium:	0.857	0.603	1.460
(16) Countrywide Indicated Relativity:	0.385	0.338	.
(17) Countrywide Credibility:	0.240	0.260	.
(18) Countrywide Lost-Time Claims:	34.000	.	.
(19) Pure Premium Underlying Present Rate:	2.564	1.799	4.363
(20) Relativity to Underlying Present Rate:	0.445	0.435	.
(21) Credibility to Underlying Relativity:	0.470	0.310	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	0.425	0.600	.
(24) Balanced Formula Relativity:	0.433	0.598	0.512

Class(es):		Effective: 1/1/2014							Federal Class Codes			
9077 UNITED STATES ARMED SERVICE RISK-ALL EMPLOYEES & DRIVERS												
Converted Unlimited Losses												
Amount												
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
2008	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
2009	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
2010	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
2011	0	0	0	0	0	0	0	0	0,000	0,000	0,000	
MA Total:	0	0	0	0	0	0	0	0	.	.	.	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	16.481	2.159	18.640
(16) Countrywide Indicated Relativity:	7.409	1.210	.
(17) Countrywide Credibility:	0.090	0.100	.
(18) Countrywide Lost-Time Claims:	3.000	.	.
(19) Pure Premium Underlying Present Rate:	1.392	5.762	7.154
(20) Relativity to Underlying Present Rate:	0.242	1.393	.
(21) Credibility to Underlying Relativity:	0.910	0.900	.
(22) Industry Group Converted Pure Premium:	2.396	2.171	4.567
(23) Formula Relativity:	0.887	1.375	.
(24) Balanced Formula Relativity:	0.904	1.370	1.125

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Section VIII - F-Class Recommendation
 Subsection H - Proposed Rates
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Section VIII-H
 Exhibit 1

Calculation of Federal Industry Group Rate Change and Limits

(1) Industry Group Differential	1.000
(2) Experience and Benefit Level Change - Overall	-13.4%
(3) Target Rate Change = (1) x [1.000 + (2)] - 1.000	-13.4%
(4) State Benefit Level Change	1.3%
(5) Federal Benefit Level Change	0.7%
(6) Federal Losses as % of Total Losses	94.6%
(7) Weighted Average Benefit Level Change = [(5) x (6)] + { (4) x [1.000 - (6)] }	0.7%
(8) Experience Change - Overall = { [1.000 + (2)] / [1.000 + (7)] } - 1.000	-14.0%
(9) Experience Change - by Group = { (1) x [1.000 + (8)] } - 1.000	-14.0%
(10) 1/2 Experience Change - by Group = (9) / 2	-7.0%
(11) Maximum Rate Change = (7) + (10) + 20.0%	13.7%
(12) Minimum Rate Change = (7) + (10) - 20.0%	-26.3%
(13) Present Average Rate	14.166
(14) Uncapped Rate Level Factor = [1.000 + (3)] x (13)	12.268
(15) Capped Rate Level Factor	12.781

In addition, the WCRIBMA is limiting the increase in average rates for any class to \$15 and no average rate shall exceed \$90 per \$100 of payroll.

Notes:

- (1): Federal Industry Group is the only group being evaluated.
- (2): Selected Rate Change, from Section VIII-A, Exhibit 1.
- (4): Section IV-A, Exhibit 1.
- (5): Section IV-F, Exhibit 1.
- (6): Based on ratio of Federal losses to sum of Federal and State losses from Section VIII-C, Exhibit 1, Page 1 & 3.
- (13): Rates by class consistent with the 09/01/10 stipulation, weighted by five years of exposure.
- (15): Proposed average uncapped rates are capped by an iterative process using rate levels to determine if the required change is achieved.

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Section VIII - F-Class Recommendation
 Subsection H - Proposed Rates
 1/1/2014

Section VIII-H
 Exhibit 2

Calculation of Average Uncapped Rates

Class Code	Balanced Formula Relativity			Uncapped Rate Level Factor	Proposed Average Uncapped Rate = (4) x (5)
	Indemnity	Medical	Total		
(1)	(2)	(3)	(4)	(5)	(6)
6801	0.829	1.030	0.925	12.268	11.34
6824	0.766	0.839	0.801	12.268	9.82
6826	0.843	0.874	0.858	12.268	10.52
6843	3.788	1.922	2.901	12.268	35.59
6872	2.367	2.122	2.251	12.268	27.61
6874	1.800	1.453	1.635	12.268	20.06
7309	1.690	1.559	1.628	12.268	19.97
7313	3.383	0.876	2.191	12.268	26.88
7317	5.052	2.548	3.862	12.268	47.38
7327	4.261	3.955	4.115	12.268	50.49
7350	2.429	2.098	2.271	12.268	27.87
8709	0.520	0.541	0.530	12.268	6.50
8726	0.433	0.598	0.512	12.268	6.28
9077	0.904	1.370	1.125	12.268	13.81

Notes:

(2),(3),(4): Section VIII-G.

(5): Exhibit 1.

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Section VIII - F-Class Recommendation
Subsection H - Proposed Rates
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Section VIII-H
Exhibit 3

Comparison of Average Rates

Class Code (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
6801	12.66	11.34	11.82
6824	10.64	9.82	10.23
6826	12.08	10.52	10.96
6843	14.36	35.59	16.33
6872	36.35	27.61	28.77
6874	34.13	20.06	25.15
7309	37.00	19.97	27.27
7313	15.36	26.88	17.46
7317	14.68	47.38	16.69
7327	33.60	50.49	38.20
7350	17.37	27.87	19.75
8709	6.81	6.50	6.77
8726	7.54	6.28	6.54
9077	4.79	13.81	5.45

Notes:

(2): 09/01/10 Stipulation.

(3): Exhibit 2.

(4) = Total Balanced Formula Relativity (Section VIII-G) x Capped Rate Level Factor Subject to maximum and minimum caps (Exhibit 1).

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Section VIII - F-Class Recommendation
Subsection H - Proposed Rates
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Section VIII-H
Exhibit 4

Summary of Proposed Premium Change

Industry Group (1)	Present Premium (2)	Proposed Premium (3)	Proposed Change (4)	Target Change (5)	Capped Rate Level Factor (6)
Federal	12,997,409	11,255,756	-13.4%	-13.4%	12.78

Notes:

- (2): Exposure x Current Average Rates.
- (3): Exposure x Proposed Average Rates.
- (4) = [(3) - (2)] / (2)
- (5), (6): Exhibit 1.

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Section VIII - F-Class Recommendation
 Subsection I - Pricing Example
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Section VIII-I
 Exhibit 1
 Page 2

Pricing Example for Class 6874 PAINTING: SHIP HULLS - US ACT

Calculation of MA Indicated Relativity (cont.):

		(D). Federal Unadjusted Excess Losses [(Excess Factor - 1.0) x Converted Limited Losses]							
Policy Year		Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	
	2008	0	0	0	0	0	0	0	
	2009	0	0	0	0	0	0	0	
	2010	0	0	0	0	0	0	0	
	2011	0	0	0	0	0	0	0	
Medical	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	0	0	0	0
	2009	0	0	0	0	0	0	0	1,296
	2010	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	36

		(E). Federal Adjusted Excess Losses							
Policy Year		Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	
	2008	0	0	0	0	0	0	0	
	2009	0	0	0	0	0	0	0	
	2010	0	0	0	0	0	0	0	
	2011	0	0	0	0	0	0	0	
Medical	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	0	0	0	0
	2009	0	0	0	0	0	0	0	1,296
	2010	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	36

		(F). Federal Secondary Conversion Factors				
		Fatal	Permanent Total	Permanent Partial	Temporary Total	Medical Only
Indemnity		1.169	1.123	1.366	1.373	
Medical		1.192	1.001	1.217	1.224	1.192

		(G). Federal Converted Unlimited Losses							
Policy Year		Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	
	2008	0	0	0	0	0	0	0	
	2009	0	0	0	0	0	0	0	
	2010	0	0	0	0	0	0	0	
	2011	0	0	0	0	0	0	0	
Medical	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	0	0	0	0
	2009	0	0	0	0	0	0	0	5,199
	2010	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	144

		(H). Total Federal Converted Unlimited Losses			
Policy Year		Indemnity		Medical	
		LD	NLD	LD	NLD
2007		0	0	0	0
2008		0	0	0	0
2009		0	0	0	5,199
2010		0	0	0	0
2011		0	0	0	144
Total		0	0	0	5,342

Notes:

(E): Indemnity Adjusted Excess Losses = Indemnity Unadjusted Excess Losses x 0.7

Medical Adjusted Excess Losses = Medical Unadjusted Excess Losses + 0.3 x Indemnity Unadjusted Excess Losses

(F): Section VIII-E, Exhibit 1, Page 2.

(G) = [(C) + (E)] x (F)

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Section VIII - F-Class Recommendation
 Subsection I - Pricing Example
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Section VIII-I
 Exhibit 1
 Page 4

Pricing Example for Class 6874 PAINTING: SHIP HULLS - US ACT

Calculation of MA Indicated Relativity (cont.):

(D). State Unadjusted Excess Losses [(Excess Factor -1.0) x Converted Limited Losses]									
	Policy Year	Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	
	2008	0	0	0	0	0	0	0	
	2009	0	0	0	0	0	0	0	
	2010	0	0	0	0	0	0	0	
	2011	0	0	0	0	0	0	0	
Medical	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	0	0	0	0
	2009	0	0	0	0	0	0	0	0
	2010	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	0

(E). State Adjusted Excess Losses									
	Policy Year	Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	
	2008	0	0	0	0	0	0	0	
	2009	0	0	0	0	0	0	0	
	2010	0	0	0	0	0	0	0	
	2011	0	0	0	0	0	0	0	
Medical	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	0	0	0	0
	2009	0	0	0	0	0	0	0	0
	2010	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	0

(F). State Secondary Conversion Factors					
	Fatal	Permanent Total	Permanent Partial	Temporary Total	Medical Only
Indemnity	1.038	0.997	1.212	1.219	
Medical	1.192	1.001	1.217	1.224	1.192

(G). State Converted Unlimited Losses									
	Policy Year	Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	
	2008	0	0	0	0	0	0	0	
	2009	0	0	0	0	0	0	0	
	2010	0	0	0	0	0	0	0	
	2011	0	0	0	0	0	0	0	
Medical	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	0	0	0	0
	2009	0	0	0	0	0	0	0	0
	2010	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	0

(H). Total State Converted Unlimited Losses				
Policy Year	Indemnity		Medical	
	LD	NLD	LD	NLD
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
Total	0	0	0	0

Notes:

(E): Indemnity Adjusted Excess Losses = Indemnity Unadjusted Excess Losses x 0.7

Medical Adjusted Excess Losses = Medical Unadjusted Excess Losses + 0.3 x Indemnity Unadjusted Excess Losses

(F): Section IX-B, Exhibit 1, Page 2.

(G) = [(C) + (E)] x (F)

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Section VIII - F-Class Recommendation
 Subsection I - Pricing Example
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Section VIII-I
 Exhibit 1
 Page 5

Pricing Example for Class 6874
 PAINTING: SHIP HULLS - US ACT

Calculation of MA Indicated Relativity (cont.):

Exposure, Converted Unlimited Losses (Both Federal & State)			
Policy Year (1)	Exposure (2)	Indemnity (3)	Medical (4)
2007	483	0	0
2008	1,979	0	0
2009	1,650	0	5,199
2010	24,396	0	0
2011	7,171	0	144
Total	35,679	0	5,342
(5)	Indicated Pure Premium	0.000	0.150
(6)	Federal Class Codes Industry Group Pure Premium	2.396	2.171
(7)	MA Indicated Relativity	0.000	0.069

Notes:

- (2): Unit Statistical Plan data, excluding Large Deductibles
- (3), (4): Converted Unlimited Losses from Pages 1 & 2.
- (5): Totals of (3) and (4), divided by Total of (2), respectively.
- (6): Section VIII-F, Exhibit 1, Page 2.
- (7) = (5) / (6)

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Pricing Example for Class 6874
 PAINTING: SHIP HULLS - US ACT

Calculation of Countrywide Relativity

State (1)	State Code (2)	Losses				Lost-Time Claims		Payroll (9)
		Indemnity		Medical		Likely (7)	Not Likely (8)	
		Likely (3)	Not Likely (4)	Likely (5)	Not Likely (6)			
Alabama	1	0	10,500	0	13,518	0	1	411,946
Arizona	2	0	0	0	0	0	0	0
Arkansas	3	0	0	0	0	0	0	0
Colorado	5	0	0	0	0	0	0	900,884
Connecticut	6	0	0	0	0	0	0	0
D.C.	8	0	0	0	0	0	0	0
Florida	9	0	29,706	0	375,972	0	1	2,519,527
Georgia	10	0	0	0	0	0	0	815,996
Idaho	11	0	0	0	0	0	0	0
Illinois	12	0	0	0	0	0	0	0
Indiana	13	0	0	0	0	0	0	0
Iowa	14	0	0	0	0	0	0	0
Kansas	15	0	0	0	0	0	0	0
Kentucky	16	0	0	0	0	0	0	189,191
Louisiana	17	1,142,221	280,935	946,790	278,741	5	8	16,072,729
Maine	18	0	0	0	0	0	0	0
Maryland	19	0	0	0	0	0	0	34,526
Minnesota	22	0	0	0	0	0	0	0
Mississippi	23	0	0	0	0	0	0	982,005
Missouri	24	0	0	0	0	0	0	0
Montana	25	0	0	0	0	0	0	0
Nebraska	26	0	0	0	0	0	0	0
Nevada	27	0	0	0	0	0	0	0
New Hampshire	28	0	0	0	0	0	0	0
New Mexico	30	0	0	0	0	0	0	0
North Carolina	32	0	0	0	0	0	0	37,379
Oklahoma	35	0	0	0	0	0	0	0
Oregon	36	271,056	19,255	213,298	30,579	1	2	2,720,238
Rhode Island	38	0	5,617	0	30,098	0	1	521,427
South Carolina	39	0	0	0	0	0	0	26,513
South Dakota	40	0	0	0	0	0	0	0
Tennessee	41	0	0	0	0	0	0	8,750
Utah	43	0	0	0	0	0	0	0
Vermont	44	0	0	0	0	0	0	0
Virginia	45	174,769	24,861	164,381	96,245	3	3	4,157,553
West Virginia	47	0	0	0	0	0	0	0
Hawaii	52	0	0	0	0	0	0	123,417
Alaska	54	0	0	0	0	0	0	46,999
Total		1,588,046	370,874	1,324,469	825,153	9	16	29,569,080

Notes:

(3) - (6): Data are total for latest three policy years.

(7), (8): Used in calculating countrywide credibilities. See Section IX-D, Exhibit 1, Page 1.

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Pricing Example for Class 6874
 PAINTING: SHIP HULLS - US ACT

Calculation of Countrywide Relativity

State (1)	State Code (2)	Federal Class Codes Pitch Factors		Pure Premiums, on MA Level		Total (7)
		Indemnity (3)	Medical (4)	Indemnity (5)	Medical (6)	
Alabama	1	3.349	2.257	8.536	7.406	
Arizona	2	84.583	0.683	0.000	0.000	
Arkansas	3	1.309	0.445	0.000	0.000	
Colorado	5	0.000	0.000	0.000	0.000	
Connecticut	6	2.184	0.979	0.000	0.000	
D.C.	8	0.000	0.000	0.000	0.000	
Florida	9	1.346	0.701	1.587	10.465	
Georgia	10	0.464	0.995	0.000	0.000	
Idaho	11	0.000	0.000	0.000	0.000	
Illinois	12	0.434	0.186	0.000	0.000	
Indiana	13	418.982	3.040	0.000	0.000	
Iowa	14	2.659	0.348	0.000	0.000	
Kansas	15	0.000	0.000	0.000	0.000	
Kentucky	16	0.254	0.147	0.000	0.000	
Louisiana	17	0.425	0.490	3.764	3.733	
Maine	18	0.020	0.029	0.000	0.000	
Maryland	19	2.976	2.890	0.000	0.000	
Minnesota	22	0.000	0.000	0.000	0.000	
Mississippi	23	2.364	0.847	0.000	0.000	
Missouri	24	1.000	0.552	0.000	0.000	
Montana	25	0.000	0.000	0.000	0.000	
Nebraska	26	0.000	0.000	0.000	0.000	
Nevada	27	0.000	0.000	0.000	0.000	
New Hampshire	28	9.506	0.918	0.000	0.000	
New Mexico	30	0.000	3.615	0.000	0.000	
North Carolina	32	0.739	0.851	0.000	0.000	
Oklahoma	35	0.362	0.338	0.000	0.000	
Oregon	36	0.633	0.953	6.755	8.542	
Rhode Island	38	1.074	0.781	1.157	4.511	
South Carolina	39	0.502	0.271	0.000	0.000	
South Dakota	40	0.000	0.000	0.000	0.000	
Tennessee	41	67.044	3.465	0.000	0.000	
Utah	43	0.000	0.000	0.000	0.000	
Vermont	44	0.000	0.000	0.000	0.000	
Virginia	45	2.589	0.755	12.433	4.730	
West Virginia	47	0.000	0.000	0.000	0.000	
Hawaii	52	0.601	0.291	0.000	0.000	
Alaska	54	0.836	0.648	0.000	0.000	
(8)	Average of (5), (6) weighted by Payroll from Page 1, respectively			4.690	4.555	9.245
(9)	CW Federal Class Codes Pure Premium			2.224	1.785	4.009
(10)	CW Relativity = (8) / (9)			2.109	2.551	2.306
(11)	CW Relativity, balanced to unity			2.109	2.551	

Notes:

- (3), (4) = (MA Total Federal Class Code Limited Losses) / [(Federal Class Code Pure Premium by State) x (MA Total Federal Class Code Exposure)].
- (5) = 100 x [State Indemnity Losses / State Payroll] x (3), where State Indemnity Losses and State Payroll from page 1.
- (6) = 100 x [State Medical Losses / State Payroll] x (4), where State Medical Losses and State Payroll from page 1.
- (9) = (8) weighted by MA five year Federal Class Codes Exposure
- (11): Relativities balanced to unity (weighted by MA exposure) over Federal Class Codes Industry Group.

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Section VIII - F-Class Recommendation
 Subsection I - Pricing Example
 1/1/2014

Section VIII-I
 Exhibit 3

Pricing Example for Class 6874 PAINTING: SHIP HULLS - US ACT

Calculation of Credibility and Balanced Formula Relativity:

- (1) MA Indicated Relativity
- (2) Countrywide Indicated Relativity
- (3) Relativity to Underlying Present Rate

Injury Type	
Indemnity	Medical
0.000	0.069
2.109	2.551
2.284	1.738

Calculation of MA Credibility:

The MA Credibilities are calculated using the formula $Z=(E / F)^{0.4}$ where E are expected losses for that injury type.

- (4) Adopted Relativity
- (5) Industry Group Pure Premium Underlying Present Rate Factor
- (6) Pure Premium Underlying Present Rate = (4) x (5)
- (7) Expected Losses = (6) x [(Total Exposure from Exhibit 1, Page 5)]
- (8) Full Credibility Standards
- (9) MA Credibility = Minimum of {100%, [(7) / (8)]^{0.4}}

Injury Type	
Indemnity	Medical
1.903	1.392
6.911	5.165
13.154	7.187
469,316	256,441
22,950,000	6,000,000
21%	28%

Calculation of Countrywide Credibility

The Countrywide Credibilities are calculated using the formula $Z=(E / F)^{0.4}$ where E are the countrywide claim counts for that injury type. The countrywide credibility is limited to no more than half of the complement of the credibility assigned to the Massachusetts data.

- (10) Countrywide Lost-Time Claims
- (11) Countrywide Claim Count Standard
- (12) Countrywide Credibility = Minimum of { [(10) / (11)]^{0.4}, 0.5 x [100% - (9)] }
- (13) Credibility to Underlying = 100% - (9) - (12)
- (14) Formula Relativity = [(1) x (9)] + [(2) x (12)] + [(3) x (13)]
- (15) Off Balance Factor

Injury Type	
Indemnity	Medical
25	25
1,150	1,000
22%	23%
57%	49%
1.766	1.458
0.981	1.004

- (16) Balanced Formula Relativity

Injury Type		
Indemnity	Medical	Total
1.800	1.453	1.635

Notes:

- (1): Exhibit 1, Page 5.
- (2): Exhibit 2, Page 2.
- (3): Relativity of (6) to Industry Group average, using 5 year Schedule Z exposure as weights.
- (4): Section VIII-F, Exhibit 3.
- (5): Section VIII-F, Exhibit 2.
- (8), (11): Section IX-D, Exhibit 1, Page 1.
- (10): Exhibit 2, Page 1.
- (15): Factor to balance Formula relativities across industry group to unity using 5 year Schedule Z exposure by injury type.
- (16) = (14) / (15), Total Balanced Formula Relativity is the weighted average of Partial Relativities using the MA Industry Group Pure Premium as weights.

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Section VIII - F-Class Recommendation
Subsection I - Pricing Example
1/1/2014

Section VIII-I
Exhibit 4

Pricing Example for Class 6874 PAINTING: SHIP HULLS - US ACT

Calculation of Proposed Average Rate and Proposed Manual Rate:

(1) Present Average Rate	34.13
(2) Total Balanced Formula Relativity	1.635
(3) Capped Rate Level Factor	12.781
(4) Maximum Average Rate	38.81
(5) Minimum Average Rate	25.1546
(6) Proposed Average Capped Rate = (2) x (3), Subject to Caps (4), (5)	25.15
(7) Offset for Merit Rating	0.997
(8) Offset for ARAP	1.052
(9) Offset for Construction Classification Premium Adjustment Program	1.000
(10) Provision for Insolvency Fund Assessment Recoupment	0.0018
(11) Proposed Manual Rate = { (6) / [(7) x (8) x (9)] } x { 1.000 / [1.000 - (10)] }	24.03
(12) Minimum Premium	500
(13) Loss Constant	0
(14) Expected Loss Rate	7.57
(15) D-Ratio	0.19

Notes:

(1): Section VIII-H, Page 3.

(2): Exhibit 3.

(3): Section H, Exhibit 1. Proposed average uncapped rates are capped by an iterative process using rate levels to determine if the required change is achieved. Class 6874 is in the Federal Class Codes Industry Group.

(4): Multiple caps apply including the maximum increase for any class within the industry group, a maximum absolute dollar change of \$15, and a maximum absolute average rate of \$90.

(5): Based on the minimum decrease for any class within the industry group.

(7), (8), (9), (10): Section IX - K. Class 6874 is not eligible for the Construction Credit program.

(12) = { [(11) x 35.0] + (13) + Expense Constant } subject to a maximum of \$500

Where Expense Constant = 159 if (11) x 35 + (13) < 200,

= 250 if (11) x 35 + (13) >= 200 and < 1000

or = 338 if (11) x 35 + (13) >= 1000.

(13): No loss constant for Federal classes.

(14) = (6) x Ratio of Experience Rating ELR to Average Rate, from Section X-C, Exhibit 1.

Class 6874 is in Hazard Group G.

(15): See text of Section X for an explanation of the calculation of D-Ratios.

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Section VIII - F-Class Recommendation
Subsection J - U.S.L.H. & H.W. Coverage Percentage
1/1/2014

Section VIII-J
Exhibit 1

Calculation of USLH & HW Compensation Coverage Percentage

(1)	Benefits Differential Underlying Current USLH & HW Coverage Percentage	1.206
(2)	State Benefit Level Adjustments Since Last Approval	1.015
(3)	Federal Benefit Level Adjustments Since Last Approval	1.006
(4)	Revised Benefits Differential = (1) x [(3) / (2)]	1.196
(5)	Federal Indemnity Losses as % of Total Federal Losses	50.2%
(6)	Expected Loss Ratio for State Classes	60.3%
(7)	Fixed Expense Ratio	5.1%
(8)	Special Fund Assessment Rate as % of Federal Indemnity Losses	0.151
(9)	Loss Adjustment Expense Factor (Applies to Losses)	1.192
(10)	USLH & HW Coverage Percentage for Manual Rates	1.254
(11)	USLH & HW Coverage Percentage for Expected Loss Rates	1.183

Notes:

(1): Section VIII-J, Exhibit 1 of 9/1/2010 Stipulation.

(2): Total Benefit Level Changes from 10/1/09 to Prospective Period from Section IV-A, Exhibit 1.

(3): Total Benefit Level Changes from 10/1/09 to Prospective Period from Section IV-F, Exhibit 1.

(5): Based on ratio of indemnity losses to total losses from Section VIII-C, Exhibit 1, Page 1.

(6): Section VI-A, Exhibit 1.

(7): Average of Fixed Expense Ratios for 2 PYs from Section VI-B, Exhibit 1.

(8): NCCI's Tax & Assessment Directory.

(9): Section VIII-E, Exhibit 1, Page 2.

(10) = { [(6) x (4) x (9)] + [(6) x (4) x (5) x (8)] + (7) } / { [(6) x (9)] + (7) }

(11) = { [(6) x (4) x (9)] + (7) } / { [(6) x (9)] + (7) }

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Section VIII - F-Class Recommendation
Subsection K - Federal Tax Multiplier
1/1/2014

Section VIII-K
Exhibit 1

Calculation of Federal Tax Multiplier

(1)	State Tax Multiplier	1.004
(2)	Loading for Taxes and Residual Market Subsidy = $1.0 - [1.0 / (1)]$	0.4%
(3)	Expected Loss Ratio (no LAE)	62.5%
(4)	Federal Special Funds Assessment	15.1%
(5)	Federal Indemnity Losses as % of Total Losses	47.5%
(6)	Loading for Federal Funds Assessment = $(3) \times (4) \times (5)$	4.5%
(7)	Federal Tax Multiplier = $1.0 / [1.0 - (2) - (6)]$	1.051

Notes:

(1),(3): Section XII-A, Exhibit 4.

(4): NCCI Tax and Assessment Directory.

(5): Based on ratio of federal indemnity losses to state and federal total losses from Section VIII-C, Exhibit 1, Pages 1 and 3.

CLASSIFICATION PRICING

Background

The primary goal of ratemaking is to determine an appropriate price for each insured based on the losses that the insured is expected to generate in the prospective policy period. Because many risks are too small to generate an accurate rate based on their own individual experience, risks are combined into classifications.

The workers' compensation system assigns similar risks to the same classification codes and calculates a rate separately for each code. In aggregating risks, it is desirable to balance stability and responsiveness and derive groups that are distinctly different from each other. In order to attain stability, we want a group large enough that its losses do not fluctuate too much; and for responsiveness, we want a group small enough so that its rate adjusts to the changing costs of similar risks.

In the Massachusetts workers' compensation system, insureds are separated into five Industry Groups: Manufacturing, Construction, Office and Clerical, Goods and Services, and Miscellaneous. The assignment of class codes to each industry group is based on products produced, processes involved, and services provided.

This year, as in our last two filings, the WCRIBMA has incorporated in its class ratemaking methodology various improvements in class pricing that have been developed and implemented by the National Council on Compensation Insurance (NCCI). The NCCI method is described in detail in Tom Daley's paper, "Class Ratemaking for Workers' Compensation: NCCI's New Methodology." Mr. Daley testified about the NCCI's methodology and was cross-examined during the hearing on 2012 rates. Neither the

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SRB nor the AG objected in their post-hearing briefs to the use of the NCCI's method as proposed by the WCRIBMA.

Summary

In this section we first calculate the rate change for each Industry Group as it varies from the statewide overall indicated rate change. The calculation of the indicated Industry Group rate change is similar to the process used in developing the overall rate level indication. We update the indicated class relativities within each Industry Group to reflect the ratio of the pure premium for the individual class to the pure premium for the given Industry Group. Class relativities are updated regularly in order to maintain a fair and accurate classification system.

Estimated pure premium relativities for each class are a credibility-weighted average of three pure premium relativities: (1) recent Massachusetts (MA) experience, (2) recent "countrywide" (CW) experience, and (3) the relativities underlying the present rate. Average rates are calculated from the updated relativities to derive the proposed rate change by Industry Group. Proposed average rates are capped according to the methodology established in the 9/1/2003 rate decision and used in subsequent filings. Finally, proposed manual rates are determined by applying offsets to the proposed average capped rates. Since ARAP, Merit and Experience Rating, and the Construction Credit program are each designed to be revenue neutral, an offset for each of these programs is applied to the rate.

Massachusetts Data

The data used for the purpose of classification pricing are the Unit Statistical Plan data from Schedule Z, which shows detailed policy year payroll, premium and loss data for each classification in Massachusetts. The data used exclude the experience of large deductible policies. In this review, we have utilized the latest available five policy years of data, policy years 2007 through 2011.

Adjustment of Massachusetts Data

We begin this process by calculating "limited losses." Limited losses are determined by applying per claim limits and per occurrence limits. These limited losses are multiplied by primary conversion factors (PCF) (Section IX – B, Exhibit 1, Page 1) in order to adjust each policy year's experience to reflect current conditions. Primary conversion factors include benefit level adjustments, loss development factors, and trend factors. Consistent with other sections of the filing, the WCRIBMA has calculated loss development factors separately for AIG. Section IX-B, Exhibit 1, Page 1 shows the development factors for the remainder of the industry and for AIG used in the calculation of the primary conversion factors. Converted limited losses are the product of the limited losses and the primary conversion factors.

We then apply excess loss factors. In this filing as in the 2010, 2011 and 2012 filings, the WCRIBMA has followed the NCCI's class ratemaking methodology in calculating excess loss factors. A provision for excess losses has been determined using estimated excess

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ratios by hazard group from Section XII - F, Exhibit 3, Page 1. The excess ratios in Section XII – F, Exhibit 3, Page 1 are “per occurrence” excess ratios which need to be converted to “per claim” excess ratios. This is done by multiplying the excess ratios from Section XII – F, Exhibit 3, Page 1 by a factor of 0.985.

Separately for indemnity and medical losses, a factor (calculated as $[1.0 / (1.0 - \text{Excess Ratio})] - 1.0$) is applied to converted limited losses by class to derive unadjusted excess losses. Consistent with NCCI’s methodology, 30% of the unadjusted indemnity excess losses is reassigned to medical excess losses. The resulting quantities are termed the adjusted excess losses.

Finally we calculate converted unlimited losses by multiplying the sum of the converted limited losses and the adjusted excess losses by the secondary conversion factors (SCF) (Section IX – B, Exhibit 1, Page 2). Secondary conversion factors include factors to load loss adjustment expenses and the investment income offset. Indemnity and medical converted unlimited losses are then summed by policy year. These sums are displayed by Industry Group in Section IX - C. Massachusetts indicated pure premiums are calculated by dividing these losses by exposure (generally payrolls).

Inclusion of Countrywide Data

Massachusetts relativities are credibility-weighted with countrywide relativities and with the pure premiums underlying present relativities. The countrywide data used in this filing are supplied by NCCI and another independent bureau. Countrywide relativities are based upon the latest available three composite policy years, although the specific years vary by state (see Section IX - D, Exhibit 3). Before the data can be used for ratemaking

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purposes, they must be adjusted to reflect the Massachusetts' distribution of exposure and loss levels.

Pitch factors are used to adjust the countrywide data to a corresponding Massachusetts level. These pitch factors are calculated as follows:

1. Multiply each state's classification pure premiums by the corresponding Massachusetts exposure to estimate the loss level that would occur if the employers in that state were located in Massachusetts.
2. Sum the indemnity and medical losses by state and industry group to determine the aggregate adjusted losses for each state.
3. Calculate aggregate adjusted losses for Massachusetts in a similar fashion.
4. Divide the aggregate adjusted losses for Massachusetts by the aggregate adjusted losses for each state to determine the pitch factors.

Pitch factors represent the amount by which another state's data must be adjusted to be on the same exposure distribution and loss level as the Massachusetts Schedule Z

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data (Section IX - D, Exhibit 2). Each state's pure premiums are multiplied by its corresponding pitch factor to derive adjusted pure premiums. The sum of the products of the adjusted pure premiums and exposures by state by class is then divided by the total exposure by class to derive countrywide class pure premiums.

For each Industry Group, the countrywide indicated pure premiums are converted to relativities, so that they balance to unity when weighted by Massachusetts exposures.

Underlying Relativities

The relativities underlying present rates are calculated by balancing to unity the pure premiums underlying present rates (which have been adjusted to reflect the impact of benefit changes and trend to the proposed effective period), based on the five most recent years of exposure.

Formula Relativities

Once we have the separate (MA Indicated, CW and Underlying) relativities, we use credibility-weighted averages to calculate formula relativities. The indicated Massachusetts relativity is multiplied by its credibility, the indicated countrywide relativity is multiplied by its (limited) credibility and the relativity underlying the present rate is multiplied by the remaining credibility. The total formula relativity is the weighted average of the indemnity and medical relativities, using the Industry Group indemnity and medical pure premiums as weights. The calculated formula relativities are then balanced to unity based on the five most recent policy years of exposure.

Credibility

Credibility reflects the relative reliability and volume of class data used to determine class relativities. In general, a class with higher expected losses has more weight given to its recent MA indicated relativities, while a class with lower expected losses has more weight given to the countrywide and underlying relativities. Credibilities are calculated separately for the MA and the CW experience, and the remainder of credibility is assigned to the relativity underlying the present rate.

Massachusetts Credibility

This filing follows the classical credibility method, which has been used since the 9/1/2001 filing, based on the formula:

$$Z = (E / F)^{0.4}$$

Where Z = Credibility assigned to MA or CW experience
 E = Expected Losses for MA, Claim Counts for CW
 F = Full Credibility Criterion

The Massachusetts full credibility criterion is calculated as the product of the claim count standard and the average claim cost. We use NCCI's credibility standards. The average claim costs have been updated in Section IX - D, Exhibit 1, Page 2 of this filing.

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Credibility is a function of the volume of indemnity and medical expected losses. By class, expected losses are calculated separately for indemnity and medical only losses by multiplying the pure premiums underlying the present rate by exposure. Pure premiums underlying present rates are the product of the adopted relativities from the previous rate revision and pure premium underlying present rate factors. The factors are comprised of the rate level factor implicit in the current rate and an adjustment for benefit level changes and trend since the previous revision (Section IX - E, Exhibit 1).

Practical Credibility Considerations

This method may produce anomalous credibilities for classes with small amounts of data. Therefore, the following constraints apply:

1. Credibilities cannot be negative.
2. Countrywide credibilities are limited so that the sum of the Massachusetts and countrywide credibilities is not more than 100%.
3. Countrywide credibilities cannot be greater than 50% and are limited to $\frac{1}{2}$ of (1.0 - Massachusetts credibility).

Countrywide Credibility

The credibility of adjusted countrywide pure premiums is determined based on claim counts for lost time claims (Section IX - D, Exhibit 1, Page 1). Exposure cannot be used as a measure of credibility since wage levels vary significantly between states.

Proposed Average Capped Rates

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Proposed average rates by class are calculated to achieve the proposed rate change by Industry Group. The uncapped rate for each class is the product of the formula pure premium relativity and the uncapped rate level factor for the Industry Group. This uncapped rate level factor is the product of the present average rate and the average rate level change by industry group.

Proposed average rates are then subject to several capping mechanisms (Section IX – H, Exhibit 1). Proposed average uncapped rates are capped by an iterative process using rate levels and the 5 most recent years of exposures to determine if the required Industry Group change is achieved. The maximum rate change for a class within an Industry Group is equal to the benefit level change plus 1/2 the experience change plus 20%. The minimum rate change for a class within an industry group equals the benefit level change plus 1/2 the experience change minus 20%. Setting the caps in this manner provides some rate stability over time.

Manual Rates

Section IX - A displays the proposed manual rates and rating values for this filing. Proposed manual rates are determined by applying offsets to the proposed average capped rates. We calculate offsets for the impact of merit and experience rating, ARAP, construction credits, and the recoupment of the Insolvency Fund assessments (calculated in Section I – E, Exhibit 1, Page 1), as shown in Section IX - K.

All Risk Adjustment Program

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The All Risk Adjustment Program (ARAP) surcharges those experience-rated risks, both voluntary and assigned, with a record of losses greater than expected under the Experience Rating Plan. The purpose of this program is to provide a pricing mechanism to reflect the unusually adverse experience of certain experience-rated risks and to provide an additional financial incentive for such risks to improve workplace safety. Because the program allows for surcharges only, it generates additional premium revenue. In order to achieve revenue-neutrality, we apply a corresponding offset to reduce the manual rates to make up for the anticipated surcharge premium.

The ARAP adjustment is calculated and identified as a separate factor on the Experience Rating Calculation sheet. The ARAP factor can range from 1.00 to a proposed maximum of 1.25. The offset factor for ARAP, calculated in Section IX – K, Exhibit 3, is 1.052.

Merit Rating Program

The objective of the Merit Rating Program is to provide a pricing mechanism for risks too small to qualify for experience rating to share in the loss experience that they generate.

A risk is eligible for the Merit Rating Program if it is not eligible for experience rating and has an average annual premium over the last three policy years of at least \$500. Eligible risks receive the following adjustments to their premium, based on the number of lost-time claims over the most recent three policy years.

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Number of Lost-Time Claims	Merit Rating Adjustment
0	5% credit
1	None
2 or more	5% debit

To make the program revenue neutral, rates should be offset by the average historical merit rating credit weighted by the percentage of premium eligible for merit rating. Section IX - K, Exhibit 2 shows the calculation of the combined offset of 0.997 for Experience and Merit Rating.

Construction Credit Program

The Massachusetts Construction Classification Premium Adjustment Program is a credit-only program and we have calculated an offset to the eligible classes to assure revenue neutrality. Section IX - K, Exhibit 4 shows the derivation our selection of the 2.6% offset to be applied to the eligible classes.

Loading for Recoupment of Insolvency Fund Assessments

Under Massachusetts law, from time to time the Massachusetts Insurers Insolvency Fund ("Fund") assesses carriers that write policies in Massachusetts on the lines of insurance protected by the Fund to cover the Fund's expenses. Beginning in 1988, workers' compensation insurance was covered by the Fund. The loading included in this filing is a

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recoupment of the assessments made by the Fund in 2013 that have not yet been recouped.

The proposed factor is a loading of 0.0018.

Pricing Example

Section IX - L is a sample rate calculation, for Class 2660 – Boot or Shoe Manufacturing. Exhibit 1, page 2 shows the calculation of the MA indicated pure premium and relativity. Exhibit 2, page 2 shows the calculation of the CW indicated pure premium and relativity. On Exhibit 3, we calculate the credibilities and formula relativity. The derivation of the proposed manual rate is shown on Exhibit 4.

Special Classes

The following classes are special situations where the rates and rating values are calculated using a methodology other than that detailed above.

6811, 6854, 6882, 6884: State Act Classes comparable to F-Class Codes

- Established 1/1/1990.
- The manual rates for 6811, 6854, 6882, and 6884 are set at 79.74¹% of the manual rates of F-Class Codes 6801 [Boat Building Wood NOC-US Act], 6843 [Ship Building Iron or Steel-NOC-US Act], 6872 [Ship Repair or Conversion-US Act] and 6874 [Painting Ship Hulls-US Act], respectively.

¹ 79.74% = 1.0 / Proposed USLH&HW Coverage Percentage for Manual Rates. Coverage Percentage from Section VIII – J, Exhibit 1.

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- The ELRs for 6811, 6854, 6882, and 6884 are set at 84.53%² of the ELRs of F-Class Codes 6801 [Boat Building Wood NOC-US Act], 6843 [Ship Building Iron or Steel-NOC-US Act], 6872 [Ship Repair or Conversion-US Act] and 6874 [Painting Ship Hulls-US Act], respectively.
- See Circular Letter No. 1519, released 1/3/1990.

8824 – Assisted Living Residences: Personal Care Employees

- Established 4/1/2012.
- The rate and rating values for 8824 are assigned the rate and rating values of Class 9052- Hotel: All Other Employees & Salespersons, Drivers.
- See Circular Letter No. 2188, released 11/14/2011.

8826 – Assisted Living Residences: All Other Employees, Salespersons & Drivers

- Established 4/1/2012.
- The rate and rating values for 8826 are assigned the rate and rating values of Class 9052- Hotel: All Other Employees & Salespersons, Drivers.
- See Circular Letter No. 2188, released 11/14/2011.

² 84.53% = 1.0 / Proposed USLH&HW Coverage Percentage for ELRs. Coverage Percentage from Section VIII – J, Exhibit 1.

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MASSACHUSETTS WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE MANUAL **RATES**

Draft Proposed Effective January 1, 2014 Page RA-1

RATES

LEGEND

(a) Rate for each individual risk must be obtained by Home Office from the MA Bureau. F Rate provides for coverage under the United States Longshore and Harbor Workers' Compensation Act.
 D Supplement Disease Loading. Refer to Section IV of the Manual Supplement - - Treatment of Disease Coverage.

CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST
0005	2.77	276.	20.	1463	8.90	500.	--	2172	1.95	227.	--	2790	1.81	222.	--
0008	2.61	270.	20.	1624D	5.40	459.	20.	2174	3.66	287.	--	2802	4.62	321.	--
0016	4.14	324.	20.	1655	5.49	462.	20.	2211	6.63	482.	--	2835	2.05	231.	--
0034	4.11	323.	20.	1701	4.01	299.	--	2220	3.06	266.	--	2836	2.72	254.	--
0035	2.21	256.	20.	1710D	5.40	459.	20.	2260	7.05	497.	--	2841	4.13	304.	--
0036	4.11	323.	20.	1747	3.27	273.	--	2286	3.06	266.	--	2883	3.51	282.	--
0037	2.61	270.	20.	1748	3.43	279.	--	2288	2.60	250.	--	2923	1.73	220.	--
0042	4.39	333.	20.	1852	7.03	496.	--	2302	3.06	266.	--	2942	2.14	234.	--
0046	2.43	264.	20.	1853	1.65	217.	--	2305	2.35	241.	--	3018	3.44	279.	--
0050	6.72	500.	50.	1860	2.36	242.	--	2362	2.15	234.	--	3022	3.86	294.	--
0059D	0.30	.	.	1924	2.11	233.	--	2380	2.47	245.	--	3027	3.83	293.	--
0065D	0.13	.	.	1925	3.52	282.	--	2402	2.46	245.	--	3028	3.48	281.	--
0066D	0.11	.	.	2001	3.89	295.	--	2413	3.48	281.	--	3030	7.83	500.	--
0067D	0.11	.	.	2002	3.65	287.	--	2416	2.67	252.	--	3040	8.47	500.	--
0079	2.77	276.	20.	2003	3.89	295.	--	2417	3.70	289.	--	3041	5.11	338.	--
0083	5.44	460.	20.	2014	3.92	296.	--	2501	2.19	236.	--	3042	5.45	350.	--
0106	15.96	500.	20.	2021	3.48	281.	--	2503	1.16	200.	--	3064	3.02	265.	--
0113	4.11	323.	20.	2039	2.44	244.	--	2534	2.19	236.	--	3066	3.02	265.	--
0170	4.11	323.	20.	2041	2.69	253.	--	2570	5.16	340.	--	3076	2.79	257.	--
0251	4.02	320.	20.	2070	4.47	315.	--	2576	2.60	250.	--	3081D	6.62	482.	--
0770b	1.58	.	.	2081	3.82	293.	--	2578	2.60	250.	--	3082D	6.62	482.	--
0773c	4.18	.	.	2089	2.62	251.	--	2585	3.41	278.	--	3085D	4.30	310.	--
0774d	3.06	.	.	2095	4.06	301.	--	2586	1.78	221.	--	3110	7.25	500.	--
0775e	2.90	.	.	2101	2.62	251.	--	2587	3.11	288.	20.	3111	2.68	253.	--
0776f	2.82	.	.	2105	(a)	(a)	(a)	2623	4.15	304.	--	3113	1.91	226.	--
0779g	2.17	.	.	2111	2.49	246.	--	2640	2.09	232.	--	3114	2.91	261.	--
0799h	9.41	.	.	2114	2.62	251.	--	2651	2.09	232.	--	3118	1.91	226.	--
0908	90.00	154.	--	2115	3.96	298.	--	2660	2.05	231.	--	3119	0.96	193.	--
0909	162.00	226.	--	2121	1.74	220.	--	2683	2.18	235.	--	3120	1.76	221.	--
0912	325.00	389.	--	2130	2.36	242.	--	2688	2.92	261.	--	3122	2.10	233.	--
0913	180.00	244.	--	2131	2.30	240.	--	2702	16.06	500.	20.	3127	0.92	191.	--
0917	3.19	291.	20.	2143	2.48	246.	--	2710	7.74	500.	--	3131	1.74	220.	--
0918	0.69	203.	20.	2150	6.25	469.	--	2731	4.21	306.	--	3132	3.19	271.	--
1430	9.44	500.	--	2156	6.91	492.	--	2741	5.47	350.	--	3145	1.97	228.	--
1438	3.61	285.	--	2157	5.26	343.	--	2747	6.67	483.	--	3146	1.98	228.	--

Non-Ratable Code and Rate to be used with the following classifications:

- b 4770 d 4774 f 4776 h 4799
- c 4773 e 4775 g 4779

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Section IX - Classification Pricing
 Subsection A - Summary
 1/1/2014

Section IX - A
 Exhibit 1
 Page 2

MASSACHUSETTS WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE MANUAL **RATES**

Draft Proposed Effective January 1, 2014 Page RA-2

RATES															
CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST
3169	3.48	281.	--	3648	1.55	213.	--	4350	0.63	181.	--	4829	1.19	201.	--
3179	1.36	207.	--	3681	0.78	186.	--	4351	1.16	200.	--	4902	2.14	234.	--
3180	2.89	260.	--	3685	0.78	186.	--	4352	0.98	193.	--	4923	1.39	208.	--
3188	2.75	255.	--	3724	4.47	456.	50.	4360	1.39	208.	--	5020	6.13	500.	50.
3200	2.72	254.	--	3726	12.59	500.	50.	4361	0.61	200.	20.	5022	9.22	500.	50.
3220	2.37	242.	--	3807	3.48	281.	--	4362	0.68	203.	20.	5037	22.28	500.	50.
3223	(a)	(a)	(a)	3808	3.43	279.	--	4410	4.13	304.	--	5040	65.16	500.	50.
3227	3.48	281.	--	3821	4.99	354.	20.	4417	5.14	339.	--	5057	26.99	500.	50.
3241	2.11	233.	--	3826	2.88	260.	--	4432	1.22	202.	--	5059	26.99	500.	50.
3255	3.09	267.	--	3830	1.63	216.	--	4439	2.91	261.	--	5069	26.99	500.	50.
3257	2.91	261.	--	3841	1.79	222.	--	4452	3.66	287.	--	5102	6.21	500.	50.
3270	2.36	242.	--	4000	4.46	335.	20.	4459	3.23	272.	--	5146	6.43	500.	50.
3300	5.72	450.	--	4021	4.57	319.	--	4470	2.38	242.	--	5160	3.71	339.	50.
3305	(a)	(a)	(a)	4024	3.09	267.	--	4484	2.36	242.	--	5183	3.53	333.	50.
3315	3.31	275.	--	4034	6.19	467.	--	4493	3.23	272.	--	5188	4.98	474.	50.
3336	3.79	292.	--	4036	3.02	265.	--	4511	0.32	190.	20.	5190	2.97	313.	50.
3365	7.89	500.	50.	4038	2.56	249.	--	4512	0.14	184.	20.	5191	1.11	218.	20.
3372	2.63	251.	--	4053	2.00	229.	--	4557	1.83	223.	--	5192	3.46	300.	20.
3373	4.46	315.	--	4061	2.44	244.	--	4558	1.63	216.	--	5213	15.39	500.	50.
3381	3.07	266.	--	4062	2.44	244.	--	4561	2.91	261.	--	5215	5.10	479.	50.
3383	1.23	202.	--	4112	0.73	185.	--	4583	3.45	280.	--	5221	7.26	500.	50.
3385	0.91	191.	--	4113	2.00	229.	--	4611	1.30	205.	--	5222	10.42	500.	50.
3400	3.48	281.	--	4114	2.52	247.	--	4635	4.02	300.	--	5223	5.10	479.	50.
3507	3.25	273.	--	4130	4.55	318.	--	4653	2.57	249.	--	5348	6.44	500.	50.
3515	2.58	249.	--	4133	1.88	225.	--	4665	7.86	500.	--	5402	10.39	500.	50.
3548	1.63	216.	--	4150	0.82	188.	--	4692	0.70	184.	--	5403	11.58	500.	50.
3558	0.74	185.	--	4239	3.17	270.	--	4693	1.02	195.	--	5437	5.24	483.	50.
3559	1.63	216.	--	4243	3.69	288.	--	4720	1.83	223.	--	5443	4.59	461.	50.
3571	1.14	199.	--	4244	3.52	282.	--	4740	1.02	195.	--	5445	8.09	500.	50.
3574	1.63	216.	--	4250	2.27	238.	--	4741	2.74	255.	--	5462	7.82	500.	50.
3612	1.86	224.	--	4251	2.07	231.	--	4770b	10.59	500.	--	5472	10.54	500.	50.
3620	6.00	460.	--	4273	2.52	247.	--	4773c	20.38	500.	--	5473	10.81	500.	50.
3629	1.63	216.	--	4279	2.98	263.	--	4774d	17.33	500.	--	5474	6.13	500.	50.
3632	1.63	216.	--	4282	0.86	189.	--	4775e	17.81	500.	--	5478	5.64	497.	50.
3634	1.91	226.	--	4283	2.66	252.	--	4776f	14.81	500.	--	5479	8.86	500.	50.
3635	3.64	286.	--	4299	1.85	224.	--	4777	3.45	280.	--	5480	5.58	495.	50.
3638	1.63	216.	--	4301	4.93	332.	--	4779g	12.33	500.	--	5506	7.71	500.	50.
3642	1.24	202.	--	4304	3.54	283.	--	4799h	35.40	500.	--	5507	8.00	500.	50.
3643	1.36	207.	--	4307	1.71	219.	--	4825	0.74	185.	--	5508D	6.91	500.	50.
3647	2.46	245.	--	4308	1.13	199.	--	4828	1.19	201.	--	5509	3.44	329.	50.

For Non-Ratable portion of Rate, refer to:

b	0770	d	0774	f	0776	h	0799
c	0773	e	0775	g	0779		

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Section IX - Classification Pricing
 Subsection A - Summary
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Section IX - A
 Exhibit 1
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MASSACHUSETTS WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE MANUAL **RATES**

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RATES															
CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST
5538	5.37	488.	50.	7313F	16.68	500.	--	8032	1.62	236.	20.	8720	0.92	211.	20.
5545	37.33	500.	50.	7317F	15.94	500.	--	8033	2.06	251.	20.	8721	0.21	186.	20.
5547	16.81	500.	50.	7327F	36.49	500.	--	8034	4.00	319.	20.	8726F	6.25	469.	--
5606	1.95	277.	50.	7350F	18.87	500.	--	8039	1.38	227.	20.	8742	0.19	186.	20.
5610	6.54	500.	50.	7360	6.89	500.	20.	8044	4.02	320.	20.	8745	4.12	323.	20.
5645	8.46	500.	50.	7370	4.74	345.	20.	8046	2.53	268.	20.	8747	1.05	216.	20.
5651	8.46	500.	50.	7380	6.24	488.	20.	8048	2.94	282.	20.	8748	0.57	199.	20.
5701	24.08	500.	50.	7382	4.03	320.	20.	8050	1.67	237.	20.	8800	0.96	213.	20.
5703	21.80	500.	50.	7403	4.98	353.	20.	8058	2.76	276.	20.	8803	0.04	180.	20.
5705	10.66	500.	50.	7405i	1.19	234.	20.	8103	3.17	290.	20.	8810	0.08	182.	20.
6003	11.16	500.	50.	7420	7.50	500.	20.	8105	4.76	346.	20.	8820	0.11	183.	20.
6005	6.91	500.	50.	7421*	2.09	252.	20.	8106	7.46	500.	20.	8824	1.68	238.	20.
6204	9.76	500.	50.	7422	2.09	252.	20.	8107	3.40	298.	20.	8826	1.68	238.	20.
6217	5.06	477.	50.	7425	3.57	304.	20.	8111	2.86	279.	20.	8829	2.21	256.	20.
6229	5.06	477.	50.	7431j	1.57	252.	20.	8116	3.40	298.	20.	8831	1.17	220.	20.
6233	4.60	461.	50.	7445k	0.39	.	.	8203	6.01	480.	20.	8832	0.28	189.	20.
6251D	6.55	500.	50.	7453l	0.52	.	.	8204	5.22	453.	20.	8833	1.36	227.	20.
6252D	9.43	500.	50.	7502	3.37	297.	20.	8215	3.45	300.	20.	8835	2.09	252.	20.
6306	9.17	500.	50.	7515	2.38	262.	20.	8227	4.74	466.	50.	8837	(a)	(a)	(a)
6319	5.05	477.	50.	7520	4.02	320.	20.	8232	5.07	356.	20.	8868	0.77	206.	20.
6325	5.28	485.	50.	7538	6.10	500.	50.	8233	7.52	500.	20.	8901	0.08	182.	20.
6400	7.05	500.	50.	7539	1.51	232.	20.	8235	4.48	336.	20.	9014	2.83	278.	20.
6504	2.62	251.	--	7580	3.13	289.	20.	8263	6.68	500.	20.	9015	3.36	297.	20.
6801F	11.29	500.	--	7590	5.56	465.	20.	8264	5.86	475.	20.	9016	1.98	248.	20.
6811	9.00	500.	20.	7600	4.12	323.	20.	8265	7.52	500.	20.	9019	3.19	291.	20.
6824F	9.77	500.	--	7601	6.10	500.	50.	8279	5.48	462.	20.	9033	3.99	319.	20.
6826F	10.47	500.	--	7610	0.23	187.	20.	8291	4.76	346.	20.	9040	2.77	276.	20.
6834	2.75	275.	20.	7704	2.31	260.	20.	8292	3.30	295.	20.	9052	1.68	238.	20.
6836	3.11	288.	20.	7720	2.02	250.	20.	8293	10.40	500.	20.	9058	1.68	238.	20.
6843F	15.59	500.	--	7855	5.74	500.	50.	8350	6.26	489.	20.	9060	1.07	216.	20.
6854	12.43	500.	20.	8001	1.83	243.	20.	8380	3.08	287.	20.	9061	1.03	215.	20.
6872F	27.48	500.	--	8002	1.94	247.	20.	8381	2.09	252.	20.	9063	0.76	206.	20.
6874F	24.03	500.	--	8006	1.67	237.	20.	8385	3.04	285.	20.	9077F	5.20	341.	--
6882	21.91	500.	20.	8008	0.79	207.	20.	8392	1.55	233.	20.	9079	1.23	222.	20.
6884	19.16	500.	20.	8010	1.58	234.	20.	8393	2.03	250.	20.	9089	1.30	225.	20.
7133	(a)	(a)	(a)	8013	0.47	195.	20.	8500	7.52	500.	20.	9093	1.25	223.	20.
7219	10.43	500.	20.	8017	1.20	221.	20.	8601	0.32	190.	20.	9101	3.56	304.	20.
7230	7.96	500.	20.	8018	3.11	288.	20.	8709F	6.47	476.	--	9102	2.87	279.	20.
7231	8.10	500.	20.	8021	3.01	284.	20.	8710	2.74	275.	20.	9154	1.54	233.	20.
7309F	26.05	500.	--	8031	2.62	271.	20.	8719	2.74	275.	20.	9156	1.39	228.	20.

*7421--A policy surcharge of \$100 per passenger seat, subject to a maximum surcharge of \$1,000 per aircraft, shall be charged in addition to the premium otherwise determined under this classification. These surcharges shall not be cumulative in the event of substitution of aircraft during the policy period; but these surcharges shall be cumulative in the event more than one aircraft is owned or operated during the same policy period. These surcharges and losses to employees other than members of flying crew are to be reported under Code 0088.

For Non-Ratable portion of Rate, refer to: Non-Ratable Code and Rate to be used with:

i 7445 j 7453 k 7405 l 7431

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Section IX - Classification Pricing
 Subsection A - Summary
 1/1/2014

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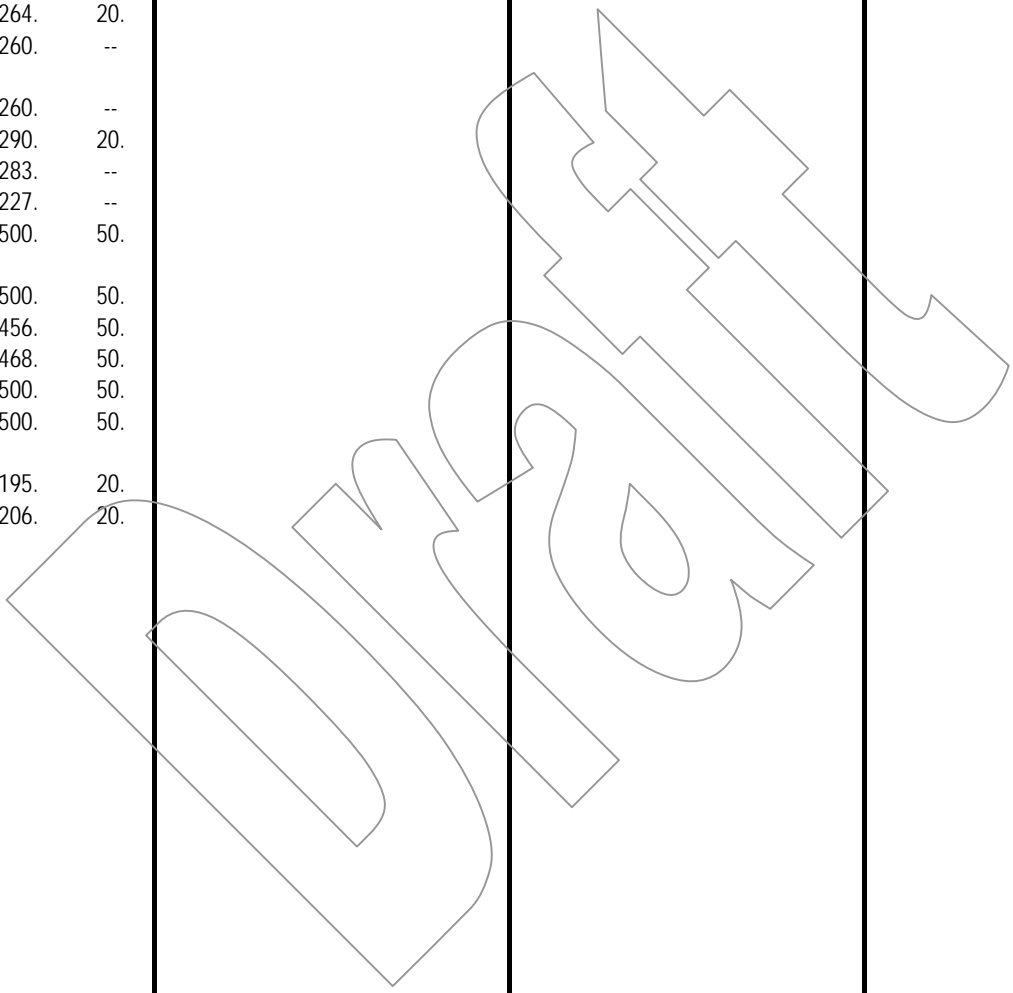
**MASSACHUSETTS WORKERS COMPENSATION
 AND EMPLOYERS LIABILITY INSURANCE MANUAL**

RATES

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RATES

CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST	CLASS CODE	RATE	MIN PREM	LOSS CONST
9178	15.55	500.	20.												
9179	25.79	500.	20.												
9180	4.45	335.	20.												
9182	4.32	330.	20.												
9186	4.45	335.	20.												
9220	3.51	302.	20.												
9402	5.50	463.	20.												
9403	9.93	500.	20.												
9410	2.44	264.	20.												
9501	2.88	260.	--												
9505	2.88	260.	--												
9519	3.17	290.	20.												
9521	3.55	283.	--												
9522	1.94	227.	--												
9533	17.07	500.	50.												
9534	6.75	500.	50.												
9545	4.45	456.	50.												
9549	4.80	468.	50.												
9552	8.50	500.	50.												
9553	8.50	500.	50.												
9586	0.46	195.	20.												
9620	0.76	206.	20.												



Calculation of Pure Premium Underlying Proposed Rate Factor

Industry Group (1)	Injury Type (2)	Uncapped Rate Level Factor (3)	Industry Group Pure Premium (4)	Percent of Pure Premium =(4) / [Total of (4)] (5)	Expected Loss and LAE Ratio (6)	Pure Premium Underlying Proposed Rate Factor = (3) x (5) x (6) (7)
Manufacturing	Indemnity	2.222	1.049	0.592	0.719	0.946
	Medical	2.222	0.723	0.408	0.719	0.652
	Total		1.772			
Construction	Indemnity	5.833	2.990	0.647	0.719	2.714
	Medical	5.833	1.630	0.353	0.719	1.479
	Total		4.620			
Office and Clerical	Indemnity	0.176	0.079	0.567	0.719	0.072
	Medical	0.176	0.060	0.433	0.719	0.055
	Total		0.139			
Goods and Services	Indemnity	1.960	0.776	0.584	0.719	0.822
	Medical	1.960	0.554	0.416	0.719	0.587
	Total		1.331			
Miscellaneous	Indemnity	5.581	2.336	0.629	0.719	2.522
	Medical	5.581	1.380	0.371	0.719	1.491
	Total		3.716			

Notes:

- (3): Section IX - H, Exhibit 1.
- (4): Section IX - C, Exhibits 1-5, page 2.
- (6): Section VI - A, Exhibit 1.

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Section IX - Classification Pricing
 Subsection B - Conversion/Excess Loss Factors
 1/1/2014

Section IX - B
 Exhibit 1
 Page 1

Calculation of Indemnity and Medical Conversion Factors

(A). Benefit Level Adjustment Factors

The following factors are used to bring MA Unit Statistical Plan losses to the benefit level of the proposed effective policy year period.

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal	1.020	1.014	1.012	1.012	1.009
Permanent Total	1.028	1.020	1.017	1.017	1.012
Permanent Partial	1.050	1.035	1.030	1.031	1.022
Temporary Total	1.015	1.010	1.008	1.009	1.007

Medical	2007	2008	2009	2010	2011
All Injury Types	1.032	1.024	1.002	1.000	1.000

(B). Loss Development Factors

The following factors are used to bring MA Unit Statistical Plan losses from first through fifth report to an ultimate basis.

Indemnity	Remainder of Industry				
	Policy Year				
	2007	2008	2009	2010	2011
Likely	1.043	1.067	1.124	1.275	1.829
Not Likely	1.026	1.046	1.090	1.197	1.538

Medical	2007	2008	2009	2010	2011
Likely	1.186	1.207	1.259	1.321	1.422
Not Likely	1.035	1.028	1.029	1.049	1.087

Indemnity	AIG				
	Policy Year				
	2007	2008	2009	2010	2011
Likely	1.037	1.100	1.243	1.513	2.539
Not Likely	1.025	1.071	1.162	1.372	2.038

Medical	2007	2008	2009	2010	2011
Likely	1.074	1.093	1.174	1.277	1.507
Not Likely	1.011	1.011	1.017	1.044	1.126

(C). Trend Factors

The following factors trend the reported pure premiums from the reported period to the proposed effective period for new rates.

Indemnity	Policy Year				
	2007	2008	2009	2010	2011
All Injury Types	0.921	0.913	0.885	0.924	0.937

Medical	2007	2008	2009	2010	2011
Lost Time Medical	0.975	1.011	0.903	0.936	0.966
Medical Only	0.729	0.778	0.838	0.855	0.900

Notes:

(A): Section IV - A, Exhibit 1.

(B): Development to 10th report (Exhibit 2, Page 1) x Development from 10th to ultimate. The 10th to ultimate development factor was calculated using data from Financial Aggregate Policy Year Call (Call 2) and Large Loss & Catastrophe Call (Call 7).

(C): Exhibit 3. Frequency x Severity Trends / Wage Trends

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Section IX - Classification Pricing
 Subsection B - Conversion/Excess Loss Factors
 1/1/2014

Section IX - B
 Exhibit 1
 Page 2

Calculation of Indemnity and Medical Conversion Factors

(D). Primary Conversion Factors (PCF)

Remainder of Industry					
Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal - LD	0.980	0.987	1.006	1.192	1.729
Fatal - NLD	0.964	0.968	0.976	1.119	1.454
Permanent Total	0.988	0.993	1.011	1.198	1.735
Permanent Partial - LD	1.008	1.008	1.023	1.213	1.752
Permanent Partial - NLD	0.992	0.988	0.993	1.139	1.473
Temporary Total - LD	0.975	0.984	1.002	1.188	1.725
Temporary Total - NLD	0.959	0.964	0.972	1.115	1.451

Medical					
Lost Time Medical -LD	1.193	1.251	1.138	1.237	1.375
Lost Time Medical -NLD	1.041	1.065	0.930	0.982	1.051
Medical - NLD	0.779	0.819	0.864	0.897	0.978

AIG					
Indemnity	Policy Year				
	2007	2008	2009	2010	2011
Fatal - LD	0.975	1.018	1.112	1.415	2.401
Fatal - NLD	0.963	0.992	1.040	1.283	1.927
Permanent Total	0.982	1.023	1.118	1.421	2.409
Permanent Partial - LD	1.003	1.039	1.132	1.440	2.432
Permanent Partial - NLD	0.991	1.012	1.058	1.306	1.952
Temporary Total - LD	0.970	1.014	1.108	1.410	2.396
Temporary Total - NLD	0.958	0.988	1.037	1.279	1.923

Medical					
Lost Time Medical -LD	1.081	1.133	1.061	1.196	1.457
Lost Time Medical -NLD	1.017	1.047	0.919	0.978	1.089
Medical - NLD	0.761	0.805	0.854	0.893	1.014

Notes:

(D) = (A) x (B) x (C)

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Section IX - Classification Pricing
Subsection B - Conversion/Excess Loss Factors
1/1/2014

Section IX - B
Exhibit 1
Page 3

Calculation of Indemnity and Medical Conversion Factors

(A). Loss Adjustment Expense Factor

The following factor is applied to include the proposed loss adjustment expense.

	Indemnity	Medical
Loss Adjustment Expense	1.192	1.192

(B). Investment Income Offset Factor

The following factor is applied to adjust for investment income.

	Investment Income Offset Factor
Indemnity	
Fatal	0.870
Permanent Total	0.836
Permanent Partial	1.017
Temporary Total	1.023
Medical	
Fatal	1.000
Permanent Total	0.840
Permanent Partial	1.021
Temporary Total	1.027
Medical Only	1.000

(C). Secondary Conversion Factors

The factors above are combined multiplicatively, resulting in the following conversion factors.

Indemnity	
Fatal	1.038
Permanent Total	0.997
Permanent Partial	1.212
Temporary Total	1.219
Medical	
Fatal	1.192
Permanent Total	1.001
Permanent Partial	1.217
Temporary Total	1.224
Medical Only	1.192

Notes:

(A): 1.000 + Loss Adjustment Expense (as a percent of losses) from Section VI - A, Exhibit 1.

(B): Exhibit 4.

(C) = (A) x (B)

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Section IX - Classification Pricing
 Subsection B - Conversion/Excess Loss Factors
 1/1/2014

Section IX - B
 Exhibit 2
 Page 1

Summary of Development Factors Remainder of Industry

		Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		<u>(1) Indemnity Losses</u>								
2Yr Weighted Average		1.435	1.134	1.053	1.023	1.001	1.004	1.001	1.004	1.003
Cumulative		1.775	1.237	1.090	1.035	1.012	1.011	1.007	1.006	1.003
		<u>(2) Medical Losses</u>								
2Yr Weighted Average		1.077	1.050	1.043	1.018	1.011	1.006	1.009	1.000	0.996
Cumulative		1.226	1.138	1.085	1.040	1.022	1.011	1.005	0.996	0.996
		<u>(3) Claim Counts</u>								
2Yr Weighted Average		1.020	1.009	1.004	1.001	1.001	1.001	1.002	1.002	0.999
Cumulative		1.040	1.019	1.010	1.006	1.006	1.004	1.003	1.001	0.999
		Not-Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		<u>(4) Indemnity Losses</u>								
2Yr Weighted Average		1.285	1.098	1.042	1.020	1.008	1.007	1.000	1.004	1.000
Cumulative		1.528	1.189	1.083	1.039	1.019	1.011	1.004	1.004	1.000
		<u>(5) Medical Losses</u>								
2Yr Weighted Average		1.037	1.019	1.001	0.993	1.006	1.000	1.006	0.996	1.001
Cumulative		1.059	1.022	1.003	1.001	1.008	1.002	1.002	0.996	1.001
		<u>(6) Claim Counts</u>								
2Yr Weighted Average		1.018	1.005	1.003	1.001	1.000	1.000	1.000	1.000	1.000
Cumulative		1.028	1.009	1.005	1.002	1.001	1.001	1.001	1.000	1.000

Notes:

(1), (2), (3): Page 3.
 (4), (5), (6): Page 5.

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Section IX - Classification Pricing
 Subsection B - Conversion/Excess Loss Factors
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Summary of Development Factors AIG

		Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		<u>(1) Indemnity Losses</u>								
5Yr Weighted Average		1.679	1.217	1.130	1.060	1.017	1.004	1.007	1.000	1.002
Cumulative		2.524	1.504	1.235	1.093	1.031	1.013	1.009	1.002	1.002
		<u>(2) Medical Losses</u>								
5Yr Weighted Average		1.180	1.088	1.074	1.018	0.977	0.967	0.968	1.011	0.990
Cumulative		1.285	1.089	1.001	0.932	0.916	0.937	0.969	1.001	0.990
		<u>(3) Claim Counts</u>								
5Yr Weighted Average		1.019	1.006	1.007	1.000	1.000	1.001	1.000	0.999	1.001
Cumulative		1.034	1.015	1.009	1.002	1.002	1.001	1.000	1.000	1.001
		Not-Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		<u>(4) Indemnity Losses</u>								
5Yr Weighted Average		1.485	1.181	1.085	1.046	1.007	1.011	1.006	0.999	1.000
Cumulative		2.035	1.370	1.160	1.070	1.023	1.016	1.005	0.999	1.000
		<u>(5) Medical Losses</u>								
5Yr Weighted Average		1.079	1.027	1.006	1.000	1.003	0.995	0.993	0.992	0.994
Cumulative		1.088	1.009	0.982	0.976	0.976	0.974	0.979	0.986	0.994
		<u>(6) Claim Counts</u>								
5Yr Weighted Average		1.023	1.006	1.003	1.002	1.001	1.001	1.000	0.999	1.000
Cumulative		1.035	1.012	1.006	1.003	1.001	1.000	0.999	0.999	1.000

Notes:

(1), (2), (3): Page 4.
 (4), (5), (6): Page 6.

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Calculation of Likely to Develop Development Factors Remainder of Industry

Policy Year	Likely to Develop								
	Indemnity Losses			Medical Losses			Claim Counts		
	Evaluated at month	Link	Ratio	Evaluated at month	Link	Ratio	Evaluated at month	Link	Ratio
18	30	18		30	18		30		
2010	50,006,686	73,310,936	1.466	35,398,367	38,517,306	1.088	1,270	1,311	1.032
2009	53,100,733	74,614,969	1.405	34,854,549	37,128,934	1.065	1,220	1,229	1.007
Weighted Average			1.435			1.077			1.020
2009	30	42		30	42		30	42	
2009	76,739,610	88,691,406	1.156	37,804,260	39,801,817	1.053	1,258	1,260	1.002
2008	74,244,314	82,596,115	1.112	36,470,301	38,150,221	1.046	1,230	1,251	1.017
Weighted Average			1.134			1.050			1.009
2008	42	54		42	54		42	54	
2008	86,012,606	91,183,409	1.060	39,591,926	41,359,713	1.045	1,272	1,279	1.006
2007	81,524,553	85,259,082	1.046	38,619,303	40,208,352	1.041	1,323	1,326	1.002
Weighted Average			1.053			1.043			1.004
2007	54	66		54	66		54	66	
2007	88,875,879	91,948,818	1.035	40,910,757	41,412,660	1.012	1,342	1,346	1.003
2006	91,387,995	92,484,503	1.012	40,839,368	41,802,611	1.024	1,429	1,427	0.999
Weighted Average			1.023			1.018			1.001
2006	66	78		66	78		66	78	
2006	93,699,651	93,787,238	1.001	42,371,444	42,781,325	1.010	1,434	1,434	1.000
2005	89,094,794	89,216,799	1.001	42,986,489	43,483,613	1.012	1,522	1,526	1.003
Weighted Average			1.001			1.011			1.001
2005	78	90		78	90		78	90	
2005	89,691,290	90,206,419	1.006	43,832,706	44,033,822	1.005	1,529	1,528	0.999
2004	105,888,212	106,127,611	1.002	45,819,165	46,200,168	1.008	1,730	1,734	1.002
Weighted Average			1.004			1.006			1.001
2004	90	102		90	102		90	102	
2004	107,193,376	106,928,439	0.998	46,240,525	46,330,653	1.002	1,737	1,739	1.001
2003	106,432,748	106,815,337	1.004	48,990,151	49,738,018	1.015	1,959	1,965	1.003
Weighted Average			1.001			1.009			1.002
2003	102	114		102	114		102	114	
2003	106,632,517	107,147,285	1.005	49,455,596	49,150,463	0.994	1,963	1,965	1.001
2002	118,185,743	118,463,946	1.002	54,772,882	55,042,445	1.005	2,334	2,340	1.003
Weighted Average			1.004			1.000			1.002
2002	114	126		114	126		114	126	
2002	117,729,218	118,246,483	1.004	54,918,484	54,259,855	0.988	2,338	2,338	1.000
2001	133,162,907	133,376,439	1.002	60,101,113	60,314,801	1.004	2,876	2,872	0.999
Weighted Average			1.003			0.996			0.999

Note:
 Unit Statistical Plan data, excluding Large Deductibles.

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Calculation of Likely to Develop Development Factors AIG

Policy Year	Likely to Develop								
	Indemnity Losses			Medical Losses			Claim Counts		
	Evaluated at month	Link Ratio		Evaluated at month	Link Ratio		Evaluated at month	Link Ratio	
	18	30		18	30		18	30	
2010	14,129,533	23,368,716	1.654	8,011,562	9,378,163	1.171	372	383	1.030
2009	9,880,585	17,997,266	1.821	7,250,514	8,613,493	1.188	244	249	1.020
2008	16,222,004	26,468,022	1.632	9,657,157	11,648,960	1.206	348	357	1.026
2007	21,719,777	36,775,401	1.693	13,477,806	15,266,305	1.133	565	573	1.014
2006	26,105,436	43,205,815	1.655	16,765,753	20,196,910	1.205	722	732	1.014
Weighted Average			1.679			1.180			1.019
2009	18,263,482	22,829,021	1.250	8,671,037	8,840,319	1.020	255	258	1.012
2008	27,433,017	32,355,840	1.179	11,722,116	12,272,303	1.047	364	367	1.008
2007	37,355,146	44,085,821	1.180	15,448,744	16,389,378	1.061	588	595	1.012
2006	43,860,378	54,760,335	1.249	20,391,800	22,729,222	1.115	754	753	0.999
2005	45,316,751	55,641,547	1.228	22,486,011	25,413,626	1.130	856	861	1.006
Weighted Average			1.217			1.088			1.006
2008	32,661,907	35,120,368	1.075	12,455,268	12,509,961	1.004	369	368	0.997
2007	45,485,155	50,578,879	1.112	16,567,225	16,358,918	0.987	600	606	1.010
2006	55,249,251	61,449,210	1.112	23,086,719	24,777,052	1.073	761	765	1.005
2005	56,130,810	66,778,115	1.190	25,468,802	27,427,230	1.077	867	872	1.006
2004	51,546,316	58,513,796	1.135	24,256,424	28,251,665	1.165	913	923	1.011
Weighted Average			1.130			1.074			1.007
2007	51,309,383	52,770,539	1.028	16,637,829	16,454,371	0.989	610	611	1.002
2006	61,863,995	63,376,728	1.024	24,557,102	24,022,275	0.978	766	766	1.000
2005	68,116,277	71,222,578	1.046	27,719,616	27,846,422	1.005	877	874	0.997
2004	59,567,727	65,252,003	1.095	28,419,505	28,871,950	1.016	931	933	1.002
2003	53,048,993	59,000,872	1.112	23,285,373	25,612,707	1.100	932	933	1.001
Weighted Average			1.060			1.018			1.000
2006	64,275,572	65,279,367	1.016	24,116,524	23,950,048	0.993	769	769	1.000
2005	70,490,893	70,948,207	1.006	27,664,008	26,957,636	0.974	873	876	1.003
2004	65,892,407	68,112,950	1.034	28,981,654	28,072,136	0.969	936	937	1.001
2003	59,065,709	60,161,936	1.019	25,650,931	25,055,591	0.977	936	933	0.997
2002	37,976,233	38,302,021	1.009	17,131,270	16,698,888	0.975	713	713	1.000
Weighted Average			1.017			0.977			1.000
2005	71,872,266	71,726,723	0.998	27,723,245	27,162,388	0.980	882	883	1.001
2004	68,080,599	68,695,750	1.009	28,104,487	26,978,604	0.960	937	938	1.001
2003	60,177,808	60,159,662	1.000	24,954,794	23,662,585	0.948	935	937	1.002
2002	38,368,032	39,214,258	1.022	16,684,856	15,936,285	0.955	714	714	1.000
2001	26,923,418	26,733,318	0.993	8,008,670	8,256,638	1.031	414	415	1.002
Weighted Average			1.004			0.967			1.001
2004	68,456,747	69,053,826	1.009	26,957,198	26,293,193	0.975	939	940	1.001
2003	59,881,918	60,049,682	1.003	23,570,448	21,902,619	0.929	937	937	1.000
2002	39,816,772	40,036,832	1.006	15,998,424	15,991,854	1.000	716	716	1.000
2001	27,524,834	27,815,350	1.011	8,465,855	8,197,573	0.968	418	419	1.002
2000	19,521,465	19,793,226	1.014	6,069,971	6,082,894	1.002	274	273	0.996
Weighted Average			1.007			0.968			1.000
2003	59,694,368	59,948,025	1.004	21,757,933	21,859,366	1.005	936	936	1.000
2002	39,872,899	40,168,062	1.007	16,074,139	15,813,302	0.984	715	715	1.000
2001	27,261,555	27,052,965	0.992	8,151,232	8,348,755	1.024	417	417	1.000
2000	19,793,226	19,477,130	0.984	6,082,894	6,388,283	1.050	273	273	1.000
1999	12,682,338	12,701,922	1.002	4,270,794	4,545,915	1.064	250	248	0.992
Weighted Average			1.000			1.011			0.999
2002	40,799,739	40,882,781	1.002	15,921,393	15,544,205	0.976	718	718	1.000
2001	25,987,065	26,002,137	1.001	8,119,518	8,443,645	1.040	414	414	1.000
2000	19,477,130	19,664,249	1.010	6,388,283	6,203,724	0.971	273	273	1.000
1999	12,871,529	12,753,936	0.991	4,582,784	4,480,490	0.978	249	250	1.004
Weighted Average			1.002			0.990			1.001

Note:
 Unit Statistical Plan data, excluding Large Deductibles.

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Calculation of Not-Likely to Develop Development Factors Remainder of Industry

Policy Year		Not-Likely to Develop								
		Indemnity Losses			Medical Losses			Claim Counts		
		Evaluated at month	Link Ratio		Evaluated at month	Link Ratio		Evaluated at month	Link Ratio	
		18	30		18	30		18	30	
	2010	103,344,104	134,167,913	1.298	97,375,193	101,801,398	1.045	10,283	10,468	1.018
	2009	102,224,221	129,991,720	1.272	95,670,973	98,296,944	1.027	9,480	9,660	1.019
	Weighted Average			1.285			1.037			1.018
		30	42		30	42		30	42	
	2009	127,867,080	140,920,030	1.102	97,621,617	100,043,295	1.025	9,631	9,675	1.005
	2008	121,134,702	132,386,639	1.093	92,680,866	93,872,710	1.013	9,877	9,927	1.005
	Weighted Average			1.098			1.019			1.005
		42	54		42	54		42	54	
	2008	128,970,149	134,737,850	1.045	92,431,004	92,068,837	0.996	9,906	9,933	1.003
	2007	127,616,608	132,668,563	1.040	92,252,248	92,874,589	1.007	10,348	10,373	1.002
	Weighted Average			1.042			1.001			1.003
		54	66		54	66		54	66	
	2007	129,051,765	132,475,360	1.027	92,172,185	91,468,051	0.992	10,357	10,365	1.001
	2006	119,744,438	121,296,318	1.013	83,574,093	83,081,482	0.994	10,191	10,199	1.001
	Weighted Average			1.020			0.993			1.001
		66	78		66	78		66	78	
	2006	120,081,170	121,708,677	1.014	82,512,649	83,508,070	1.012	10,192	10,199	1.001
	2005	118,688,608	118,857,679	1.001	79,935,866	79,933,347	1.000	10,994	10,996	1.000
	Weighted Average			1.008			1.006			1.000
		78	90		78	90		78	90	
	2005	118,383,188	119,254,349	1.007	79,584,254	80,094,066	1.006	10,993	10,998	1.000
	2004	124,861,986	125,774,779	1.007	83,329,566	82,831,866	0.994	11,641	11,643	1.000
	Weighted Average			1.007			1.000			1.000
		90	102		90	102		90	102	
	2004	124,709,014	124,523,980	0.999	82,791,509	83,057,710	1.003	11,640	11,643	1.000
	2003	124,645,031	124,763,056	1.001	86,440,488	87,185,938	1.009	13,430	13,432	1.000
	Weighted Average			1.000			1.006			1.000
		102	114		102	114		102	114	
	2003	124,945,876	125,396,723	1.004	87,468,360	87,090,981	0.996	13,434	13,440	1.000
	2002	141,885,494	142,399,389	1.004	94,600,753	94,184,616	0.996	14,867	14,870	1.000
	Weighted Average			1.004			0.996			1.000
		114	126		114	126		114	126	
	2002	143,134,117	143,085,477	1.000	94,308,577	94,646,587	1.004	14,872	14,870	1.000
	2001	152,866,917	153,061,512	1.001	94,157,230	93,926,567	0.998	16,264	16,267	1.000
	Weighted Average			1.000			1.001			1.000

Note:
 Unit Statistical Plan data, excluding Large Deductibles.

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Calculation of Not-Likely to Develop Development Factors AIG

Policy Year	Not-Likely to Develop								
	Indemnity Losses			Medical Losses			Claim Counts		
	Evaluated at month	Link	Ratio	Evaluated at month	Link	Ratio	Evaluated at month	Link	Ratio
	18	30		18	30		18	30	
2010	24,438,755	39,260,117	1.606	22,554,181	24,439,499	1.084	2,450	2,501	1.021
2009	21,356,909	31,204,572	1.461	20,488,545	21,862,477	1.067	2,027	2,066	1.019
2008	29,461,556	42,439,934	1.441	26,359,455	28,643,887	1.087	2,668	2,713	1.017
2007	26,379,119	39,503,353	1.498	27,563,049	29,927,919	1.086	3,297	3,395	1.030
2006	26,332,454	37,635,127	1.429	27,672,594	29,553,359	1.068	3,444	3,528	1.024
Weighted Average			1.485			1.079			1.023
	30	42		30	42		30	42	
2009	30,938,356	37,139,606	1.200	21,804,933	21,713,649	0.996	2,060	2,072	1.006
2008	41,474,939	48,871,791	1.178	28,570,731	28,233,715	0.988	2,706	2,724	1.007
2007	38,923,608	45,162,284	1.160	29,745,480	30,753,208	1.034	3,380	3,393	1.004
2006	36,980,564	43,171,774	1.167	29,358,469	31,008,920	1.056	3,506	3,531	1.007
2005	40,279,822	48,335,271	1.200	32,210,847	33,825,403	1.050	3,804	3,828	1.006
Weighted Average			1.181			1.027			1.006
	42	54		42	54		42	54	
2008	48,565,724	51,756,605	1.066	28,050,750	27,863,478	0.993	2,722	2,735	1.005
2007	43,762,950	48,070,449	1.098	30,575,361	30,204,724	0.988	3,388	3,401	1.004
2006	42,682,858	47,006,516	1.101	30,651,423	31,337,058	1.022	3,523	3,530	1.002
2005	47,846,008	51,228,516	1.071	33,770,227	33,560,443	0.994	3,822	3,828	1.002
2004	42,780,887	46,702,705	1.092	28,659,956	29,656,898	1.035	3,564	3,576	1.003
Weighted Average			1.085			1.006			1.003
	54	66		54	66		54	66	
2007	47,339,945	49,539,906	1.046	29,925,813	29,732,391	0.994	3,397	3,405	1.002
2006	46,591,731	47,592,504	1.021	31,557,008	31,347,871	0.993	3,529	3,534	1.001
2005	49,890,353	53,006,967	1.062	33,268,058	33,047,593	0.993	3,823	3,828	1.001
2004	45,648,775	48,036,161	1.052	29,489,057	29,912,051	1.014	3,568	3,575	1.002
2003	33,642,929	35,096,646	1.043	20,895,082	21,122,027	1.011	2,989	3,006	1.006
Weighted Average			1.046			1.000			1.002
	66	78		66	78		66	78	
2006	46,693,660	47,141,243	1.010	31,253,622	30,962,068	0.991	3,531	3,538	1.002
2005	53,738,651	53,923,789	1.003	33,230,008	32,932,389	0.991	3,829	3,829	1.000
2004	47,395,757	47,702,020	1.006	29,802,347	29,620,203	0.994	3,572	3,571	1.000
2003	35,031,809	35,598,109	1.016	21,083,803	21,157,866	1.004	3,003	3,007	1.001
2002	30,675,547	30,634,357	0.999	16,914,037	17,959,289	1.062	2,711	2,711	1.000
Weighted Average			1.007			1.003			1.001
	78	90		78	90		78	90	
2005	52,999,729	52,906,203	0.998	32,166,781	32,369,751	1.006	3,823	3,824	1.000
2004	47,734,371	48,079,597	1.007	29,587,852	29,084,338	0.983	3,571	3,574	1.001
2003	35,582,237	36,077,879	1.014	21,258,663	21,324,628	1.003	3,005	3,008	1.001
2002	30,568,346	31,620,984	1.034	17,973,321	17,692,487	0.984	2,710	2,711	1.000
2001	21,981,265	22,264,151	1.013	10,876,721	10,815,307	0.994	1,775	1,776	1.001
Weighted Average			1.011			0.995			1.001
	90	102		90	102		90	102	
2004	48,318,600	48,253,624	0.999	29,105,744	29,185,786	1.003	3,573	3,572	1.000
2003	36,355,623	36,514,852	1.004	21,416,765	21,089,216	0.985	3,008	3,008	1.000
2002	31,018,470	31,464,400	1.014	17,630,348	17,290,799	0.981	2,709	2,709	1.000
2001	21,472,635	21,604,722	1.006	10,606,090	10,517,055	0.992	1,773	1,774	1.001
2000	20,503,925	20,760,892	1.013	8,784,947	8,813,259	1.003	1,296	1,298	1.002
Weighted Average			1.006			0.993			1.000
	102	114		102	114		102	114	
2003	36,870,166	36,693,399	0.995	21,233,902	21,353,715	1.006	3,009	3,011	1.001
2002	31,628,333	31,916,372	1.009	17,208,514	16,933,875	0.984	2,710	2,712	1.001
2001	22,158,517	21,855,264	0.986	10,563,396	10,321,072	0.977	1,776	1,776	1.000
2000	20,760,892	21,014,991	1.012	8,813,259	8,727,764	0.990	1,298	1,298	1.000
1999	18,785,642	18,646,215	0.993	7,135,802	7,070,858	0.991	1,088	1,078	0.991
Weighted Average			0.999			0.992			0.999
	114	126		114	126		114	126	
2002	31,284,695	31,260,735	0.999	16,825,784	16,873,374	1.003	2,709	2,709	1.000
2001	22,921,165	22,922,951	1.000	10,550,308	10,594,508	1.004	1,779	1,779	1.000
2000	21,014,991	21,021,184	1.000	8,727,764	8,469,803	0.970	1,298	1,298	1.000
1999	18,476,608	18,469,552	1.000	7,033,989	6,954,853	0.989	1,077	1,076	0.999
Weighted Average			1.000			0.994			1.000

Note:
 Unit Statistical Plan data, excluding Large Deductibles.

IX 000028

Section IX - Classification Pricing
 Subsection B - Conversion/Excess Loss Factors
 1/1/2014

Section IX - B
 Exhibit 3

Trend Factors

Policy Year	Statewide Average Weekly Wage	Indemnity Severity	Lost Time Medical Severity	Medical Only Severity	Lost Time Claim Frequency	Medical Only Claim Frequency
(1) Historical Values						
2007	1,092.12	23,131	11,298	800	189.95	447.85
2008	1,092.79	24,807	11,570	814	178.91	413.48
2009	1,101.70	26,224	13,285	790	176.04	398.17
2010	1,144.80	24,722	12,606	800	185.81	400.79
2011	1,174.21	25,701	12,883	823	180.68	379.43

(2) Trend to PY 2011						
2007	1.075	1.111	1.140	1.029	0.951	0.847
2008	1.075	1.036	1.114	1.012	1.010	0.918
2009	1.066	0.980	0.970	1.042	1.026	0.953
2010	1.026	1.040	1.022	1.030	0.972	0.947
2011	1.000	1.000	1.000	1.000	1.000	1.000

(3) Projected Trend from PY 2011 to Prospective Effective Period						
Selected Annual Trend	2.3%	2.7%	3.8%	2.7%	-2.6%	-3.9%
Trend Factor	1.069	1.084	1.118	1.084	0.925	0.888

(4) Trend Factors from PY 2011 to Prospective Effective Period						
Policy Year	Statewide Average Weekly Wage	Indemnity Severity	Lost Time Medical Severity	Medical Only Severity	Lost Time Claim Frequency	Medical Only Claim Frequency
2007	1.150	1.204	1.274	1.115	0.880	0.752
2008	1.149	1.123	1.245	1.097	0.934	0.815
2009	1.140	1.062	1.084	1.129	0.949	0.846
2010	1.097	1.127	1.142	1.116	0.899	0.841
2011	1.069	1.084	1.118	1.084	0.925	0.888

Notes:

(1): Weekly Wage from Section V-G, Exhibit 2.

Indemnity Severity from Section V-C, Exhibit 1.

Lost Time Medical Severity from Section V-D, Exhibit 1.

Medical Only Severity from Section V-D, Exhibit 2.

Lost Time Claim Frequency from Section V-B, Exhibit 1.

Medical Only Claim Frequency from Section V-B, Exhibit 2.

(2) = (1) / (1) for Policy Year 2011

(3): Selected Annual Trend from Section V-A, Exhibit 1.

Trend Factor = (1.0 + Selected Annual Trend) ^ Trend Period, where Trend Period extends from the midpoint of PY 2011 to midpoint of policy effective period 1/1/2014 - 12/31/2014, which is 3 years.

(4) = (2) x (3)

IX 000029

Section IX - Classification Pricing
 Subsection B - Conversion/Excess Loss Factors
 1/1/2014

Section IX - B
 Exhibit 4

Calculation of Investment Income Offset Factor

Indemnity

Injury Type (1)	Loss Flow Discounted at 0.87% Post-Chapter 398 (2)	Injury Type Weights At Ultimate (3)	Investment Income Offset Factor (4)
Fatal	0.840	1.45%	0.870
Permanent Total	0.806	5.10%	0.836
Permanent Partial	0.981	41.43%	1.017
Temporary Total	0.986	14.01%	1.023
Total Indemnity			0.964

Medical

Injury Type (5)	Loss Flow Discounted at 0.87% Post-Chapter 398 (6)	Injury Type Weights At Ultimate (7)	Investment Income Offset Factor (8)
Fatal	0.840	0.24%	1.000
Permanent Total	0.806	4.18%	0.840
Permanent Partial	0.981	17.86%	1.021
Temporary Total	0.986	10.79%	1.027
Medical Only		4.94%	1.000
Total Medical			0.960

Notes:

(2), (6): Loss Flows are from the 8/1/99 rate filing, Section VIII - E, Exhibits 12 and 16. The discount rate is calculated by multiplying the pre-tax rate of return on governments (Section VII-J, Exhibit 1, Page 1) times the complement of the federal tax rate on investment income (Section VII-J, Exhibit 1, Page 1) [1.10% x (1.000 - 20.36%)] = 0.87%

(3): Section IV - E, Exhibit 2, page 1.

(4)= (2) / 0.964, which is the weighted average of (2) and (3).

(7): Section IV - E, Exhibit 2, page 2.

(8)= (6) / 0.960, which is the weighted average of (6) and (7). This weighted average excludes Fatal and Medical Only injury types as it is assumed that they generate no investment income.

IX 000030

Section IX - Classification Pricing
Subsection B - Conversion/Excess Loss Factors
1/1/2014

Section IX - B
Exhibit 5

Calculation of Excess Loss Factors

Hazard Group (1)	Excess Ratio (2)	Excess Factor (3) = [1.0 / (1.0 - (2))]
A	0.079	1.086
B	0.091	1.100
C	0.114	1.129
D	0.150	1.176
E	0.162	1.193
F	0.186	1.229
G	0.297	1.422

Note:

(2) = Excess Ratio for Accident Limit of \$500,000 x 0.985, where Excess Ratio from Section XII-F, Exhibit 3, Page 1 and 0.985 is the factor to convert the per occurrence claims to per claim basis.

IX 000031

Calculation of Converted Limited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Manufacturing Industry Group, Industry Code 1
 All Classes

Policy Year (1)	Injury Type (2)	Indemnity				Limited Losses				Converted Limited Losses				Total (12)
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Total (7)	Likely (8)	Not-Likely (9)	Likely (10)	Not-Likely (11)	Likely (10)	Not-Likely (11)	Total (12)	
2007	Fatal	10,465	314,626	0	0	325,091	10,255	303,262	0	0	313,517	0	0	313,517
	Permanent Total	3,089,534	0	908,609	0	3,998,143	3,050,176	0	1,072,975	0	0	1,072,975	0	4,123,151
	Permanent Partial	12,629,653	19,076,800	6,007,858	6,674,211	44,388,522	12,721,622	18,919,570	7,077,422	6,923,571	45,642,185	7,077,422	6,923,571	45,642,185
	Temporary Total Medical Only	3,815,470	10,562,037	1,882,030	4,563,856	23,929,481	3,720,373	10,130,431	2,238,920	7,966,435	24,056,159	2,238,920	3,543,240	24,056,159
2008	Fatal	25,500	469,231	20,000	76,239	590,970	25,178	454,314	25,012	81,183	585,687	25,012	81,183	585,687
	Permanent Total	2,292,917	0	628,329	0	2,921,246	2,281,235	0	780,458	0	3,061,693	780,458	0	3,061,693
	Permanent Partial	10,531,072	17,616,105	4,959,191	7,353,054	40,459,422	10,671,247	17,490,226	6,099,126	7,809,593	42,070,192	6,099,126	7,809,593	42,070,192
	Temporary Total Medical Only	3,844,256	8,556,390	1,707,803	4,299,635	21,053,329	3,781,652	8,263,084	2,130,423	7,384,909	21,560,068	2,130,423	3,513,014	21,560,068
2009	Fatal	15,000	686,664	1,109	147,939	850,712	15,087	670,154	1,262	137,652	824,155	1,262	137,652	824,155
	Permanent Total	1,416,564	0	516,450	0	1,933,014	1,447,278	0	583,465	0	2,030,743	583,465	0	2,030,743
	Permanent Partial	10,418,416	14,204,315	4,608,100	6,212,613	35,443,444	10,811,112	14,250,083	5,200,846	5,770,126	36,032,167	5,200,846	5,770,126	36,032,167
	Temporary Total Medical Only	1,834,958	7,383,269	913,862	3,547,367	16,463,855	1,838,984	7,191,851	1,040,037	5,888,706	15,959,578	1,040,037	3,062,028	15,959,578
2010	Fatal	40,000	638,601	585	55,748	734,934	47,683	714,692	724	54,746	817,845	724	54,746	817,845
	Permanent Total	1,271,566	0	1,113,284	0	2,384,850	1,523,058	0	1,377,254	0	2,900,312	1,377,254	0	2,900,312
	Permanent Partial	8,839,914	15,275,791	3,990,053	8,496,237	36,601,995	11,080,159	17,929,642	4,910,654	8,335,539	42,255,994	4,910,654	8,335,539	42,255,994
	Temporary Total Medical Only	3,078,264	7,678,908	1,668,694	3,819,197	19,282,982	3,656,679	8,606,740	2,064,356	6,732,611	21,060,386	2,064,356	3,423,049	21,060,386
2011	Fatal	0	295,000	0	0	295,000	0	428,943	0	0	428,943	0	0	428,943
	Permanent Total	222,632	0	457,200	0	679,832	386,308	0	628,579	0	1,014,887	628,579	0	1,014,887
	Permanent Partial	3,267,287	8,448,013	2,232,738	6,462,243	20,410,281	6,246,681	12,886,512	3,118,862	6,811,915	29,063,970	3,118,862	6,811,915	29,063,970
	Temporary Total Medical Only	5,165,139	10,252,655	3,547,509	3,930,919	29,000,439	9,259,989	15,420,909	4,914,096	10,577,586	40,172,580	4,914,096	3,861,042	40,172,580
(13) All Years, All Injury Types		71,808,607	121,458,405	35,163,404	93,478,100	321,908,516	82,574,756	133,660,413	43,264,471	91,876,945	351,376,585	43,264,471	91,876,945	351,376,585

Notes:
 (3), (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.
 (7)= (3) + (4) + (5) + (6)
 (8)= (3) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (9)= (4) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (10)= (5) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (11)= (6) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (12)= (8) + (9) + (10) + (11)

Calculation of Converted Unlimited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Manufacturing Industry Group, Industry Code 1
 All Classes

Policy Year (1)	Injury Type (2)	Adjusted Excess Losses			Indemnity			Converted Unlimited Losses			Total (12)	Exposure (13)
		Likely (3)	Not-Likely (4)	Medical Likely (5)	Likely (6)	Not-Likely (7)	Medical Likely (8)	Not-Likely (9)	Likely (10)	Not-Likely (11)		
2007	Fatal	719	41,038	308	17,588	59,653	11,387	357,253	367	20,965	389,972	52,996,218
	Permanent Total	273,581	0	271,112	0	544,693	3,312,818	0	1,345,280	0	4,658,098	
	Permanent Partial	1,207,661	1,852,598	1,446,277	1,769,383	6,275,919	16,886,005	25,181,407	10,376,312	10,582,355	63,026,079	
	Temporary Total Medical Only	335,133	944,678	445,858	1,478,007	3,203,676	4,943,924	13,501,274	3,286,638	11,561,649	33,293,485	
2008	Fatal	2,258	32,602	4,186	22,280	61,326	28,468	505,234	34,804	123,327	691,833	51,993,362
	Permanent Total	224,796	0	200,903	0	425,699	2,497,783	0	982,232	0	3,480,015	
	Permanent Partial	1,050,645	1,697,275	1,314,641	1,795,471	5,858,032	14,210,060	23,260,368	9,025,137	11,692,710	58,188,275	
	Temporary Total Medical Only	336,983	765,059	407,846	1,324,775	2,834,663	5,020,883	11,005,890	3,107,285	10,662,176	29,796,234	
2009	Fatal	1,864	50,624	1,021	39,380	92,889	17,588	747,894	2,722	211,022	979,226	49,375,905
	Permanent Total	124,822	0	130,103	0	254,925	1,566,926	0	714,201	0	2,281,127	
	Permanent Partial	1,002,685	1,399,740	1,119,784	1,418,361	4,940,570	14,321,473	18,971,760	7,694,408	8,750,894	49,738,595	
	Temporary Total Medical Only	163,280	647,855	209,024	1,061,820	2,081,979	2,440,890	9,557,109	1,529,070	8,508,660	22,035,729	
2010	Fatal	3,341	56,727	1,505	31,058	92,631	52,944	800,440	2,656	102,277	958,317	56,355,915
	Permanent Total	141,468	0	228,049	0	369,517	1,659,047	0	1,606,726	0	3,265,773	
	Permanent Partial	1,077,240	1,677,003	1,159,989	1,851,353	5,765,585	14,738,010	23,788,482	7,390,088	12,400,997	58,297,577	
	Temporary Total Medical Only	333,481	835,448	405,455	1,278,866	2,853,250	4,864,263	11,510,638	3,023,481	9,807,449	29,205,831	
2011	Fatal	0	37,326	0	15,997	53,323	0	483,810	0	19,068	502,878	61,216,920
	Permanent Total	48,783	0	142,211	0	190,994	433,659	0	771,473	0	1,205,132	
	Permanent Partial	641,470	1,323,412	718,523	1,600,087	4,283,492	8,350,275	17,226,217	4,671,434	10,240,337	40,488,263	
	Temporary Total Medical Only	880,934	1,532,434	1,054,686	2,115,710	5,583,764	12,362,441	20,667,221	7,306,834	15,538,816	55,875,312	
(14) All Years, All Injury Types	7,851,144	12,893,819	9,261,481	18,158,994	48,165,438	107,718,844	177,544,997	62,871,148	133,754,249	481,889,238	271,938,321	
(15) Pure Premium				0.396	0.653	0.231		0.492		1.772		

Notes:

(3), (4) = 0.7 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Indemnity Converted Limited Losses from Page 1, Columns (8) and (9).
 (5), (6) = [Excess Factor - 1.0] x Medical Converted Limited Losses + 0.3 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Medical Converted Limited Losses from Page 1, Columns (10) and (11).

(7) = (3) + (4) + (5) + (6)

(8), (9), (10), (11): (Converted Limited Losses from Page 1 + Adjusted Excess Losses) x Secondary Conversion Factors from Section IX - B, Exhibit 1, Page 3.

(12) = (8) + (9) + (10) + (11)

(13): Unit Statistical Plan data, excluding Large Deductibles.

(15): Pure Premium calculated as the All Years, All Injury Types Converted Unlimited Losses divided by the All Years, All Injury Types Exposure.

Calculation of Converted Limited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Construction Industry Group, Industry Code 2
 All Classes

Policy Year (1)	Injury Type (2)	Limited Losses				Converted Limited Losses				Total (12)
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (8)	Not-Likely (9)	Likely (10)	Not-Likely (11)	
2007	Fatal	741,540	2,089,548	67,307	283,380	726,674	2,014,073	80,315	294,082	3,115,144
	Permanent Total	10,175,624	0	3,574,672	0	10,035,013	0	4,174,485	0	14,209,498
	Permanent Partial	37,255,021	40,736,100	13,176,244	11,858,701	37,451,252	40,389,573	15,092,315	12,230,156	105,163,296
	Temporary Total	7,019,846	17,710,703	3,036,483	11,106,783	6,843,488	16,985,562	3,592,747	11,503,002	38,924,799
	Medical Only	0	0	0	4,945,796	0	0	0	3,823,110	3,823,110
2008	Fatal	935,081	1,097,670	214,919	114,545	938,355	1,062,773	268,757	121,973	2,391,858
	Permanent Total	8,151,696	0	3,803,363	0	8,152,620	0	4,592,259	0	12,744,879
	Permanent Partial	26,656,496	39,803,156	8,897,157	12,746,134	27,233,600	39,813,568	10,782,697	13,471,184	91,301,049
	Temporary Total	5,169,312	16,606,041	2,702,514	10,250,236	5,084,714	16,051,563	3,378,352	10,889,761	35,404,390
	Medical Only	0	0	0	3,856,835	0	0	0	3,143,409	3,143,409
2009	Fatal	536,856	1,656,416	22,223	108,560	539,952	1,616,848	25,291	100,982	2,283,073
	Permanent Total	4,286,005	0	1,613,333	0	4,406,315	0	1,815,857	0	6,222,172
	Permanent Partial	23,682,323	39,078,882	8,013,487	15,693,989	24,965,295	39,657,477	8,999,191	14,550,213	88,172,176
	Temporary Total	7,033,166	15,310,846	2,593,523	10,191,689	7,048,599	14,933,539	2,951,606	9,475,326	34,409,070
	Medical Only	0	0	0	3,136,941	0	0	0	2,705,117	2,705,117
2010	Fatal	5,000	1,267,045	0	54,271	7,073	1,498,892	0	53,267	1,559,232
	Permanent Total	1,648,430	0	744,498	0	1,974,458	0	921,025	0	2,895,483
	Permanent Partial	20,353,507	38,207,355	9,554,291	15,130,984	26,133,747	45,228,286	11,736,725	14,846,330	97,945,088
	Temporary Total	6,086,134	14,120,638	3,151,978	9,366,813	7,229,736	15,840,991	3,899,340	9,196,645	36,166,712
	Medical Only	0	0	0	3,332,490	0	0	0	2,986,721	2,986,721
2011	Fatal	0	1,349,860	0	192,490	0	2,198,880	0	202,246	2,401,126
	Permanent Total	370,982	0	148,060	0	643,722	0	203,560	0	847,282
	Permanent Partial	8,261,624	19,943,820	4,654,493	11,178,681	15,374,660	30,501,368	6,452,079	11,802,701	64,130,808
	Temporary Total	9,739,052	18,981,291	5,840,275	13,825,120	17,699,131	28,639,007	8,076,078	14,573,073	68,987,289
	Medical Only	0	0	0	3,272,860	0	0	0	3,216,123	3,216,123
(13) All Years, All Injury Types		178,107,695	267,959,371	71,808,820	140,647,298	202,488,404	296,432,400	87,042,679	139,185,421	725,148,904

Notes:
 (3), (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.

(7)= (3) + (4) + (5) + (6)
 (8)= (3) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (9)= (4) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (10)= (5) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (11)= (6) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (12)= (8) + (9) + (10) + (11)

Calculation of Converted Unlimited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
Construction Industry Group, Industry Code 2
All Classes

Policy Year (1)	Injury Type (2)	Adjusted Excess Losses				Converted Unlimited Losses				Total (12)	Exposure (13)	
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Total (7)	Likely (8)	Not-Likely (9)	Likely (10)			Not-Likely (11)
2007	Fatal	100,012	379,846	61,214	229,124	770,196	857,786	2,483,978	168,703	623,661	4,134,128	51,009,151
	Permanent Total	1,737,573	0	1,795,975	0	3,533,548	11,733,839	0	5,975,755	0	17,709,594	
	Permanent Partial	6,236,464	6,727,175	6,388,802	5,754,973	25,107,414	52,961,162	57,118,066	26,150,004	21,894,169	158,123,401	
	Temporary Total Medical Only	1,056,044 0	2,750,945 0	1,254,501 0	3,897,621 874,712	8,959,111 874,712	9,630,040 0	24,060,080 0	5,933,879 0	18,853,057 5,599,804	58,477,056 5,599,804	
2008	Fatal	163,264	235,663	121,933	128,717	649,577	1,143,063	1,347,283	465,702	298,822	3,254,870	47,597,282
	Permanent Total	1,326,766	0	1,616,313	0	2,943,079	9,448,186	0	6,214,078	0	15,662,264	
	Permanent Partial	4,303,940	6,749,940	4,339,956	6,133,828	21,527,664	38,231,909	56,447,389	18,409,538	23,866,130	136,954,966	
	Temporary Total Medical Only	820,023 0	2,561,540 0	1,135,962 0	3,581,042 708,669	8,098,567 708,669	7,198,256 0	22,690,577 0	5,526,310 0	17,714,794 4,591,677	53,129,937 4,591,677	
2009	Fatal	80,794	313,427	39,804	157,856	591,881	644,099	2,002,893	77,594	308,535	3,033,121	42,032,529
	Permanent Total	766,160	0	752,121	0	1,518,281	5,155,451	0	2,570,255	0	7,725,706	
	Permanent Partial	4,219,061	6,593,317	4,004,267	6,191,004	21,007,649	35,379,222	56,068,297	15,829,740	25,249,287	132,526,546	
	Temporary Total Medical Only	1,100,472 0	2,399,605 0	1,122,993 0	3,262,250 615,401	7,885,320 615,401	9,934,245 0	21,130,224 0	4,988,022 0	15,593,022 3,958,058	51,645,513 3,958,058	
2010	Fatal	2,092	406,838	896	188,672	598,498	9,510	1,977,424	1,069	288,392	2,276,395	44,636,628
	Permanent Total	285,602	0	320,109	0	605,711	2,252,622	0	1,242,234	0	3,494,856	
	Permanent Partial	4,450,883	7,412,760	4,931,203	6,625,068	23,419,914	37,076,728	63,814,987	20,290,675	26,138,173	147,320,563	
	Temporary Total Medical Only	1,163,688 0	2,416,439 0	1,405,493 0	3,083,223 669,504	8,068,843 669,504	10,232,127 0	22,256,989 0	6,494,044 0	15,032,708 4,358,220	54,015,868 4,358,220	
2011	Fatal	0	349,260	0	195,863	545,123	0	2,644,002	0	474,545	3,118,547	47,989,696
	Permanent Total	87,110	0	76,685	0	163,795	728,427	0	280,493	0	1,008,920	
	Permanent Partial	2,653,109	5,006,361	2,823,981	4,962,605	15,446,056	21,854,464	43,044,838	11,292,199	20,409,219	96,600,720	
	Temporary Total Medical Only	3,002,089 0	4,764,663 0	3,228,992 0	5,445,589 720,464	16,441,333 720,464	25,236,126 0	40,721,235 0	13,839,384 0	24,506,344 4,692,411	104,303,089 4,692,411	
(14) All Years, All Injury Types		33,555,146	49,067,779	35,421,200	53,426,185	171,470,310	279,707,262	417,808,262	145,749,678	234,451,028	1,077,716,230	233,265,285
(15) Pure Premium							1,199	1,791	0.625	1,005	4.620	

Notes:

(3), (4) = 0.7 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Indemnity Converted Limited Losses from Page 1, Columns (8) and (9).
 (5), (6) = [Excess Factor - 1.0] x Medical Converted Limited Losses + 0.3 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Medical Converted Limited Losses from Page 1, Columns (10) and (11).

(7) = (3) + (4) + (5) + (6)

(8), (9), (10), (11): (Converted Limited Losses from Page 1 + Adjusted Excess Losses) x Secondary Conversion Factors from Section IX - B, Exhibit 1, Page 3.

(12) = (8) + (9) + (10) + (11)

(13): Unit Statistical Plan data, excluding Large Deductibles.

(15): Pure Premium calculated as the All Years, All Injury Types Converted Unlimited Losses divided by the All Years, All Injury Types Exposure.

Calculation of Converted Limited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Office and Clerical Industry Group, Industry Code 3
 All Classes

Policy Year (1)	Injury Type (2)	Limited Losses				Converted Limited Losses				Total (12)	
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (8)	Not-Likely (9)	Likely (10)	Not-Likely (11)		
2007	Fatal	0	536,522	0	2,427	538,949	0	517,144	0	2,527	519,671
	Permanent Total	2,062,618	0	950,964	0	3,013,582	0	3,013,582	0	1,115,633	3,150,876
	Permanent Partial	8,329,104	12,505,382	4,042,047	5,215,728	30,092,261	8,379,564	12,399,998	12,399,998	5,378,134	30,814,422
	Temporary Total	4,228,953	8,860,864	2,020,470	7,277,443	22,387,730	4,123,571	8,498,494	8,498,494	7,548,375	22,569,957
	Medical Only	0	0	0	5,582,761	5,582,761	0	0	0	4,322,571	4,322,571
2008	Fatal	251,800	704,573	10,641	10,575	977,589	254,106	682,173	12,055	11,261	959,595
	Permanent Total	1,489,402	0	455,405	0	1,944,807	1,483,243	0	563,758	0	2,047,001
	Permanent Partial	9,691,421	11,423,656	4,697,156	4,570,479	30,382,712	9,860,088	11,414,783	5,708,931	4,829,221	31,813,023
	Temporary Total	3,986,399	8,183,926	1,998,419	7,456,171	21,624,915	3,920,755	7,907,035	2,499,163	7,926,851	22,253,804
	Medical Only	0	0	0	5,442,512	5,442,512	0	0	0	4,436,787	4,436,787
2009	Fatal	524,000	287,500	693	563	812,756	527,022	280,588	789	524	808,923
	Permanent Total	1,157,474	0	319,526	0	1,477,000	1,169,785	0	363,642	0	1,533,427
	Permanent Partial	8,766,120	11,231,059	3,457,502	6,526,259	29,980,940	9,432,337	11,408,111	3,811,029	6,053,291	30,704,768
	Temporary Total	3,349,285	8,097,627	2,097,993	7,297,919	20,842,824	3,356,634	7,907,720	2,387,660	6,782,966	20,434,980
	Medical Only	0	0	0	5,401,592	5,401,592	0	0	0	4,656,596	4,656,596
2010	Fatal	6,500	394,016	5,000	12,612	418,128	7,748	442,557	6,186	12,377	468,868
	Permanent Total	681,218	0	319,520	0	1,000,738	815,949	0	395,282	0	1,211,231
	Permanent Partial	7,466,763	9,995,342	3,363,072	5,644,265	26,469,442	9,749,794	11,920,438	4,118,341	5,534,777	31,323,350
	Temporary Total	5,700,809	8,207,821	3,133,417	7,569,145	24,611,192	6,772,007	9,234,011	3,876,378	7,430,864	27,313,260
	Medical Only	0	0	0	6,016,403	6,016,403	0	0	0	5,391,346	5,391,346
2011	Fatal	0	838,179	0	154,420	992,599	0	1,529,564	0	162,340	1,691,904
	Permanent Total	0	0	0	0	0	0	0	0	0	0
	Permanent Partial	3,452,133	5,475,476	2,688,009	3,686,048	15,301,666	6,755,681	8,613,340	3,770,952	3,903,937	23,043,910
	Temporary Total	6,792,952	8,850,558	4,130,486	8,949,490	28,723,486	12,442,449	13,472,690	5,726,300	9,447,062	41,088,501
	Medical Only	0	0	0	5,622,104	5,622,104	0	0	0	5,527,475	5,527,475
(13) All Years, All Injury Types		67,936,951	95,592,501	33,690,320	92,438,916	289,658,688	81,085,976	106,228,646	41,412,342	89,359,282	318,086,246

Notes:
 (3), (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.
 (7)= (3) + (4) + (5) + (6)
 (8)= (3) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (9)= (4) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (10)= (5) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (11)= (6) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (12)= (8) + (9) + (10) + (11)

Calculation of Converted Unlimited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
Office and Clerical Industry Group, Industry Code 3
All Classes

Policy Year (1)	Injury Type (2)	Adjusted Excess Losses				Converted Unlimited Losses				Total (12)	Exposure (13)	
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Total (7)	Likely (8)	Not-Likely (9)	Likely (10)			Not-Likely (11)
2007	Fatal	0	67,532	0	29,431	96,963	0	606,671	0	38,094	644,765	600,180,676
	Permanent Total	167,854	0	237,658	0	405,512	2,195,847	0	1,354,491	0	3,550,338	
	Permanent Partial	800,943	1,127,291	934,822	1,189,326	4,052,382	11,129,224	16,398,682	6,806,862	7,994,886	42,329,654	
	Temporary Total	390,051	793,965	490,947	1,335,506	3,010,469	5,502,397	11,328,108	3,538,434	10,875,425	31,244,364	
	Medical Only	0	0	0	560,900	560,900	0	0	0	5,821,097	5,821,097	
2008	Fatal	26,015	75,219	12,700	33,686	147,620	290,659	785,886	29,509	53,576	1,159,630	608,144,614
	Permanent Total	159,444	0	149,248	0	308,692	1,637,280	0	713,639	0	2,350,919	
	Permanent Partial	903,628	1,093,363	1,130,889	1,122,544	4,250,424	13,048,493	15,163,210	8,326,443	7,245,371	43,783,517	
	Temporary Total	382,337	731,632	506,559	1,338,509	2,959,037	5,245,748	10,531,093	3,679,530	11,342,422	30,798,793	
	Medical Only	0	0	0	569,245	569,245	0	0	0	5,967,191	5,967,191	
2009	Fatal	66,539	25,272	28,618	10,898	131,327	615,891	317,366	35,053	13,615	981,925	584,861,022
	Permanent Total	110,676	0	99,918	0	210,594	1,276,247	0	463,971	0	1,740,218	
	Permanent Partial	839,276	1,060,219	846,576	1,271,109	4,017,180	12,451,935	15,114,942	5,669,929	8,916,346	42,153,152	
	Temporary Total	319,498	738,937	456,918	1,198,477	2,713,830	4,481,443	10,540,835	3,482,261	9,770,682	28,275,221	
	Medical Only	0	0	0	597,576	597,576	0	0	0	6,262,973	6,262,973	
2010	Fatal	698	48,217	1,095	22,868	72,878	8,764	509,237	8,678	42,011	568,690	642,856,838
	Permanent Total	73,491	0	82,356	0	155,847	886,513	0	478,061	0	1,364,574	
	Permanent Partial	906,477	1,136,545	904,656	1,222,713	4,170,391	12,918,243	15,828,547	6,114,738	8,226,221	43,087,749	
	Temporary Total	619,284	829,886	778,784	1,299,355	3,527,309	9,010,462	12,268,541	5,698,733	10,687,316	37,665,052	
	Medical Only	0	0	0	706,456	706,456	0	0	0	7,268,580	7,268,580	
2011	Fatal	0	179,023	0	93,669	272,692	0	1,772,865	0	305,163	2,078,028	686,610,533
	Permanent Total	0	0	0	0	0	0	0	0	0	0	
	Permanent Partial	695,550	801,154	869,253	854,221	3,220,178	9,032,880	11,412,877	5,648,746	5,792,336	31,886,839	
	Temporary Total	1,164,169	1,228,303	1,266,835	1,734,130	5,393,437	16,587,347	17,921,462	8,560,820	13,687,735	56,757,364	
	Medical Only	0	0	0	719,423	719,423	0	0	0	7,446,302	7,446,302	
(14) All Years, All Injury Types		7,625,930	9,936,558	8,797,832	15,910,042	42,270,362	106,319,373	140,500,322	60,609,898	127,757,342	435,186,935	3,122,653,683
(15) Pure Premium							0.034	0.045	0.019	0.041		0.139

Notes:

(3), (4) = 0.7 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Indemnity Converted Limited Losses from Page 1, Columns (8) and (9).
 (5), (6) = [Excess Factor - 1.0] x Medical Converted Limited Losses + 0.3 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Medical Converted Limited Losses from Page 1, Columns (10) and (11).

(7) = (3) + (4) + (5) + (6)

(8), (9), (10), (11): (Converted Limited Losses from Page 1 + Adjusted Excess Losses) x Secondary Conversion Factors from Section IX - B, Exhibit 1, Page 3.

(12) = (8) + (9) + (10) + (11)

(13): Unit Statistical Plan data, excluding Large Deductibles.

(15): Pure Premium calculated as the All Years, All Injury Types Converted Unlimited Losses divided by the All Years, All Injury Types Exposure.

IX 000037

Calculation of Converted Limited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Goods and Services Industry Group, Industry Code 9
 All Classes

Policy Year (1)	Injury Type (2)	Limited Losses				Converted Limited Losses				Total (12)	
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (8)	Not-Likely (9)	Likely (10)	Not-Likely (11)		
2007	Fatal	161,816	378,000	1,580	23,769	565,165	158,572	364,347	1,885	24,751	549,555
	Permanent Total	5,973,519	0	2,184,524	0	8,158,043	5,887,614	0	2,552,008	0	8,439,622
	Permanent Partial	21,608,016	28,093,244	7,962,211	12,920,921	70,584,392	21,733,232	27,858,828	9,106,013	13,368,281	72,064,354
	Temporary Total	8,035,471	17,293,149	4,250,304	16,822,028	46,400,952	7,834,588	16,585,517	5,030,379	17,448,067	46,898,551
	Medical Only	0	0	0	11,273,716	11,273,716	0	0	0	8,733,494	8,733,494
2008	Fatal	1,292	1,257,766	4,715	162,173	1,425,946	1,315	1,229,394	5,342	171,821	1,407,872
	Permanent Total	6,666,615	0	2,500,955	0	9,167,570	6,676,943	0	3,068,711	0	9,745,654
	Permanent Partial	25,407,668	35,955,169	10,860,530	14,503,911	86,727,278	25,858,488	35,803,649	13,166,887	15,361,307	90,190,331
	Temporary Total	8,448,500	20,303,770	5,112,711	16,564,054	50,429,035	8,311,835	19,611,812	6,387,780	17,610,237	51,921,664
	Medical Only	0	0	0	10,473,728	10,473,728	0	0	0	8,548,096	8,548,096
2009	Fatal	336,614	1,561,533	0	97,845	1,995,992	338,555	1,524,451	0	91,021	1,954,027
	Permanent Total	2,650,879	0	1,717,961	0	4,368,840	2,679,073	0	1,955,157	0	4,634,230
	Permanent Partial	24,737,216	35,383,273	11,733,843	15,973,496	87,827,828	26,002,626	35,701,410	13,068,607	14,813,734	89,586,377
	Temporary Total	9,878,471	20,319,443	5,543,706	18,115,067	53,856,687	9,900,147	19,813,620	6,309,116	16,843,991	52,866,874
	Medical Only	0	0	0	9,628,767	9,628,767	0	0	0	8,307,486	8,307,486
2010	Fatal	495,021	892,463	117,767	20,241	1,525,492	626,915	1,079,426	144,909	19,812	1,871,062
	Permanent Total	411,445	0	163,756	0	575,201	507,973	0	201,117	0	709,090
	Permanent Partial	21,751,283	29,310,899	10,701,649	14,909,395	76,673,226	27,918,171	34,698,747	13,106,441	14,622,486	90,345,845
	Temporary Total	8,138,792	19,003,450	3,995,550	17,229,423	48,367,215	9,668,094	21,369,677	4,942,931	16,915,119	52,895,821
	Medical Only	0	0	0	9,829,397	9,829,397	0	0	0	8,808,686	8,808,686
2011	Fatal	0	2,503,101	0	76,382	2,579,483	0	3,716,108	0	80,255	3,796,363
	Permanent Total	1,224	0	367	0	1,591	2,124	0	505	0	2,629
	Permanent Partial	8,357,317	18,746,360	5,475,591	12,003,633	44,582,901	15,683,070	28,855,720	7,634,958	12,693,923	64,867,671
	Temporary Total	13,583,463	25,354,629	9,779,738	24,373,489	73,091,319	24,927,499	38,318,813	13,557,689	25,735,731	102,539,732
	Medical Only	0	0	0	10,361,183	10,361,183	0	0	0	10,187,786	10,187,786
(13) All Years, All Injury Types		166,644,622	256,356,249	82,107,458	215,362,618	720,470,947	194,716,834	286,531,519	100,240,435	210,384,084	791,872,872

Notes:
 (3), (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.

(7)= (3) + (4) + (5) + (6)
 (8)= (3) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (9)= (4) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (10)= (5) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (11)= (6) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (12)= (8) + (9) + (10) + (11)

IX 000038

Calculation of Converted Unlimited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Goods and Services Industry Group, Industry Code 9
 All Classes

Policy Year (1)	Injury Type (2)	Adjusted Excess Losses				Converted Unlimited Losses				Total (12)	Exposure (13)	
		Likely (3)	Not-Likely (4)	Likely (5)	Medical Not-Likely (6)	Total (7)	Likely (8)	Not-Likely (9)	Likely (10)			Medical Not-Likely (11)
2007	Fatal	13,750	21,915	6,135	11,870	53,670	178,804	400,794	9,561	43,653	632,812	132,685,124
	Permanent Total	619,713	0	632,968	0	1,252,681	6,485,910	0	3,187,801	0	9,673,711	
	Permanent Partial	21,608,016	28,093,244	7,962,211	12,920,921	70,594,392	21,733,232	27,858,828	9,106,013	13,366,281	72,064,354	
	Temporary Total Medical Only	723,227	1,551,136	969,575	2,972,993	6,216,931	10,432,531	22,109,754	7,344,994	24,998,949	64,886,228	
2008	Fatal	208	122,040	1,310	71,280	194,838	1,580	1,402,276	7,928	289,776	1,701,560	132,424,830
	Permanent Total	614,560	0	665,630	0	1,280,190	7,267,504	0	3,737,652	0	11,005,156	
	Permanent Partial	25,407,668	35,955,169	10,860,530	14,503,911	86,727,278	25,858,488	35,803,649	13,166,887	15,361,307	90,190,331	
	Temporary Total Medical Only	822,198	1,795,141	1,248,403	3,067,589	6,933,331	11,134,976	26,096,460	9,348,024	25,313,276	71,892,736	
2009	Fatal	20,328	119,934	8,712	59,393	208,367	372,385	1,706,247	10,385	179,293	2,268,310	133,908,145
	Permanent Total	285,722	0	387,327	0	673,049	2,955,037	0	2,344,562	0	5,299,599	
	Permanent Partial	24,737,216	35,383,273	11,733,843	15,973,496	87,827,828	26,002,626	35,701,410	13,068,607	14,813,794	89,586,377	
	Temporary Total Medical Only	939,202	1,856,654	1,270,863	3,006,145	7,072,864	13,213,868	26,417,465	9,279,219	24,300,039	73,210,591	
2010	Fatal	67,149	109,507	48,507	49,645	274,808	720,175	1,233,661	230,552	82,792	2,267,180	145,924,757
	Permanent Total	54,301	0	54,380	0	108,681	560,423	0	255,724	0	816,147	
	Permanent Partial	21,751,283	29,310,899	10,701,649	14,909,395	76,673,226	27,918,171	34,698,747	13,106,441	14,622,486	90,345,845	
	Temporary Total Medical Only	925,597	2,003,907	1,079,687	3,117,521	7,126,712	12,914,396	28,493,911	7,372,738	24,523,456	73,304,501	
2011	Fatal	0	359,922	0	167,214	527,136	0	4,229,371	0	294,983	4,524,354	154,108,791
	Permanent Total	340	0	261	0	601	2,455	0	766	0	3,221	
	Permanent Partial	8,357,317	18,746,360	5,475,591	12,003,633	44,582,901	15,683,070	28,855,720	7,634,958	12,693,923	64,867,671	
	Temporary Total Medical Only	2,401,648	3,511,888	2,853,878	4,850,452	13,617,866	33,315,998	50,994,331	20,090,630	37,442,839	141,843,798	
(14) All Years, All Injury Types		109,349,443	158,940,989	55,961,460	93,202,801	417,454,693	216,751,629	326,002,624	119,303,442	268,049,433	930,107,128	699,061,648
(15) Pure Premium							0.310	0.466		0.171	1.331	

Notes:

(3), (4) = 0.7 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Indemnity Converted Limited Losses from Page 1, Columns (8) and (9).
 (5), (6) = [Excess Factor - 1.0] x Medical Converted Limited Losses + 0.3 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Medical Converted Limited Losses from Page 1, Columns (10) and (11).

(7) = (3) + (4) + (5) + (6)

(8), (9), (10), (11): (Converted Limited Losses from Page 1 + Adjusted Excess Losses) x Secondary Conversion Factors from Section IX - B, Exhibit 1, Page 3.

(12) = (8) + (9) + (10) + (11)

(13): Unit Statistical Plan data, excluding Large Deductibles.

(15): Pure Premium calculated as the All Years, All Injury Types Converted Unlimited Losses divided by the All Years, All Injury Types Exposure.

IX 000039

Calculation of Converted Limited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Miscellaneous Industry Group, Industry Code 0
 All Classes

Policy Year (1)	Injury Type (2)	Limited Losses				Converted Limited Losses				Total (12)	
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Total (7)	Likely (8)	Not-Likely (9)	Likely (10)		Not-Likely (11)
2007	Fatal	621,601	1,442,668	878,399	0	2,942,668	609,140	1,390,558	1,048,162	0	3,047,860
	Permanent Total	4,835,155	0	1,022,893	0	5,858,048	4,766,727	0	1,198,320	0	5,965,047
	Permanent Partial	13,200,469	12,314,977	4,817,247	4,662,834	34,995,527	13,268,783	12,211,410	5,456,021	4,818,446	35,754,660
	Temporary Total	2,940,669	7,239,749	1,883,321	6,221,249	18,284,988	2,866,781	6,943,213	2,225,883	6,443,902	18,479,779
	Medical Only	0	0	0	2,438,674	2,438,674	0	0	0	1,885,486	1,885,486
2008	Fatal	12,641	76,272	25,344	104	114,361	12,481	73,847	31,695	111	118,134
	Permanent Total	2,858,660	0	1,150,055	0	4,008,715	2,863,280	0	1,400,775	0	4,264,055
	Permanent Partial	10,760,305	12,191,681	3,692,494	5,199,785	31,844,265	11,003,777	12,156,353	4,404,439	5,495,803	33,060,372
	Temporary Total	3,387,794	7,544,790	1,909,644	5,710,116	18,552,344	3,333,093	7,298,706	2,385,409	6,061,702	19,078,910
	Medical Only	0	0	0	2,287,454	2,287,454	0	0	0	1,863,353	1,863,353
2009	Fatal	0	865,478	0	59,764	925,242	0	851,059	0	55,583	906,642
	Permanent Total	1,753,473	0	840,415	0	2,593,888	1,772,123	0	956,450	0	2,728,573
	Permanent Partial	9,588,473	11,857,816	4,759,154	5,357,407	31,562,850	10,245,121	12,131,170	5,312,637	4,961,106	32,650,034
	Temporary Total	2,230,703	6,968,344	821,769	4,629,801	14,650,617	2,235,598	6,818,371	935,229	4,300,416	14,289,614
	Medical Only	0	0	0	2,051,324	2,051,324	0	0	0	1,766,980	1,766,980
2010	Fatal	0	671,470	0	85,214	756,684	0	834,402	0	83,682	918,084
	Permanent Total	467,079	0	770,588	0	1,237,667	559,459	0	953,301	0	1,512,760
	Permanent Partial	10,451,048	16,516,972	4,440,033	8,482,686	39,890,739	14,018,746	20,348,279	5,390,449	8,313,372	48,070,846
	Temporary Total	2,544,106	8,242,186	1,543,456	5,677,924	18,007,672	3,022,151	9,394,444	1,909,423	5,572,240	19,898,258
	Medical Only	0	0	0	2,476,861	2,476,861	0	0	0	2,218,368	2,218,368
2011	Fatal	0	528,463	0	5,476	533,939	0	858,272	0	5,962	864,234
	Permanent Total	404,645	0	95,355	0	500,000	702,135	0	131,098	0	833,233
	Permanent Partial	4,209,224	6,661,842	2,006,244	4,026,081	16,903,391	8,872,345	10,890,240	2,837,151	4,290,745	26,890,481
	Temporary Total	6,279,412	11,146,990	3,891,649	8,713,576	30,031,627	12,737,526	17,864,193	5,500,517	9,258,569	45,360,805
	Medical Only	0	0	0	2,478,423	2,478,423	0	0	0	2,447,297	2,447,297
(13) All Years, All Injury Types		76,545,457	104,269,698	34,548,060	70,564,753	285,927,968	92,889,266	120,064,517	42,076,959	69,843,123	324,873,865

Notes:
 (3), (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.

(7)= (3) + (4) + (5) + (6)
 (8)= (3) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (9)= (4) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (10)= (5) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (11)= (6) x Primary Conversion Factors from Section IX - B, Exhibit 1
 (12)= (8) + (9) + (10) + (11)

Calculation of Converted Unlimited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 Miscellaneous Industry Group, Industry Code 0
 All Classes

Policy Year (1)	Injury Type (2)	Adjusted Excess Losses			Converted Unlimited Losses			Total (12)	Exposure (13)			
		Likely (3)	Not-Likely (4)	Medical Likely (5)	Medical Not-Likely (6)	Total (7)	Likely (8)			Not-Likely (9)	Medical Likely (10)	Medical Not-Likely (11)
2007	Fatal	96,190	265,307	223,328	113,703	698,528	731,865	1,718,160	1,515,616	135,534	4,101,175	17,663,893
	Permanent Total	635,268	0	497,353	0	1,132,621	5,384,215	0	1,697,177	0	7,081,392	
	Permanent Partial	13,200,469	12,314,977	4,817,247	4,662,834	34,995,527	13,268,783	12,211,410	5,456,021	4,818,446	35,754,660	
	Temporary Total Medical Only	343,461 0	874,548 0	549,425 0	1,581,198 319,613	3,348,632 319,613	3,913,493 0	9,530,357 0	3,397,464 0	9,824,126 2,628,479	2,628,479	26,665,440 2,628,479
2008	Fatal	1,124	9,986	4,560	4,305	19,975	14,117	86,987	43,216	5,264	149,584	18,089,624
	Permanent Total	390,211	0	445,052	0	835,263	3,242,782	0	1,847,463	0	5,090,245	
	Permanent Partial	10,760,305	12,191,681	3,692,494	5,199,785	31,844,265	11,003,777	12,156,353	4,404,439	5,495,803	33,060,372	
	Temporary Total Medical Only	412,604 0	947,822 0	581,612 0	1,559,005 323,751	3,501,043 323,751	4,566,247 0	10,053,051 0	3,632,153 0	9,329,078 2,607,028	2,607,028	27,580,529 2,607,028
2009	Fatal	0	121,743	0	63,565	185,308	0	1,009,400	0	142,025	1,151,425	18,745,883
	Permanent Total	235,000	0	278,964	0	513,964	2,000,517	0	1,236,510	0	3,237,027	
	Permanent Partial	9,588,473	11,857,816	4,759,154	5,357,407	31,562,850	10,245,121	12,131,170	5,312,637	4,961,106	32,650,094	
	Temporary Total Medical Only	292,016 0	935,244 0	302,247 0	1,209,192 304,829	2,738,699 304,829	3,081,324 0	9,452,158 0	1,514,887 0	6,744,724 2,469,596	2,469,596	20,793,093 2,469,596
2010	Fatal	0	112,019	0	64,136	176,155	0	982,026	0	176,198	1,158,224	23,988,123
	Permanent Total	84,339	0	239,807	0	324,146	641,678	0	1,194,166	0	1,835,844	
	Permanent Partial	10,451,048	16,516,972	4,440,033	8,482,686	39,890,739	14,018,746	20,348,279	5,390,449	8,313,372	48,070,846	
	Temporary Total Medical Only	394,092 0	1,265,769 0	513,791 0	1,584,387 382,903	3,758,039 382,903	4,164,621 0	12,995,490 0	2,966,439 0	8,760,964 3,100,715	28,887,514	28,887,514 3,100,715
2011	Fatal	0	137,138	0	60,136	197,274	0	1,032,858	0	78,789	1,111,647	25,436,882
	Permanent Total	95,014	0	66,064	0	161,078	794,525	0	197,337	0	991,862	
	Permanent Partial	4,209,224	6,661,842	2,006,244	4,026,081	16,903,391	8,872,345	10,890,240	2,837,151	4,290,745	26,890,481	
	Temporary Total Medical Only	1,672,227 0	2,330,677 0	1,742,330 0	2,707,026 419,310	8,452,260 419,310	17,566,421 0	24,618,853 0	8,866,513 0	14,647,981 3,416,997	65,699,768	65,699,768 3,416,997
(14) All Years, All Injury Types		52,861,065	66,543,541	25,159,705	38,425,852	182,990,163	103,510,577	139,216,792	51,509,638	91,946,970	386,183,977	103,924,405
(15) Pure Premium							0.996	1.340	0.496	0.885	3.716	

Notes:

(3), (4) = 0.7 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Indemnity Converted Limited Losses from Page 1, Columns (8) and (9).
 (5), (6) = [Excess Factor - 1.0] x Medical Converted Limited Losses + 0.3 x [Excess Factor - 1.0] x Indemnity Converted Limited Losses. Excess Factor from Section IX-B, Exhibit 5 and Medical Converted Limited Losses from Page 1, Columns (10) and (11).

(7) = (3) + (4) + (5) + (6)

(8), (9), (10), (11): (Converted Limited Losses from Page 1 + Adjusted Excess Losses) x Secondary Conversion Factors from Section IX - B, Exhibit 1, Page 3.

(12) = (8) + (9) + (10) + (11)

(13): Unit Statistical Plan data, excluding Large Deductibles.

(15): Pure Premium calculated as the All Years, All Injury Types Converted Unlimited Losses divided by the All Years, All Injury Types Exposure.

Calculation of Converted Limited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
 All Industry Groups
 All Classes

Policy Year (1)	Injury Type (2)	Indemnity				Limited Losses				Converted Limited Losses			
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Total (7)	Likely (8)	Not-Likely (9)	Likely (10)	Not-Likely (11)	Total (12)		
2007	Fatal	1,535,422	4,761,364	947,286	309,576	7,553,648	1,504,641	4,589,384	1,130,362	321,360	7,545,747		
	Permanent Total	26,136,450	0	8,641,662	0	34,778,112	25,774,773	0	10,113,421	0	35,888,194		
	Permanent Partial	93,022,263	112,726,503	36,005,607	41,332,395	283,086,768	93,554,453	111,779,379	41,388,497	42,716,588	289,438,917		
	Temporary Total	26,040,409	61,666,502	13,072,608	49,097,447	149,876,966	25,388,801	59,143,217	15,487,446	50,909,781	150,929,245		
	Medical Only	0	0	0	28,804,803	28,804,803	0	0	0	22,307,901			
2008	Fatal	1,226,314	3,605,512	275,619	363,636	5,471,081	1,231,435	3,502,501	342,861	386,349	5,463,146		
	Permanent Total	21,459,290	0	8,538,107	0	29,997,397	21,457,321	0	10,405,961	0	31,863,282		
	Permanent Partial	83,046,962	116,989,767	33,106,528	44,373,363	277,516,620	84,627,200	116,678,579	40,162,080	46,967,108	288,434,967		
	Temporary Total	24,836,261	61,194,917	13,431,091	46,925,457	146,387,726	24,432,049	59,132,200	16,781,127	49,873,460	150,218,836		
	Medical Only	0	0	0	26,360,164	26,360,164	0	0	0	21,504,659			
2009	Fatal	1,412,470	5,057,591	24,025	414,671	6,908,757	1,420,616	4,943,100	27,342	385,762	6,776,820		
	Permanent Total	11,264,395	0	5,007,685	0	16,272,080	11,474,574	0	5,674,571	0	17,149,145		
	Permanent Partial	77,192,548	111,755,345	32,572,086	49,763,764	271,283,743	81,456,491	113,148,251	36,392,310	46,148,470	277,145,522		
	Temporary Total	24,326,583	58,079,529	11,970,853	46,566,242	140,943,207	24,379,962	56,665,101	13,623,648	43,291,405	137,960,116		
	Medical Only	0	0	0	23,765,991	23,765,991	0	0	0	20,498,207			
2010	Fatal	546,521	3,863,595	123,352	228,086	4,761,554	689,419	4,569,969	151,819	223,884	5,635,091		
	Permanent Total	4,479,738	0	3,111,646	0	7,591,384	5,380,897	0	3,847,979	0	9,228,876		
	Permanent Partial	68,862,515	109,306,359	32,049,098	52,663,567	262,881,539	88,900,617	130,125,392	39,262,610	51,652,504	309,941,123		
	Temporary Total	25,548,105	57,253,003	13,493,095	46,700,421	142,994,624	30,348,667	64,445,863	16,692,428	45,847,479	157,334,437		
	Medical Only	0	0	0	25,474,348	25,474,348	0	0	0	22,828,170			
2011	Fatal	0	5,514,603	0	428,768	5,943,371	0	8,731,767	0	450,803	9,182,570		
	Permanent Total	999,483	0	700,982	0	1,700,465	1,734,289	0	963,742	0	2,698,031		
	Permanent Partial	27,547,585	59,275,511	17,057,075	37,356,686	141,236,857	52,932,437	91,747,180	23,814,002	39,503,221	207,996,840		
	Temporary Total	41,560,018	74,586,123	27,189,657	65,896,811	209,232,609	77,066,594	113,715,612	37,774,680	69,592,021	298,148,907		
	Medical Only	0	0	0	25,665,489	25,665,489	0	0	0	25,239,723			
(13) All Years, All Injury Types		561,043,332	845,636,224	257,318,062	612,491,685	2,276,489,303	653,755,236	942,917,495	314,036,886	600,648,855	2,511,358,472		

Notes:
 (3) - (12): Total of Section IX - C, Page 1 of Exhibits 1 through 5.

Calculation of Converted Unlimited Losses by Indemnity Likely/Not-Likely and Medical Likely/Not-Likely
All Industry Groups
All Classes

Policy Year (1)	Injury Type (2)	Adjusted Excess Losses			Indemnity			Converted Unlimited Losses			Total (12)	Exposure (13)
		Likely (3)	Not-Likely (4)	Medical Likely (5)	Likely (6)	Not-Likely (7)	Likely (8)	Not-Likely (9)	Likely (10)	Not-Likely (11)		
2007	Fatal	210,671	775,638	290,985	401,716	1,679,010	1,779,842	5,566,866	1,694,247	861,907	9,902,852	854,545,061
	Permanent Total	3,433,989	0	3,435,066	0	6,869,055	29,112,629	0	13,560,504	0	42,673,133	
	Permanent Partial	43,053,553	50,115,285	21,549,359	26,297,437	141,015,634	115,978,406	138,768,393	57,895,212	58,656,137	371,298,148	
	Temporary Total Medical Only	2,847,916 0	6,915,272 0	3,710,306 0	11,265,325 3,305,756	24,738,819 3,305,756	34,422,385 0	80,529,573 0	23,501,409 0	76,113,206 30,531,479	214,566,573 30,531,479	
2008	Fatal	192,869	475,510	144,689	260,268	1,073,336	1,477,887	4,127,666	581,159	770,765	6,957,477	858,249,712
	Permanent Total	2,715,777	0	3,077,146	0	5,792,923	24,093,535	0	13,495,064	0	37,588,599	
	Permanent Partial	42,426,186	57,687,428	21,338,510	28,755,539	150,207,663	102,352,727	142,830,969	53,332,444	63,661,321	362,177,461	
	Temporary Total Medical Only	2,774,145 0	6,801,194 0	3,880,382 0	10,870,920 3,135,477	24,326,641 3,135,477	33,166,110 0	80,377,071 0	25,293,302 0	74,361,746 29,371,043	213,198,229 29,371,043	
2009	Fatal	169,525	631,000	78,155	331,092	1,209,772	1,649,963	5,783,800	125,754	854,490	8,414,007	828,923,485
	Permanent Total	1,522,380	0	1,648,433	0	3,170,813	12,954,178	0	7,329,499	0	20,263,677	
	Permanent Partial	40,386,711	56,294,365	22,463,624	30,211,377	149,356,077	98,400,377	137,987,579	47,575,321	62,691,367	346,654,644	
	Temporary Total Medical Only	2,814,468 0	6,578,295 0	3,362,045 0	9,737,884 2,950,372	22,492,692 2,950,372	33,151,770 0	77,097,791 0	20,793,459 0	64,917,127 27,950,706	195,960,147 27,950,706	
2010	Fatal	73,280	733,308	52,003	356,379	1,214,970	791,393	5,502,788	242,955	691,670	7,228,806	913,762,261
	Permanent Total	639,201	0	924,701	0	1,563,902	6,000,283	0	4,776,911	0	10,777,194	
	Permanent Partial	38,636,931	56,054,179	22,137,530	33,091,215	149,919,855	106,689,898	158,459,042	52,292,391	69,701,249	387,122,580	
	Temporary Total Medical Only	3,436,142 0	7,351,449 0	4,183,210 0	10,363,352 3,313,513	25,334,153 3,313,513	41,185,869 0	87,525,569 0	25,555,435 0	68,811,893 31,160,887	223,078,766 31,160,887	
2011	Fatal	0	1,062,669	0	532,879	1,595,548	0	10,162,906	0	1,172,548	11,335,454	975,362,823
	Permanent Total	231,247	0	285,221	0	516,468	1,959,066	0	1,250,069	0	3,209,135	
	Permanent Partial	16,556,670	32,539,129	11,893,592	23,446,627	84,436,018	63,793,034	111,429,892	32,084,488	53,426,560	260,733,974	
	Temporary Total Medical Only	9,121,067 0	13,367,965 0	10,146,721 0	16,852,907 3,643,839	49,488,660 3,643,839	105,068,333 0	154,923,102 0	58,664,181 0	105,823,715 34,429,206	424,479,331 34,429,206	
(14) All Years, All Injury Types		211,242,728	134,601,678	219,123,874	862,350,966	814,007,685	1,201,072,997	440,043,804	855,959,022	3,311,083,508	4,430,843,342	
(15) Pure Premium						0.184	0.271	0.099		0.193	0.747	

Notes:

(3) - (13): Total of Section IX - C, Page 2 of Exhibits 1 through 5.

(15): Pure Premium calculated as the All Years, All Injury Types Converted Unlimited Losses divided by the All Years, All Injury Types Exposure.

IX 000043

Section IX - Classification Pricing
Subsection D - Credibility/Countrywide Data
1/1/2014

Section IX - D
Exhibit 1
Page 1

MA Full Credibility Standard and Partial Credibility

	Indemnity	Medical
(1) Average Claim Cost (See Page 2)	27,000	15,000
(2) Claims	850	400
(3) Full Credibility Standard =(1) x (2)	22,950,000	6,000,000

Partial Credibility Z is given in terms of E, the expected losses and F, the criterion for full credibility by the formula:

$$Z=(E / F)^{0.4}$$

Credibility of Countrywide Data

	Indemnity	Medical
(4) Number of Countrywide Claims	1,150	1,000

Notes:

Partial Credibility is determined from the full credibility standard and the observed number of countrywide claims using the same formula as is done for the Massachusetts data.

(2),(4): From the paper "Class Ratemaking for Workers Compensation: NCCI's New Methodology" by Tom Daley.

IX 000044

Section IX - Classification Pricing
 Subsection D - Credibility/Countrywide Data
 1/1/2014

Section IX - D
 Exhibit 1
 Page 2

Selection of Average Massachusetts Claim Costs

Policy Year 2011

	Injury Type					
	1	2	3	4	5	6
	Indemnity					
(1) Losses Developed to Ultimate	10,522,870	4,136,943	127,870,510	37,460,338	220,518,127	
(2) On-Level Factor	1.009	1.012	1.022	1.022	1.007	
(3) On-Level Ultimate Losses = (1) x (2)	10,615,542	4,187,915	130,676,314	38,282,313	221,965,179	
	Medical					
(4) Losses Developed to Ultimate	482,565	8,381,663	45,974,676	24,946,728	113,672,638	28,338,949
(5) On-Level Factor	1.000	1.000	1.000	1.000	1.000	1.000
(6) On-Level Ultimate Losses = (4) x (5)	482,613	8,382,501	45,979,274	24,949,223	113,684,005	28,341,783
	Claim Count					
(7) Claim Count Developed to Fifth Report	26	6	781	1,360	12,858	
Summary:						
(8) Ultimate Losses				Indemnity 405,727,263		
(9) Ultimate Claim Count				15,032		
(10) Average Claim Cost = (8) / (9)				26,991		
(11) Selected Average Claim Cost				27,000		
(12) Ultimate Losses				Medical 221,819,399		
(13) Ultimate Claim Count				15,032		
(14) Average Claim Cost = (12) / (13)				14,757		
(15) Selected Average Claim Cost				15,000		

Notes:

- (1), (4) : Unit Statistical Plan Data, developed to Ultimate using development factors from Section X-A, Exhibit 5, Pages 2 and 5.
- (2), (5): Section IV-A, Exhibit 1.
- (7) : Unit Statistical Plan Data, developed to fifth report using development factors from Section IX-B, Exhibit 2, Page 1.
- (8) = Sum of (3)
- (9), (13) = Sum of (7)
- (12) = Sum of (6)

IX 000045

Section IX - Classification Pricing
 Subsection D - Credibility/Countrywide Data
 1/1/2014

Section IX - D
 Exhibit 2

Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Indemnity (5)	Medical (6)
Alabama	1	Manufacturing	1	1.470	0.427
		Construction	2	2.356	0.470
		Office and Clerical	3	1.124	0.299
		Goods and Services	9	1.577	0.388
		Miscellaneous	0	2.480	0.548
Arizona	2	Manufacturing	1	3.088	0.647
		Construction	2	2.043	0.473
		Office and Clerical	3	1.521	0.372
		Goods and Services	9	2.345	0.507
		Miscellaneous	0	2.162	0.550
Arkansas	3	Manufacturing	1	3.438	0.865
		Construction	2	3.510	0.999
		Office and Clerical	3	2.330	0.721
		Goods and Services	9	3.437	0.885
		Miscellaneous	0	3.891	1.151
Colorado	5	Manufacturing	1	1.295	0.535
		Construction	2	1.589	0.711
		Office and Clerical	3	0.937	0.445
		Goods and Services	9	1.139	0.523
		Miscellaneous	0	1.710	0.755
Connecticut	6	Manufacturing	1	0.528	0.273
		Construction	2	0.684	0.356
		Office and Clerical	3	0.382	0.258
		Goods and Services	9	0.638	0.340
		Miscellaneous	0	0.664	0.408
D.C.	8	Manufacturing	1	0.424	0.626
		Construction	2	1.519	1.115
		Office and Clerical	3	1.093	1.370
		Goods and Services	9	1.226	1.206
		Miscellaneous	0	1.138	1.173
Florida	9	Manufacturing	1	1.445	0.438
		Construction	2	1.590	0.440
		Office and Clerical	3	0.688	0.257
		Goods and Services	9	1.459	0.441
		Miscellaneous	0	1.960	0.576
Georgia	10	Manufacturing	1	1.344	0.687
		Construction	2	1.118	0.526
		Office and Clerical	3	1.070	0.571
		Goods and Services	9	1.185	0.604
		Miscellaneous	0	1.516	0.696
Idaho	11	Manufacturing	1	1.209	0.363
		Construction	2	1.743	0.493
		Office and Clerical	3	0.892	0.231
		Goods and Services	9	1.395	0.404
		Miscellaneous	0	2.021	0.570

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 Exhibit 2

Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Indemnity (5)	Medical (6)
Illinois	12	Manufacturing	1	0.632	0.388
		Construction	2	0.702	0.472
		Office and Clerical	3	0.510	0.396
		Goods and Services	9	0.741	0.435
		Miscellaneous	0	0.869	0.566
Indiana	13	Manufacturing	1	2.906	0.575
		Construction	2	3.806	0.829
		Office and Clerical	3	1.665	0.344
		Goods and Services	9	3.078	0.564
		Miscellaneous	0	4.166	0.762
Iowa	14	Manufacturing	1	0.708	0.314
		Construction	2	1.202	0.546
		Office and Clerical	3	0.450	0.217
		Goods and Services	9	0.989	0.432
		Miscellaneous	0	1.444	0.655
Kansas	15	Manufacturing	1	1.163	0.532
		Construction	2	2.079	0.780
		Office and Clerical	3	0.833	0.411
		Goods and Services	9	1.244	0.584
		Miscellaneous	0	1.061	0.814
Kentucky	16	Manufacturing	1	1.650	0.663
		Construction	2	2.102	0.564
		Office and Clerical	3	0.894	0.363
		Goods and Services	9	1.741	0.566
		Miscellaneous	0	1.973	0.697
Louisiana	17	Manufacturing	1	1.053	0.524
		Construction	2	1.584	0.619
		Office and Clerical	3	0.559	0.246
		Goods and Services	9	1.101	0.517
		Miscellaneous	0	1.282	0.621
Maine	18	Manufacturing	1	0.919	0.442
		Construction	2	1.248	0.548
		Office and Clerical	3	0.631	0.285
		Goods and Services	9	1.036	0.498
		Miscellaneous	0	1.645	0.695
Maryland	19	Manufacturing	1	1.452	0.709
		Construction	2	1.504	0.616
		Office and Clerical	3	0.697	0.457
		Goods and Services	9	1.287	0.635
		Miscellaneous	0	1.287	0.664
Minnesota	22	Manufacturing	1	1.409	0.639
		Construction	2	1.639	0.704
		Office and Clerical	3	1.138	0.449
		Goods and Services	9	1.566	0.600
		Miscellaneous	0	2.301	0.827
Mississippi	23	Manufacturing	1	1.212	0.485
		Construction	2	1.665	0.563
		Office and Clerical	3	0.842	0.306
		Goods and Services	9	1.345	0.545
		Miscellaneous	0	1.510	0.582

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 Exhibit 2

Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Indemnity (5)	Medical (6)
Missouri	24	Manufacturing	1	1.442	0.545
		Construction	2	1.913	0.662
		Office and Clerical	3	0.792	0.421
		Goods and Services	9	1.555	0.549
		Miscellaneous	0	1.883	0.698
Montana	25	Manufacturing	1	0.757	0.330
		Construction	2	1.117	0.376
		Office and Clerical	3	0.392	0.133
		Goods and Services	9	1.007	0.320
		Miscellaneous	0	1.419	0.497
Nebraska	26	Manufacturing	1	1.554	0.446
		Construction	2	1.379	0.386
		Office and Clerical	3	0.930	0.370
		Goods and Services	9	1.635	0.437
		Miscellaneous	0	1.744	0.577
Nevada	27	Manufacturing	1	1.377	0.698
		Construction	2	1.437	0.754
		Office and Clerical	3	0.424	0.248
		Goods and Services	9	1.238	0.594
		Miscellaneous	0	1.541	0.737
New Hampshire	28	Manufacturing	1	1.311	0.249
		Construction	2	1.353	0.272
		Office and Clerical	3	1.050	0.248
		Goods and Services	9	1.251	0.257
		Miscellaneous	0	1.854	0.404
New Mexico	30	Manufacturing	1	0.026	0.014
		Construction	2	2.001	0.656
		Office and Clerical	3	0.625	0.206
		Goods and Services	9	1.314	0.459
		Miscellaneous	0	1.629	0.514
North Carolina	32	Manufacturing	1	1.133	0.761
		Construction	2	1.016	0.544
		Office and Clerical	3	0.563	0.399
		Goods and Services	9	0.976	0.615
		Miscellaneous	0	0.999	0.618
Oklahoma	35	Manufacturing	1	0.601	0.474
		Construction	2	0.936	0.588
		Office and Clerical	3	0.222	0.189
		Goods and Services	9	0.516	0.378
		Miscellaneous	0	0.783	0.547
Oregon	36	Manufacturing	1	1.424	0.647
		Construction	2	1.434	0.656
		Office and Clerical	3	0.657	0.317
		Goods and Services	9	1.178	0.519
		Miscellaneous	0	1.675	0.737
Rhode Island	38	Manufacturing	1	0.569	0.620
		Construction	2	0.941	0.902
		Office and Clerical	3	0.477	0.593
		Goods and Services	9	0.606	0.662
		Miscellaneous	0	0.797	0.895

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 Exhibit 2

Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Indemnity (5)	Medical (6)
South Carolina	39	Manufacturing	1	1.046	0.702
		Construction	2	0.956	0.540
		Office and Clerical	3	0.503	0.348
		Goods and Services	9	0.897	0.560
		Miscellaneous	0	0.982	0.641
South Dakota	40	Manufacturing	1	2.558	0.467
		Construction	2	1.772	0.441
		Office and Clerical	3	0.837	0.178
		Goods and Services	9	2.385	0.498
		Miscellaneous	0	2.121	0.463
Tennessee	41	Manufacturing	1	1.042	0.396
		Construction	2	1.472	0.476
		Office and Clerical	3	0.805	0.356
		Goods and Services	9	1.424	0.478
		Miscellaneous	0	1.860	0.639
Utah	43	Manufacturing	1	2.578	0.675
		Construction	2	2.995	0.638
		Office and Clerical	3	2.022	0.404
		Goods and Services	9	2.665	0.610
		Miscellaneous	0	2.413	0.691
Vermont	44	Manufacturing	1	0.583	0.369
		Construction	2	1.092	0.521
		Office and Clerical	3	0.317	0.210
		Goods and Services	9	0.793	0.434
		Miscellaneous	0	0.493	0.381
Virginia	45	Manufacturing	1	2.525	0.813
		Construction	2	2.449	0.708
		Office and Clerical	3	2.101	0.698
		Goods and Services	9	2.242	0.673
		Miscellaneous	0	2.592	0.877
West Virginia	47	Manufacturing	1	1.359	0.546
		Construction	2	2.201	0.865
		Office and Clerical	3	0.930	0.399
		Goods and Services	9	1.471	0.590
		Miscellaneous	0	1.932	0.800
Hawaii	52	Manufacturing	1	0.823	0.556
		Construction	2	1.936	1.147
		Office and Clerical	3	0.600	0.436
		Goods and Services	9	1.114	0.731
		Miscellaneous	0	1.748	0.987
Alaska	54	Manufacturing	1	0.949	0.337
		Construction	2	2.082	0.432
		Office and Clerical	3	0.648	0.106
		Goods and Services	9	1.432	0.282
		Miscellaneous	0	2.604	0.407

Notes:

Factors to adjust countrywide data to the same payroll distribution and loss level as MA.

Pitch Factor = (MA Limited Losses) / [(State Pure Premium) x (MA Exposure)]

For a sample countrywide pure premium calculation, see Section IX - L, Exhibit 2, page 2.

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Section IX - Classification Pricing
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Section IX - D
 Exhibit 3

Countrywide Classification Experience: Database

State (1)	State Code (2)	Experience Data					
		First Report (3)		Second Report (4)		Third Report (5)	
Alabama	1	5/1/2009	- 4/30/2010	5/1/2008	- 4/30/2009	5/1/2007	- 4/30/2008
Arizona	2	3/1/2009	- 2/28/2010	3/1/2008	- 2/28/2009	3/1/2007	- 2/29/2008
Arkansas	3	2/1/2010	- 1/31/2011	2/1/2009	- 1/31/2010	2/1/2008	- 1/31/2009
Colorado	5	3/1/2009	- 2/28/2010	3/1/2008	- 2/28/2009	3/1/2007	- 2/29/2008
Connecticut	6	8/1/2009	- 7/31/2010	8/1/2008	- 7/31/2009	8/1/2007	- 7/31/2008
D.C.	8	2/1/2009	- 1/31/2010	2/1/2008	- 1/31/2009	2/1/2007	- 1/31/2008
Florida	9	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008	1/1/2007	- 12/31/2007
Georgia	10	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Idaho	11	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Illinois	12	4/1/2009	- 3/31/2010	4/1/2008	- 3/31/2009	4/1/2007	- 3/31/2008
Indiana	13	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Iowa	14	3/1/2009	- 2/28/2010	3/1/2008	- 2/28/2009	3/1/2007	- 2/29/2008
Kansas	15	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Kentucky	16	5/1/2009	- 4/30/2010	5/1/2008	- 4/30/2009	5/1/2007	- 4/30/2008
Louisiana	17	9/1/2009	- 8/31/2010	9/1/2008	- 8/31/2009	9/1/2007	- 8/31/2008
Maine	18	6/1/2009	- 5/31/2010	6/1/2008	- 5/31/2009	6/1/2007	- 5/31/2008
Maryland	19	4/1/2009	- 3/31/2010	4/1/2008	- 3/31/2009	4/1/2007	- 3/31/2008
Minnesota	22	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008	1/1/2007	- 12/31/2007
Mississippi	23	9/1/2009	- 8/31/2010	9/1/2008	- 8/31/2009	9/1/2007	- 8/31/2008
Missouri	24	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Montana	25	1/1/2010	- 12/31/2010	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008
Nebraska	26	8/1/2009	- 7/31/2010	8/1/2008	- 7/31/2009	8/1/2007	- 7/31/2008
Nevada	27	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008	1/1/2007	- 12/31/2007
New Hampshire	28	4/1/2009	- 3/31/2010	4/1/2008	- 3/31/2009	4/1/2007	- 3/31/2008
New Mexico	30	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
North Carolina	32	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008	1/1/2007	- 12/31/2007
Oklahoma	35	6/1/2009	- 5/31/2010	6/1/2008	- 5/31/2009	6/1/2007	- 5/31/2008
Oregon	36	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008	1/1/2007	- 12/31/2007
Rhode Island	38	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008	1/1/2007	- 12/31/2007
South Carolina	39	5/1/2009	- 4/30/2010	5/1/2008	- 4/30/2009	5/1/2007	- 4/30/2008
South Dakota	40	1/1/2010	- 12/31/2010	1/1/2009	- 12/31/2009	1/1/2008	- 12/31/2008
Tennessee	41	6/1/2009	- 5/31/2010	6/1/2008	- 5/31/2009	6/1/2007	- 5/31/2008
Utah	43	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Vermont	44	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Virginia	45	2/1/2009	- 1/31/2010	2/1/2008	- 1/31/2009	2/1/2007	- 1/31/2008
West Virginia	47	7/1/2009	- 6/30/2010	7/1/2008	- 6/30/2009	7/1/2007	- 6/30/2008
Hawaii	52	6/1/2009	- 5/31/2010	6/1/2008	- 5/31/2009	6/1/2007	- 5/31/2008
Alaska	54	4/1/2009	- 3/31/2010	4/1/2008	- 3/31/2009	4/1/2007	- 3/31/2008

Calculation of Pure Premium Underlying Present Rate Factor

Industry Group (1)	Injury Type (2)	Uncapped Rate Level Factor (3)	Industry Group Pure Premium From Previous Revision (4)	Percent of Pure Premium =(4) / [Total of (4)] (5)	Expected Loss and LAE Ratio (6)	Benefit Level Change Factor (7)	Trend Factor (8)	Pure Premium Underlying Present Rate Factor = (3) x (5) x (6) x (7) x (8) (9)
Manufacturing	Indemnity	2.427	1.121	0.515	0.757	1.020	0.930	0.899
	Medical	2.427	1.054	0.485	0.757	1.000	0.953	0.849
	Total		2.175					
Construction	Indemnity	5.565	2.717	0.542	0.757	1.020	0.930	2.168
	Medical	5.565	2.295	0.458	0.757	1.000	0.953	1.839
	Total		5.012					
Office and Clerical	Indemnity	0.163	0.075	0.469	0.757	1.020	0.930	0.055
	Medical	0.163	0.085	0.531	0.757	1.000	0.953	0.062
	Total		0.160					
Goods and Services	Indemnity	1.880	0.846	0.492	0.757	1.020	0.930	0.665
	Medical	1.880	0.872	0.508	0.757	1.000	0.953	0.688
	Total		1.718					
Miscellaneous	Indemnity	5.137	2.345	0.505	0.757	1.020	0.930	1.865
	Medical	5.137	2.298	0.495	0.757	1.000	0.953	1.834
	Total		4.643					

Notes:

- (3): Section IX - H, Exhibit 1 of 09/01/10 stipulation.
- (4): Section IX - C, Page 2 of Exhibits 1-5 of 09/01/10 stipulation.
- (6): Section VI - A, Exhibit 1 of 09/01/10 stipulation.
- (7): Section IV - A, Exhibit 1.
- (8): Net Indemnity and Medical Trends from Section V - A, Exhibit 1.

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Section IX - Classification Pricing
 Subsection F - Underlying Pure Premiums
 1/1/2014

Section IX - F
 Exhibit 1

Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group, Industry Code 1

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
1430	4.074	1.814	3.662	1.540	5.202
1438	1.234	1.342	1.109	1.140	2.249
1463	4.719	3.771	4.242	3.202	7.444
1701	2.676	1.646	2.406	1.397	3.803
1747	1.680	1.791	1.511	1.520	3.031
1748	1.465	1.347	1.317	1.144	2.460
1852	4.451	1.920	4.002	1.630	5.632
1853	0.958	0.545	0.861	0.463	1.324
1860	1.264	1.177	1.136	0.999	2.135
1924	1.178	1.061	1.059	0.901	1.960
1925	1.887	1.844	1.697	1.566	3.262
2001	1.376	1.393	1.237	1.182	2.419
2002	2.185	2.799	1.964	2.376	4.340
2003	1.376	1.393	1.237	1.182	2.419
2014	1.676	1.579	1.507	1.340	2.847
2021	1.935	1.453	1.740	1.234	2.973
2039	1.351	1.036	1.215	0.879	2.094
2041	1.134	1.041	1.020	0.884	1.904
2070	1.825	1.786	1.640	1.517	3.157
2081	1.548	1.805	1.392	1.532	2.924
2089	1.116	1.028	1.003	0.873	1.876
2095	1.936	1.685	1.740	1.430	3.171
2101	1.116	1.028	1.003	0.873	1.876
2111	1.178	1.101	1.059	0.934	1.993
2114	1.116	1.028	1.003	0.873	1.876
2115	1.491	1.289	1.341	1.094	2.435
2121	0.914	0.849	0.822	0.720	1.542
2130	1.295	0.992	1.164	0.843	2.006
2131	1.001	1.019	0.900	0.865	1.765
2143	1.482	1.142	1.332	0.969	2.301
2150	2.625	2.444	2.360	2.075	4.435
2156	4.359	4.418	3.919	3.750	7.669
2157	2.727	2.140	2.452	1.817	4.269
2172	1.045	0.729	0.939	0.619	1.558
2174	1.846	1.183	1.659	1.004	2.664
2211	2.434	2.671	2.188	2.267	4.455
2220	1.464	1.585	1.317	1.346	2.662
2260	3.112	1.845	2.797	1.567	4.364
2286	1.464	1.585	1.317	1.346	2.662
2288	0.882	0.944	0.793	0.802	1.595
2302	1.464	1.585	1.317	1.346	2.662
2305	0.953	0.687	0.857	0.584	1.440
2362	0.991	1.035	0.891	0.878	1.769
2380	1.081	1.401	0.971	1.190	2.161
2402	1.467	1.138	1.319	0.966	2.285
2413	1.689	1.335	1.519	1.134	2.652
2416	1.355	1.421	1.218	1.206	2.425
2417	1.360	1.238	1.223	1.051	2.274

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Section IX - Classification Pricing
 Subsection F - Underlying Pure Premiums
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Section IX - F
 Exhibit 1

Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group, Industry Code 1

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
2501	1.063	0.964	0.956	0.818	1.774
2503	0.432	0.522	0.388	0.443	0.831
2534	1.063	0.964	0.956	0.818	1.774
2570	1.948	2.160	1.751	1.833	3.585
2576	1.465	1.289	1.317	1.094	2.411
2578	1.465	1.289	1.317	1.094	2.411
2585	1.224	1.171	1.100	0.995	2.095
2586	0.732	0.646	0.658	0.549	1.206
2623	1.802	1.475	1.620	1.252	2.872
2640	1.118	0.971	1.005	0.825	1.830
2651	1.118	0.971	1.005	0.825	1.830
2660	0.760	1.020	0.684	0.866	1.550
2683	0.938	0.892	0.843	0.758	1.601
2688	1.199	1.056	1.078	0.896	1.974
2710	2.801	2.679	2.519	2.274	4.793
2731	2.012	1.987	1.809	1.687	3.497
2741	3.021	2.115	2.716	1.795	4.511
2747	3.443	3.157	3.095	2.680	5.775
2790	0.881	1.048	0.792	0.890	1.682
2802	1.924	1.925	1.729	1.634	3.364
2835	0.886	1.023	0.796	0.869	1.665
2836	1.653	1.070	1.486	0.909	2.394
2841	1.576	1.811	1.417	1.538	2.954
2883	1.518	1.610	1.365	1.367	2.732
2923	0.915	0.776	0.822	0.659	1.482
2942	0.937	1.311	0.842	1.113	1.956
3018	1.189	1.231	1.069	1.045	2.113
3022	1.632	1.719	1.467	1.459	2.926
3027	1.885	2.189	1.694	1.858	3.553
3028	1.607	2.105	1.445	1.788	3.233
3030	3.282	3.821	2.950	3.244	6.195
3040	3.586	2.849	3.224	2.419	5.643
3041	2.282	1.606	2.052	1.364	3.415
3042	5.018	2.552	4.511	2.166	6.678
3064	1.309	1.248	1.176	1.059	2.236
3066	1.309	1.248	1.176	1.059	2.236
3076	1.181	1.090	1.062	0.925	1.987
3081	3.321	3.720	2.986	3.159	6.144
3082	3.321	3.720	2.986	3.159	6.144
3085	2.039	2.165	1.833	1.838	3.671
3110	3.327	3.846	2.991	3.265	6.256
3111	1.192	1.313	1.072	1.115	2.186
3113	0.931	0.941	0.837	0.799	1.636
3114	1.543	1.546	1.387	1.312	2.700
3118	0.931	0.941	0.837	0.799	1.636
3119	0.459	0.491	0.412	0.417	0.830
3120	0.994	0.658	0.894	0.558	1.452
3122	1.140	1.103	1.025	0.936	1.961

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Section IX - Classification Pricing
 Subsection F - Underlying Pure Premiums
 1/1/2014

Section IX - F
 Exhibit 1

Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group, Industry Code 1

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
3127	0.367	0.423	0.330	0.359	0.690
3131	1.005	0.814	0.903	0.691	1.594
3132	1.047	1.197	0.941	1.016	1.957
3145	0.838	0.917	0.753	0.779	1.532
3146	1.002	0.791	0.901	0.672	1.572
3169	1.658	2.051	1.491	1.741	3.232
3179	0.798	0.641	0.718	0.544	1.262
3180	1.254	1.213	1.128	1.030	2.157
3188	1.754	1.617	1.576	1.373	2.949
3200	1.240	1.487	1.115	1.262	2.377
3220	0.852	0.811	0.766	0.688	1.454
3227	1.658	2.051	1.491	1.741	3.232
3241	1.178	1.061	1.059	0.901	1.960
3255	1.418	1.548	1.275	1.314	2.589
3257	1.305	1.522	1.174	1.292	2.465
3270	0.920	0.736	0.827	0.625	1.452
3300	3.310	2.745	2.975	2.330	5.306
3315	1.332	1.162	1.197	0.987	2.184
3336	1.285	1.481	1.155	1.257	2.412
3372	1.023	1.068	0.919	0.907	1.826
3373	1.751	1.373	1.575	1.166	2.741
3381	1.413	1.477	1.271	1.254	2.525
3383	0.611	0.584	0.549	0.496	1.044
3385	0.395	0.406	0.355	0.345	0.700
3400	1.658	2.051	1.491	1.741	3.232
3507	1.644	1.714	1.478	1.455	2.933
3515	1.189	1.299	1.069	1.103	2.172
3548	0.791	0.874	0.711	0.742	1.453
3558	0.348	0.482	0.313	0.409	0.722
3559	0.791	0.874	0.711	0.742	1.453
3571	0.541	0.522	0.487	0.443	0.930
3574	0.791	0.874	0.711	0.742	1.453
3612	0.855	0.824	0.769	0.700	1.468
3620	2.050	2.173	1.843	1.845	3.688
3629	0.791	0.874	0.711	0.742	1.453
3632	0.791	0.874	0.711	0.742	1.453
3634	0.899	0.726	0.808	0.617	1.425
3635	1.588	2.035	1.427	1.728	3.155
3638	0.791	0.874	0.711	0.742	1.453
3642	0.540	0.375	0.486	0.319	0.804
3643	0.798	0.641	0.718	0.544	1.262
3647	1.215	1.195	1.092	1.015	2.107
3648	0.671	0.836	0.604	0.709	1.313
3681	0.344	0.355	0.309	0.301	0.610
3685	0.344	0.355	0.309	0.301	0.610
3807	1.658	2.051	1.491	1.741	3.232
3808	1.631	1.816	1.466	1.541	3.008
3826	2.020	2.174	1.816	1.846	3.662

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Section IX - Classification Pricing
 Subsection F - Underlying Pure Premiums
 1/1/2014

Section IX - F
 Exhibit 1

Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group, Industry Code 1

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
3830	0.791	0.874	0.711	0.742	1.453
3841	0.782	0.784	0.703	0.665	1.368
4021	2.051	2.251	1.843	1.911	3.755
4024	1.624	1.073	1.460	0.911	2.371
4034	2.378	2.479	2.138	2.104	4.242
4036	1.534	1.078	1.379	0.915	2.294
4038	1.156	0.891	1.039	0.757	1.796
4053	0.989	0.825	0.889	0.700	1.590
4061	1.234	2.192	1.109	1.861	2.970
4062	1.234	2.192	1.109	1.861	2.970
4112	0.308	0.244	0.277	0.207	0.484
4113	0.989	0.825	0.889	0.700	1.590
4114	1.252	1.037	1.126	0.881	2.007
4130	2.232	2.474	2.007	2.101	4.107
4133	0.803	0.926	0.722	0.786	1.508
4150	0.490	0.382	0.441	0.324	0.765
4239	1.583	1.360	1.423	1.155	2.578
4243	1.404	1.190	1.263	1.010	2.273
4244	1.520	1.801	1.366	1.529	2.896
4250	0.869	0.664	0.781	0.563	1.344
4251	0.869	0.758	0.781	0.644	1.425
4273	1.187	1.501	1.068	1.274	2.342
4279	1.432	1.737	1.287	1.475	2.762
4282	0.292	0.314	0.263	0.266	0.529
4283	1.363	1.197	1.226	1.016	2.242
4299	0.969	0.896	0.871	0.760	1.631
4301	2.806	2.421	2.522	2.055	4.577
4304	1.691	1.708	1.520	1.450	2.970
4307	0.606	0.607	0.544	0.515	1.060
4308	1.654	0.393	1.487	0.334	1.821
4350	0.305	0.243	0.274	0.206	0.480
4351	0.535	0.389	0.481	0.331	0.812
4352	0.414	0.561	0.372	0.476	0.848
4360	0.559	0.447	0.502	0.380	0.882
4410	1.951	1.999	1.754	1.697	3.451
4417	2.338	2.250	2.102	1.910	4.012
4432	0.523	0.580	0.470	0.492	0.962
4439	1.091	1.142	0.981	0.970	1.951
4452	1.247	1.329	1.121	1.128	2.249
4459	1.216	1.445	1.093	1.227	2.320
4470	1.247	1.251	1.121	1.062	2.183
4484	1.002	1.134	0.900	0.963	1.863
4493	1.281	1.609	1.152	1.366	2.518
4557	0.670	0.618	0.602	0.525	1.127
4558	0.808	0.723	0.727	0.614	1.340
4561	1.091	1.142	0.981	0.970	1.951
4583	1.649	1.192	1.483	1.012	2.494
4611	0.751	0.674	0.676	0.572	1.248

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Section IX - Classification Pricing
Subsection F - Underlying Pure Premiums
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Section IX - F
Exhibit 1

Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group, Industry Code 1

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
4635	1.498	1.570	1.347	1.333	2.679
4653	0.674	0.532	0.606	0.452	1.058
4665	3.558	4.002	3.198	3.397	6.596
4692	0.275	0.244	0.248	0.207	0.454
4693	0.468	0.511	0.421	0.434	0.855
4720	0.784	0.873	0.705	0.741	1.446
4740	0.485	0.387	0.436	0.329	0.764
4741	1.839	1.247	1.653	1.059	2.712
4770	8.218	1.259	7.388	1.069	8.457
4773	16.714	2.363	15.026	2.006	17.032
4774	13.713	2.195	12.328	1.864	14.191
4775	41.651	40.258	37.445	34.179	71.624
4776	12.339	1.207	11.093	1.025	12.117
4777	1.649	1.192	1.483	1.012	2.494
4779	9.934	2.420	8.931	2.055	10.985
4799	30.264	4.641	27.207	3.940	31.148
4825	0.308	0.279	0.276	0.237	0.513
4828	0.562	0.467	0.505	0.396	0.901
4829	0.562	0.467	0.505	0.396	0.901
4902	0.937	1.311	0.842	1.113	1.956
4923	0.559	0.447	0.502	0.380	0.882
6504	1.116	1.028	1.003	0.873	1.876
9501	1.158	1.462	1.041	1.241	2.282
9505	1.158	1.462	1.041	1.241	2.282
9521	2.052	1.702	1.845	1.445	3.290
9522	0.939	0.814	0.844	0.691	1.535

Notes:

(2), (3): Section IX - I of 09/01/2010 stipulation.

(4) = (2) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1

(5) = (3) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1
(Indemnity = 0.899, Medical = 0.849).

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Section IX - Classification Pricing
 Subsection F - Underlying Pure Premiums
 1/1/2014

Section IX - F
 Exhibit 2

Calculation of Pure Premiums Underlying Present Rate Construction Industry Group, Industry Code 2

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
0050	1.111	1.017	2.408	1.870	4.278
3365	1.695	1.747	3.674	3.213	6.887
3724	0.881	0.903	1.911	1.662	3.572
3726	3.248	2.289	7.042	4.210	11.252
5020	1.074	1.154	2.329	2.122	4.451
5022	2.033	1.690	4.407	3.107	7.514
5037	5.244	2.917	11.369	5.365	16.734
5040	11.309	8.482	24.518	15.598	40.116
5057	6.403	5.225	13.883	9.609	23.492
5059	6.403	5.225	13.883	9.609	23.492
5069	6.403	5.225	13.883	9.609	23.492
5102	1.355	1.070	2.939	1.968	4.907
5146	0.993	0.897	2.152	1.649	3.801
5160	0.767	0.736	1.664	1.354	3.017
5183	0.605	0.642	1.311	1.181	2.491
5188	0.790	0.669	1.712	1.231	2.943
5190	0.483	0.531	1.047	0.976	2.023
5213	3.744	2.884	8.118	5.304	13.422
5215	0.909	0.995	1.970	1.829	3.799
5221	1.145	1.066	2.482	1.961	4.442
5222	1.604	1.477	3.478	2.717	6.195
5223	0.909	0.995	1.970	1.829	3.799
5348	1.046	1.017	2.267	1.871	4.138
5402	1.517	2.069	3.290	3.805	7.094
5403	1.679	1.694	3.641	3.116	6.757
5437	1.021	0.822	2.214	1.512	3.726
5443	0.871	0.886	1.889	1.629	3.518
5445	1.457	1.086	3.159	1.998	5.157
5462	1.688	1.719	3.659	3.161	6.820
5472	2.155	2.187	4.672	4.021	8.693
5473	2.421	2.025	5.250	3.723	8.973
5474	0.884	0.928	1.917	1.707	3.624
5478	0.976	0.661	2.115	1.215	3.330
5479	1.354	1.416	2.935	2.604	5.539
5480	0.927	0.719	2.010	1.323	3.333
5506	1.260	1.245	2.733	2.289	5.022
5507	1.300	1.198	2.818	2.204	5.021
5508	1.111	1.017	2.408	1.870	4.278
5509	0.578	0.615	1.252	1.130	2.383
5538	0.992	1.044	2.150	1.921	4.071
5545	4.570	6.615	9.907	12.166	22.073
5547	2.613	3.549	5.664	6.527	12.191
5606	0.275	0.304	0.595	0.559	1.154
5610	1.072	0.837	2.324	1.539	3.863
5645	1.403	1.708	3.042	3.141	6.183
5651	1.403	1.708	3.042	3.141	6.183
5701	3.058	4.485	6.630	8.248	14.878
5703	5.904	3.379	12.801	6.215	19.015

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Section IX - Classification Pricing
Subsection F - Underlying Pure Premiums
1/1/2014

Section IX - F
Exhibit 2

Calculation of Pure Premiums Underlying Present Rate Construction Industry Group, Industry Code 2

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
5705	2.119	1.821	4.594	3.348	7.942
6003	2.707	1.810	5.869	3.328	9.197
6005	1.111	1.017	2.408	1.870	4.278
6204	1.733	1.699	3.758	3.125	6.883
6217	0.761	0.786	1.650	1.446	3.096
6229	0.761	0.786	1.650	1.446	3.096
6233	0.750	0.572	1.627	1.053	2.679
6251	1.318	0.764	2.856	1.404	4.261
6252	1.522	1.236	3.299	2.272	5.572
6306	1.493	1.421	3.237	2.613	5.850
6319	0.910	0.810	1.972	1.490	3.462
6325	0.825	0.933	1.790	1.715	3.505
6400	1.127	1.402	2.444	2.579	5.023
7538	1.124	1.065	2.437	1.959	4.396
7601	1.124	1.065	2.437	1.959	4.396
7855	1.241	0.740	2.690	1.362	4.051
8227	0.696	0.918	1.508	1.689	3.197
9533	3.642	2.093	7.896	3.849	11.744
9534	1.141	0.701	2.473	1.289	3.762
9545	0.765	0.686	1.658	1.261	2.920
9549	0.814	1.124	1.764	2.068	3.831
9552	1.595	1.532	3.458	2.818	6.276
9553	1.595	1.532	3.458	2.818	6.276

Notes:

(2), (3): Section IX - I of 09/01/2010 stipulation.

(4) = (2) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1

(5) = (3) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1
(Indemnity = 2.168, Medical = 1.839).

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Section IX - Classification Pricing
Subsection F - Underlying Pure Premiums
1/1/2014

Section IX - F
Exhibit 3

Calculation of Pure Premiums Underlying Present Rate Office and Clerical Industry Group, Industry Code 3

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
4361	3.233	3.013	0.178	0.187	0.365
7610	1.250	1.102	0.069	0.068	0.137
8601	1.655	1.719	0.091	0.107	0.198
8721	1.093	1.064	0.060	0.066	0.126
8742	0.976	0.944	0.054	0.059	0.112
8748	2.938	2.853	0.162	0.177	0.338
8800	5.380	5.200	0.296	0.322	0.618
8803	0.282	0.217	0.016	0.013	0.029
8810	0.549	0.556	0.030	0.034	0.065
8820	0.592	0.524	0.033	0.032	0.065
8832	1.474	1.351	0.081	0.084	0.165
8833	7.695	6.281	0.423	0.389	0.813
8868	3.700	4.453	0.204	0.276	0.480
8901	0.549	0.556	0.030	0.034	0.065
9156	5.753	8.274	0.316	0.513	0.829

Notes:

(2), (3): Section IX - I of 09/01/2010 stipulation.

(4) = (2) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1

(5) = (3) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1
(Indemnity = 0.055, Medical = 0.062).

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Section IX - Classification Pricing
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Section IX - F
 Exhibit 4

Calculation of Pure Premiums Underlying Present Rate Goods and Services Industry Group, Industry Code 9

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
0005	1.445	1.699	0.961	1.169	2.130
0008	1.309	1.308	0.870	0.900	1.770
0016	1.686	2.216	1.121	1.525	2.646
0034	1.470	2.582	0.978	1.777	2.754
0035	1.150	1.163	0.765	0.800	1.565
0036	1.470	2.582	0.978	1.777	2.754
0037	1.309	1.308	0.870	0.900	1.770
0042	2.229	2.268	1.482	1.560	3.042
0046	1.037	1.070	0.689	0.736	1.426
0079	1.079	0.804	0.717	0.553	1.271
0083	2.625	3.160	1.746	2.174	3.920
0113	1.470	2.582	0.978	1.777	2.754
0170	1.470	2.582	0.978	1.777	2.754
0908	54.978	50.139	36.560	34.496	71.056
0909	52.456	97.031	34.883	66.758	101.641
0912	104.913	194.063	69.767	133.515	203.282
0913	109.955	100.279	73.120	68.992	142.112
0917	1.394	1.440	0.927	0.991	1.918
0918	0.407	0.199	0.271	0.137	0.408
2587	1.425	1.337	0.948	0.920	1.867
3821	2.461	2.044	1.637	1.406	3.043
4362	0.369	0.356	0.245	0.245	0.490
4511	0.190	0.201	0.126	0.138	0.264
4512	0.081	0.081	0.054	0.056	0.110
5191	0.562	0.528	0.374	0.363	0.737
5192	2.322	1.849	1.544	1.272	2.816
8001	0.855	0.966	0.568	0.664	1.233
8002	1.131	1.396	0.752	0.961	1.713
8006	0.716	0.980	0.476	0.675	1.150
8008	0.346	0.359	0.230	0.247	0.477
8010	0.788	0.916	0.524	0.630	1.154
8013	0.256	0.247	0.170	0.170	0.340
8017	0.577	0.701	0.384	0.482	0.866
8018	1.767	1.735	1.175	1.194	2.369
8021	1.489	1.481	0.990	1.019	2.009
8031	1.495	1.439	0.994	0.990	1.984
8032	0.816	0.868	0.543	0.597	1.140
8033	1.018	1.095	0.677	0.753	1.430
8034	2.238	2.087	1.488	1.436	2.924
8039	0.795	1.005	0.528	0.691	1.220
8044	1.707	1.862	1.135	1.281	2.417
8046	1.164	1.472	0.774	1.013	1.787
8048	1.957	1.689	1.301	1.162	2.463
8050	0.873	0.998	0.580	0.687	1.267
8058	1.331	1.634	0.885	1.124	2.009
8103	1.737	1.597	1.155	1.099	2.254

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Section IX - Classification Pricing
 Subsection F - Underlying Pure Premiums
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Section IX - F
 Exhibit 4

Calculation of Pure Premiums Underlying Present Rate Goods and Services Industry Group, Industry Code 9

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
8105	2.586	2.495	1.720	1.717	3.437
8106	3.462	4.754	2.302	3.271	5.573
8107	1.995	2.430	1.327	1.672	2.999
8111	1.898	1.820	1.262	1.252	2.515
8116	1.995	2.430	1.327	1.672	2.999
8203	3.449	2.972	2.293	2.044	4.338
8204	3.293	1.955	2.190	1.345	3.535
8215	1.878	1.539	1.249	1.059	2.308
8232	2.440	2.499	1.622	1.719	3.342
8233	4.222	5.543	2.808	3.814	6.622
8235	2.168	2.069	1.441	1.424	2.865
8263	4.541	3.893	3.020	2.679	5.699
8264	2.675	2.532	1.779	1.742	3.521
8265	4.222	5.543	2.808	3.814	6.622
8279	2.260	2.039	1.503	1.403	2.906
8291	2.274	2.347	1.512	1.615	3.127
8292	2.078	2.215	1.382	1.524	2.906
8293	4.727	4.504	3.144	3.099	6.243
8350	3.415	3.005	2.271	2.067	4.338
8380	1.436	1.296	0.955	0.892	1.847
8381	0.979	0.897	0.651	0.617	1.268
8385	1.983	1.711	1.319	1.177	2.496
8392	0.765	0.613	0.509	0.422	0.930
8393	1.216	0.887	0.809	0.610	1.419
8500	4.222	5.543	2.808	3.814	6.622
8710	1.221	1.208	0.812	0.831	1.643
8719	1.221	1.208	0.812	0.831	1.643
8720	0.655	0.477	0.435	0.328	0.763
8745	1.822	1.836	1.212	1.263	2.475
8747	0.577	0.701	0.384	0.482	0.866
8829	1.197	1.097	0.796	0.755	1.551
8831	0.415	0.867	0.276	0.597	0.873
8835	1.204	1.066	0.801	0.734	1.534
9014	1.398	1.223	0.930	0.841	1.771
9015	1.584	1.455	1.053	1.001	2.054
9016	0.857	0.900	0.570	0.619	1.189
9033	3.018	2.193	2.007	1.509	3.516
9040	1.677	1.603	1.115	1.103	2.218
9052	0.793	0.866	0.528	0.596	1.124
9058	0.793	0.866	0.528	0.596	1.124
9060	0.558	0.697	0.371	0.479	0.850
9061	0.510	0.562	0.339	0.387	0.726
9063	0.301	0.445	0.200	0.306	0.506
9079	0.549	0.642	0.365	0.442	0.807
9089	0.651	0.719	0.433	0.495	0.928
9093	0.461	0.643	0.307	0.443	0.749

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Section IX - Classification Pricing
Subsection F - Underlying Pure Premiums
1/1/2014

Section IX - F
Exhibit 4

Calculation of Pure Premiums Underlying Present Rate Goods and Services Industry Group, Industry Code 9

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
9101	1.741	1.793	1.158	1.233	2.391
9220	2.048	1.842	1.362	1.267	2.629
9410	0.960	1.205	0.639	0.829	1.468
9620	0.470	0.388	0.313	0.267	0.580
9586	0.269	0.238	0.179	0.164	0.343

Notes:

(2), (3): Section IX - I of 09/01/2010 stipulation.

(4) = (2) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1

(5) = (3) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1
(Indemnity = 0.665, Medical = 0.688).

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Section IX - Classification Pricing
 Subsection F - Underlying Pure Premiums
 1/1/2014

Section IX - F
 Exhibit 5

Calculation of Pure Premiums Underlying Present Rate Miscellaneous Industry Group, Industry Code 0

Class (1)	Adopted Relativities		Pure Premiums Underlying Present Rate		
	Indemnity (2)	Medical (3)	Indemnity (4)	Medical (5)	Total (6) = (4) + (5)
0106	2.503	3.455	4.668	6.336	11.004
0251	0.677	0.601	1.262	1.103	2.365
1624	1.146	1.019	2.137	1.870	4.006
1655	1.032	1.459	1.924	2.676	4.601
1710	1.146	1.019	2.137	1.870	4.006
2702	3.146	2.939	5.867	5.390	11.257
4000	1.060	0.896	1.977	1.643	3.620
6834	0.592	0.615	1.104	1.129	2.233
6836	0.478	0.511	0.891	0.938	1.829
7219	1.776	1.587	3.311	2.910	6.221
7230	1.304	1.148	2.432	2.106	4.538
7231	1.345	1.364	2.508	2.502	5.010
7360	1.109	1.129	2.068	2.070	4.137
7370	0.791	1.083	1.475	1.986	3.461
7380	1.201	1.121	2.239	2.055	4.294
7382	0.806	0.857	1.504	1.572	3.076
7403	0.787	1.138	1.467	2.087	3.554
7405	0.327	0.311	0.609	0.570	1.179
7420	1.629	0.746	3.038	1.368	4.406
7421	0.545	0.272	1.016	0.499	1.515
7422	0.545	0.272	1.016	0.499	1.515
7425	1.025	0.568	1.911	1.042	2.953
7431	0.545	0.272	1.016	0.499	1.515
7502	0.696	0.862	1.299	1.581	2.879
7515	0.463	0.462	0.863	0.847	1.711
7520	0.677	0.601	1.262	1.103	2.365
7539	0.266	0.214	0.495	0.392	0.887
7580	0.473	0.532	0.882	0.975	1.857
7590	1.453	1.116	2.709	2.047	4.756
7600	0.686	0.625	1.278	1.146	2.424
7704	0.285	0.324	0.532	0.595	1.126
7720	0.344	0.358	0.641	0.656	1.297
9019	0.427	0.240	0.796	0.440	1.237
9102	0.440	0.472	0.821	0.865	1.686
9154	0.233	0.256	0.434	0.469	0.904
9178	0.889	3.426	1.658	6.284	7.942
9179	5.082	4.640	9.478	8.509	17.987
9180	0.536	1.088	1.000	1.995	2.995
9182	0.535	0.842	0.998	1.543	2.541
9186	0.536	1.088	1.000	1.995	2.995
9402	0.988	1.011	1.842	1.855	3.697
9403	1.626	1.647	3.032	3.020	6.052

Notes:

- (2), (3): Section IX - I of 09/01/2010 stipulation.
- (4) = (2) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1
- (5) = (3) x Pure Premium Underlying Present Rate Factors from Section IX - E, Exhibit 1
 (Indemnity = 1.865, Medical = 1.834).

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G

A-Sheet Table of Contents

To find the A-Sheet for:		Look at the A-Sheet for:	
Class	Description	Class	Exhibit
0005	FARM: NURSERY EMP & DRIVERS	0005	Section IX - G, Exhibit 1
0008	FARM: GARDENING-MARKET OR TRUCK & DRIVERS	0008	Section IX - G, Exhibit 1
0016	FARM: ORCHARDS & DRIVERS	0016	Section IX - G, Exhibit 2
0034	FARM: POULTRY OR EGG PRODUCERS & DRIVERS	0034	Section IX - G, Exhibit 2
0035	FARM: FLORIST & DRIVERS	0035	Section IX - G, Exhibit 3
0036	FARM: DAIRY & DRIVERS	0034	Section IX - G, Exhibit 2
0037	FARM: FIELD CROPS & DRIVERS	0008	Section IX - G, Exhibit 1
0042	LANDSCAPE GARDENING & DRIVERS	0042	Section IX - G, Exhibit 3
0046	FERTILIZER OR PESTICIDE APPLICATION-COMM OR DOMESTIC, DRIVERS	0046	Section IX - G, Exhibit 4
0050	FARM MACHINERY OPERATION-BY CONTRACTOR & DRIVERS	0050	Section IX - G, Exhibit 4
0079	FARM: BERRY OR VINEYARD & DRIVERS	0079	Section IX - G, Exhibit 5
0083	FARM: CATTLE OR LIVESTOCK RAISING NOC & DRIVERS	0083	Section IX - G, Exhibit 5
0106	TREE PRUNING, SPRAYING, REPAIRING & DRIVERS	0106	Section IX - G, Exhibit 6
0113	FARM: FISH HATCHERY & DRIVERS	0034	Section IX - G, Exhibit 2
0170	FARM: ANIMAL RAISING & DRIVERS	0034	Section IX - G, Exhibit 2
0251	IRRIGATION WORKS OPERATION & DRIVERS	0251	Section IX - G, Exhibit 6
0908	DOMESTIC WORKERS-INSIDE-OCCASIONAL-NOC	0908	Section IX - G, Exhibit 7
0909	DOMESTIC WORKERS-OUTSIDE-OCCASIONAL-INCL OCCASNL PRIV CHAUFF	0909	Section IX - G, Exhibit 7
0912	DOMESTIC WORKERS-OUTSIDE-INCL PRIVATE CHAUFFERS	0909	Section IX - G, Exhibit 7
0913	DOMESTIC WORKERS-INSIDE-NOC	0908	Section IX - G, Exhibit 7
0917	DOMESTIC SERVICE CONTRACTOR-INSIDE	0917	Section IX - G, Exhibit 8
0918	DOMESTIC WORKERS-INSIDE-PHYSICAL ASSISTANCE	0918	Section IX - G, Exhibit 8
1430	SMELTING, SINTERING OR REFINING-LEAD & DRIVERS	1430	Section IX - G, Exhibit 9
1438	SMELTING, SINTERING OR REFINING-METALS-NOT IRON OR LEAD-NOC & D	1438	Section IX - G, Exhibit 9
1463	ASPHALT WORKS & DRIVERS	1463	Section IX - G, Exhibit 10
1624	QUARRY NOC & DRIVERS	1624	Section IX - G, Exhibit 10
1655	LIME MFG-QUARRY-SURFACE & DRIVERS	1655	Section IX - G, Exhibit 11
1701	CEMENT MFG	1701	Section IX - G, Exhibit 11
1710	STONE CRUSHING & DRIVERS	1624	Section IX - G, Exhibit 10
1747	EMERY WORKS & DRIVERS	1747	Section IX - G, Exhibit 12
1748	ABRASIVE WHEEL MFG & DRIVERS	1748	Section IX - G, Exhibit 12
1852	ASBESTOS GOODS MFG	1852	Section IX - G, Exhibit 13
1853	MICA GOODS MFG & MICA PREPARING	1853	Section IX - G, Exhibit 13
1860	ABRASIVE PAPER OR CLOTH PREPARATION	1860	Section IX - G, Exhibit 14
1924	WIRE DRAWING OR CABLE MFG-NOT IRON OR STEEL	1924	Section IX - G, Exhibit 14
1925	DIE CASTING MFG	1925	Section IX - G, Exhibit 15
2001	CRACKER MFG	2001	Section IX - G, Exhibit 15
2002	MACARONI MFG	2002	Section IX - G, Exhibit 16
2003	BAKERY & DRIVERS, ROUTE SUPERVISORS	2001	Section IX - G, Exhibit 15
2014	GRAIN MILLING	2014	Section IX - G, Exhibit 16
2021	SUGAR REFINING-ALL OPERATIONS & DRIVERS	2021	Section IX - G, Exhibit 17
2039	ICE CREAM MFG & DRIVERS	2039	Section IX - G, Exhibit 17
2041	CONFECTION MFG	2041	Section IX - G, Exhibit 18
2070	CREAMERY OR DAIRY & ROUTE SUPERVISORS, DRIVERS	2070	Section IX - G, Exhibit 18
2081	BUTCHERING	2081	Section IX - G, Exhibit 19
2089	PACKING HOUSE- ALL OPERATIONS	2089	Section IX - G, Exhibit 19
2095	MEAT PRODUCTS MFG-NOC	2095	Section IX - G, Exhibit 20
2101	FISH CURING	2089	Section IX - G, Exhibit 19
2111	CANNERY NOC	2111	Section IX - G, Exhibit 20
2114	OYSTERMEN	2089	Section IX - G, Exhibit 19
2115	SEAFOOD PRODUCTS MFG-NOC	2115	Section IX - G, Exhibit 21
2121	BREWERY & DRIVERS	2121	Section IX - G, Exhibit 21
2130	SPIRITUOUS LIQUOR DISTILLERY	2130	Section IX - G, Exhibit 22
2131	SPIRITUOUS LIQUOR BOTTLING	2131	Section IX - G, Exhibit 22
2143	FRUIT JUICE MFG	2143	Section IX - G, Exhibit 23
2150	ICE MFG	2150	Section IX - G, Exhibit 23
2156	BOTTLING-NOT CARBONATED LIQUIDS OR SPIRIT LIQRS & RTE SUP,DR	2156	Section IX - G, Exhibit 24
2157	BOTTLING NOC & ROUTE SUPERVISORS, DRIVERS	2157	Section IX - G, Exhibit 24
2172	CIGARETTE MFG	2172	Section IX - G, Exhibit 25
2174	TOBACCO REHANDLING OR WAREHOUSING	2174	Section IX - G, Exhibit 25
2211	COTTON BATTING,WADDING OR WASTE MFG	2211	Section IX - G, Exhibit 26
2220	YARN OR THREAD MFG-COTTON	2220	Section IX - G, Exhibit 26
2260	WOOL COMBING OR SCOURING	2260	Section IX - G, Exhibit 27
2286	WOOL SPINNING & WEAVING	2220	Section IX - G, Exhibit 26
2288	FELTING MFG	2288	Section IX - G, Exhibit 27
2302	SILK THREAD OR YARN MFG	2220	Section IX - G, Exhibit 26
2305	TEXTILE FIBER MFG-SYNTHETIC	2305	Section IX - G, Exhibit 28

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Section IX - Classification Pricing
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Section IX - G

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Class	To find the A-Sheet for:		Class	Look at the A-Sheet for:	
		Description			Exhibit
2362	KNIT GOODS MFG NOC		2362	Section IX - G, Exhibit 28	
2380	WEBBING MFG		2380	Section IX - G, Exhibit 29	
2402	CARPET OR RUG MFG NOC		2402	Section IX - G, Exhibit 29	
2413	TEXTILE - BLEACHING, DYEING, MERCERZNG, FINISH		2413	Section IX - G, Exhibit 30	
2416	YARN OR THREAD DYEING OR FINISHING		2416	Section IX - G, Exhibit 30	
2417	CLOTH PRINTING		2417	Section IX - G, Exhibit 31	
2501	CLOTHING MFG		2501	Section IX - G, Exhibit 31	
2503	DRESSMAKING OR TAILORING-CUSTOM EXCLUSIVELY		2503	Section IX - G, Exhibit 32	
2534	FEATHER OR FLOWER MFG-ARTIFICIAL		2501	Section IX - G, Exhibit 31	
2570	MATTRESS OR BOX SPRING MFG		2570	Section IX - G, Exhibit 32	
2576	CANVAS GOODS MFG NOC-SHOP		2576	Section IX - G, Exhibit 33	
2578	BAG OR SACK MFG-CLOTH		2576	Section IX - G, Exhibit 33	
2585	LAUNDRY NOC & ROUTE SUPERVISORS, DRIVERS		2585	Section IX - G, Exhibit 33	
2586	CLEANING OR DYEING & ROUTE SUPERVISORS, DRIVERS		2586	Section IX - G, Exhibit 34	
2587	TOWEL OR TOILET SUPPLY CO & RTE SUPERVISORS, DR		2587	Section IX - G, Exhibit 34	
2623	TANNING		2623	Section IX - G, Exhibit 35	
2640	LEATHER EMBOSING		2640	Section IX - G, Exhibit 35	
2651	SHOE STOCK MFG		2640	Section IX - G, Exhibit 35	
2660	BOOT OR SHOE MFG NOC		2660	Section IX - G, Exhibit 36	
2683	LUGGAGE MFG		2683	Section IX - G, Exhibit 36	
2688	LEATHER GOODS MFG NOC		2688	Section IX - G, Exhibit 37	
2702	LOGGING OR LUMBERING & DRIVERS		2702	Section IX - G, Exhibit 37	
2710	SAWMILLS		2710	Section IX - G, Exhibit 38	
2731	PLANING OR MOLDING MILL		2731	Section IX - G, Exhibit 38	
2741	COOPERAGE STOCK MFG		2741	Section IX - G, Exhibit 39	
2747	COOPERAGE ASSEMBLY		2747	Section IX - G, Exhibit 39	
2790	PATTERN MAKING NOC		2790	Section IX - G, Exhibit 40	
2802	CARPENTRY-SHOP ONLY & DRIVERS		2802	Section IX - G, Exhibit 40	
2835	BRUSH OR BROOM ASSEMBLY		2835	Section IX - G, Exhibit 41	
2836	BRUSH OR BROOM MFG NOC		2836	Section IX - G, Exhibit 41	
2841	WOODENWARE MFG NOC		2841	Section IX - G, Exhibit 42	
2883	FURNITURE MFG-WOOD-NOC		2883	Section IX - G, Exhibit 42	
2923	PIANO MFG		2923	Section IX - G, Exhibit 43	
2942	PENCIL, PENHOLDER OR CRAYON MFG		2942	Section IX - G, Exhibit 43	
3018	IRON OR STEEL: MFG: ROLLING MILL & DRIVERS		3018	Section IX - G, Exhibit 44	
3022	PIPE OR TUBE MFG NOC & DRIVERS		3022	Section IX - G, Exhibit 44	
3027	ROLLING MILL NOC & DRIVERS		3027	Section IX - G, Exhibit 45	
3028	PIPE OR TUBE MFG - IRON OR STEEL & DRIVERS		3028	Section IX - G, Exhibit 45	
3030	IRON OR STEEL: FABRICATION: IRON/STEEL WORK-SHOP-STRUCT & DR		3030	Section IX - G, Exhibit 46	
3040	IRON OR STEEL: FABRICATION: IRON WORKS-SHOP-ORNAMENTAL & DR		3040	Section IX - G, Exhibit 46	
3041	IRON OR STEEL: FABRICATION: IRON WORKS-SHP-DEC/ART &FNDRS,DR		3041	Section IX - G, Exhibit 47	
3042	ELEVATOR OR ESCALATOR MFG		3042	Section IX - G, Exhibit 47	
3064	SIGN MFG-METAL		3064	Section IX - G, Exhibit 48	
3066	SHEET METAL WORK - SHOP		3064	Section IX - G, Exhibit 48	
3076	FIREPROOF EQUIPMENT MFG		3076	Section IX - G, Exhibit 48	
3081	FOUNDRY-FERROUS-NOC		3081	Section IX - G, Exhibit 49	
3082	FOUNDRY-STEEL CASTINGS		3081	Section IX - G, Exhibit 49	
3085	FOUNDRY-NON FERROUS		3085	Section IX - G, Exhibit 49	
3110	FORGING WORK - DROP OR MACHINE		3110	Section IX - G, Exhibit 50	
3111	BLACKSMITH		3111	Section IX - G, Exhibit 50	
3113	TOOL MFG-NOT DROP OR MACHINE FORGED-NOC		3113	Section IX - G, Exhibit 51	
3114	TOOL MFG-DROP OR MACHINE FORGED-NOC: MACHINING OR FINISHING		3114	Section IX - G, Exhibit 51	
3118	SAW MFG		3113	Section IX - G, Exhibit 51	
3119	NEEDLE MFG		3119	Section IX - G, Exhibit 52	
3120	RAZOR MFG-SAFETY		3120	Section IX - G, Exhibit 52	
3122	CUTLERY MFG-NOC		3122	Section IX - G, Exhibit 53	
3127	PRECISION MEASURING TOOL MFG-NOC		3127	Section IX - G, Exhibit 53	
3131	BUTTON OR FASTENER MFG-METAL		3131	Section IX - G, Exhibit 54	
3132	NUT OR BOLT MFG		3132	Section IX - G, Exhibit 54	
3145	SCREW MFG		3145	Section IX - G, Exhibit 55	
3146	HARDWARE MFG-NOC		3146	Section IX - G, Exhibit 55	
3169	STOVE MFG		3169	Section IX - G, Exhibit 56	
3179	ELECTRICAL APPARATUS MFG-NOC		3179	Section IX - G, Exhibit 56	
3180	ELECTRIC OR GAS LIGHTING FIXTURES MFG		3180	Section IX - G, Exhibit 57	
3188	PLUMBERS SUPPLIES MFG-NOC		3188	Section IX - G, Exhibit 57	
3200	ARMS MFG-SMALL		3200	Section IX - G, Exhibit 58	
3220	CAN MFG		3220	Section IX - G, Exhibit 58	

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G

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Class	To find the A-Sheet for:		Class	Look at the A-Sheet for:	
	Description			Exhibit	
3227	ALUMINUM WARE MFG		3169	Section IX - G, Exhibit 56	
3241	WIRE DRAWING - IRON OR STEEL		1924	Section IX - G, Exhibit 14	
3255	WIRE CLOTH MFG		3255	Section IX - G, Exhibit 59	
3257	WIRE GOODS MFG - NOC		3257	Section IX - G, Exhibit 59	
3270	EYELET MFG		3270	Section IX - G, Exhibit 60	
3300	BED SPRING OR WIRE MATTRESS MFG		3300	Section IX - G, Exhibit 60	
3315	BRASS OR COPPER GOODS MFG		3315	Section IX - G, Exhibit 61	
3336	TYPE FOUNDRY		3336	Section IX - G, Exhibit 61	
3365	WELDING OR CUTTING - NOC & DRIVERS		3365	Section IX - G, Exhibit 62	
3372	ELECTROPLATING		3372	Section IX - G, Exhibit 62	
3373	GALVANIZING OR TINNING - NOT ELECTROLYTIC		3373	Section IX - G, Exhibit 63	
3381	SILVERWARE MFG		3381	Section IX - G, Exhibit 63	
3383	JEWELRY MFG		3383	Section IX - G, Exhibit 64	
3385	WATCH MFG		3385	Section IX - G, Exhibit 64	
3400	METAL GOODS MFG-NOC		3169	Section IX - G, Exhibit 56	
3507	CONSTRUCTION OR AGRICULTURAL MACHINERY MFG		3507	Section IX - G, Exhibit 65	
3515	TEXTILE MACHINERY MFG		3515	Section IX - G, Exhibit 65	
3548	PRINTING OR BOOKBINDING MACHINE MFG		3548	Section IX - G, Exhibit 66	
3558	BOOT OR SHOE MACHINERY MFG		3558	Section IX - G, Exhibit 66	
3559	CONFECTION MACHINE MFG		3548	Section IX - G, Exhibit 66	
3571	STEAM OR AIR PRESSURE GAUGE MFG		3571	Section IX - G, Exhibit 67	
3574	CASH REGISTER MFG		3548	Section IX - G, Exhibit 66	
3612	PUMP MFG		3612	Section IX - G, Exhibit 67	
3620	BOILERMAKING		3620	Section IX - G, Exhibit 68	
3629	PRECISION MACHINED PARTS MFG-NOC		3548	Section IX - G, Exhibit 66	
3632	MACHINE SHOP-NOC		3548	Section IX - G, Exhibit 66	
3634	VALVE MFG		3634	Section IX - G, Exhibit 68	
3635	GEAR MFG OR GRINDING		3635	Section IX - G, Exhibit 69	
3638	BALL OR ROLLER BEARING MFG		3548	Section IX - G, Exhibit 66	
3642	BATTERY MFG-DRY		3642	Section IX - G, Exhibit 69	
3643	ELECTRIC POWER OR TRANSMISSION EQUIP MFG		3179	Section IX - G, Exhibit 56	
3647	BATTERY MFG-STORAGE		3647	Section IX - G, Exhibit 70	
3648	AUTOMOTIVE LIGHTING, IGNITION APPARATUS MFG NOC		3648	Section IX - G, Exhibit 70	
3681	TELEVISION, RADIO, TELEPHONE OR TELECOMMUNCTN DEVICE MFG NOC		3681	Section IX - G, Exhibit 71	
3685	INSTRUMENT MFG NOC		3681	Section IX - G, Exhibit 71	
3724	MACHINERY OR EQUIPMENT ERECT OR REPAIR NOC & DR		3724	Section IX - G, Exhibit 71	
3726	BOILER INSTALLATION OR REPAIR-STEAM		3726	Section IX - G, Exhibit 72	
3807	AUTOMOBILE RADIATOR MFG		3169	Section IX - G, Exhibit 56	
3808	AUTOMOBILE MFG OR ASSEMBLY		3808	Section IX - G, Exhibit 72	
3821	AUTOMOBILE DISMANTLING & DRIVERS		3821	Section IX - G, Exhibit 73	
3826	AIRCRAFT ENGINE MFG		3826	Section IX - G, Exhibit 73	
3830	AIRPLANE MFG		3548	Section IX - G, Exhibit 66	
3841	TUBULAR METAL PRODUCTS MFG OR ASSEMBLY		3841	Section IX - G, Exhibit 74	
4000	SAND OR GRAVEL DIGGING & DRIVERS		4000	Section IX - G, Exhibit 74	
4021	BRICK OR CLAY PRODUCTS MFG NOC & DRIVERS		4021	Section IX - G, Exhibit 75	
4024	REFRACTORY PRODUCTS MFG & DRIVERS		4024	Section IX - G, Exhibit 75	
4034	CONCRETE PRODUCTS MFG & DRIVERS		4034	Section IX - G, Exhibit 76	
4036	PLASTERBOARD OR PLASTER BLOCK MFG & DRIVERS		4036	Section IX - G, Exhibit 76	
4038	PLASTER STATUARY OR ORNAMENT MFG		4038	Section IX - G, Exhibit 77	
4053	POTTERY MFG: CHINA OR TABLEWARE		4053	Section IX - G, Exhibit 77	
4061	POTTERY MFG: EARTHENWARE-GLAZD OR PORCELN-HAND MOLDED OR CAST		4061	Section IX - G, Exhibit 78	
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9403	GARBAGE, ASHES OR REFUSE COLLECTION & DRIVERS	9403	Section IX - G, Exhibit 187
9410	MUNICIPAL, TOWN, COUNTY OR STATE EMP NOC	9410	Section IX - G, Exhibit 188
9501	SIGN PAINTING OR LETTERING-INSIDE & DRIVERS	9501	Section IX - G, Exhibit 188
9505	PAINTING: AUTO OR CARRIAGE BODIES	9501	Section IX - G, Exhibit 188
9519	HOUSEHOLD APPLIANCES-ELECTRICAL-INSTALL, SERV OR REPAIR & DR	9519	Section IX - G, Exhibit 189
9521	HOUSE FURNISHINGS INSTALLATION-NOC	9521	Section IX - G, Exhibit 189
9522	UPHOLSTERING	9522	Section IX - G, Exhibit 190
9533	SCAFFOLDING: SCAFFOLD INST, RPR OR REMOVAL- BUILT UP FROM GROUND	9533	Section IX - G, Exhibit 190
9534	MOBILE CRANE & HOIST SERV CONTR-NOC-ALL OP -INCL YRD EMP &DR	9534	Section IX - G, Exhibit 191
9545	BILL POSTING & DRIVERS	9545	Section IX - G, Exhibit 191
9549	ADVERTISING CO & DRIVERS	9549	Section IX - G, Exhibit 192
9552	SIGN MFG-ERECTION, REPAIR OR MAINT & SHOP, DR	9552	Section IX - G, Exhibit 192
9553	SIGN PAINTING OR LETTERING-OUTSIDE OF BLDGS OR STRUCT & DR	9552	Section IX - G, Exhibit 192
9586	BARBER SHOP, BEAUTY PARLOR, HAIR STYLING SALON	9586	Section IX - G, Exhibit 193
9620	FUNERAL DIRECTOR & DRIVERS	9620	Section IX - G, Exhibit 193

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Section IX - Classification Pricing
 Subsection G - Class Relativities
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Section IX - G
 Exhibit 1

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
0005 FARM: NURSERY EMP & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	137,782	1	54	35,459	237,296	81,052	230,763	584,569	1,980	2,263	4,243
2008	137,121	1	29	8,399	11,053	299	28,664	48,413	0,142	0,211	0,353
2009	124,736	0	23	0	440,168	0	140,699	580,867	3,529	1,128	4,657
2010	108,082	0	28	0	17,818	0	34,120	51,938	0,165	0,316	0,481
2011	114,967	0	32	0	21,798	0	46,518	68,315	0,190	0,405	0,594
MA Total:	622,689	2	166	43,858	728,133	81,350	480,762	1,334,102	1,240	0,903	2,142

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.365	1.402	.
(14) Massachusetts Credibility:	0.230	0.430	.
(15) Countrywide Pure Premium:	1.289	0.942	2.231
(16) Countrywide Indicated Relativity:	1.422	1.476	.
(17) Countrywide Credibility:	0.390	0.290	.
(18) Countrywide Lost-Time Claims:	1793.0	.	.
(19) Pure Premium Underlying Present Rate:	0.961	1.169	2.130
(20) Relativity to Underlying Present Rate:	1.534	1.794	.
(21) Credibility to Underlying Relativity:	0.380	0.280	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.452	1.533	.
(24) Balanced Formula Relativity:	1.436	1.535	1.477

Class(es):		Effective: 1/1/2014							Goods and Services		
0008 FARM: GARDENING-MARKET OR TRUCK & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	227,509	1	54	27,641	142,553	20,688	193,617	384,499	0,748	0,942	1,690
2008	225,547	0	48	0	104,243	0	141,386	245,629	0,462	0,627	1,089
2009	229,400	1	42	128,477	173,149	22,158	151,298	475,082	1,315	0,756	2,071
2010	253,424	2	53	78,256	89,851	27,871	207,778	403,756	0,663	0,930	1,593
2011	274,639	2	55	16,538	290,520	44,001	282,025	633,084	1,118	1,187	2,305
MA Total:	1,210,518	6	252	250,912	800,316	114,718	976,104	2,142,051	0,868	0,901	1,770

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.956	1.400	.
(14) Massachusetts Credibility:	0.290	0.510	.
(15) Countrywide Pure Premium:	1.464	1.103	2.567
(16) Countrywide Indicated Relativity:	1.615	1.729	.
(17) Countrywide Credibility:	0.360	0.250	.
(18) Countrywide Lost-Time Claims:	3926.0	.	.
(19) Pure Premium Underlying Present Rate:	0.870	0.900	1.770
(20) Relativity to Underlying Present Rate:	1.390	1.381	.
(21) Credibility to Underlying Relativity:	0.350	0.240	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.345	1.477	.
(24) Balanced Formula Relativity:	1.330	1.479	1.392

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Section IX - Classification Pricing
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Section IX - G
 Exhibit 2

Calculation of Class Relativities

Class(es): 0016 FARM: ORCHARDS & DRIVERS		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	60.686	0	11	0	4.690	0	16.844	21.534	0.077	0.278	0.355
2008	60.378	1	14	7.739	15.738	92.753	45.292	161.522	0.389	2.286	2.675
2009	72.119	1	15	33.242	7.479	75.980	47.528	164.230	0.565	1.713	2.277
2010	75.262	0	22	0	119.260	0	84.985	204.245	1.585	1.129	2.714
2011	64.358	0	7	0	0	0	7.110	7.110	0.000	0.110	0.110
MA Total:	332.803	2	69	40.981	147.168	168.733	201.760	558.642	0.565	1.113	1.679

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.623	1.729	.
(14) Massachusetts Credibility:	0.190	0.370	.
(15) Countrywide Pure Premium:	2.887	1.918	4.805
(16) Countrywide Indicated Relativity:	3.185	3.006	.
(17) Countrywide Credibility:	0.410	0.320	.
(18) Countrywide Lost-Time Claims:	1178.0	.	.
(19) Pure Premium Underlying Present Rate:	1.121	1.525	2.646
(20) Relativity to Underlying Present Rate:	1.790	2.340	.
(21) Credibility to Underlying Relativity:	0.400	0.310	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.140	2.327	.
(24) Balanced Formula Relativity:	2.116	2.330	2.205

Class(es): 0034 FARM: POULTRY OR EGG PRODUCERS & DRIVERS		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	104.821	1	46	28.933	92.780	1.570	150.582	273.865	1.161	1.452	2.613
2008	100.028	2	28	465.247	88.728	115.660	82.108	751.743	5.538	1.977	7.515
2009	101.926	0	29	0	82.702	0	138.404	221.106	0.811	1.358	2.169
2010	96.594	3	22	251.784	214.444	143.690	94.737	704.654	4.827	2.468	7.295
2011	101.510	0	27	0	94.095	0	240.203	334.298	0.927	2.366	3.293
MA Total:	504.879	6	152	745.964	572.749	260.920	706.033	2,285,666	2.612	1.915	4.527

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.876	2.975	.
(14) Massachusetts Credibility:	0.220	0.470	.
(15) Countrywide Pure Premium:	1.587	1.144	2.731
(16) Countrywide Indicated Relativity:	1.751	1.793	.
(17) Countrywide Credibility:	0.390	0.270	.
(18) Countrywide Lost-Time Claims:	2858.0	.	.
(19) Pure Premium Underlying Present Rate:	0.978	1.777	2.754
(20) Relativity to Underlying Present Rate:	1.561	2.726	.
(21) Credibility to Underlying Relativity:	0.390	0.260	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.924	2.591	.
(24) Balanced Formula Relativity:	1.903	2.594	2.190

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
0035 FARM: FLORIST & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	378,779	2	90	150,047	288,634	41,167	171,988	651,836	1,158	0,563	1,721
2008	394,144	3	101	135,835	66,628	68,183	172,558	443,204	0,514	0,611	1,124
2009	350,513	4	62	319,916	9,777	376,378	55,505	761,576	0,941	1,232	2,173
2010	332,111	0	50	0	315,204	0	160,462	475,667	0,949	0,483	1,432
2011	335,988	1	52	13,988	243,111	12,583	283,070	552,752	0,765	0,880	1,645
MA Total:	1,791,535	10	355	619,786	923,354	498,311	843,584	2,885,034	0,861	0,749	1,610

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.949	1.164	.
(14) Massachusetts Credibility:	0.320	0.560	.
(15) Countrywide Pure Premium:	1.185	0.858	2.043
(16) Countrywide Indicated Relativity:	1.307	1.344	.
(17) Countrywide Credibility:	0.340	0.220	.
(18) Countrywide Lost-Time Claims:	1297.0	.	.
(19) Pure Premium Underlying Present Rate:	0.765	0.800	1.565
(20) Relativity to Underlying Present Rate:	1.221	1.228	.
(21) Credibility to Underlying Relativity:	0.340	0.220	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.163	1.217	.
(24) Balanced Formula Relativity:	1.150	1.219	1.179

Class(es):		Effective: 1/1/2014							Goods and Services		
0042 LANDSCAPE GARDENING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,588,168	26	792	2,257,633	3,045,109	1,519,471	3,595,211	10,417,424	1,478	1,425	2,903
2008	3,589,257	38	792	4,173,404	3,847,310	3,955,810	3,282,968	15,259,492	2,235	2,017	4,251
2009	3,421,315	22	660	1,761,774	4,715,024	952,541	3,484,539	10,913,878	1,893	1,297	3,190
2010	3,675,208	24	725	2,243,199	5,449,408	1,420,330	4,005,692	13,118,628	2,093	1,476	3,569
2011	4,039,511	23	806	3,957,979	5,977,848	2,602,456	4,642,439	17,180,722	2,460	1,794	4,253
MA Total:	18,313,459	133	3,775	14,393,988	23,034,699	10,450,608	19,010,849	66,890,144	2,044	1,609	3,653

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.251	2.499	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	2.312	1.595	3.906
(16) Countrywide Indicated Relativity:	2.550	2.499	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	7065.0	.	.
(19) Pure Premium Underlying Present Rate:	1.482	1.560	3.042
(20) Relativity to Underlying Present Rate:	2.366	2.394	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.251	2.499	.
(24) Balanced Formula Relativity:	2.225	2.502	2.340

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
0046 FERTILIZER OR PESTICIDE APPLICATION-COMM OR DOMESTIC, DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	69,553	0	18	0	44,202	0	31,636	75,838	0.636	0.455	1.090
2008	75,094	0	13	0	3,385	0	13,758	17,143	0.045	0.183	0.228
2009	83,208	0	15	0	56,427	0	62,347	118,775	0.678	0.749	1.427
2010	96,870	0	13	0	32,578	0	35,152	67,730	0.336	0.363	0.699
2011	95,292	1	20	7,337	128,889	20,207	148,913	305,445	1.431	1.775	3.205
MA Total:	420,017	1	79	7,337	265,581	20,207	291,806	584,930	0.650	0.743	1.393

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.716	1.154	.
(14) Massachusetts Credibility:	0.170	0.310	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	1.092	1.122	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.689	0.736	1.426
(20) Relativity to Underlying Present Rate:	1.100	1.130	.
(21) Credibility to Underlying Relativity:	0.830	0.690	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.035	1.137	.
(24) Balanced Formula Relativity:	1.023	1.139	1.071

Class(es):		Effective: 1/1/2014							Construction		
0050 FARM MACHINERY OPERATION-BY CONTRACTOR & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	22,713	0	3	0	3,522	0	3,890	7,412	0.155	0.171	0.326
2008	20,391	0	6	0	0	0	6,341	6,341	0.000	0.311	0.311
2009	14,948	0	5	0	337,882	0	50,030	387,911	22.604	3.347	25.951
2010	17,900	0	2	0	0	0	1,698	1,698	0.000	0.095	0.095
2011	14,553	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	90,505	0	16	0	341,404	0	61,958	403,362	3.772	0.685	4.457

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.262	0.420	.
(14) Massachusetts Credibility:	0.160	0.240	.
(15) Countrywide Pure Premium:	3.885	2.242	6.127
(16) Countrywide Indicated Relativity:	1.342	1.420	.
(17) Countrywide Credibility:	0.420	0.380	.
(18) Countrywide Lost-Time Claims:	971.00	.	.
(19) Pure Premium Underlying Present Rate:	2.408	1.870	4.278
(20) Relativity to Underlying Present Rate:	1.135	1.032	.
(21) Credibility to Underlying Relativity:	0.420	0.380	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.242	1.033	.
(24) Balanced Formula Relativity:	1.268	1.039	1.187

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
0079 FARM: BERRY OR VINEYARD & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	124,221	0	21	0	45,916	0	36,368	82,284	0.370	0.293	0.662
2008	141,341	0	37	0	37,265	0	101,090	138,355	0.264	0.715	0.979
2009	146,088	1	23	17,409	34,545	56,714	58,499	167,168	0.356	0.789	1.144
2010	151,088	0	27	0	647,889	0	285,193	933,083	4.288	1.888	6.176
2011	154,038	2	37	400,542	76,688	210,880	171,368	859,477	3.098	2.482	5.580
MA Total:	716,775	3	145	417,951	842,304	267,594	652,518	2,180,367	1.758	1.284	3.042

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.936	1.994	.
(14) Massachusetts Credibility:	0.220	0.340	.
(15) Countrywide Pure Premium:	1.306	1.143	2.450
(16) Countrywide Indicated Relativity:	1.441	1.792	.
(17) Countrywide Credibility:	0.390	0.330	.
(18) Countrywide Lost-Time Claims:	123.00	.	.
(19) Pure Premium Underlying Present Rate:	0.717	0.553	1.271
(20) Relativity to Underlying Present Rate:	1.145	0.849	.
(21) Credibility to Underlying Relativity:	0.390	0.330	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.435	1.549	.
(24) Balanced Formula Relativity:	1.419	1.551	1.474

Class(es):		Effective: 1/1/2014							Goods and Services		
0083 FARM: CATTLE OR LIVESTOCK RAISING NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	48,919	1	17	26,121	96,263	592,341	114,657	829,382	2.502	14.452	16.954
2008	45,677	0	11	0	11,379	0	31,550	42,928	0.249	0.691	0.940
2009	51,044	0	8	0	725	0	7,287	8,012	0.014	0.143	0.157
2010	53,266	0	8	0	0	0	16,724	16,724	0.000	0.314	0.314
2011	44,401	0	7	0	21,641	0	27,609	49,250	0.487	0.622	1.109
MA Total:	243,306	1	51	26,121	130,007	592,341	197,827	946,295	0.642	3.248	3.889

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.707	5.045	.
(14) Massachusetts Credibility:	0.200	0.380	.
(15) Countrywide Pure Premium:	2.294	1.786	4.080
(16) Countrywide Indicated Relativity:	2.531	2.799	.
(17) Countrywide Credibility:	0.400	0.310	.
(18) Countrywide Lost-Time Claims:	3329.0	.	.
(19) Pure Premium Underlying Present Rate:	1.746	2.174	3.920
(20) Relativity to Underlying Present Rate:	2.787	3.336	.
(21) Credibility to Underlying Relativity:	0.400	0.310	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.268	3.819	.
(24) Balanced Formula Relativity:	2.243	3.824	2.899

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Section IX - G
 Exhibit 6

Calculation of Class Relativities

Class(es): 0106 TREE PRUNING, SPRAYING, REPAIRING & DRIVERS									Effective: 1/1/2014			Miscellaneous		
Converted Unlimited Losses														
Amount														
Claim Count				Indemnity		Medical			MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	225,548	4	89	470,546	1,517,063	856,853	2,101,910	4,946,372	8,812	13,118	21,930			
2008	271,512	6	109	280,864	792,574	228,319	701,899	2,003,656	3,954	3,426	7,380			
2009	279,947	8	119	581,154	1,094,663	1,147,333	1,516,413	4,339,563	5,986	9,515	15,501			
2010	314,173	2	102	305,204	1,354,312	148,865	1,073,527	2,881,908	5,282	3,891	9,173			
2011	371,626	2	109	353,486	1,712,651	991,071	988,022	4,045,230	5,560	5,325	10,885			
MA Total:	1,462,806	22	528	1,991,254	6,471,263	3,372,441	6,381,772	18,216,730	5,785	6,668	12,453			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.074	3.948	.
(14) Massachusetts Credibility:	0.620	1.000	.
(15) Countrywide Pure Premium:	7.317	4.782	12.100
(16) Countrywide Indicated Relativity:	2.837	3.090	.
(17) Countrywide Credibility:	0.190	0.000	.
(18) Countrywide Lost-Time Claims:	2880.0	.	.
(19) Pure Premium Underlying Present Rate:	4.668	6.336	11.004
(20) Relativity to Underlying Present Rate:	2.654	3.621	.
(21) Credibility to Underlying Relativity:	0.190	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	2.329	3.948	.
(24) Balanced Formula Relativity:	2.301	3.922	2.912

Class(es): 0251 IRRIGATION WORKS OPERATION & DRIVERS									Effective: 1/1/2014			Miscellaneous		
Converted Unlimited Losses														
Amount														
Claim Count				Indemnity		Medical			MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	131,304	1	20	43,301	16,425	203,867	20,235	283,828	0,455	1,707	2,162			
2008	178,563	3	40	224,907	568,015	61,137	321,112	1,175,171	4,441	2,141	6,581			
2009	238,263	2	41	141,446	415,859	65,875	201,030	824,209	2,339	1,120	3,459			
2010	236,062	0	27	0	87,109	0	51,233	138,342	0,369	0,217	0,586			
2011	219,059	3	36	332,559	565,078	91,646	298,879	1,288,162	4,098	1,783	5,880			
MA Total:	1,003,252	9	164	742,213	1,652,485	422,525	892,488	3,709,711	2,387	1,311	3,698			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.856	0.776	.
(14) Massachusetts Credibility:	0.310	0.510	.
(15) Countrywide Pure Premium:	1.824	1.190	3.014
(16) Countrywide Indicated Relativity:	0.707	0.769	.
(17) Countrywide Credibility:	0.350	0.250	.
(18) Countrywide Lost-Time Claims:	2295.0	.	.
(19) Pure Premium Underlying Present Rate:	1.262	1.103	2.365
(20) Relativity to Underlying Present Rate:	0.718	0.630	.
(21) Credibility to Underlying Relativity:	0.340	0.240	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.757	0.739	.
(24) Balanced Formula Relativity:	0.748	0.734	0.743

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services			
0908 DOMESTIC WORKERS-INSIDE-OCCASIONAL-NO												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	2,441	2	14	88,704	1,367	95,196	40,645	225,912	36,894	55,642	92,536	
2008	2,664	0	16	0	165,059	0	72,239	237,298	61,949	27,112	89,061	
2009	2,613	0	7	0	468,809	0	118,141	586,951	179,43	45,217	224,65	
2010	2,675	2	16	86,286	56,371	138,617	45,698	326,972	53,332	68,905	122,24	
2011	2,851	0	15	0	11,126	0	41,879	53,005	3,903	14,691	18,594	
MA Total:	13,244	4	68	174,991	702,733	233,812	318,602	1,430,138	66,273	41,710	107,98	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	72.982	64.793	.
(14) Massachusetts Credibility:	0.280	0.470	.
(15) Countrywide Pure Premium:	154.45	85.802	240.26
(16) Countrywide Indicated Relativity:	115.88	105.08	.
(17) Countrywide Credibility:	0.360	0.270	.
(18) Countrywide Lost-Time Claims:	459.00	.	.
(19) Pure Premium Underlying Present Rate:	73.120	68.992	142.11
(20) Relativity to Underlying Present Rate:	116.73	105.86	.
(21) Credibility to Underlying Relativity:	0.360	0.260	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	104.17	86.348	.
(24) Balanced Formula Relativity:	103.01	86.455	96.140

Class(es):		Effective: 1/1/2014							Goods and Services			
0909 DOMESTIC WORKERS-OUTSIDE-OCCASIONAL-INCL OCCASNL PRIV CHAUFF												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	391	1	11	74,751	19,576	43,959	72,252	210,538	241.31	297.29	538.60	
2008	401	0	12	0	20,014	0	75,847	95,861	49,917	189.17	239.08	
2009	364	0	6	0	266	0	7,177	7,444	0.733	19.737	20.469	
2010	347	2	3	104,129	0	252,682	2,621	359,432	299.87	735.22	1035.1	
2011	341	0	8	0	2,118	0	12,274	14,392	6,216	36,025	42,241	
MA Total:	1,843	3	40	178,880	41,974	296,642	170,171	687,666	119.80	253.23	373.03	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	131.93	393.37	.
(14) Massachusetts Credibility:	0.130	0.280	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	110.56	203.35	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	69.767	133.52	203.28
(20) Relativity to Underlying Present Rate:	111.37	204.86	.
(21) Credibility to Underlying Relativity:	0.870	0.720	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	114.05	257.64	.
(24) Balanced Formula Relativity:	112.77	257.97	173.00

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services			
0917 DOMESTIC SERVICE CONTRACTOR-INSIDE												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	225,888	2	44	16,391	35,725	2,633	63,460	118,209	0.231	0.293	0.523	
2008	296,083	6	47	114,174	247,735	63,806	175,935	601,651	1.222	0.810	2.032	
2009	278,000	8	38	199,760	167,168	739,569	104,461	1,210,958	1.320	3.036	4.356	
2010	277,440	2	35	106,376	184,445	75,659	125,157	491,637	1.048	0.724	1.772	
2011	290,407	6	46	391,856	374,476	405,931	209,200	1,381,463	2.639	2.118	4.757	
MA Total:	1,367,817	24	210	828,557	1,009,549	1,287,599	678,213	3,803,918	1.344	1.437	2.781	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.480	2.233	.
(14) Massachusetts Credibility:	0.310	0.550	.
(15) Countrywide Pure Premium:	2.204	1.512	3.717
(16) Countrywide Indicated Relativity:	2.432	2.370	.
(17) Countrywide Credibility:	0.350	0.230	.
(18) Countrywide Lost-Time Claims:	687.00	.	.
(19) Pure Premium Underlying Present Rate:	0.927	0.991	1.918
(20) Relativity to Underlying Present Rate:	1.480	1.521	.
(21) Credibility to Underlying Relativity:	0.340	0.220	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.813	2.108	.
(24) Balanced Formula Relativity:	1.793	2.110	1.924

Class(es):		Effective: 1/1/2014							Goods and Services			
0918 DOMESTIC WORKERS-INSIDE-PHYSICAL ASSISTANCE												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	3,346,946	6	53	160,950	545,498	27,972	407,909	1,142,328	0.211	0.130	0.341	
2008	3,694,652	9	73	395,386	1,315,197	159,193	402,542	2,272,318	0.463	0.152	0.615	
2009	3,992,338	8	57	385,469	305,616	191,406	183,675	1,066,166	0.173	0.094	0.267	
2010	4,724,502	9	55	387,766	439,556	162,557	194,898	1,184,777	0.175	0.076	0.251	
2011	4,665,379	11	75	596,217	1,446,778	220,836	499,477	2,763,308	0.438	0.154	0.592	
MA Total:	20,423,818	43	313	1,925,788	4,052,645	761,964	1,688,501	8,428,898	0.293	0.120	0.413	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.322	0.186	.
(14) Massachusetts Credibility:	0.570	0.740	.
(15) Countrywide Pure Premium:	0.938	0.248	1.186
(16) Countrywide Indicated Relativity:	1.035	0.389	.
(17) Countrywide Credibility:	0.180	0.130	.
(18) Countrywide Lost-Time Claims:	16.000	.	.
(19) Pure Premium Underlying Present Rate:	0.271	0.137	0.408
(20) Relativity to Underlying Present Rate:	0.433	0.210	.
(21) Credibility to Underlying Relativity:	0.250	0.130	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.478	0.216	.
(24) Balanced Formula Relativity:	0.473	0.216	0.366

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

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 Exhibit 9

Calculation of Class Relativities

Class(es): 1430 SMELTING, SINTERING OR REFINING-LEAD & DRIVERS									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
Claim Count				Indemnity		Medical		MA Indicated Pure Premiums						
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	0	0	0	0	0	0	0	0	.	.	.			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	2.353	1.615	3.969
(16) Countrywide Indicated Relativity:	2.615	2.629	.
(17) Countrywide Credibility:	0.320	0.340	.
(18) Countrywide Lost-Time Claims:	66.000	.	.
(19) Pure Premium Underlying Present Rate:	3.662	1.540	5.202
(20) Relativity to Underlying Present Rate:	4.189	1.865	.
(21) Credibility to Underlying Relativity:	0.680	0.660	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.686	2.125	.
(24) Balanced Formula Relativity:	3.674	2.124	3.041

Class(es): 1438 SMELTING, SINTERING OR REFINING-METALS-NOT IRON OR LEAD-NOC & D									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
Claim Count				Indemnity		Medical		MA Indicated Pure Premiums						
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	72.675	0	5	0	15.898	0	26.732	42.630	0.219	0.368	0.587			
2008	64.885	1	5	10.824	26.671	20.418	13.249	71.162	0.578	0.519	1.097			
2009	53.641	1	5	9.206	0	42.486	6.772	58.464	0.172	0.918	1.090			
2010	64.732	0	10	0	14.313	0	31.745	46.058	0.221	0.490	0.712			
2011	71.680	0	10	0	34.410	0	70.517	104.927	0.480	0.984	1.464			
MA Total:	327.613	2	35	20.030	91.292	62.904	149.016	323.243	0.340	0.647	0.987			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.324	0.895	.
(14) Massachusetts Credibility:	0.190	0.330	.
(15) Countrywide Pure Premium:	2.356	1.595	3.950
(16) Countrywide Indicated Relativity:	2.618	2.595	.
(17) Countrywide Credibility:	0.410	0.340	.
(18) Countrywide Lost-Time Claims:	858.00	.	.
(19) Pure Premium Underlying Present Rate:	1.109	1.140	2.249
(20) Relativity to Underlying Present Rate:	1.269	1.381	.
(21) Credibility to Underlying Relativity:	0.400	0.330	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.642	1.633	.
(24) Balanced Formula Relativity:	1.637	1.632	1.635

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Section IX - Classification Pricing
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Calculation of Class Relativities

Class(es): 1463 ASPHALT WORKS & DRIVERS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	52,019	1	8	132,353	202,164	90,922	52,743	478,182	6,431	2,762	9,192
2008	64,098	0	14	0	258,329	0	120,029	378,358	4,030	1,873	5,903
2009	64,209	1	15	149,170	46,830	26,780	99,497	322,276	3,053	1,967	5,019
2010	73,973	1	18	233,025	165,063	45,315	54,442	497,845	5,382	1,349	6,730
2011	85,748	3	14	717,432	156,570	409,305	142,627	1,425,935	10,193	6,437	16,629
MA Total:	340,047	6	69	1,231,980	828,957	572,321	469,338	3,102,596	6,061	3,063	9,124

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	5.778	4.237	.
(14) Massachusetts Credibility:	0.330	0.510	.
(15) Countrywide Pure Premium:	5.130	2.862	7.992
(16) Countrywide Indicated Relativity:	5.701	4.657	.
(17) Countrywide Credibility:	0.340	0.250	.
(18) Countrywide Lost-Time Claims:	843.00	.	.
(19) Pure Premium Underlying Present Rate:	4.242	3.202	7.444
(20) Relativity to Underlying Present Rate:	4.852	3.878	.
(21) Credibility to Underlying Relativity:	0.330	0.240	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	5.446	4.256	.
(24) Balanced Formula Relativity:	5.429	4.254	4.949

Class(es): 1624 QUARRY NOC & DRIVERS		Effective: 1/1/2014							Miscellaneous		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	413,815	5	68	1,342,914	794,598	405,832	440,513	2,983,856	5,165	2,045	7,211
2008	427,595	2	68	516,057	663,088	115,989	395,624	1,690,759	2,758	1,196	3,954
2009	350,441	3	56	672,367	225,345	236,285	229,548	1,363,545	2,562	1,329	3,891
2010	386,463	1	49	175,323	774,649	24,020	674,353	1,648,345	2,458	1,807	4,265
2011	375,625	2	39	96,516	622,740	65,798	275,300	1,060,354	1,915	0,908	2,823
MA Total:	1,953,940	13	280	2,803,177	3,080,420	847,924	2,015,338	8,746,860	3,011	1,465	4,477

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.079	0.868	.
(14) Massachusetts Credibility:	0.510	0.820	.
(15) Countrywide Pure Premium:	2.286	1.253	3.539
(16) Countrywide Indicated Relativity:	0.886	0.810	.
(17) Countrywide Credibility:	0.250	0.090	.
(18) Countrywide Lost-Time Claims:	1272.0	.	.
(19) Pure Premium Underlying Present Rate:	2.137	1.870	4.006
(20) Relativity to Underlying Present Rate:	1.215	1.068	.
(21) Credibility to Underlying Relativity:	0.240	0.090	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.064	0.880	.
(24) Balanced Formula Relativity:	1.051	0.875	0.984

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Section IX - Classification Pricing
 Subsection G - Class Relativities
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Section IX - G
 Exhibit 11

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous		
1655 LIME MFG-QUARRY-SURFACE & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	284	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	540	0	1	0	924	0	1,012	1,936	1,710	1,873	3,583
2009	470	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	1,871	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	3,182	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	6,347	0	1	0	924	0	1,012	1,936	0.146	0.159	0.305

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.052	0.094	.
(14) Massachusetts Credibility:	0.050	0.100	.
(15) Countrywide Pure Premium:	2.047	0.971	3.018
(16) Countrywide Indicated Relativity:	0.794	0.627	.
(17) Countrywide Credibility:	0.290	0.310	.
(18) Countrywide Lost-Time Claims:	52.000	.	.
(19) Pure Premium Underlying Present Rate:	1.924	2.676	4.601
(20) Relativity to Underlying Present Rate:	1.094	1.529	.
(21) Credibility to Underlying Relativity:	0.660	0.590	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.955	1.106	.
(24) Balanced Formula Relativity:	0.943	1.099	1.002

Class(es):		Effective: 1/1/2014							Manufacturing		
1701 CEMENT MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	664	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	35	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	5,465	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	8,470	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	14,634	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.070	0.100	.
(15) Countrywide Pure Premium:	1.517	0.981	2.498
(16) Countrywide Indicated Relativity:	1.686	1.596	.
(17) Countrywide Credibility:	0.470	0.450	.
(18) Countrywide Lost-Time Claims:	600.00	.	.
(19) Pure Premium Underlying Present Rate:	2.406	1.397	3.803
(20) Relativity to Underlying Present Rate:	2.751	1.692	.
(21) Credibility to Underlying Relativity:	0.460	0.450	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.058	1.480	.
(24) Balanced Formula Relativity:	2.052	1.479	1.818

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Section IX - Classification Pricing
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Section IX - G
 Exhibit 12

Calculation of Class Relativities

Class(es): 1747 EMERY WORKS & DRIVERS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	48.472	0	20	0	18.598	0	27.017	45.615	0.384	0.557	0.941
2008	13.761	0	6	0	20.755	0	8.350	29.105	1.508	0.607	2.115
2009	34.407	0	2	0	0	0	632	632	0.000	0.018	0.018
2010	46.682	0	9	0	54.178	0	90.033	144.210	1.161	1.929	3.089
2011	47.154	1	13	43.851	33.612	24.874	12.093	114.431	1.643	0.784	2.427
MA Total:	190.477	1	50	43.851	127.143	24.874	138.125	333.993	0.898	0.856	1.753

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.856	1.184	.
(14) Massachusetts Credibility:	0.170	0.300	.
(15) Countrywide Pure Premium:	1.077	0.527	1.604
(16) Countrywide Indicated Relativity:	1.197	0.857	.
(17) Countrywide Credibility:	0.300	0.320	.
(18) Countrywide Lost-Time Claims:	57.000	.	.
(19) Pure Premium Underlying Present Rate:	1.511	1.520	3.031
(20) Relativity to Underlying Present Rate:	1.728	1.842	.
(21) Credibility to Underlying Relativity:	0.530	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.420	1.329	.
(24) Balanced Formula Relativity:	1.416	1.328	1.380

Class(es): 1748 ABRASIVE WHEEL MFG & DRIVERS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	64.055	2	6	351.492	2.092	153.426	19.383	526.394	5.520	2.698	8.218
2008	40.627	0	6	0	28.169	0	12.342	40.511	0.693	0.304	0.997
2009	28.696	0	4	0	5.774	0	17.003	22.777	0.201	0.593	0.794
2010	48.547	0	12	0	0	0	6.725	6.725	0.000	0.139	0.139
2011	53.374	0	14	0	41.711	0	33.126	74.837	0.781	0.621	1.402
MA Total:	235.299	2	42	351.492	77.746	153.426	88.579	671.244	1.824	1.028	2.853

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.739	1.422	.
(14) Massachusetts Credibility:	0.180	0.290	.
(15) Countrywide Pure Premium:	1.280	1.249	2.529
(16) Countrywide Indicated Relativity:	1.423	2.032	.
(17) Countrywide Credibility:	0.320	0.340	.
(18) Countrywide Lost-Time Claims:	68.000	.	.
(19) Pure Premium Underlying Present Rate:	1.317	1.144	2.460
(20) Relativity to Underlying Present Rate:	1.506	1.385	.
(21) Credibility to Underlying Relativity:	0.500	0.370	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.521	1.616	.
(24) Balanced Formula Relativity:	1.516	1.615	1.557

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Calculation of Class Relativities

Class(es): 1852 ASBESTOS GOODS MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	2	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	2	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.719	0.869	1.588
(16) Countrywide Indicated Relativity:	0.799	1.414	.
(17) Countrywide Credibility:	0.130	0.140	.
(18) Countrywide Lost-Time Claims:	7.000	.	.
(19) Pure Premium Underlying Present Rate:	4.002	1.630	5.632
(20) Relativity to Underlying Present Rate:	4.577	1.975	.
(21) Credibility to Underlying Relativity:	0.870	0.860	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	4.086	1.896	.
(24) Balanced Formula Relativity:	4.073	1.895	3.184

Class(es): 1853 MICA GOODS MFG & MICA PREPARING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1.230	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	1.447	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	1.535	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	1.691	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	1.796	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	7.699	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.040	0.050	.
(15) Countrywide Pure Premium:	0.348	0.330	0.678
(16) Countrywide Indicated Relativity:	0.387	0.537	.
(17) Countrywide Credibility:	0.080	0.080	.
(18) Countrywide Lost-Time Claims:	2.000	.	.
(19) Pure Premium Underlying Present Rate:	0.861	0.463	1.324
(20) Relativity to Underlying Present Rate:	0.985	0.561	.
(21) Credibility to Underlying Relativity:	0.880	0.870	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.897	0.531	.
(24) Balanced Formula Relativity:	0.895	0.531	0.746

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Section IX - Classification Pricing
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 1/1/2014

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 Exhibit 14

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
1860 ABRASIVE PAPER OR CLOTH PREPARATION											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	835	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	2,048	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	1,258	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	1,948	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	1,782	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	7,871	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.040	0.070	.
(15) Countrywide Pure Premium:	0.694	0.460	1.154
(16) Countrywide Indicated Relativity:	0.771	0.748	.
(17) Countrywide Credibility:	0.240	0.260	.
(18) Countrywide Lost-Time Claims:	34.000	.	.
(19) Pure Premium Underlying Present Rate:	1.136	0.999	2.135
(20) Relativity to Underlying Present Rate:	1.300	1.210	.
(21) Credibility to Underlying Relativity:	0.720	0.670	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.121	1.005	.
(24) Balanced Formula Relativity:	1.117	1.005	1.071

Class(es):		Effective: 1/1/2014							Manufacturing		
1924 WIRE DRAWING OR CABLE MFG-NOT IRON OR STEEL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	147,520	1	22	88,093	38,948	29,839	68,927	225,808	0.861	0.670	1.531
2008	143,480	0	17	0	36,758	0	38,248	75,006	0.256	0.267	0.523
2009	131,852	0	16	0	59,118	0	33,247	92,366	0.448	0.252	0.701
2010	143,894	0	21	0	45,341	0	48,625	93,966	0.315	0.338	0.653
2011	137,113	0	25	0	149,839	0	77,281	227,120	1.093	0.564	1.656
MA Total:	703,858	1	101	88,093	330,003	29,839	266,330	714,265	0.594	0.421	1.015

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.566	0.582	.
(14) Massachusetts Credibility:	0.250	0.410	.
(15) Countrywide Pure Premium:	0.905	0.666	1.571
(16) Countrywide Indicated Relativity:	1.006	1.083	.
(17) Countrywide Credibility:	0.380	0.300	.
(18) Countrywide Lost-Time Claims:	499.00	.	.
(19) Pure Premium Underlying Present Rate:	1.059	0.901	1.960
(20) Relativity to Underlying Present Rate:	1.211	1.091	.
(21) Credibility to Underlying Relativity:	0.370	0.290	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.972	0.880	.
(24) Balanced Formula Relativity:	0.969	0.880	0.932

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Calculation of Class Relativities

Class(es): 1925 DIE CASTING MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,667	0	1	0	0	0	71	71	0.000	0.019	0.019
2008	3,396	0	1	0	0	0	838	838	0.000	0.247	0.247
2009	3,205	0	2	0	0	0	947	947	0.000	0.295	0.295
2010	3,604	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	4,035	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	17,907	0	4	0	0	0	1,856	1,856	0.000	0.104	0.104

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.143	.
(14) Massachusetts Credibility:	0.070	0.120	.
(15) Countrywide Pure Premium:	1.242	1.027	2.269
(16) Countrywide Indicated Relativity:	1.380	1.672	.
(17) Countrywide Credibility:	0.470	0.440	.
(18) Countrywide Lost-Time Claims:	556.00	.	.
(19) Pure Premium Underlying Present Rate:	1.697	1.566	3.262
(20) Relativity to Underlying Present Rate:	1.941	1.896	.
(21) Credibility to Underlying Relativity:	0.460	0.440	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.541	1.587	.
(24) Balanced Formula Relativity:	1.536	1.586	1.557

Class(es): 2001 CRACKER MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,552,168	19	357	1,048,716	1,318,163	1,254,037	1,085,881	4,706,798	1,525	1,508	3,032
2008	1,559,201	19	398	2,049,608	1,817,418	2,261,613	1,294,411	7,423,050	2,480	2,281	4,761
2009	1,696,249	8	383	340,777	1,925,282	238,345	1,523,972	4,028,378	1,336	1,039	2,375
2010	1,878,943	13	403	960,638	2,734,811	446,462	1,897,273	6,039,183	1,967	1,247	3,214
2011	1,810,320	7	393	577,214	2,191,492	428,301	1,415,871	4,612,879	1,529	1,019	2,548
MA Total:	8,496,881	66	1,934	4,976,953	9,987,167	4,628,758	7,217,408	26,810,287	1,761	1,394	3,155

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.679	1.928	.
(14) Massachusetts Credibility:	0.730	1.000	.
(15) Countrywide Pure Premium:	1.584	1.049	2.633
(16) Countrywide Indicated Relativity:	1.760	1.707	.
(17) Countrywide Credibility:	0.140	0.000	.
(18) Countrywide Lost-Time Claims:	6104.0	.	.
(19) Pure Premium Underlying Present Rate:	1.237	1.182	2.419
(20) Relativity to Underlying Present Rate:	1.415	1.432	.
(21) Credibility to Underlying Relativity:	0.130	0.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.656	1.928	.
(24) Balanced Formula Relativity:	1.651	1.927	1.763

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Section IX - Classification Pricing
 Subsection G - Class Relativities
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Calculation of Class Relativities

Class(es): 2002 MACARONI MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	12,017	0	1	0	0	0	862	862	0.000	0.072	0.072
2008	9,075	0	2	0	22,684	0	39,144	61,828	2,500	4,313	6,813
2009	9,395	0	2	0	0	0	318	318	0.000	0.034	0.034
2010	17,674	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	6,425	0	7	0	15,114	0	3,886	18,999	2,352	0.605	2,957
MA Total:	54,587	0	12	0	37,798	0	44,210	82,007	0.692	0.810	1.502

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.660	1.120	.
(14) Massachusetts Credibility:	0.120	0.220	.
(15) Countrywide Pure Premium:	0.853	0.793	1.646
(16) Countrywide Indicated Relativity:	0.948	1.290	.
(17) Countrywide Credibility:	0.420	0.390	.
(18) Countrywide Lost-Time Claims:	134.00	.	.
(19) Pure Premium Underlying Present Rate:	1.964	2.376	4.340
(20) Relativity to Underlying Present Rate:	2.247	2.878	.
(21) Credibility to Underlying Relativity:	0.460	0.390	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.511	1.872	.
(24) Balanced Formula Relativity:	1.506	1.871	1.655

Class(es): 2014 GRAIN MILLING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,890	0	1	0	14,927	0	16,568	31,495	2,534	2,813	5,348
2008	4,996	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	3,417	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	22,499	0	1	0	12,542	0	29,606	42,147	0.557	1.316	1.873
2011	25,666	0	1	0	0	0	1,402	1,402	0.000	0.055	0.055
MA Total:	62,468	0	3	0	27,469	0	47,575	75,044	0.440	0.762	1.201

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.419	1.053	.
(14) Massachusetts Credibility:	0.110	0.180	.
(15) Countrywide Pure Premium:	1.938	1.400	3.338
(16) Countrywide Indicated Relativity:	2.154	2.278	.
(17) Countrywide Credibility:	0.450	0.410	.
(18) Countrywide Lost-Time Claims:	1169.0	.	.
(19) Pure Premium Underlying Present Rate:	1.507	1.340	2.847
(20) Relativity to Underlying Present Rate:	1.724	1.624	.
(21) Credibility to Underlying Relativity:	0.440	0.410	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.774	1.789	.
(24) Balanced Formula Relativity:	1.768	1.788	1.776

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2021 SUGAR REFINING-ALL OPERATIONS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,953	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	1,649	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	1,721	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	2,037	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	1,438	0	1	0	0	0	1,572	1,572	0.000	1.093	1.093
MA Total:	8,798	0	1	0	0	0	1,572	1,572	0.000	0.179	0.179

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.247	.
(14) Massachusetts Credibility:	0.050	0.080	.
(15) Countrywide Pure Premium:	1.321	1.048	2.369
(16) Countrywide Indicated Relativity:	1.468	1.705	.
(17) Countrywide Credibility:	0.480	0.460	.
(18) Countrywide Lost-Time Claims:	243.00	.	.
(19) Pure Premium Underlying Present Rate:	1.740	1.234	2.973
(20) Relativity to Underlying Present Rate:	1.990	1.495	.
(21) Credibility to Underlying Relativity:	0.470	0.460	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.640	1.492	.
(24) Balanced Formula Relativity:	1.635	1.491	1.576

Class(es):		Effective: 1/1/2014							Manufacturing		
2039 ICE CREAM MFG & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	54,557	0	13	0	75,658	0	41,098	116,756	1,387	0,753	2,140
2008	30,268	1	10	50,498	6,371	32,901	27,028	116,798	1,879	1,980	3,859
2009	30,340	0	5	0	16,785	0	42,304	59,089	0,553	1,394	1,948
2010	134,013	0	7	0	131,080	0	94,039	225,119	0,978	0,702	1,680
2011	22,929	0	4	0	0	0	653	653	0,000	0,028	0,028
MA Total:	272,107	1	39	50,498	229,893	32,901	205,122	518,414	1,030	0,875	1,905

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.982	1.210	.
(14) Massachusetts Credibility:	0.180	0.280	.
(15) Countrywide Pure Premium:	0.942	0.495	1.437
(16) Countrywide Indicated Relativity:	1.047	0.806	.
(17) Countrywide Credibility:	0.410	0.360	.
(18) Countrywide Lost-Time Claims:	347.00	.	.
(19) Pure Premium Underlying Present Rate:	1.215	0.879	2.094
(20) Relativity to Underlying Present Rate:	1.389	1.065	.
(21) Credibility to Underlying Relativity:	0.410	0.360	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.176	1.012	.
(24) Balanced Formula Relativity:	1.172	1.012	1.106

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 18

Calculation of Class Relativities

Class(es): 2041 CONFECTION MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	308,887	3	70	205,070	323,388	58,433	190,424	777,316	1,711	0,806	2,517
2008	202,347	2	27	182,320	103,414	158,523	114,420	558,678	1,412	1,349	2,761
2009	204,539	1	30	56,554	63,375	2,956	33,708	156,592	0,586	0,179	0,766
2010	183,154	2	11	87,509	211,733	84,992	73,653	457,887	1,634	0,866	2,500
2011	196,510	0	24	0	213,821	0	107,396	321,216	1,088	0,547	1,635
MA Total:	1,095,436	8	162	531,453	915,731	304,905	519,600	2,271,690	1,321	0,753	2,074

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.259	1.041	.
(14) Massachusetts Credibility:	0.300	0.480	.
(15) Countrywide Pure Premium:	1.240	0.882	2.122
(16) Countrywide Indicated Relativity:	1.378	1.436	.
(17) Countrywide Credibility:	0.350	0.260	.
(18) Countrywide Lost-Time Claims:	978.00	.	.
(19) Pure Premium Underlying Present Rate:	1.020	0.884	1.904
(20) Relativity to Underlying Present Rate:	1.166	1.071	.
(21) Credibility to Underlying Relativity:	0.350	0.260	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.268	1.151	.
(24) Balanced Formula Relativity:	1.264	1.151	1.218

Class(es): 2070 CREAMERY OR DAIRY & ROUTE SUPERVISORS, DRIVERS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	125,323	0	20	0	71,711	0	114,870	186,581	0,572	0,917	1,489
2008	125,909	1	19	11,133	119,707	396	167,586	298,821	1,039	1,334	2,373
2009	137,227	0	13	0	2,218	0	10,687	12,905	0,016	0,078	0,094
2010	306,023	3	44	212,022	424,505	41,791	214,074	892,393	2,080	0,836	2,916
2011	269,575	2	40	559,363	600,306	536,061	269,855	1,965,586	4,302	2,990	7,291
MA Total:	964,058	6	136	782,518	1,218,448	578,248	777,073	3,356,286	2,076	1,406	3,481

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.979	1.944	.
(14) Massachusetts Credibility:	0.340	0.570	.
(15) Countrywide Pure Premium:	2.178	1.251	3.430
(16) Countrywide Indicated Relativity:	2.421	2.036	.
(17) Countrywide Credibility:	0.330	0.220	.
(18) Countrywide Lost-Time Claims:	3138.0	.	.
(19) Pure Premium Underlying Present Rate:	1.640	1.517	3.157
(20) Relativity to Underlying Present Rate:	1.876	1.837	.
(21) Credibility to Underlying Relativity:	0.330	0.210	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.091	1.942	.
(24) Balanced Formula Relativity:	2.084	1.941	2.026

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Calculation of Class Relativities

Class(es): 2081 BUTCHERING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	4,399	0	2	0	0	0	944	944	0.000	0.215	0.215
2008	9,485	0	4	0	0	0	2,155	2,155	0.000	0.227	0.227
2009	12,462	0	8	0	43	0	3,586	3,629	0.003	0.288	0.291
2010	12,385	0	17	0	85,628	0	69,086	154,715	6.914	5.578	12.492
2011	19,105	0	25	0	36,996	0	50,566	87,561	1.936	2.647	4.583
MA Total:	57,836	0	56	0	122,667	0	126,337	249,004	2.121	2.184	4.305

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.022	3.021	.
(14) Massachusetts Credibility:	0.100	0.190	.
(15) Countrywide Pure Premium:	1.116	1.190	2.306
(16) Countrywide Indicated Relativity:	1.240	1.937	.
(17) Countrywide Credibility:	0.450	0.410	.
(18) Countrywide Lost-Time Claims:	738.00	.	.
(19) Pure Premium Underlying Present Rate:	1.392	1.532	2.924
(20) Relativity to Underlying Present Rate:	1.592	1.856	.
(21) Credibility to Underlying Relativity:	0.450	0.400	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.477	2.111	.
(24) Balanced Formula Relativity:	1.472	2.109	1.732

Class(es): 2089 PACKING HOUSE- ALL OPERATIONS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	868,944	4	231	90,984	533,883	85,184	451,910	1,161,961	0.719	0.618	1.337
2008	861,990	5	215	411,366	771,908	138,856	521,139	1,843,268	1.373	0.766	2.138
2009	874,039	2	201	28,894	645,920	3,087	509,652	1,187,553	0.772	0.587	1.359
2010	947,553	8	260	638,530	1,140,379	225,858	677,686	2,682,453	1.877	0.954	2.831
2011	1,017,730	8	210	496,865	1,259,567	207,593	769,904	2,733,928	1.726	0.960	2.686
MA Total:	4,570,256	27	1,117	1,666,639	4,351,656	660,577	2,930,291	9,609,164	1.317	0.786	2.103

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.255	1.087	.
(14) Massachusetts Credibility:	0.530	0.850	.
(15) Countrywide Pure Premium:	1.205	0.836	2.041
(16) Countrywide Indicated Relativity:	1.340	1.360	.
(17) Countrywide Credibility:	0.240	0.080	.
(18) Countrywide Lost-Time Claims:	9622.0	.	.
(19) Pure Premium Underlying Present Rate:	1.003	0.873	1.876
(20) Relativity to Underlying Present Rate:	1.148	1.057	.
(21) Credibility to Underlying Relativity:	0.230	0.070	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.251	1.106	.
(24) Balanced Formula Relativity:	1.247	1.106	1.189

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2095 MEAT PRODUCTS MFG-NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	380.864	2	91	477.828	212.670	139.852	165.124	995.473	1.813	0.801	2.614
2008	376.384	3	70	254.510	902.147	103.135	553.033	1,812.824	3.073	1.743	4.816
2009	373.433	9	75	526.876	258.358	167.735	231.439	1,184.407	2.103	1.069	3.172
2010	428.986	4	72	417.396	331.521	186.578	437.140	1,372.635	1.746	1.454	3.200
2011	385.539	7	76	497.059	366.591	234.610	222.938	1,321.198	2.240	1.187	3.427
MA Total:	1,945,206	25	384	2,173,669	2,071,286	831,910	1,609,673	6,686,537	2.182	1.255	3.437

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.080	1.736	.
(14) Massachusetts Credibility:	0.470	0.740	.
(15) Countrywide Pure Premium:	1.404	1.074	2.478
(16) Countrywide Indicated Relativity:	1.560	1.748	.
(17) Countrywide Credibility:	0.270	0.130	.
(18) Countrywide Lost-Time Claims:	2869.0	.	.
(19) Pure Premium Underlying Present Rate:	1.740	1.430	3.171
(20) Relativity to Underlying Present Rate:	1.990	1.733	.
(21) Credibility to Underlying Relativity:	0.260	0.130	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.916	1.737	.
(24) Balanced Formula Relativity:	1.910	1.736	1.839

Class(es):		Effective: 1/1/2014							Manufacturing		
2111 CANNERY NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	6.657	0	1	0	61.441	0	11.061	72.502	9.229	1.662	10.891
2008	8.421	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	7.224	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	5.691	0	1	0	0	0	354	354	0.000	0.062	0.062
2011	8.487	0	2	0	0	0	1.757	1.757	0.000	0.207	0.207
MA Total:	36,481	0	4	0	61,441	0	13,172	74,613	1.684	0.361	2.045

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.606	0.499	.
(14) Massachusetts Credibility:	0.080	0.130	.
(15) Countrywide Pure Premium:	0.934	0.740	1.674
(16) Countrywide Indicated Relativity:	1.038	1.204	.
(17) Countrywide Credibility:	0.460	0.440	.
(18) Countrywide Lost-Time Claims:	935.00	.	.
(19) Pure Premium Underlying Present Rate:	1.059	0.934	1.993
(20) Relativity to Underlying Present Rate:	1.211	1.132	.
(21) Credibility to Underlying Relativity:	0.460	0.430	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.163	1.082	.
(24) Balanced Formula Relativity:	1.159	1.081	1.127

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2115 SEAFOOD PRODUCTS MFG-NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	246.373	1	43	13.497	474.143	692	226.911	715.244	1.979	0.924	2.903
2008	255.183	2	55	25.034	484.867	4.631	530.773	1,045.303	1.998	2.098	4.096
2009	242.312	2	47	276.139	209.530	95.284	187.877	768.829	2.004	1.169	3.173
2010	200.799	1	45	335.023	79.924	555.241	161.769	1,131.956	2.066	3.571	5.637
2011	224.850	1	54	36.172	508.364	52.933	403.153	1,000.622	2.422	2.028	4.450
MA Total:	1,169,517	7	244	685.864	1,756.828	708.781	1,510.483	4,661.955	2.089	1.898	3.986

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.991	2.624	.
(14) Massachusetts Credibility:	0.340	0.540	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	1.506	1.302	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	1.341	1.094	2.435
(20) Relativity to Underlying Present Rate:	1.534	1.325	.
(21) Credibility to Underlying Relativity:	0.660	0.460	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.689	2.027	.
(24) Balanced Formula Relativity:	1.684	2.026	1.823

Class(es):		Effective: 1/1/2014							Manufacturing		
2121 BREWERY & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	50.270	0	4	0	78.823	0	66.767	145.590	1.568	1.328	2.896
2008	50.271	0	4	0	906	0	7.505	8.410	0.018	0.149	0.167
2009	55.503	0	6	0	82.462	0	55.829	138.291	1.486	1.006	2.492
2010	55.816	0	10	0	22.192	0	51.217	73.409	0.398	0.918	1.315
2011	73.032	0	4	0	1.288	0	5.192	6.480	0.018	0.071	0.089
MA Total:	284.892	0	28	0	185.670	0	186.510	372.180	0.652	0.655	1.306

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.621	0.905	.
(14) Massachusetts Credibility:	0.160	0.260	.
(15) Countrywide Pure Premium:	0.606	0.424	1.030
(16) Countrywide Indicated Relativity:	0.673	0.690	.
(17) Countrywide Credibility:	0.420	0.370	.
(18) Countrywide Lost-Time Claims:	411.00	.	.
(19) Pure Premium Underlying Present Rate:	0.822	0.720	1.542
(20) Relativity to Underlying Present Rate:	0.940	0.873	.
(21) Credibility to Underlying Relativity:	0.420	0.370	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.777	0.813	.
(24) Balanced Formula Relativity:	0.774	0.813	0.790

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 22

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2130 SPIRITUOUS LIQUOR DISTILLERY											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	4.756	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	2.510	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	3.125	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	3.447	0	1	0	0	0	1.016	1.016	0.000	0.295	0.295
2011	1.836	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	15,674	0	1	0	0	0	1,016	1,016	0.000	0.065	0.065

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.090	.
(14) Massachusetts Credibility:	0.060	0.090	.
(15) Countrywide Pure Premium:	0.961	0.697	1.657
(16) Countrywide Indicated Relativity:	1.067	1.134	.
(17) Countrywide Credibility:	0.470	0.460	.
(18) Countrywide Lost-Time Claims:	252.00	.	.
(19) Pure Premium Underlying Present Rate:	1.164	0.843	2.006
(20) Relativity to Underlying Present Rate:	1.331	1.021	.
(21) Credibility to Underlying Relativity:	0.470	0.450	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.127	0.989	.
(24) Balanced Formula Relativity:	1.124	0.988	1.068

Class(es):		Effective: 1/1/2014							Manufacturing		
2131 SPIRITUOUS LIQUOR BOTTLING											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	39.188	0	13	0	896	0	32.138	33.034	0.023	0.820	0.843
2008	37.476	0	8	0	54.162	0	29.409	83.570	1.445	0.785	2.230
2009	38.613	0	4	0	5.872	0	5.673	11.545	0.152	0.147	0.299
2010	40.210	0	13	0	0	0	10.169	10.169	0.000	0.253	0.253
2011	43.388	0	8	0	4.010	0	22.492	26.502	0.092	0.518	0.611
MA Total:	198,875	0	46	0	64,940	0	99,880	164,820	0.327	0.502	0.829

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.311	0.695	.
(14) Massachusetts Credibility:	0.140	0.240	.
(15) Countrywide Pure Premium:	1.205	0.738	1.943
(16) Countrywide Indicated Relativity:	1.339	1.201	.
(17) Countrywide Credibility:	0.430	0.380	.
(18) Countrywide Lost-Time Claims:	166.00	.	.
(19) Pure Premium Underlying Present Rate:	0.900	0.865	1.765
(20) Relativity to Underlying Present Rate:	1.029	1.048	.
(21) Credibility to Underlying Relativity:	0.430	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.062	1.021	.
(24) Balanced Formula Relativity:	1.059	1.020	1.043

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Calculation of Class Relativities

Class(es): 2143 FRUIT JUICE MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	42,266	0	8	0	0	0	8,034	8,034	0.000	0.190	0.190
2008	33,441	0	7	0	8,885	0	19,846	28,731	0.266	0.593	0.859
2009	58,958	0	7	0	0	0	5,789	5,789	0.000	0.098	0.098
2010	106,004	0	4	0	22,575	0	4,895	27,471	0.213	0.046	0.259
2011	62,032	0	3	0	0	0	1,561	1,561	0.000	0.025	0.025
MA Total:	302,701	0	29	0	31,460	0	40,125	71,585	0.104	0.133	0.236

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.099	0.183	.
(14) Massachusetts Credibility:	0.200	0.300	.
(15) Countrywide Pure Premium:	0.977	1.211	2.188
(16) Countrywide Indicated Relativity:	1.085	1.971	.
(17) Countrywide Credibility:	0.400	0.350	.
(18) Countrywide Lost-Time Claims:	145.00	.	.
(19) Pure Premium Underlying Present Rate:	1.332	0.969	2.301
(20) Relativity to Underlying Present Rate:	1.524	1.174	.
(21) Credibility to Underlying Relativity:	0.400	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.063	1.156	.
(24) Balanced Formula Relativity:	1.060	1.155	1.099

Class(es): 2150 ICE MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	8,394	0	3	0	149,002	0	103,376	252,378	17.751	12.315	30.066
2008	7,593	0	4	0	5,096	0	11,022	16,117	0.671	1.452	2.123
2009	9,318	0	1	0	5,687	0	17,812	23,500	0.610	1.912	2.522
2010	6,021	0	3	0	0	0	2,357	2,357	0.000	0.392	0.392
2011	9,732	0	1	0	0	0	591	591	0.000	0.061	0.061
MA Total:	41,058	0	12	0	159,785	0	135,158	294,943	3.892	3.292	7.183

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.710	4.553	.
(14) Massachusetts Credibility:	0.110	0.180	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	2.651	2.470	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	2.360	2.075	4.435
(20) Relativity to Underlying Present Rate:	2.699	2.514	.
(21) Credibility to Underlying Relativity:	0.890	0.820	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.810	2.881	.
(24) Balanced Formula Relativity:	2.801	2.879	2.833

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Calculation of Class Relativities

Class(es): 2156 BOTTLING-NOT CARBONATED LIQUIDS OR SPIRIT LIQRS & RTE SUP,DR									Effective: 1/1/2014 Manufacturing		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums	
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	76,562	1	18	37,446	135,250	3,214	49,731	225,642	2,256	0,692	2,947
2008	65,672	1	8	53,630	76,295	5,517	72,719	208,162	1,978	1,191	3,170
2009	63,573	0	11	0	94,805	0	96,927	191,732	1,491	1,525	3,016
2010	70,852	1	12	4,639	82,909	38,257	29,939	155,744	1,236	0,963	2,198
2011	89,699	0	20	0	9,667	0	26,872	36,539	0,108	0,300	0,407
MA Total:	366,359	3	69	95,716	398,926	46,988	276,188	817,818	1,350	0,882	2,232

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.287	1.220	.
(14) Massachusetts Credibility:	0.330	0.550	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	4.403	4.463	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	3.919	3.750	7.669
(20) Relativity to Underlying Present Rate:	4.482	4.543	.
(21) Credibility to Underlying Relativity:	0.670	0.450	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.428	2.715	.
(24) Balanced Formula Relativity:	3.417	2.714	3.130

Class(es): 2157 BOTTLING NOC & ROUTE SUPERVISORS, DRIVERS									Effective: 1/1/2014 Manufacturing		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums	
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	255,168	2	151	91,408	1,003,190	29,856	474,627	1,599,081	4,290	1,977	6,267
2008	266,945	2	114	522,373	450,769	379,040	347,745	1,699,927	3,645	2,723	6,368
2009	278,436	1	89	26,447	98,302	7,126	124,313	256,188	0,448	0,472	0,920
2010	291,287	2	129	120,703	489,944	91,053	429,828	1,131,528	2,096	1,788	3,885
2011	286,026	1	108	120,867	311,306	34,603	299,200	765,977	1,511	1,167	2,678
MA Total:	1,377,863	8	591	881,799	2,353,510	541,678	1,675,713	5,452,700	2,348	1,609	3,957

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.238	2.226	.
(14) Massachusetts Credibility:	0.460	0.700	.
(15) Countrywide Pure Premium:	2.429	1.297	3.726
(16) Countrywide Indicated Relativity:	2.700	2.111	.
(17) Countrywide Credibility:	0.270	0.150	.
(18) Countrywide Lost-Time Claims:	6412.0	.	.
(19) Pure Premium Underlying Present Rate:	2.452	1.817	4.269
(20) Relativity to Underlying Present Rate:	2.804	2.201	.
(21) Credibility to Underlying Relativity:	0.270	0.150	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.516	2.205	.
(24) Balanced Formula Relativity:	2.508	2.204	2.384

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Calculation of Class Relativities

Class(es): 2172 CIGARETTE MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	48	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	262	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	172	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	172	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	654	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.010	0.020	.
(15) Countrywide Pure Premium:	1.563	0.614	2.177
(16) Countrywide Indicated Relativity:	1.737	0.999	.
(17) Countrywide Credibility:	0.500	0.490	.
(18) Countrywide Lost-Time Claims:	366.00	.	.
(19) Pure Premium Underlying Present Rate:	0.939	0.619	1.558
(20) Relativity to Underlying Present Rate:	1.074	0.749	.
(21) Credibility to Underlying Relativity:	0.490	0.490	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.395	0.856	.
(24) Balanced Formula Relativity:	1.391	0.856	1.172

Class(es): 2174 TOBACCO REHANDLING OR WAREHOUSING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	0	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	1.494	1.022	2.516
(16) Countrywide Indicated Relativity:	1.660	1.663	.
(17) Countrywide Credibility:	0.320	0.340	.
(18) Countrywide Lost-Time Claims:	68.000	.	.
(19) Pure Premium Underlying Present Rate:	1.659	1.004	2.664
(20) Relativity to Underlying Present Rate:	1.898	1.217	.
(21) Credibility to Underlying Relativity:	0.680	0.660	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.822	1.369	.
(24) Balanced Formula Relativity:	1.816	1.368	1.633

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2211 COTTON BATTING,WADDING OR WASTE MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	223	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	276	0	1	0	0	0	442	442	0.000	1.601	1.601
2009	55	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	1,416	0	2	0	0	0	1,692	1,692	0.000	1.195	1.195
MA Total:	1,970	0	3	0	0	0	2,134	2,134	0.000	1.083	1.083

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	1.498	.
(14) Massachusetts Credibility:	0.030	0.060	.
(15) Countrywide Pure Premium:	3.421	3.092	6.512
(16) Countrywide Indicated Relativity:	3.801	5.031	.
(17) Countrywide Credibility:	0.280	0.290	.
(18) Countrywide Lost-Time Claims:	47.000	.	.
(19) Pure Premium Underlying Present Rate:	2.188	2.267	4.455
(20) Relativity to Underlying Present Rate:	2.502	2.747	.
(21) Credibility to Underlying Relativity:	0.690	0.650	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.791	3.334	.
(24) Balanced Formula Relativity:	2.782	3.332	3.007

Class(es):		Effective: 1/1/2014							Manufacturing		
2220 YARN OR THREAD MFG-COTTON											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	99,406	1	35	142,593	12,782	50,157	32,371	237,903	1,563	0,830	2,393
2008	103,578	1	31	8,025	128,588	13,681	161,014	311,307	1,319	1,687	3,006
2009	79,627	1	13	79,840	14,404	36,000	26,524	156,768	1,184	0,785	1,969
2010	85,199	0	31	0	76,573	0	65,617	142,190	0,899	0,770	1,669
2011	87,372	0	27	0	250,744	0	170,929	421,673	2,870	1,956	4,826
MA Total:	455,181	3	137	230,457	483,091	99,839	456,455	1,269,842	1,568	1,222	2,790

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.494	1.690	.
(14) Massachusetts Credibility:	0.230	0.400	.
(15) Countrywide Pure Premium:	0.927	0.667	1.593
(16) Countrywide Indicated Relativity:	1.030	1.085	.
(17) Countrywide Credibility:	0.390	0.300	.
(18) Countrywide Lost-Time Claims:	935.00	.	.
(19) Pure Premium Underlying Present Rate:	1.317	1.346	2.662
(20) Relativity to Underlying Present Rate:	1.506	1.630	.
(21) Credibility to Underlying Relativity:	0.380	0.300	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.318	1.491	.
(24) Balanced Formula Relativity:	1.313	1.490	1.385

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Calculation of Class Relativities

Class(es): 2260 WOOL COMBING OR SCOURING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,249	1	1	60,889	0	28,259	169	89,317	18,740	8,750	27,490
2008	2,619	0	2	0	118	0	1,589	1,707	0,045	0,607	0,652
2009	1,312	0	2	0	55,543	0	41,060	96,603	42,331	31,293	73,624
2010	2,290	0	0	0	0	0	0	0	0,000	0,000	0,000
2011	544	0	0	0	0	0	0	0	0,000	0,000	0,000
MA Total:	10,015	1	5	60,889	55,661	28,259	42,819	187,627	11,638	7,097	18,735

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	11.094	9.816	.
(14) Massachusetts Credibility:	0.070	0.090	.
(15) Countrywide Pure Premium:	0.913	1.048	1.961
(16) Countrywide Indicated Relativity:	1.015	1.705	.
(17) Countrywide Credibility:	0.060	0.060	.
(18) Countrywide Lost-Time Claims:	1.000	.	.
(19) Pure Premium Underlying Present Rate:	2.797	1.567	4.364
(20) Relativity to Underlying Present Rate:	3.200	1.898	.
(21) Credibility to Underlying Relativity:	0.870	0.850	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.621	2.599	.
(24) Balanced Formula Relativity:	3.610	2.597	3.197

Class(es): 2288 FELTING MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	101,597	0	20	0	145,833	0	59,315	205,148	1,435	0,584	2,019
2008	74,914	1	18	4,358	13,242	30,376	30,234	78,211	0,235	0,809	1,044
2009	72,874	0	11	0	90,862	0	53,227	144,088	1,247	0,730	1,977
2010	94,887	1	8	43,353	3,318	72,465	11,106	130,244	0,492	0,881	1,373
2011	107,534	0	18	0	130,538	0	132,189	262,727	1,214	1,229	2,443
MA Total:	451,806	2	75	47,712	383,793	102,842	286,071	820,418	0,955	0,861	1,816

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.910	1.191	.
(14) Massachusetts Credibility:	0.190	0.330	.
(15) Countrywide Pure Premium:	1.709	0.920	2.629
(16) Countrywide Indicated Relativity:	1.899	1.497	.
(17) Countrywide Credibility:	0.410	0.340	.
(18) Countrywide Lost-Time Claims:	121.00	.	.
(19) Pure Premium Underlying Present Rate:	0.793	0.802	1.595
(20) Relativity to Underlying Present Rate:	0.907	0.971	.
(21) Credibility to Underlying Relativity:	0.400	0.330	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.315	1.222	.
(24) Balanced Formula Relativity:	1.310	1.222	1.274

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2305 TEXTILE FIBER MFG-SYNTHETIC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	23,960	0	3	0	0	0	2,253	2,253	0.000	0.094	0.094
2008	34,166	2	9	245,019	0	63,257	8,586	316,861	7.171	2.103	9.274
2009	47,206	0	6	0	385,313	0	108,584	493,897	8.162	2.300	10.463
2010	52,381	1	8	131,640	9,338	22,143	37,294	200,415	2.691	1.135	3.826
2011	41,146	0	5	0	8,501	0	26,458	34,958	0.207	0.643	0.850
MA Total:	198,859	3	31	376,659	403,152	85,400	183,175	1,048,385	3.921	1.351	5.272

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.738	1.868	.
(14) Massachusetts Credibility:	0.140	0.210	.
(15) Countrywide Pure Premium:	1.020	0.718	1.738
(16) Countrywide Indicated Relativity:	1.133	1.169	.
(17) Countrywide Credibility:	0.430	0.400	.
(18) Countrywide Lost-Time Claims:	721.00	.	.
(19) Pure Premium Underlying Present Rate:	0.857	0.584	1.440
(20) Relativity to Underlying Present Rate:	0.980	0.707	.
(21) Credibility to Underlying Relativity:	0.430	0.390	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.432	1.136	.
(24) Balanced Formula Relativity:	1.427	1.135	1.308

Class(es):		Effective: 1/1/2014							Manufacturing		
2362 KNIT GOODS MFG NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	22,978	1	5	54,438	9,191	20,431	14,902	98,963	2.769	1.538	4.307
2008	12,800	0	5	0	3,235	0	5,583	8,818	0.253	0.436	0.689
2009	11,685	0	2	0	4,897	0	8,528	13,425	0.419	0.730	1.149
2010	12,969	0	1	0	0	0	981	981	0.000	0.076	0.076
2011	13,842	0	8	0	11,785	0	19,363	31,149	0.851	1.399	2.250
MA Total:	74,274	1	21	54,438	29,109	20,431	49,358	153,336	1.125	0.940	2.064

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.072	1.300	.
(14) Massachusetts Credibility:	0.100	0.160	.
(15) Countrywide Pure Premium:	0.751	0.538	1.289
(16) Countrywide Indicated Relativity:	0.835	0.875	.
(17) Countrywide Credibility:	0.450	0.420	.
(18) Countrywide Lost-Time Claims:	194.00	.	.
(19) Pure Premium Underlying Present Rate:	0.891	0.878	1.769
(20) Relativity to Underlying Present Rate:	1.019	1.064	.
(21) Credibility to Underlying Relativity:	0.450	0.420	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.941	1.022	.
(24) Balanced Formula Relativity:	0.938	1.022	0.972

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Calculation of Class Relativities

Class(es): 2380 WEBBING MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	65,280	0	17	0	11,356	0	21,161	32,517	0.174	0.324	0.498
2008	62,716	0	7	0	83,734	0	25,736	109,469	1.335	0.410	1.745
2009	64,172	0	7	0	10,650	0	15,745	26,395	0.166	0.245	0.411
2010	67,071	0	8	0	1,842	0	10,716	12,559	0.027	0.160	0.187
2011	72,496	1	13	113,208	1,814	34,084	25,513	174,619	1.587	0.822	2.409
MA Total:	331,736	1	52	113,208	109,396	34,084	98,871	355,559	0.671	0.401	1.072

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.640	0.554	.
(14) Massachusetts Credibility:	0.180	0.340	.
(15) Countrywide Pure Premium:	1.138	0.931	2.070
(16) Countrywide Indicated Relativity:	1.265	1.515	.
(17) Countrywide Credibility:	0.410	0.330	.
(18) Countrywide Lost-Time Claims:	228.00	.	.
(19) Pure Premium Underlying Present Rate:	0.971	1.190	2.161
(20) Relativity to Underlying Present Rate:	1.111	1.441	.
(21) Credibility to Underlying Relativity:	0.410	0.330	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.089	1.164	.
(24) Balanced Formula Relativity:	1.086	1.163	1.118

Class(es): 2402 CARPET OR RUG MFG NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	6,978	0	3	0	0	0	1,015	1,015	0.000	0.145	0.145
2008	3,027	0	1	0	0	0	748	748	0.000	0.247	0.247
2009	2,322	0	1	0	1,051	0	1,563	2,614	0.453	0.673	1.126
2010	2,512	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	5,165	0	1	0	0	0	548	548	0.000	0.106	0.106
MA Total:	20,004	0	6	0	1,051	0	3,873	4,924	0.053	0.194	0.246

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.050	0.268	.
(14) Massachusetts Credibility:	0.070	0.100	.
(15) Countrywide Pure Premium:	0.892	0.655	1.547
(16) Countrywide Indicated Relativity:	0.991	1.066	.
(17) Countrywide Credibility:	0.470	0.450	.
(18) Countrywide Lost-Time Claims:	304.00	.	.
(19) Pure Premium Underlying Present Rate:	1.319	0.966	2.285
(20) Relativity to Underlying Present Rate:	1.509	1.170	.
(21) Credibility to Underlying Relativity:	0.460	0.450	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.163	1.033	.
(24) Balanced Formula Relativity:	1.160	1.033	1.108

IX 000099

Calculation of Class Relativities

Class(es): 2413 TEXTILE - BLEACHING, DYEING, MERCERZNG, FINISH									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	291,206	2	66	23,860	152,981	14,104	180,099	371,044	0.607	0.667	1,274			
2008	233,229	2	56	276,833	281,872	33,698	186,588	778,991	2.396	0.945	3,340			
2009	255,758	2	69	44,687	425,757	21,792	391,724	883,960	1.839	1.617	3,456			
2010	289,853	4	89	716,487	664,839	166,111	312,176	1,859,612	4.766	1.650	6,416			
2011	278,543	0	58	0	287,142	0	220,443	507,585	1.031	0.791	1,822			
MA Total:	1,348,590	10	338	1,061,867	1,812,590	235,706	1,291,030	4,401,193	2.131	1.132	3,264			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.032	1.566	.
(14) Massachusetts Credibility:	0.380	0.580	.
(15) Countrywide Pure Premium:	1.047	0.752	1.799
(16) Countrywide Indicated Relativity:	1.164	1.224	.
(17) Countrywide Credibility:	0.310	0.210	.
(18) Countrywide Lost-Time Claims:	351.00	.	.
(19) Pure Premium Underlying Present Rate:	1.519	1.134	2.652
(20) Relativity to Underlying Present Rate:	1.737	1.373	.
(21) Credibility to Underlying Relativity:	0.310	0.210	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.671	1.454	.
(24) Balanced Formula Relativity:	1.666	1.453	1.579

Class(es): 2416 YARN OR THREAD DYEING OR FINISHING									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	17,300	0	4	0	49,400	0	20,919	70,319	2.856	1.209	4,065			
2008	17,162	0	1	0	5,454	0	17,417	22,872	0.318	1.015	1,333			
2009	13,894	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	19,694	0	3	0	0	0	2,033	2,033	0.000	0.103	0.103			
2011	18,839	0	3	0	0	0	2,661	2,661	0.000	0.141	0.141			
MA Total:	86,887	0	11	0	54,854	0	43,030	97,884	0.631	0.495	1,127			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.602	0.685	.
(14) Massachusetts Credibility:	0.120	0.200	.
(15) Countrywide Pure Premium:	0.951	0.704	1.655
(16) Countrywide Indicated Relativity:	1.056	1.146	.
(17) Countrywide Credibility:	0.260	0.270	.
(18) Countrywide Lost-Time Claims:	39.000	.	.
(19) Pure Premium Underlying Present Rate:	1.218	1.206	2.425
(20) Relativity to Underlying Present Rate:	1.394	1.461	.
(21) Credibility to Underlying Relativity:	0.620	0.530	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.211	1.221	.
(24) Balanced Formula Relativity:	1.207	1.220	1.212

IX 000100

Calculation of Class Relativities

Class(es): 2417 CLOTH PRINTING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	107,184	2	20	206,848	328,095	101,369	149,337	785,649	4,991	2,339	7,330
2008	52,081	1	10	211,460	32,403	20,250	24,154	288,267	4,682	0,853	5,535
2009	70,291	1	16	419,807	131,000	44,555	48,130	643,492	7,836	1,319	9,155
2010	74,045	2	13	157,402	227,639	33,115	119,110	537,266	5,200	2,056	7,256
2011	63,184	1	12	152,712	21,604	33,749	35,952	244,016	2,759	1,103	3,862
MA Total:	366,784	7	71	1,148,228	740,743	233,038	376,683	2,498,691	5,150	1,662	6,812

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.910	2.299	.
(14) Massachusetts Credibility:	0.210	0.330	.
(15) Countrywide Pure Premium:	0.409	0.468	0.877
(16) Countrywide Indicated Relativity:	0.455	0.762	.
(17) Countrywide Credibility:	0.260	0.270	.
(18) Countrywide Lost-Time Claims:	39,000	.	.
(19) Pure Premium Underlying Present Rate:	1.223	1.051	2.274
(20) Relativity to Underlying Present Rate:	1.399	1.273	.
(21) Credibility to Underlying Relativity:	0.530	0.400	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.891	1.474	.
(24) Balanced Formula Relativity:	1.885	1.473	1.717

Class(es): 2501 CLOTHING MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	984,730	5	165	407,996	955,223	54,986	530,911	1,949,117	1,384	0,595	1,979
2008	1,042,225	7	145	604,081	356,812	209,876	344,974	1,515,742	0,922	0,532	1,454
2009	907,272	4	139	480,072	734,075	449,431	477,429	2,141,007	1,338	1,022	2,360
2010	993,941	4	185	325,911	533,279	203,801	494,979	1,557,971	0,864	0,703	1,567
2011	929,666	4	129	207,153	389,625	185,112	324,277	1,106,168	0,642	0,548	1,190
MA Total:	4,857,834	24	763	2,025,214	2,969,015	1,103,206	2,172,570	8,270,005	1,028	0,674	1,702

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.980	0.933	.
(14) Massachusetts Credibility:	0.530	0.850	.
(15) Countrywide Pure Premium:	0.929	0.714	1.643
(16) Countrywide Indicated Relativity:	1.033	1.162	.
(17) Countrywide Credibility:	0.240	0.080	.
(18) Countrywide Lost-Time Claims:	2782.0	.	.
(19) Pure Premium Underlying Present Rate:	0.956	0.818	1.774
(20) Relativity to Underlying Present Rate:	1.093	0.991	.
(21) Credibility to Underlying Relativity:	0.230	0.070	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.019	0.955	.
(24) Balanced Formula Relativity:	1.015	0.955	0.991

IX 000101

Calculation of Class Relativities

Class(es): 2503 DRESSMAKING OR TAILORING-CUSTOM EXCLUSIVELY									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	62,087	0	5	0	1,928	0	9,271	11,199	0.031	0.149	0.180			
2008	52,947	0	3	0	0	0	1,505	1,505	0.000	0.028	0.028			
2009	41,521	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	49,211	0	4	0	128	0	1,298	1,427	0.003	0.026	0.029			
2011	50,963	0	5	0	43,181	0	21,826	65,007	0.847	0.428	1.276			
MA Total:	256,730	0	17	0	45,238	0	33,900	79,138	0.176	0.132	0.308			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.168	0.183	.
(14) Massachusetts Credibility:	0.110	0.200	.
(15) Countrywide Pure Premium:	0.645	0.506	1.150
(16) Countrywide Indicated Relativity:	0.716	0.823	.
(17) Countrywide Credibility:	0.320	0.340	.
(18) Countrywide Lost-Time Claims:	66.000	.	.
(19) Pure Premium Underlying Present Rate:	0.388	0.443	0.831
(20) Relativity to Underlying Present Rate:	0.444	0.537	.
(21) Credibility to Underlying Relativity:	0.570	0.460	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.501	0.563	.
(24) Balanced Formula Relativity:	0.499	0.563	0.525

Class(es): 2570 MATTRESS OR BOX SPRING MFG									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	25,939	0	5	0	6,632	0	42,287	48,919	0.256	1.630	1.886			
2008	69,673	0	20	0	55,452	0	38,328	93,781	0.796	0.550	1.346			
2009	29,551	0	2	0	1,630	0	1,340	2,970	0.055	0.045	0.100			
2010	106,152	3	13	435,917	14,021	215,712	27,611	693,261	4.239	2.292	6.531			
2011	110,957	3	17	388,386	186,832	191,564	120,799	887,581	5.184	2.815	7.999			
MA Total:	342,272	6	57	824,303	264,567	407,276	230,365	1,726,511	3.181	1.863	5.044			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.033	2.577	.
(14) Massachusetts Credibility:	0.230	0.410	.
(15) Countrywide Pure Premium:	2.142	1.180	3.322
(16) Countrywide Indicated Relativity:	2.380	1.920	.
(17) Countrywide Credibility:	0.390	0.300	.
(18) Countrywide Lost-Time Claims:	483.00	.	.
(19) Pure Premium Underlying Present Rate:	1.751	1.833	3.585
(20) Relativity to Underlying Present Rate:	2.003	2.221	.
(21) Credibility to Underlying Relativity:	0.380	0.290	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.387	2.276	.
(24) Balanced Formula Relativity:	2.379	2.275	2.337

IX 000102

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2576 CANVAS GOODS MFG NOC-SHOP											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	113,711	2	27	126,621	117,147	41,978	96,101	381,846	2,144	1,214	3,358
2008	78,456	0	12	0	5,339	0	8,357	13,696	0,068	0,107	0,175
2009	67,115	0	5	0	6,353	0	32,042	38,395	0,095	0,477	0,572
2010	81,711	1	10	18,889	21,514	686	21,717	62,806	0,494	0,274	0,769
2011	84,578	0	11	0	10,365	0	11,683	22,048	0,123	0,138	0,261
MA Total:	425,572	3	65	145,510	160,718	42,664	169,900	518,792	0,720	0,499	1,219

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.686	0.691	.
(14) Massachusetts Credibility:	0.230	0.360	.
(15) Countrywide Pure Premium:	0.920	0.488	1.408
(16) Countrywide Indicated Relativity:	1.023	0.794	.
(17) Countrywide Credibility:	0.150	0.160	.
(18) Countrywide Lost-Time Claims:	10.000	.	.
(19) Pure Premium Underlying Present Rate:	1.317	1.094	2.411
(20) Relativity to Underlying Present Rate:	1.506	1.325	.
(21) Credibility to Underlying Relativity:	0.620	0.480	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.245	1.012	.
(24) Balanced Formula Relativity:	1.241	1.011	1.147

Class(es):		Effective: 1/1/2014							Manufacturing		
2585 LAUNDRY NOC & ROUTE SUPERVISORS, DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	512,029	5	113	489,847	206,600	707,946	175,335	1,579,729	1,360	1,725	3,085
2008	511,996	3	127	34,965	857,836	69,139	857,684	1,819,623	1,744	1,810	3,554
2009	697,124	2	147	317,140	514,504	40,799	375,076	1,247,520	1,193	0,597	1,790
2010	533,032	4	120	303,224	744,165	199,257	401,649	1,648,296	1,965	1,127	3,092
2011	604,181	4	116	898,573	492,785	862,446	357,248	2,611,052	2,303	2,019	4,322
MA Total:	2,858,361	18	623	2,043,749	2,815,890	1,879,588	2,166,992	8,906,219	1,700	1,416	3,116

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.621	1.958	.
(14) Massachusetts Credibility:	0.450	0.740	.
(15) Countrywide Pure Premium:	1.524	1.084	2.608
(16) Countrywide Indicated Relativity:	1.694	1.764	.
(17) Countrywide Credibility:	0.280	0.130	.
(18) Countrywide Lost-Time Claims:	3535.0	.	.
(19) Pure Premium Underlying Present Rate:	1.100	0.995	2.095
(20) Relativity to Underlying Present Rate:	1.258	1.205	.
(21) Credibility to Underlying Relativity:	0.270	0.130	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.543	1.835	.
(24) Balanced Formula Relativity:	1.538	1.834	1.659

IX 000103

Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 34

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2586 CLEANING OR DYEING & ROUTE SUPERVISORS, DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	454,215	2	36	5,796	222,233	4,079	137,176	369,284	0.502	0.311	0.813
2008	496,187	2	38	226,690	102,413	45,005	129,541	503,649	0.663	0.352	1.015
2009	491,540	2	40	107,488	475,285	28,667	343,781	955,221	1.186	0.758	1.943
2010	489,462	0	26	0	177,575	0	88,679	266,254	0.363	0.181	0.544
2011	513,489	0	44	0	299,673	0	192,939	492,612	0.584	0.376	0.959
MA Total:	2,444,893	6	184	339,974	1,277,180	77,750	892,116	2,587,020	0.661	0.397	1.058

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.631	0.549	.
(14) Massachusetts Credibility:	0.350	0.550	.
(15) Countrywide Pure Premium:	1.093	0.758	1.850
(16) Countrywide Indicated Relativity:	1.214	1.233	.
(17) Countrywide Credibility:	0.330	0.230	.
(18) Countrywide Lost-Time Claims:	271.00	.	.
(19) Pure Premium Underlying Present Rate:	0.658	0.549	1.206
(20) Relativity to Underlying Present Rate:	0.752	0.665	.
(21) Credibility to Underlying Relativity:	0.320	0.220	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.862	0.732	.
(24) Balanced Formula Relativity:	0.859	0.731	0.807

Class(es):		Effective: 1/1/2014							Goods and Services		
2587 TOWEL OR TOILET SUPPLY CO & RTE SUPERVISORS, DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	25,142	0	1	0	63	0	652	715	0.002	0.026	0.028
2008	29,441	0	1	0	92	0	424	516	0.003	0.014	0.018
2009	31,612	0	4	0	65,834	0	46,293	112,127	2.083	1.464	3.547
2010	33,208	0	6	0	2,849	0	6,475	9,323	0.086	0.195	0.281
2011	33,600	1	3	25,883	482,491	12,409	432,299	953,081	15.130	13.235	28.365
MA Total:	153,004	1	15	25,883	551,327	12,409	486,143	1,075,762	3.773	3.258	7.031

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.154	5.062	.
(14) Massachusetts Credibility:	0.130	0.220	.
(15) Countrywide Pure Premium:	2.203	1.146	3.349
(16) Countrywide Indicated Relativity:	2.430	1.796	.
(17) Countrywide Credibility:	0.440	0.390	.
(18) Countrywide Lost-Time Claims:	175.00	.	.
(19) Pure Premium Underlying Present Rate:	0.948	0.920	1.867
(20) Relativity to Underlying Present Rate:	1.513	1.411	.
(21) Credibility to Underlying Relativity:	0.430	0.390	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.260	2.364	.
(24) Balanced Formula Relativity:	2.234	2.367	2.290

IX 000104

Calculation of Class Relativities

Class(es): 2623 TANNING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	6.472	0	2	0	9.211	0	12.560	21.771	1.423	1.941	3.364
2008	4.002	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	1.114	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	891	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	132	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	12,610	0	2	0	9,211	0	12,560	21,771	0.730	0.996	1.726

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.696	1.378	.
(14) Massachusetts Credibility:	0.060	0.090	.
(15) Countrywide Pure Premium:	2.869	1.630	4.500
(16) Countrywide Indicated Relativity:	3.189	2.653	.
(17) Countrywide Credibility:	0.310	0.320	.
(18) Countrywide Lost-Time Claims:	60.000	.	.
(19) Pure Premium Underlying Present Rate:	1.620	1.252	2.872
(20) Relativity to Underlying Present Rate:	1.852	1.517	.
(21) Credibility to Underlying Relativity:	0.630	0.590	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.197	1.868	.
(24) Balanced Formula Relativity:	2.190	1.867	2.058

Class(es): 2640 LEATHER EMBOSSEING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	58.687	0	5	0	879	0	5.277	6.156	0.015	0.090	0.105
2008	56.742	0	5	0	0	0	2.049	2.049	0.000	0.036	0.036
2009	52.655	0	5	0	3.085	0	11.763	14.848	0.059	0.223	0.282
2010	59.359	1	3	20.098	805	21.392	2.941	45.236	0.352	0.410	0.762
2011	59.515	1	7	185.538	14.507	67.256	39.528	306.828	3.361	1.794	5.156
MA Total:	286.958	2	25	205.636	19.275	88.648	61.558	375.118	0.784	0.523	1.307

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.747	0.724	.
(14) Massachusetts Credibility:	0.170	0.270	.
(15) Countrywide Pure Premium:	0.586	0.726	1.312
(16) Countrywide Indicated Relativity:	0.651	1.181	.
(17) Countrywide Credibility:	0.320	0.340	.
(18) Countrywide Lost-Time Claims:	67.000	.	.
(19) Pure Premium Underlying Present Rate:	1.005	0.825	1.830
(20) Relativity to Underlying Present Rate:	1.150	0.999	.
(21) Credibility to Underlying Relativity:	0.510	0.390	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.922	0.987	.
(24) Balanced Formula Relativity:	0.919	0.986	0.946

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Calculation of Class Relativities

Class(es): 2660 BOOT OR SHOE MFG NOC		Effective: 1/1/2014							Manufacturing		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	35.000	0	7	0	0	0	2.181	2.181	0.000	0.062	0.062
2008	34.856	0	11	0	37.589	0	23.170	60.759	1.078	0.665	1.743
2009	33.512	0	4	0	0	0	2.474	2.474	0.000	0.074	0.074
2010	38.376	0	7	0	90	0	9.294	9.384	0.002	0.242	0.245
2011	43.919	1	8	67.520	13.603	41.733	5.801	128.657	1.847	1.082	2.929
MA Total:	185.662	1	37	67.520	51.282	41.733	42.920	203.456	0.640	0.456	1.096

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.610	0.631	.
(14) Massachusetts Credibility:	0.130	0.240	.
(15) Countrywide Pure Premium:	0.963	0.727	1.690
(16) Countrywide Indicated Relativity:	1.070	1.183	.
(17) Countrywide Credibility:	0.440	0.380	.
(18) Countrywide Lost-Time Claims:	222.00	.	.
(19) Pure Premium Underlying Present Rate:	0.684	0.866	1.550
(20) Relativity to Underlying Present Rate:	0.782	1.049	.
(21) Credibility to Underlying Relativity:	0.430	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.886	1.000	.
(24) Balanced Formula Relativity:	0.883	0.999	0.931

Class(es): 2683 LUGGAGE MFG		Effective: 1/1/2014							Manufacturing		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	65.343	0	20	0	124.302	0	75.600	199.902	1.902	1.157	3.059
2008	30.111	0	3	0	134.915	0	24.622	159.536	4.481	0.818	5.298
2009	2.435	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	2.640	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	1.395	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	101.924	0	23	0	259.217	0	100.222	359.439	2.543	0.983	3.527

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.424	1.360	.
(14) Massachusetts Credibility:	0.110	0.180	.
(15) Countrywide Pure Premium:	0.438	0.440	0.877
(16) Countrywide Indicated Relativity:	0.486	0.715	.
(17) Countrywide Credibility:	0.230	0.240	.
(18) Countrywide Lost-Time Claims:	29.000	.	.
(19) Pure Premium Underlying Present Rate:	0.843	0.758	1.601
(20) Relativity to Underlying Present Rate:	0.965	0.918	.
(21) Credibility to Underlying Relativity:	0.660	0.580	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.015	0.949	.
(24) Balanced Formula Relativity:	1.012	0.948	0.986

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Calculation of Class Relativities

Class(es): 2688 LEATHER GOODS MFG NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	62,121	0	6	0	34,547	0	57,572	92,119	0.556	0.927	1.483
2008	100,240	4	14	436,232	106,396	173,965	77,825	794,417	5.413	2.512	7.925
2009	68,813	1	7	92	12,587	17,254	9,533	39,467	0.184	0.389	0.574
2010	68,532	0	19	0	23,600	0	16,086	39,686	0.344	0.235	0.579
2011	71,166	0	16	0	43,141	0	70,176	113,317	0.606	0.986	1.592
MA Total:	370,873	5	62	436,324	220,271	191,219	231,192	1,079,006	1.770	1.139	2.909

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.688	1.575	.
(14) Massachusetts Credibility:	0.200	0.310	.
(15) Countrywide Pure Premium:	1.111	0.819	1.930
(16) Countrywide Indicated Relativity:	1.235	1.333	.
(17) Countrywide Credibility:	0.400	0.350	.
(18) Countrywide Lost-Time Claims:	126.00	.	.
(19) Pure Premium Underlying Present Rate:	1.078	0.896	1.974
(20) Relativity to Underlying Present Rate:	1.233	1.086	.
(21) Credibility to Underlying Relativity:	0.400	0.340	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.325	1.324	.
(24) Balanced Formula Relativity:	1.320	1.323	1.322

Class(es): 2702 LOGGING OR LUMBERING & DRIVERS		Effective: 1/1/2014							Miscellaneous		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	29,858	1	3	117,962	3,374	11,942	144,240	277,518	4.064	5.231	9.295
2008	25,322	1	9	193,871	2,278	42,232	7,705	246,087	7.746	1.972	9.718
2009	24,460	0	6	0	4,843	0	20,302	25,145	0.198	0.830	1.028
2010	24,679	0	6	0	26,795	0	22,866	49,661	1.086	0.927	2.012
2011	28,727	0	7	0	74,161	0	61,592	135,753	2.582	2.144	4.726
MA Total:	133,046	2	31	311,833	111,452	54,175	256,705	734,164	3.181	2.337	5.518

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.141	1.383	.
(14) Massachusetts Credibility:	0.260	0.430	.
(15) Countrywide Pure Premium:	11.369	6.245	17.614
(16) Countrywide Indicated Relativity:	4.408	4.036	.
(17) Countrywide Credibility:	0.370	0.290	.
(18) Countrywide Lost-Time Claims:	2013.0	.	.
(19) Pure Premium Underlying Present Rate:	5.867	5.390	11.257
(20) Relativity to Underlying Present Rate:	3.335	3.080	.
(21) Credibility to Underlying Relativity:	0.370	0.280	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	3.161	2.627	.
(24) Balanced Formula Relativity:	3.123	2.610	2.930

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Calculation of Class Relativities

Class(es): 2710 SAWMILLS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	27,991	1	9	220,428	49,828	145,776	74,279	490,311	9,655	7,862	17,517
2008	25,608	0	11	0	15,351	0	66,081	81,433	0,599	2,580	3,180
2009	18,637	0	4	0	0	0	10,343	10,343	0,000	0,555	0,555
2010	23,215	0	7	0	14,494	0	16,947	31,441	0,624	0,730	1,354
2011	22,568	2	7	69,643	9,989	86,292	18,368	184,293	3,529	4,638	8,166
MA Total:	118,020	3	38	290,072	89,662	232,069	186,018	797,820	3,218	3,543	6,760

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.067	4.899	.
(14) Massachusetts Credibility:	0.180	0.290	.
(15) Countrywide Pure Premium:	3.321	2.600	5.921
(16) Countrywide Indicated Relativity:	3.691	4.230	.
(17) Countrywide Credibility:	0.410	0.360	.
(18) Countrywide Lost-Time Claims:	1882.0	.	.
(19) Pure Premium Underlying Present Rate:	2.519	2.274	4.793
(20) Relativity to Underlying Present Rate:	2.881	2.755	.
(21) Credibility to Underlying Relativity:	0.410	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.247	3.908	.
(24) Balanced Formula Relativity:	3.236	3.906	3.509

Class(es): 2731 PLANING OR MOLDING MILL		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	54,681	0	21	0	184,852	0	75,696	260,548	3,381	1,384	4,765
2008	46,727	0	17	0	135,905	0	64,736	200,641	2,909	1,385	4,294
2009	35,264	0	13	0	97,458	0	27,159	124,616	2,764	0,770	3,534
2010	35,259	0	11	0	67,530	0	59,259	126,789	1,915	1,681	3,596
2011	32,143	0	8	0	1,030	0	4,857	5,887	0,032	0,151	0,183
MA Total:	204,073	0	70	0	486,775	0	231,707	718,482	2,385	1,135	3,521

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.274	1.570	.
(14) Massachusetts Credibility:	0.190	0.320	.
(15) Countrywide Pure Premium:	1.535	1.173	2.708
(16) Countrywide Indicated Relativity:	1.706	1.909	.
(17) Countrywide Credibility:	0.410	0.340	.
(18) Countrywide Lost-Time Claims:	1216.0	.	.
(19) Pure Premium Underlying Present Rate:	1.809	1.687	3.497
(20) Relativity to Underlying Present Rate:	2.069	2.044	.
(21) Credibility to Underlying Relativity:	0.400	0.340	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.959	1.846	.
(24) Balanced Formula Relativity:	1.953	1.845	1.909

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Calculation of Class Relativities

Class(es): 2741 COOPERAGE STOCK MFG		Effective: 1/1/2014						Manufacturing			
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	0	0	0	0	0	0	0	0	.	.	.

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.368	0.783	1.151
(16) Countrywide Indicated Relativity:	0.409	1.275	.
(17) Countrywide Credibility:	0.120	0.130	.
(18) Countrywide Lost-Time Claims:	6.000	.	.
(19) Pure Premium Underlying Present Rate:	2.716	1.795	4.511
(20) Relativity to Underlying Present Rate:	3.106	2.175	.
(21) Credibility to Underlying Relativity:	0.880	0.870	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.782	2.058	.
(24) Balanced Formula Relativity:	2.774	2.057	2.481

Class(es): 2747 COOPERAGE ASSEMBLY		Effective: 1/1/2014						Manufacturing			
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	34	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	34	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.010	0.010	.
(15) Countrywide Pure Premium:	0.446	0.695	1.142
(16) Countrywide Indicated Relativity:	0.496	1.132	.
(17) Countrywide Credibility:	0.130	0.140	.
(18) Countrywide Lost-Time Claims:	7.000	.	.
(19) Pure Premium Underlying Present Rate:	3.095	2.680	5.775
(20) Relativity to Underlying Present Rate:	3.540	3.246	.
(21) Credibility to Underlying Relativity:	0.860	0.850	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.109	2.918	.
(24) Balanced Formula Relativity:	3.099	2.916	3.025

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Calculation of Class Relativities

Class(es): 2790 PATTERN MAKING NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	51,618	0	6	0	0	0	4,573	4,573	0.000	0.089	0.089
2008	40,181	0	6	0	128,227	0	54,303	182,531	3.191	1.351	4.543
2009	35,583	0	8	0	14,282	0	16,495	30,777	0.401	0.464	0.865
2010	37,133	0	4	0	0	0	2,251	2,251	0.000	0.061	0.061
2011	37,339	0	7	0	0	0	5,926	5,926	0.000	0.159	0.159
MA Total:	201,854	0	31	0	142,509	0	83,548	226,057	0.706	0.414	1.120

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.673	0.572	.
(14) Massachusetts Credibility:	0.140	0.250	.
(15) Countrywide Pure Premium:	0.577	0.462	1.039
(16) Countrywide Indicated Relativity:	0.642	0.751	.
(17) Countrywide Credibility:	0.430	0.380	.
(18) Countrywide Lost-Time Claims:	158.00	.	.
(19) Pure Premium Underlying Present Rate:	0.792	0.890	1.682
(20) Relativity to Underlying Present Rate:	0.906	1.078	.
(21) Credibility to Underlying Relativity:	0.430	0.370	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.760	0.827	.
(24) Balanced Formula Relativity:	0.757	0.827	0.786

Class(es): 2802 CARPENTRY-SHOP ONLY & DRIVERS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,215,445	10	308	780,293	1,647,051	481,468	1,149,380	4,058,193	1.997	1.342	3.339
2008	1,100,335	7	283	1,218,376	1,747,686	817,398	1,101,254	4,884,714	2.696	1.744	4.439
2009	949,193	4	240	231,537	1,365,446	227,333	1,126,850	2,951,166	1.682	1.427	3.109
2010	976,758	4	196	693,012	1,600,899	477,824	1,437,403	4,209,138	2.348	1.961	4.309
2011	1,011,054	7	195	380,522	1,650,170	176,697	1,259,239	3,466,629	2.008	1.420	3.429
MA Total:	5,252,785	32	1,222	3,303,740	8,011,254	2,180,720	6,074,126	19,569,840	2.154	1.572	3.726

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.053	2.173	.
(14) Massachusetts Credibility:	0.690	1.000	.
(15) Countrywide Pure Premium:	1.857	1.366	3.223
(16) Countrywide Indicated Relativity:	2.063	2.223	.
(17) Countrywide Credibility:	0.160	0.000	.
(18) Countrywide Lost-Time Claims:	4736.0	.	.
(19) Pure Premium Underlying Present Rate:	1.729	1.634	3.364
(20) Relativity to Underlying Present Rate:	1.978	1.980	.
(21) Credibility to Underlying Relativity:	0.150	0.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.044	2.173	.
(24) Balanced Formula Relativity:	2.037	2.172	2.092

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Calculation of Class Relativities

Class(es): 2835 BRUSH OR BROOM ASSEMBLY		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	16.707	0	4	0	0	0	1,255	1,255	0.000	0.075	0.075
2008	16.860	0	1	0	0	0	82	82	0.000	0.005	0.005
2009	15.683	0	1	0	583	0	797	1,380	0.037	0.051	0.088
2010	19.170	0	2	0	0	0	2,174	2,174	0.000	0.113	0.113
2011	16.315	0	1	0	0	0	415	415	0.000	0.025	0.025
MA Total:	84,735	0	9	0	583	0	4,723	5,306	0.007	0.056	0.063

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.007	0.077	.
(14) Massachusetts Credibility:	0.100	0.170	.
(15) Countrywide Pure Premium:	1.092	0.696	1.787
(16) Countrywide Indicated Relativity:	1.213	1.132	.
(17) Countrywide Credibility:	0.390	0.420	.
(18) Countrywide Lost-Time Claims:	111.00	.	.
(19) Pure Premium Underlying Present Rate:	0.796	0.869	1.665
(20) Relativity to Underlying Present Rate:	0.911	1.053	.
(21) Credibility to Underlying Relativity:	0.510	0.410	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.939	0.920	.
(24) Balanced Formula Relativity:	0.936	0.920	0.929

Class(es): 2836 BRUSH OR BROOM MFG NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	7.828	0	4	0	6,990	0	6,583	13,572	0.893	0.841	1.734
2008	6.613	0	1	0	0	0	270	270	0.000	0.041	0.041
2009	5.774	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	4.913	0	1	0	0	0	295	295	0.000	0.060	0.060
2011	4.826	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	29,954	0	6	0	6,990	0	7,148	14,137	0.233	0.239	0.472

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.222	0.330	.
(14) Massachusetts Credibility:	0.080	0.120	.
(15) Countrywide Pure Premium:	0.778	0.833	1.611
(16) Countrywide Indicated Relativity:	0.864	1.356	.
(17) Countrywide Credibility:	0.290	0.300	.
(18) Countrywide Lost-Time Claims:	50.000	.	.
(19) Pure Premium Underlying Present Rate:	1.486	0.909	2.394
(20) Relativity to Underlying Present Rate:	1.699	1.101	.
(21) Credibility to Underlying Relativity:	0.630	0.580	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.339	1.085	.
(24) Balanced Formula Relativity:	1.335	1.084	1.233

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
2841 WOODENWARE MFG NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	16,578	0	4	0	358	0	3,328	3,686	0.022	0.201	0.222
2008	16,559	0	4	0	7,258	0	8,871	16,129	0.438	0.536	0.974
2009	25,299	0	6	0	541,950	0	21,354	563,304	21.422	0.844	22.266
2010	31,856	0	2	0	0	0	468	468	0.000	0.015	0.015
2011	45,160	0	5	0	18,651	0	9,390	28,041	0.413	0.208	0.621
MA Total:	135,451	0	21	0	568,217	0	43,410	611,627	4.195	0.320	4.515

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.999	0.443	.
(14) Massachusetts Credibility:	0.150	0.260	.
(15) Countrywide Pure Premium:	1.731	1.218	2.950
(16) Countrywide Indicated Relativity:	1.924	1.982	.
(17) Countrywide Credibility:	0.430	0.370	.
(18) Countrywide Lost-Time Claims:	196.00	.	.
(19) Pure Premium Underlying Present Rate:	1.417	1.538	2.954
(20) Relativity to Underlying Present Rate:	1.620	1.863	.
(21) Credibility to Underlying Relativity:	0.420	0.370	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.108	1.538	.
(24) Balanced Formula Relativity:	2.101	1.537	1.871

Class(es):		Effective: 1/1/2014							Manufacturing		
2883 FURNITURE MFG-WOOD-NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	517,018	5	151	269,582	641,846	152,000	427,050	1,490,477	1.763	1.120	2.883
2008	430,105	2	117	217,943	472,235	195,424	459,597	1,345,199	1.605	1.523	3.128
2009	352,120	3	60	344,639	317,778	160,765	206,581	1,029,764	1.881	1.043	2.924
2010	390,627	3	77	325,312	237,984	112,071	166,045	841,413	1.442	0.712	2.154
2011	385,118	6	79	516,383	168,508	140,752	194,864	1,020,507	1.778	0.871	2.650
MA Total:	2,074,988	19	484	1,673,860	1,838,350	761,013	1,454,137	5,727,360	1.693	1.068	2.760

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.614	1.476	.
(14) Massachusetts Credibility:	0.430	0.740	.
(15) Countrywide Pure Premium:	1.572	1.056	2.627
(16) Countrywide Indicated Relativity:	1.747	1.718	.
(17) Countrywide Credibility:	0.290	0.130	.
(18) Countrywide Lost-Time Claims:	5147.0	.	.
(19) Pure Premium Underlying Present Rate:	1.365	1.367	2.732
(20) Relativity to Underlying Present Rate:	1.561	1.656	.
(21) Credibility to Underlying Relativity:	0.280	0.130	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.638	1.531	.
(24) Balanced Formula Relativity:	1.632	1.530	1.591

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Calculation of Class Relativities

Class(es): 2923 PIANO MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	75.826	0	12	0	810	0	8,701	9,511	0.011	0.115	0.125
2008	66.534	0	4	0	0	0	1,663	1,663	0.000	0.025	0.025
2009	54.844	0	4	0	0	0	4,566	4,566	0.000	0.083	0.083
2010	54.755	0	5	0	4,859	0	19,161	24,020	0.089	0.350	0.439
2011	59.563	0	6	0	8,835	0	35,707	44,541	0.148	0.599	0.748
MA Total:	311,521	0	31	0	14,504	0	69,797	84,301	0.047	0.224	0.271

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.044	0.310	.
(14) Massachusetts Credibility:	0.170	0.260	.
(15) Countrywide Pure Premium:	0.848	0.664	1.513
(16) Countrywide Indicated Relativity:	0.943	1.081	.
(17) Countrywide Credibility:	0.410	0.370	.
(18) Countrywide Lost-Time Claims:	127.00	.	.
(19) Pure Premium Underlying Present Rate:	0.822	0.659	1.482
(20) Relativity to Underlying Present Rate:	0.941	0.798	.
(21) Credibility to Underlying Relativity:	0.420	0.370	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.789	0.776	.
(24) Balanced Formula Relativity:	0.787	0.775	0.782

Class(es): 2942 PENCIL, PENHOLDER OR CRAYON MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	216.460	1	55	39,683	228,319	17,367	203,606	488,976	1,238	1,021	2,259
2008	238.193	3	50	67,835	163,558	154,064	218,399	603,856	0.971	1.564	2.535
2009	189.577	0	40	0	53,590	0	101,947	155,537	0.283	0.538	0.820
2010	162.113	0	22	0	94,881	0	155,664	250,546	0.585	0.960	1.546
2011	929.831	2	54	111,243	159,640	115,098	311,633	697,615	0.291	0.459	0.750
MA Total:	1,736,173	6	221	218,762	699,989	286,529	991,249	2,196,529	0.529	0.736	1.265

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.504	1.018	.
(14) Massachusetts Credibility:	0.330	0.640	.
(15) Countrywide Pure Premium:	1.041	0.738	1.779
(16) Countrywide Indicated Relativity:	1.157	1.200	.
(17) Countrywide Credibility:	0.340	0.180	.
(18) Countrywide Lost-Time Claims:	505.00	.	.
(19) Pure Premium Underlying Present Rate:	0.842	1.113	1.956
(20) Relativity to Underlying Present Rate:	0.963	1.349	.
(21) Credibility to Underlying Relativity:	0.330	0.180	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.878	1.110	.
(24) Balanced Formula Relativity:	0.875	1.110	0.971

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing			
3018 IRON OR STEEL: MFG: ROLLING MILL & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	167,563	0	26	0	374,453	0	205,549	580,002	2,235	1,227	3,461	
2008	114,691	0	13	0	33,158	0	32,731	65,889	0,289	0,285	0,574	
2009	103,340	0	13	0	723,688	0	99,163	822,851	7,003	0,960	7,963	
2010	103,017	1	16	168,324	230,040	130,313	53,167	581,844	3,867	1,781	5,648	
2011	98,762	1	5	55,175	45,530	182,202	10,919	293,826	1,020	1,955	2,975	
MA Total:	587,372	2	73	223,499	1,406,869	312,514	401,529	2,344,411	2,776	1,216	3,991	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.646	1.681	.
(14) Massachusetts Credibility:	0.240	0.400	.
(15) Countrywide Pure Premium:	1.615	0.866	2.481
(16) Countrywide Indicated Relativity:	1.795	1.409	.
(17) Countrywide Credibility:	0.380	0.300	.
(18) Countrywide Lost-Time Claims:	491.00	.	.
(19) Pure Premium Underlying Present Rate:	1.069	1.045	2.113
(20) Relativity to Underlying Present Rate:	1.222	1.266	.
(21) Credibility to Underlying Relativity:	0.380	0.300	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.782	1.475	.
(24) Balanced Formula Relativity:	1.776	1.474	1.653

Class(es):		Effective: 1/1/2014							Manufacturing			
3022 PIPE OR TUBE MFG NOC & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	9,141	0	4	0	25,041	0	53,878	78,919	2,740	5,894	8,634	
2008	8,575	0	5	0	0	0	6,535	6,535	0,000	0,762	0,762	
2009	7,199	0	2	0	1,441	0	1,862	3,303	0,200	0,259	0,459	
2010	6,533	0	4	0	12,515	0	8,747	21,262	1,915	1,339	3,254	
2011	6,875	0	3	0	0	0	4,243	4,243	0,000	0,617	0,617	
MA Total:	38,324	0	18	0	38,997	0	75,264	114,261	1,018	1,964	2,981	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.970	2.716	.
(14) Massachusetts Credibility:	0.090	0.150	.
(15) Countrywide Pure Premium:	1.588	1.075	2.663
(16) Countrywide Indicated Relativity:	1.764	1.749	.
(17) Countrywide Credibility:	0.460	0.430	.
(18) Countrywide Lost-Time Claims:	428.00	.	.
(19) Pure Premium Underlying Present Rate:	1.467	1.459	2.926
(20) Relativity to Underlying Present Rate:	1.678	1.768	.
(21) Credibility to Underlying Relativity:	0.450	0.420	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.654	1.902	.
(24) Balanced Formula Relativity:	1.649	1.901	1.752

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3027 ROLLING MILL NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	47,110	0	12	0	15,412	0	15,834	31,246	0.327	0.336	0.663
2008	10,893	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	8,936	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	9,147	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	12,416	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	88,503	0	12	0	15,412	0	15,834	31,246	0.174	0.179	0.353

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.166	0.247	.
(14) Massachusetts Credibility:	0.130	0.240	.
(15) Countrywide Pure Premium:	1.311	0.740	2.052
(16) Countrywide Indicated Relativity:	1.457	1.205	.
(17) Countrywide Credibility:	0.440	0.380	.
(18) Countrywide Lost-Time Claims:	425.00	.	.
(19) Pure Premium Underlying Present Rate:	1.694	1.858	3.553
(20) Relativity to Underlying Present Rate:	1.938	2.251	.
(21) Credibility to Underlying Relativity:	0.430	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.496	1.373	.
(24) Balanced Formula Relativity:	1.491	1.372	1.443

Class(es):		Effective: 1/1/2014							Manufacturing		
3028 PIPE OR TUBE MFG - IRON OR STEEL & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	7,430	0	4	0	3,269	0	13,005	16,275	0.440	1.750	2.191
2008	9,846	0	3	0	2,142	0	2,934	5,076	0.217	0.298	0.516
2009	60,630	0	16	0	0	0	15,107	15,107	0.000	0.249	0.249
2010	69,281	0	13	0	0	0	10,724	10,724	0.000	0.155	0.155
2011	73,718	0	20	0	348,187	0	106,692	454,879	4.723	1.447	6.170
MA Total:	220,906	0	56	0	353,598	0	148,462	502,060	1.601	0.672	2.273

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.526	0.929	.
(14) Massachusetts Credibility:	0.180	0.340	.
(15) Countrywide Pure Premium:	1.355	0.946	2.301
(16) Countrywide Indicated Relativity:	1.506	1.539	.
(17) Countrywide Credibility:	0.410	0.330	.
(18) Countrywide Lost-Time Claims:	776.00	.	.
(19) Pure Premium Underlying Present Rate:	1.445	1.788	3.233
(20) Relativity to Underlying Present Rate:	1.653	2.165	.
(21) Credibility to Underlying Relativity:	0.410	0.330	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.570	1.538	.
(24) Balanced Formula Relativity:	1.565	1.537	1.554

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Calculation of Class Relativities

Class(es):									Effective: 1/1/2014			Manufacturing		
3030 IRON OR STEEL: FABRICATION: IRON/STEEL WORK-SHOP-STRUCT & DR														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	(9)	Indemnity (10)	Medical (11)	Total (12)			
2007	135,298	1	61	72,718	716,839	33,518	662,745	1,485,819	5,836	5,146	10,982			
2008	138,575	1	57	261,144	222,427	39,301	279,962	802,833	3,490	2,304	5,793			
2009	82,872	0	24	0	175,709	0	138,683	314,392	2,120	1,673	3,794			
2010	82,199	1	26	19,925	116,270	12,303	115,821	264,319	1,657	1,559	3,216			
2011	118,717	1	43	6,400	357,164	56,425	472,800	892,788	3,062	4,458	7,520			
MA Total:	557,662	4	211	360,187	1,588,408	141,546	1,670,011	3,760,152	3,494	3,248	6,743			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.331	4.493	.
(14) Massachusetts Credibility:	0.350	0.620	.
(15) Countrywide Pure Premium:	2.599	1.736	4.335
(16) Countrywide Indicated Relativity:	2.888	2.825	.
(17) Countrywide Credibility:	0.330	0.190	.
(18) Countrywide Lost-Time Claims:	2631.0	.	.
(19) Pure Premium Underlying Present Rate:	2.950	3.244	6.195
(20) Relativity to Underlying Present Rate:	3.375	3.930	.
(21) Credibility to Underlying Relativity:	0.320	0.190	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.199	4.069	.
(24) Balanced Formula Relativity:	3.189	4.067	3.547

Class(es):									Effective: 1/1/2014			Manufacturing		
3040 IRON OR STEEL: FABRICATION: IRON WORKS-SHOP-ORNAMENTAL & DR														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	(9)	Indemnity (10)	Medical (11)	Total (12)			
2007	147,444	4	36	637,656	930,709	197,056	397,790	2,163,210	10,637	4,034	14,671			
2008	138,337	3	34	598,466	354,223	197,283	244,868	1,394,839	6,887	3,196	10,083			
2009	114,800	0	29	0	226,324	0	194,255	420,579	1,971	1,692	3,664			
2010	119,973	1	29	100,205	458,528	77,025	244,010	879,768	4,657	2,676	7,333			
2011	140,432	0	28	0	403,404	0	396,368	799,772	2,873	2,822	5,695			
MA Total:	660,987	8	156	1,336,327	2,373,188	471,364	1,477,290	5,658,168	5,612	2,948	8,560			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	5.350	4.077	.
(14) Massachusetts Credibility:	0.390	0.590	.
(15) Countrywide Pure Premium:	2.557	1.544	4.101
(16) Countrywide Indicated Relativity:	2.842	2.512	.
(17) Countrywide Credibility:	0.310	0.210	.
(18) Countrywide Lost-Time Claims:	1550.0	.	.
(19) Pure Premium Underlying Present Rate:	3.224	2.419	5.643
(20) Relativity to Underlying Present Rate:	3.688	2.931	.
(21) Credibility to Underlying Relativity:	0.300	0.200	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	4.074	3.519	.
(24) Balanced Formula Relativity:	4.061	3.517	3.839

IX 000116

Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 47

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing			
3041 IRON OR STEEL: FABRICATION: IRON WORKS-SHP-DEC/ART &FNDRS,DR												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	40,898	0	9	0	17,644	0	21,075	38,718	0.431	0.515	0.947	
2008	39,647	1	11	74,751	7,086	139,408	23,898	245,143	2.064	4.119	6.183	
2009	40,744	0	8	0	264	0	7,525	7,789	0.006	0.185	0.191	
2010	42,538	1	16	297,108	23,331	176,107	56,078	552,624	7.533	5.458	12.991	
2011	47,557	0	22	0	101,578	0	112,159	213,737	2.136	2.358	4.494	
MA Total:	211,384	2	66	371,859	149,904	315,515	220,735	1,058,012	2.468	2.537	5.005	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.353	3.509	.
(14) Massachusetts Credibility:	0.200	0.300	.
(15) Countrywide Pure Premium:	2.016	1.257	3.273
(16) Countrywide Indicated Relativity:	2.240	2.045	.
(17) Countrywide Credibility:	0.400	0.350	.
(18) Countrywide Lost-Time Claims:	257.00	.	.
(19) Pure Premium Underlying Present Rate:	2.052	1.364	3.415
(20) Relativity to Underlying Present Rate:	2.347	1.652	.
(21) Credibility to Underlying Relativity:	0.400	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.305	2.347	.
(24) Balanced Formula Relativity:	2.298	2.345	2.317

Class(es):		Effective: 1/1/2014							Manufacturing			
3042 ELEVATOR OR ESCALATOR MFG												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	6,951	0	4	0	3,258	0	9,381	12,638	0.469	1.350	1.818	
2008	8,638	0	7	0	151,232	0	34,326	185,558	17.509	3.974	21.483	
2009	8,393	0	0	0	0	0	0	0	0.000	0.000	0.000	
2010	8,978	0	6	0	336	0	9,714	10,050	0.037	1.082	1.119	
2011	7,230	0	1	0	0	0	577	577	0.000	0.080	0.080	
MA Total:	40,189	0	18	0	154,826	0	53,998	208,824	3.852	1.344	5.196	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.672	1.858	.
(14) Massachusetts Credibility:	0.140	0.180	.
(15) Countrywide Pure Premium:	2.035	1.209	3.244
(16) Countrywide Indicated Relativity:	2.262	1.968	.
(17) Countrywide Credibility:	0.430	0.410	.
(18) Countrywide Lost-Time Claims:	205.00	.	.
(19) Pure Premium Underlying Present Rate:	4.511	2.166	6.678
(20) Relativity to Underlying Present Rate:	5.160	2.624	.
(21) Credibility to Underlying Relativity:	0.430	0.410	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.705	2.217	.
(24) Balanced Formula Relativity:	3.694	2.216	3.091

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Calculation of Class Relativities

Class(es): 3064 SIGN MFG-METAL		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,068,785	3	258	64,697	1,221,735	26,519	649,038	1,961,988	1,204	0,632	1,836
2008	937,763	4	216	455,388	704,475	86,334	606,728	1,852,925	1,237	0,739	1,976
2009	822,410	5	150	928,720	190,532	616,519	329,238	2,065,009	1,361	1,150	2,511
2010	924,707	3	197	201,350	430,308	654,420	479,691	1,765,769	0,683	1,226	1,910
2011	920,908	2	173	279,176	861,159	261,220	641,581	2,043,136	1,238	0,980	2,219
MA Total:	4,674,573	17	994	1,929,331	3,408,208	1,645,012	2,706,277	9,688,828	1,142	0,931	2,073

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.088	1.287	.
(14) Massachusetts Credibility:	0.560	0.930	.
(15) Countrywide Pure Premium:	2.008	1.461	3.468
(16) Countrywide Indicated Relativity:	2.231	2.377	.
(17) Countrywide Credibility:	0.220	0.040	.
(18) Countrywide Lost-Time Claims:	631.00	.	.
(19) Pure Premium Underlying Present Rate:	1.176	1.059	2.236
(20) Relativity to Underlying Present Rate:	1.346	1.283	.
(21) Credibility to Underlying Relativity:	0.220	0.030	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.396	1.331	.
(24) Balanced Formula Relativity:	1.392	1.330	1.367

Class(es): 3076 FIREPROOF EQUIPMENT MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	412,419	6	112	405,360	168,729	714,756	227,144	1,515,988	1,392	2,284	3,676
2008	432,619	0	110	0	314,542	0	204,709	519,251	0,727	0,473	1,200
2009	310,519	5	92	399,370	41,312	303,360	100,866	844,908	1,419	1,302	2,721
2010	304,240	0	78	0	241,998	0	189,511	431,509	0,795	0,623	1,418
2011	278,490	0	38	0	100,657	0	146,298	246,956	0,361	0,525	0,887
MA Total:	1,738,287	11	430	804,730	867,240	1,018,115	868,527	3,558,612	0,962	1,085	2,047

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.917	1.501	.
(14) Massachusetts Credibility:	0.360	0.590	.
(15) Countrywide Pure Premium:	1.241	0.910	2.151
(16) Countrywide Indicated Relativity:	1.379	1.481	.
(17) Countrywide Credibility:	0.320	0.210	.
(18) Countrywide Lost-Time Claims:	6943.0	.	.
(19) Pure Premium Underlying Present Rate:	1.062	0.925	1.987
(20) Relativity to Underlying Present Rate:	1.215	1.121	.
(21) Credibility to Underlying Relativity:	0.320	0.200	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.160	1.421	.
(24) Balanced Formula Relativity:	1.156	1.420	1.264

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Calculation of Class Relativities

Class(es): 3081 FOUNDRY-FERROUS-NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	74.814	0	29	0	123.633	0	62.932	186.566	1.653	0.841	2.494
2008	96.864	4	49	238.297	120.330	149.106	114.894	622.627	3.702	2.725	6.428
2009	86.720	1	20	10.563	33.341	577	43.791	88.272	0.506	0.512	1.018
2010	30.630	1	11	49	116.622	642	18.462	135.776	3.809	0.624	4.433
2011	76.997	2	21	18.010	205.248	18.586	171.996	413.840	2.900	2.475	5.375
MA Total:	366.025	8	130	266.920	599.174	168.911	412.076	1,447.081	2.366	1.587	3.954

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.256	2.195	.
(14) Massachusetts Credibility:	0.300	0.520	.
(15) Countrywide Pure Premium:	2.064	1.367	3.431
(16) Countrywide Indicated Relativity:	2.294	2.224	.
(17) Countrywide Credibility:	0.350	0.240	.
(18) Countrywide Lost-Time Claims:	1467.0	.	.
(19) Pure Premium Underlying Present Rate:	2.986	3.159	6.144
(20) Relativity to Underlying Present Rate:	3.415	3.826	.
(21) Credibility to Underlying Relativity:	0.350	0.240	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.675	2.593	.
(24) Balanced Formula Relativity:	2.666	2.592	2.636

Class(es): 3085 FOUNDRY-NON FERROUS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	158.062	1	45	322.241	256.734	30.857	290.210	900.041	3.663	2.031	5.694
2008	126.578	1	23	38.395	51.517	48.489	40.570	178.971	0.710	0.704	1.414
2009	121.467	1	26	38.309	257.003	8.803	66.804	370.919	2.431	0.622	3.054
2010	145.748	0	38	0	143.935	0	151.853	295.788	0.988	1.042	2.029
2011	126.196	3	24	96.446	255.474	43.252	180.133	575.305	2.789	1.770	4.559
MA Total:	678.051	6	156	495.392	964.663	131.400	729.570	2,321.024	2.153	1.270	3.423

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.053	1.756	.
(14) Massachusetts Credibility:	0.310	0.530	.
(15) Countrywide Pure Premium:	1.702	1.083	2.785
(16) Countrywide Indicated Relativity:	1.891	1.763	.
(17) Countrywide Credibility:	0.350	0.240	.
(18) Countrywide Lost-Time Claims:	856.00	.	.
(19) Pure Premium Underlying Present Rate:	1.833	1.838	3.671
(20) Relativity to Underlying Present Rate:	2.097	2.226	.
(21) Credibility to Underlying Relativity:	0.340	0.230	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.011	1.866	.
(24) Balanced Formula Relativity:	2.005	1.865	1.948

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3110 FORGING WORK - DROP OR MACHINE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	18,489	1	17	31,604	160,843	15,044	71,465	278,956	10,409	4,679	15,088
2008	23,969	0	10	0	27,984	0	29,371	57,355	1,168	1,225	2,393
2009	11,848	0	12	0	47,443	0	46,335	93,778	4,004	3,911	7,915
2010	16,209	0	7	0	5,997	0	1,940	7,937	0,370	0,120	0,490
2011	16,409	0	12	0	160,142	0	98,414	258,556	9,759	5,998	15,757
MA Total:	86,924	1	58	31,604	402,409	15,044	247,525	696,582	4,993	3,021	8,014

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.760	4.178	.
(14) Massachusetts Credibility:	0.170	0.300	.
(15) Countrywide Pure Premium:	2.142	1.352	3.495
(16) Countrywide Indicated Relativity:	2.381	2.200	.
(17) Countrywide Credibility:	0.420	0.350	.
(18) Countrywide Lost-Time Claims:	422.00	.	.
(19) Pure Premium Underlying Present Rate:	2.991	3.265	6.256
(20) Relativity to Underlying Present Rate:	3.421	3.955	.
(21) Credibility to Underlying Relativity:	0.410	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.212	3.408	.
(24) Balanced Formula Relativity:	3.201	3.406	3.285

Class(es):		Effective: 1/1/2014							Manufacturing		
3111 BLACKSMITH											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	107,029	2	15	109,818	1,003	68,801	9,553	189,175	1,035	0,732	1,768
2008	85,991	0	9	0	6,812	0	19,508	26,319	0,079	0,227	0,306
2009	79,361	4	14	316,156	1,317	219,614	21,855	558,941	4,000	3,043	7,043
2010	80,394	1	11	16,483	14,293	16,259	15,938	62,973	0,383	0,400	0,783
2011	95,744	1	14	124,299	33,210	71,228	21,894	250,632	1,645	0,973	2,618
MA Total:	448,520	8	63	566,757	56,635	375,902	88,747	1,088,040	1,390	1,036	2,426

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.325	1.433	.
(14) Massachusetts Credibility:	0.210	0.370	.
(15) Countrywide Pure Premium:	0.895	0.699	1.594
(16) Countrywide Indicated Relativity:	0.995	1.137	.
(17) Countrywide Credibility:	0.400	0.320	.
(18) Countrywide Lost-Time Claims:	236.00	.	.
(19) Pure Premium Underlying Present Rate:	1.072	1.115	2.186
(20) Relativity to Underlying Present Rate:	1.226	1.350	.
(21) Credibility to Underlying Relativity:	0.390	0.310	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.154	1.313	.
(24) Balanced Formula Relativity:	1.151	1.312	1.216

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3113 TOOL MFG-NOT DROP OR MACHINE FORGED-NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,265,736	4	236	403,774	1,009,737	115,289	645,242	2,174,043	1,117	0,601	1,718
2008	1,233,439	7	191	368,110	956,096	231,486	527,284	2,082,975	1,074	0,615	1,689
2009	1,018,665	4	141	298,025	337,428	32,268	341,013	1,008,734	0,624	0,366	0,990
2010	1,128,096	3	169	36,090	1,205,645	50,414	711,325	2,003,474	1,101	0,675	1,776
2011	1,053,798	3	131	442,154	403,379	73,994	374,418	1,293,944	0,802	0,426	1,228
MA Total:	5,699,735	21	868	1,548,152	3,912,285	503,451	2,599,282	8,563,170	0,958	0,544	1,502

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.913	0.753	.
(14) Massachusetts Credibility:	0.530	0.900	.
(15) Countrywide Pure Premium:	0.863	0.577	1.441
(16) Countrywide Indicated Relativity:	0.959	0.940	.
(17) Countrywide Credibility:	0.240	0.050	.
(18) Countrywide Lost-Time Claims:	1984.0	.	.
(19) Pure Premium Underlying Present Rate:	0.837	0.799	1.636
(20) Relativity to Underlying Present Rate:	0.958	0.968	.
(21) Credibility to Underlying Relativity:	0.230	0.050	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.935	0.773	.
(24) Balanced Formula Relativity:	0.932	0.773	0.867

Class(es):		Effective: 1/1/2014							Manufacturing		
3114 TOOL MFG-DROP OR MACHINE FORGED-NOC: MACHINING OR FINISHING											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	62,462	1	7	41,690	57,176	9,105	29,711	137,681	1,583	0,621	2,204
2008	63,864	0	13	0	160,364	0	49,667	210,031	2,511	0,778	3,289
2009	41,570	0	0	0	0	0	0	0	0,000	0,000	0,000
2010	17,274	0	4	0	1,906	0	29,984	31,890	0,110	1,736	1,846
2011	17,254	0	1	0	0	0	379	379	0,000	0,022	0,022
MA Total:	202,424	1	25	41,690	219,446	9,105	109,741	379,981	1,290	0,587	1,877

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.230	0.812	.
(14) Massachusetts Credibility:	0.170	0.290	.
(15) Countrywide Pure Premium:	0.963	0.724	1.687
(16) Countrywide Indicated Relativity:	1.071	1.177	.
(17) Countrywide Credibility:	0.420	0.360	.
(18) Countrywide Lost-Time Claims:	280.00	.	.
(19) Pure Premium Underlying Present Rate:	1.387	1.312	2.700
(20) Relativity to Underlying Present Rate:	1.587	1.590	.
(21) Credibility to Underlying Relativity:	0.410	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.309	1.216	.
(24) Balanced Formula Relativity:	1.305	1.215	1.268

IX 000121

Calculation of Class Relativities

Class(es): 3119 NEEDLE MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	48,166	1	8	86,950	1,459	20,745	7,710	116,864	1,836	0,591	2,426
2008	62,801	0	13	0	2,910	0	9,069	11,979	0,046	0,144	0,191
2009	73,155	0	7	0	6,816	0	23,725	30,542	0,093	0,324	0,417
2010	69,196	0	8	0	7,206	0	8,402	15,608	0,104	0,121	0,226
2011	59,995	0	7	0	7,261	0	45,246	52,508	0,121	0,754	0,875
MA Total:	313,314	1	43	86,950	25,653	20,745	94,152	227,500	0,359	0,367	0,726

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.343	0.507	.
(14) Massachusetts Credibility:	0.130	0.220	.
(15) Countrywide Pure Premium:	0.156	0.256	0.412
(16) Countrywide Indicated Relativity:	0.173	0.416	.
(17) Countrywide Credibility:	0.190	0.200	.
(18) Countrywide Lost-Time Claims:	18,000	.	.
(19) Pure Premium Underlying Present Rate:	0.412	0.417	0.830
(20) Relativity to Underlying Present Rate:	0.472	0.505	.
(21) Credibility to Underlying Relativity:	0.680	0.580	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.398	0.488	.
(24) Balanced Formula Relativity:	0.397	0.488	0.434

Class(es): 3120 RAZOR MFG-SAFETY		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	150	0	0	0	0	0	0	0	0,000	0,000	0,000
2008	2,192	0	0	0	0	0	0	0	0,000	0,000	0,000
2009	9,536	0	0	0	0	0	0	0	0,000	0,000	0,000
2010	29,223	0	0	0	0	0	0	0	0,000	0,000	0,000
2011	10,289	0	0	0	0	0	0	0	0,000	0,000	0,000
MA Total:	51,390	0	0	0	0	0	0	0	0,000	0,000	0,000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.080	0.120	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	1.004	0.665	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.894	0.558	1.452
(20) Relativity to Underlying Present Rate:	1.022	0.676	.
(21) Credibility to Underlying Relativity:	0.920	0.880	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.941	0.595	.
(24) Balanced Formula Relativity:	0.938	0.595	0.798

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Calculation of Class Relativities

Class(es): 3122 CUTLERY MFG-NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	75.412	0	8	0	5.942	0	18.250	24.192	0.079	0.242	0.321
2008	69.635	0	6	0	0	0	3.731	3.731	0.000	0.054	0.054
2009	62.904	0	3	0	140	0	2.029	2.169	0.002	0.032	0.034
2010	69.036	1	15	10.305	17.747	7.349	35.037	70.438	0.406	0.614	1.020
2011	104.035	0	28	0	31.845	0	46.009	77.854	0.306	0.442	0.748
MA Total:	381.021	1	60	10.305	55.674	7.349	105.056	178.384	0.173	0.295	0.468

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.165	0.408	.
(14) Massachusetts Credibility:	0.200	0.320	.
(15) Countrywide Pure Premium:	0.446	0.454	0.900
(16) Countrywide Indicated Relativity:	0.496	0.739	.
(17) Countrywide Credibility:	0.280	0.290	.
(18) Countrywide Lost-Time Claims:	47.000	.	.
(19) Pure Premium Underlying Present Rate:	1.025	0.936	1.961
(20) Relativity to Underlying Present Rate:	1.172	1.134	.
(21) Credibility to Underlying Relativity:	0.520	0.390	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.781	0.787	.
(24) Balanced Formula Relativity:	0.779	0.787	0.782

Class(es): 3127 PRECISION MEASURING TOOL MFG-NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	205.872	1	38	3.202	14.403	4.884	39.281	61.769	0.086	0.215	0.300
2008	162.931	2	40	95.502	16.798	17.779	46.666	176.745	0.689	0.396	1.085
2009	131.302	0	12	0	2.321	0	11.890	14.211	0.018	0.091	0.108
2010	169.490	0	38	0	108.762	0	147.056	255.818	0.642	0.868	1.509
2011	182.630	0	33	0	72.542	0	104.835	177.378	0.397	0.574	0.971
MA Total:	852.225	3	161	98.704	214.826	22.663	349.728	685.920	0.368	0.437	0.805

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.351	0.604	.
(14) Massachusetts Credibility:	0.170	0.300	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.371	0.428	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.330	0.359	0.690
(20) Relativity to Underlying Present Rate:	0.378	0.435	.
(21) Credibility to Underlying Relativity:	0.830	0.700	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.373	0.486	.
(24) Balanced Formula Relativity:	0.372	0.486	0.418

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3131 BUTTON OR FASTENER MFG-METAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	8,918	0	3	0	4,340	0	14,181	18,521	0.487	1,590	2,077
2008	6,522	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	7,341	0	1	0	606	0	3,443	4,049	0.083	0.469	0.552
2010	8,374	0	2	0	231	0	5,203	5,434	0.028	0.621	0.649
2011	8,386	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	39,540	0	6	0	5,177	0	22,826	28,004	0.131	0.577	0.708

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.125	0.798	.
(14) Massachusetts Credibility:	0.080	0.120	.
(15) Countrywide Pure Premium:	0.568	0.477	1.045
(16) Countrywide Indicated Relativity:	0.631	0.776	.
(17) Countrywide Credibility:	0.440	0.440	.
(18) Countrywide Lost-Time Claims:	149.00	.	.
(19) Pure Premium Underlying Present Rate:	0.903	0.691	1.594
(20) Relativity to Underlying Present Rate:	1.033	0.837	.
(21) Credibility to Underlying Relativity:	0.480	0.440	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.784	0.805	.
(24) Balanced Formula Relativity:	0.781	0.805	0.791

Class(es):		Effective: 1/1/2014							Manufacturing		
3132 NUT OR BOLT MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,786	0	1	0	0	0	316	316	0.000	0.114	0.114
2008	2,811	0	3	0	76,620	0	16,356	92,977	27,256	5,819	33,075
2009	2,397	1	1	60,991	0	19,241	508	80,740	25,446	8,240	33,686
2010	4,127	0	1	0	12,269	0	11,680	23,949	2,973	2,830	5,803
2011	4,597	0	4	0	62,163	0	43,108	105,270	13,521	9,376	22,898
MA Total:	16,718	1	10	60,991	151,052	19,241	71,968	303,253	12,683	5,456	18,139

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	12.091	7.545	.
(14) Massachusetts Credibility:	0.050	0.100	.
(15) Countrywide Pure Premium:	1.140	0.904	2.044
(16) Countrywide Indicated Relativity:	1.267	1.471	.
(17) Countrywide Credibility:	0.480	0.450	.
(18) Countrywide Lost-Time Claims:	229.00	.	.
(19) Pure Premium Underlying Present Rate:	0.941	1.016	1.957
(20) Relativity to Underlying Present Rate:	1.076	1.231	.
(21) Credibility to Underlying Relativity:	0.470	0.450	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.719	1.970	.
(24) Balanced Formula Relativity:	1.713	1.969	1.818

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Calculation of Class Relativities

Class(es): 3145 SCREW MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	210.311	0	51	0	294.349	0	341.716	636.065	1.400	1.625	3.024
2008	193.166	0	31	0	153.138	0	97.889	251.027	0.793	0.507	1.300
2009	172.494	1	26	101.325	31.059	24.739	69.486	226.610	0.767	0.546	1.314
2010	178.117	0	30	0	37.525	0	83.696	121.222	0.211	0.470	0.681
2011	217.920	0	21	0	57.892	0	40.101	97.994	0.266	0.184	0.450
MA Total:	972.008	1	159	101.325	573.963	24.739	632.888	1,332.916	0.695	0.677	1.371

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.662	0.936	.
(14) Massachusetts Credibility:	0.250	0.440	.
(15) Countrywide Pure Premium:	0.912	0.566	1.477
(16) Countrywide Indicated Relativity:	1.013	0.920	.
(17) Countrywide Credibility:	0.380	0.280	.
(18) Countrywide Lost-Time Claims:	512.00	.	.
(19) Pure Premium Underlying Present Rate:	0.753	0.779	1.532
(20) Relativity to Underlying Present Rate:	0.862	0.943	.
(21) Credibility to Underlying Relativity:	0.370	0.280	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.869	0.933	.
(24) Balanced Formula Relativity:	0.867	0.933	0.894

Class(es): 3146 HARDWARE MFG-NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	113.562	0	24	0	25.428	0	43.078	68.506	0.224	0.379	0.603
2008	90.741	0	21	0	152.981	0	104.186	257.167	1.686	1.148	2.834
2009	84.127	0	13	0	364	0	20.361	20.725	0.004	0.242	0.246
2010	78.998	0	17	0	14.977	0	33.481	48.458	0.190	0.424	0.613
2011	77.881	0	8	0	66	0	8.952	9.017	0.001	0.115	0.116
MA Total:	445.310	0	83	0	193.816	0	210.058	403.873	0.435	0.472	0.907

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.415	0.652	.
(14) Massachusetts Credibility:	0.200	0.300	.
(15) Countrywide Pure Premium:	0.956	0.684	1.640
(16) Countrywide Indicated Relativity:	1.062	1.113	.
(17) Countrywide Credibility:	0.400	0.350	.
(18) Countrywide Lost-Time Claims:	1161.0	.	.
(19) Pure Premium Underlying Present Rate:	0.901	0.672	1.572
(20) Relativity to Underlying Present Rate:	1.030	0.813	.
(21) Credibility to Underlying Relativity:	0.400	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.920	0.870	.
(24) Balanced Formula Relativity:	0.917	0.869	0.898

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Calculation of Class Relativities

Class(es): 3169 STOVE MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	373,537	3	99	173,303	473,543	154,081	366,103	1,167,029	1,732	1,393	3,124
2008	404,071	1	96	631	600,505	13,847	354,987	969,970	1,488	0,913	2,400
2009	359,446	1	81	119,579	277,225	89,177	240,846	726,828	1,104	0,918	2,022
2010	389,987	2	79	357,985	439,579	165,230	224,205	1,187,000	2,045	0,999	3,044
2011	377,091	2	85	143,756	147,186	66,164	203,174	560,281	0,772	0,714	1,486
MA Total:	1,904,131	9	440	795,254	1,938,039	488,499	1,389,315	4,611,107	1,435	0,986	2,422

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.368	1.364	.
(14) Massachusetts Credibility:	0.430	0.790	.
(15) Countrywide Pure Premium:	1.282	0.927	2.209
(16) Countrywide Indicated Relativity:	1.425	1.508	.
(17) Countrywide Credibility:	0.290	0.110	.
(18) Countrywide Lost-Time Claims:	5371.0	.	.
(19) Pure Premium Underlying Present Rate:	1.491	1.741	3.232
(20) Relativity to Underlying Present Rate:	1.705	2.109	.
(21) Credibility to Underlying Relativity:	0.280	0.100	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.479	1.454	.
(24) Balanced Formula Relativity:	1.474	1.454	1.466

Class(es): 3179 ELECTRICAL APPARATUS MFG-NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,031,176	7	216	1,206,536	701,412	624,463	459,545	2,991,957	0,939	0,534	1,473
2008	1,727,338	2	159	65,911	511,906	102,349	533,607	1,213,773	0,335	0,368	0,703
2009	1,857,755	3	144	72,569	700,408	32,111	454,313	1,259,400	0,416	0,262	0,678
2010	2,428,156	5	171	120,914	567,127	87,291	657,276	1,432,608	0,283	0,307	0,590
2011	2,179,288	1	141	229,443	743,067	139,564	429,901	1,541,975	0,446	0,261	0,708
MA Total:	10,223,713	18	831	1,695,372	3,223,919	985,779	2,534,643	8,439,713	0,481	0,344	0,826

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.459	0.476	.
(14) Massachusetts Credibility:	0.630	0.970	.
(15) Countrywide Pure Premium:	0.932	0.582	1.514
(16) Countrywide Indicated Relativity:	1.036	0.946	.
(17) Countrywide Credibility:	0.190	0.020	.
(18) Countrywide Lost-Time Claims:	6567.0	.	.
(19) Pure Premium Underlying Present Rate:	0.718	0.544	1.262
(20) Relativity to Underlying Present Rate:	0.821	0.659	.
(21) Credibility to Underlying Relativity:	0.180	0.010	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.634	0.487	.
(24) Balanced Formula Relativity:	0.632	0.487	0.573

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3180 ELECTRIC OR GAS LIGHTING FIXTURES MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	358.944	0	68	0	569.813	0	267.594	837.406	1.587	0.746	2.333
2008	157.279	1	31	179.362	165.633	63.337	141.534	549.868	2.194	1.303	3.496
2009	128.202	0	27	0	36.244	0	37.409	73.653	0.283	0.292	0.575
2010	297.505	1	46	18.149	571.678	42.423	304.336	936.586	1.983	1.166	3.148
2011	308.467	1	51	55.704	381.722	33.972	471.171	942.568	1.418	1.638	3.056
MA Total:	1,250,396	3	223	253,216	1,725,090	139,732	1,222,044	3,340,082	1.582	1.089	2.671

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.508	1.506	.
(14) Massachusetts Credibility:	0.330	0.540	.
(15) Countrywide Pure Premium:	0.925	0.709	1.634
(16) Countrywide Indicated Relativity:	1.028	1.153	.
(17) Countrywide Credibility:	0.340	0.230	.
(18) Countrywide Lost-Time Claims:	369.00	.	.
(19) Pure Premium Underlying Present Rate:	1.128	1.030	2.157
(20) Relativity to Underlying Present Rate:	1.290	1.247	.
(21) Credibility to Underlying Relativity:	0.330	0.230	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.273	1.366	.
(24) Balanced Formula Relativity:	1.269	1.365	1.308

Class(es):		Effective: 1/1/2014							Manufacturing		
3188 PLUMBERS SUPPLIES MFG-NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	16.132	0	3	0	0	0	1.501	1.501	0.000	0.093	0.093
2008	14.764	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	18.914	0	5	0	10.592	0	12.470	23.062	0.560	0.659	1.219
2010	32.255	0	3	0	0	0	5.916	5.916	0.000	0.183	0.183
2011	29.712	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	111,776	0	11	0	10,592	0	19,887	30,479	0.095	0.178	0.273

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.090	0.246	.
(14) Massachusetts Credibility:	0.140	0.230	.
(15) Countrywide Pure Premium:	0.797	0.532	1.329
(16) Countrywide Indicated Relativity:	0.885	0.865	.
(17) Countrywide Credibility:	0.430	0.390	.
(18) Countrywide Lost-Time Claims:	340.00	.	.
(19) Pure Premium Underlying Present Rate:	1.576	1.373	2.949
(20) Relativity to Underlying Present Rate:	1.803	1.663	.
(21) Credibility to Underlying Relativity:	0.430	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.169	1.026	.
(24) Balanced Formula Relativity:	1.165	1.026	1.108

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Calculation of Class Relativities

Class(es): 3200 ARMS MFG-SMALL		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	131.311	3	39	35.116	997	50.263	28.946	115.323	0.275	0.603	0.878
2008	107.681	1	41	11.436	88.125	407	121.811	221.778	0.925	1.135	2.060
2009	92.817	2	24	161.695	18.817	60.235	37.437	278.184	1.945	1.052	2.997
2010	118.221	0	21	0	153.704	0	73.753	227.457	1.300	0.624	1.924
2011	174.009	0	39	0	108.679	0	107.793	216.472	0.625	0.619	1.244
MA Total:	624.038	6	164	208.247	370.322	110.905	369.740	1,059.214	0.927	0.770	1.697

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.884	1.065	.
(14) Massachusetts Credibility:	0.250	0.440	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	1.253	1.502	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	1.115	1.262	2.377
(20) Relativity to Underlying Present Rate:	1.275	1.529	.
(21) Credibility to Underlying Relativity:	0.750	0.560	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.177	1.325	.
(24) Balanced Formula Relativity:	1.174	1.324	1.235

Class(es): 3220 CAN MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	80	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	63.105	4	9	483.419	61.990	189.882	21.696	756.986	8.643	3.353	11.996
MA Total:	63.185	4	9	483.419	61.990	189.882	21.696	756.986	8.632	3.349	11.981

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	8.229	4.631	.
(14) Massachusetts Credibility:	0.090	0.140	.
(15) Countrywide Pure Premium:	0.989	0.568	1.557
(16) Countrywide Indicated Relativity:	1.099	0.925	.
(17) Countrywide Credibility:	0.460	0.430	.
(18) Countrywide Lost-Time Claims:	383.00	.	.
(19) Pure Premium Underlying Present Rate:	0.766	0.688	1.454
(20) Relativity to Underlying Present Rate:	0.876	0.834	.
(21) Credibility to Underlying Relativity:	0.450	0.430	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.640	1.405	.
(24) Balanced Formula Relativity:	1.635	1.404	1.541

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Calculation of Class Relativities

Class(es): 3255 WIRE CLOTH MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	31.692	0	20	0	20.502	0	25.540	46.042	0.647	0.806	1.453
2008	24.679	0	5	0	158.664	0	37.511	196.175	6.429	1.520	7.949
2009	2.614	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	1.812	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	1.158	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	61,955	0	25	0	179,166	0	63,051	242,217	2.892	1.018	3.910

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.757	1.407	.
(14) Massachusetts Credibility:	0.100	0.180	.
(15) Countrywide Pure Premium:	0.764	0.465	1.228
(16) Countrywide Indicated Relativity:	0.849	0.756	.
(17) Countrywide Credibility:	0.240	0.250	.
(18) Countrywide Lost-Time Claims:	31.000	.	.
(19) Pure Premium Underlying Present Rate:	1.275	1.314	2.589
(20) Relativity to Underlying Present Rate:	1.458	1.592	.
(21) Credibility to Underlying Relativity:	0.660	0.570	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.442	1.350	.
(24) Balanced Formula Relativity:	1.437	1.349	1.401

Class(es): 3257 WIRE GOODS MFG - NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	148.064	1	32	54.588	197.279	40.126	68.075	360.067	1.701	0.731	2.432
2008	133.749	2	22	7.561	9.721	30.102	52.960	100.343	0.129	0.621	0.750
2009	178.347	1	24	4.703	508.903	20.800	90.133	624.539	2.880	0.622	3.502
2010	193.311	1	32	107.762	401.739	15.499	142.487	667.487	2.636	0.817	3.453
2011	162.758	0	25	0	146.050	0	35.671	181.721	0.897	0.219	1.117
MA Total:	816,230	5	135	174,614	1,263,692	106,527	389,325	1,934,157	1.762	0.607	2.370

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.680	0.840	.
(14) Massachusetts Credibility:	0.280	0.500	.
(15) Countrywide Pure Premium:	1.147	0.924	2.072
(16) Countrywide Indicated Relativity:	1.275	1.504	.
(17) Countrywide Credibility:	0.360	0.250	.
(18) Countrywide Lost-Time Claims:	1067.0	.	.
(19) Pure Premium Underlying Present Rate:	1.174	1.292	2.465
(20) Relativity to Underlying Present Rate:	1.342	1.565	.
(21) Credibility to Underlying Relativity:	0.360	0.250	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.413	1.187	.
(24) Balanced Formula Relativity:	1.408	1.187	1.318

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Calculation of Class Relativities

Class(es): 3270 EYELET MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	14,547	0	9	0	8,045	0	11,690	19,735	0.553	0.804	1.357
2008	12,521	1	3	24,242	52,143	4,935	114,797	196,117	6.100	9.562	15.663
2009	10,527	0	2	0	0	0	249	249	0.000	0.024	0.024
2010	11,165	0	1	0	0	0	838	838	0.000	0.075	0.075
2011	11,923	0	1	0	0	0	665	665	0.000	0.056	0.056
MA Total:	60,684	1	16	24,242	60,188	4,935	128,239	217,604	1.391	2.195	3.586

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.326	3.035	.
(14) Massachusetts Credibility:	0.090	0.130	.
(15) Countrywide Pure Premium:	1.304	0.783	2.087
(16) Countrywide Indicated Relativity:	1.449	1.274	.
(17) Countrywide Credibility:	0.460	0.440	.
(18) Countrywide Lost-Time Claims:	171.00	.	.
(19) Pure Premium Underlying Present Rate:	0.827	0.625	1.452
(20) Relativity to Underlying Present Rate:	0.946	0.757	.
(21) Credibility to Underlying Relativity:	0.450	0.430	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.212	1.281	.
(24) Balanced Formula Relativity:	1.208	1.280	1.237

Class(es): 3300 BED SPRING OR WIRE MATTRESS MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	6,792	0	1	0	0	0	2,632	2,632	0.000	0.388	0.388
MA Total:	6,792	0	1	0	0	0	2,632	2,632	0.000	0.388	0.388

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.536	.
(14) Massachusetts Credibility:	0.060	0.090	.
(15) Countrywide Pure Premium:	1.651	1.276	2.928
(16) Countrywide Indicated Relativity:	1.835	2.077	.
(17) Countrywide Credibility:	0.470	0.460	.
(18) Countrywide Lost-Time Claims:	276.00	.	.
(19) Pure Premium Underlying Present Rate:	2.975	2.330	5.306
(20) Relativity to Underlying Present Rate:	3.403	2.823	.
(21) Credibility to Underlying Relativity:	0.470	0.450	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.462	2.274	.
(24) Balanced Formula Relativity:	2.454	2.272	2.380

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3315 BRASS OR COPPER GOODS MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	202,484	2	59	518,489	113,198	158,165	114,482	904,333	3,120	1,347	4,466
2008	194,736	0	52	0	73,771	0	117,171	190,942	0,379	0,602	0,981
2009	181,246	0	41	0	85,805	0	108,461	194,266	0,473	0,598	1,072
2010	193,357	1	38	242,046	80,691	429,816	103,539	856,093	1,669	2,758	4,428
2011	210,916	0	43	0	175,355	0	150,425	325,780	0,831	0,713	1,545
MA Total:	982,740	3	233	760,535	528,820	587,981	594,078	2,471,413	1,312	1,203	2,515

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.251	1.664	.
(14) Massachusetts Credibility:	0.300	0.480	.
(15) Countrywide Pure Premium:	1.952	1.000	2.952
(16) Countrywide Indicated Relativity:	2.169	1.627	.
(17) Countrywide Credibility:	0.350	0.260	.
(18) Countrywide Lost-Time Claims:	278.00	.	.
(19) Pure Premium Underlying Present Rate:	1.197	0.987	2.184
(20) Relativity to Underlying Present Rate:	1.370	1.195	.
(21) Credibility to Underlying Relativity:	0.350	0.260	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.614	1.532	.
(24) Balanced Formula Relativity:	1.609	1.532	1.577

Class(es):		Effective: 1/1/2014							Manufacturing		
3336 TYPE FOUNDRY											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,509	0	2	0	159	0	1,942	2,101	0,029	0,353	0,381
2008	5,105	0	2	0	0	0	755	755	0,000	0,148	0,148
2009	5,555	0	1	0	165,359	0	19,551	184,910	29,770	3,520	33,290
2010	5,350	0	2	0	4,178	0	6,124	10,302	0,781	1,145	1,926
2011	5,154	0	3	0	21,005	0	11,943	32,949	4,075	2,317	6,392
MA Total:	26,672	0	10	0	190,702	0	40,315	231,017	7,150	1,511	8,661

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	6.816	2.090	.
(14) Massachusetts Credibility:	0.070	0.130	.
(15) Countrywide Pure Premium:	1.438	0.873	2.311
(16) Countrywide Indicated Relativity:	1.598	1.420	.
(17) Countrywide Credibility:	0.470	0.440	.
(18) Countrywide Lost-Time Claims:	273.00	.	.
(19) Pure Premium Underlying Present Rate:	1.155	1.257	2.412
(20) Relativity to Underlying Present Rate:	1.321	1.523	.
(21) Credibility to Underlying Relativity:	0.460	0.430	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.836	1.551	.
(24) Balanced Formula Relativity:	1.830	1.551	1.716

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
3365 WELDING OR CUTTING - NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	116.547	3	58	323.276	165.414	144.406	176.551	809.647	4.193	2.754	6.947
2008	107.500	1	34	37.526	257.007	26.221	151.345	472.099	2.740	1.652	4.392
2009	89.854	2	31	471.905	239.647	129.128	102.451	943.131	7.919	2.577	10.496
2010	96.034	1	27	4.686	36.490	4.896	46.501	92.572	0.429	0.535	0.964
2011	108.044	1	25	13.133	15.889	10.716	82.851	122.589	0.269	0.866	1.135
MA Total:	517.980	8	175	850.527	714.446	315.366	559.698	2,440.037	3.021	1.689	4.711

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.010	1.036	.
(14) Massachusetts Credibility:	0.370	0.600	.
(15) Countrywide Pure Premium:	3.642	1.885	5.527
(16) Countrywide Indicated Relativity:	1.258	1.194	.
(17) Countrywide Credibility:	0.320	0.200	.
(18) Countrywide Lost-Time Claims:	1137.0	.	.
(19) Pure Premium Underlying Present Rate:	3.674	3.213	6.887
(20) Relativity to Underlying Present Rate:	1.731	1.773	.
(21) Credibility to Underlying Relativity:	0.310	0.200	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.313	1.215	.
(24) Balanced Formula Relativity:	1.340	1.223	1.299

Class(es):		Effective: 1/1/2014							Manufacturing		
3372 ELECTROPLATING											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	534.074	1	88	134.787	528.166	16.007	203.525	882.485	1.241	0.411	1.652
2008	526.428	3	64	317.819	166.457	107.533	206.582	798.391	0.920	0.597	1.517
2009	483.202	2	71	100.207	151.094	30.075	206.134	487.510	0.520	0.489	1.009
2010	504.786	1	77	106.659	284.837	35.080	295.339	721.914	0.776	0.655	1.430
2011	524.523	2	70	59.191	848.351	40.367	1,099.164	2,047.072	1.730	2.173	3.903
MA Total:	2,573.013	9	370	718.664	1,978.904	229.061	2,010.743	4,937.372	1.048	0.870	1.919

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.999	1.204	.
(14) Massachusetts Credibility:	0.400	0.690	.
(15) Countrywide Pure Premium:	1.308	1.000	2.307
(16) Countrywide Indicated Relativity:	1.453	1.626	.
(17) Countrywide Credibility:	0.300	0.160	.
(18) Countrywide Lost-Time Claims:	955.00	.	.
(19) Pure Premium Underlying Present Rate:	0.919	0.907	1.826
(20) Relativity to Underlying Present Rate:	1.052	1.098	.
(21) Credibility to Underlying Relativity:	0.300	0.150	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.151	1.256	.
(24) Balanced Formula Relativity:	1.148	1.255	1.191

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3373 GALVANIZING OR TINNING - NOT ELECTROLYTIC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	9,698	1	1	19,462	0	14,047	742	34,250	2,007	1,525	3,532
2008	13,271	1	5	32,610	0	34,890	2,783	70,283	2,457	2,839	5,296
2009	12,775	0	1	0	55,571	0	3,680	59,251	4,350	0,288	4,638
2010	11,200	0	1	0	0	0	876	876	0,000	0,078	0,078
2011	12,269	0	2	0	4,774	0	4,452	9,226	0,389	0,363	0,752
MA Total:	59,213	2	10	52,072	60,344	48,937	12,533	173,886	1,898	1,038	2,937

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.810	1.436	.
(14) Massachusetts Credibility:	0.110	0.170	.
(15) Countrywide Pure Premium:	2.439	1.730	4.168
(16) Countrywide Indicated Relativity:	2.710	2.814	.
(17) Countrywide Credibility:	0.420	0.420	.
(18) Countrywide Lost-Time Claims:	134.00	.	.
(19) Pure Premium Underlying Present Rate:	1.575	1.166	2.741
(20) Relativity to Underlying Present Rate:	1.801	1.412	.
(21) Credibility to Underlying Relativity:	0.470	0.410	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.184	2.005	.
(24) Balanced Formula Relativity:	2.177	2.004	2.106

Class(es):		Effective: 1/1/2014							Manufacturing		
3381 SILVERWARE MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	44,590	0	7	0	0	0	6,113	6,113	0,000	0,137	0,137
2008	40,669	0	9	0	109,633	0	64,082	173,715	2,696	1,576	4,271
2009	14,226	0	3	0	7,905	0	6,070	13,975	0,556	0,427	0,982
2010	5,850	0	0	0	0	0	0	0	0,000	0,000	0,000
2011	4,893	0	0	0	0	0	0	0	0,000	0,000	0,000
MA Total:	110,228	0	19	0	117,538	0	76,265	193,803	1,066	0,692	1,758

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.017	0.957	.
(14) Massachusetts Credibility:	0.130	0.220	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	1.428	1.492	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	1.271	1.254	2.525
(20) Relativity to Underlying Present Rate:	1.453	1.519	.
(21) Credibility to Underlying Relativity:	0.870	0.780	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.397	1.395	.
(24) Balanced Formula Relativity:	1.392	1.395	1.393

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Calculation of Class Relativities

Class(es): 3383 JEWELRY MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	471,571	4	79	90,008	423,932	55,921	201,418	771,279	1,090	0,546	1,636
2008	422,756	0	62	0	56,531	0	205,480	262,011	0,134	0,486	0,620
2009	356,720	0	31	0	44,873	0	20,814	65,687	0,126	0,058	0,184
2010	379,121	0	41	0	361,118	0	217,635	578,753	0,953	0,574	1,527
2011	378,913	0	33	0	146,818	0	60,952	207,770	0,387	0,161	0,548
MA Total:	2,009,082	4	246	90,008	1,033,272	55,921	706,299	1,885,500	0,559	0,379	0,938

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.533	0.525	.
(14) Massachusetts Credibility:	0.300	0.490	.
(15) Countrywide Pure Premium:	0.474	0.327	0.801
(16) Countrywide Indicated Relativity:	0.526	0.533	.
(17) Countrywide Credibility:	0.350	0.260	.
(18) Countrywide Lost-Time Claims:	394.00	.	.
(19) Pure Premium Underlying Present Rate:	0.549	0.496	1.044
(20) Relativity to Underlying Present Rate:	0.628	0.600	.
(21) Credibility to Underlying Relativity:	0.350	0.250	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.564	0.546	.
(24) Balanced Formula Relativity:	0.562	0.545	0.555

Class(es): 3385 WATCH MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	36,363	0	2	0	52,580	0	44,062	96,642	1,446	1,212	2,658
2008	35,744	0	0	0	0	0	0	0	0,000	0,000	0,000
2009	30,763	0	1	0	632	0	1,796	2,428	0,021	0,058	0,079
2010	31,565	0	2	0	0	0	1,644	1,644	0,000	0,052	0,052
2011	25,703	0	2	0	0	0	627	627	0,000	0,024	0,024
MA Total:	160,137	0	7	0	53,212	0	48,129	101,341	0,332	0,301	0,633

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.317	0.416	.
(14) Massachusetts Credibility:	0.090	0.150	.
(15) Countrywide Pure Premium:	0.440	0.233	0.673
(16) Countrywide Indicated Relativity:	0.489	0.380	.
(17) Countrywide Credibility:	0.190	0.200	.
(18) Countrywide Lost-Time Claims:	17,000	.	.
(19) Pure Premium Underlying Present Rate:	0.355	0.345	0.700
(20) Relativity to Underlying Present Rate:	0.406	0.418	.
(21) Credibility to Underlying Relativity:	0.720	0.650	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.414	0.410	.
(24) Balanced Formula Relativity:	0.413	0.410	0.411

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3507 CONSTRUCTION OR AGRICULTURAL MACHINERY MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	47,695	0	19	0	87,868	0	171,742	259,610	1,842	3,601	5,443
2008	40,212	0	5	0	0	0	3,549	3,549	0,000	0,088	0,088
2009	32,958	0	5	0	12,568	0	11,067	23,634	0,381	0,336	0,717
2010	34,735	0	8	0	0	0	4,431	4,431	0,000	0,128	0,128
2011	31,473	0	4	0	0	0	3,613	3,613	0,000	0,115	0,115
MA Total:	187,072	0	41	0	100,436	0	194,403	294,838	0,537	1,039	1,576

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.512	1.437	.
(14) Massachusetts Credibility:	0.170	0.290	.
(15) Countrywide Pure Premium:	1.375	0.887	2.262
(16) Countrywide Indicated Relativity:	1.528	1.443	.
(17) Countrywide Credibility:	0.420	0.360	.
(18) Countrywide Lost-Time Claims:	5026.0	.	.
(19) Pure Premium Underlying Present Rate:	1.478	1.455	2.933
(20) Relativity to Underlying Present Rate:	1.690	1.763	.
(21) Credibility to Underlying Relativity:	0.410	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.422	1.553	.
(24) Balanced Formula Relativity:	1.417	1.552	1.472

Class(es):		Effective: 1/1/2014							Manufacturing		
3515 TEXTILE MACHINERY MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	27,395	0	11	0	30,877	0	28,215	59,092	1,127	1,030	2,157
2008	28,650	0	13	0	31,390	0	35,831	67,221	1,096	1,251	2,346
2009	30,021	0	11	0	36,421	0	33,450	69,872	1,213	1,114	2,327
2010	38,315	0	19	0	50,627	0	32,596	83,223	1,321	0,851	2,172
2011	31,416	0	11	0	18,847	0	16,866	35,713	0,600	0,537	1,137
MA Total:	155,797	0	65	0	168,162	0	146,958	315,120	1,079	0,943	2,023

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.029	1.305	.
(14) Massachusetts Credibility:	0.140	0.240	.
(15) Countrywide Pure Premium:	0.919	0.616	1.535
(16) Countrywide Indicated Relativity:	1.021	1.003	.
(17) Countrywide Credibility:	0.300	0.320	.
(18) Countrywide Lost-Time Claims:	59,000	.	.
(19) Pure Premium Underlying Present Rate:	1.069	1.103	2.172
(20) Relativity to Underlying Present Rate:	1.223	1.336	.
(21) Credibility to Underlying Relativity:	0.560	0.440	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.135	1.222	.
(24) Balanced Formula Relativity:	1.132	1.221	1.168

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Calculation of Class Relativities

Class(es): 3548 PRINTING OR BOOKBINDING MACHINE MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,215,865	15	780	1,267,596	2,458,524	827,902	2,202,278	6,756,300	0.714	0.581	1.295
2008	5,026,581	23	628	1,915,351	2,857,320	1,541,317	1,987,067	8,301,055	0.949	0.702	1.651
2009	4,705,640	11	511	858,401	1,394,365	333,303	1,611,586	4,197,656	0.479	0.413	0.892
2010	5,201,456	13	573	1,691,943	2,510,205	839,388	1,840,124	6,881,659	0.808	0.515	1.323
2011	6,513,725	12	645	1,684,498	3,436,753	548,828	2,768,104	8,438,184	0.786	0.509	1.295
MA Total:	26,663,267	74	3,137	7,417,789	12,657,166	4,090,738	10,409,160	34,574,854	0.753	0.544	1.297

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.718	0.752	.
(14) Massachusetts Credibility:	0.930	1.000	.
(15) Countrywide Pure Premium:	0.847	0.562	1.409
(16) Countrywide Indicated Relativity:	0.942	0.914	.
(17) Countrywide Credibility:	0.040	0.000	.
(18) Countrywide Lost-Time Claims:	17983	.	.
(19) Pure Premium Underlying Present Rate:	0.711	0.742	1.453
(20) Relativity to Underlying Present Rate:	0.813	0.898	.
(21) Credibility to Underlying Relativity:	0.030	0.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.730	0.752	.
(24) Balanced Formula Relativity:	0.727	0.752	0.737

Class(es): 3558 BOOT OR SHOE MACHINERY MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	15,352	0	1	0	0	0	228	228	0.000	0.015	0.015
2008	11,008	0	2	0	0	0	680	680	0.000	0.062	0.062
2009	13,164	0	5	0	0	0	2,132	2,132	0.000	0.162	0.162
2010	9,679	0	2	0	34,576	0	49,880	84,456	3.572	5.153	8.726
2011	9,780	0	1	0	0	0	701	701	0.000	0.072	0.072
MA Total:	58,983	0	11	0	34,576	0	53,622	88,197	0.586	0.909	1.495

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.559	1.257	.
(14) Massachusetts Credibility:	0.060	0.110	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.351	0.487	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.313	0.409	0.722
(20) Relativity to Underlying Present Rate:	0.358	0.496	.
(21) Credibility to Underlying Relativity:	0.940	0.890	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.370	0.580	.
(24) Balanced Formula Relativity:	0.368	0.579	0.454

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3571 STEAM OR AIR PRESSURE GAUGE MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,239	0	1	0	0	0	603	603	0.000	0.115	0.115
2008	5,082	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	4,207	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	6,100	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	5,200	0	1	0	0	0	484	484	0.000	0.093	0.093
MA Total:	25,830	0	2	0	0	0	1,086	1,086	0.000	0.042	0.042

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.058	.
(14) Massachusetts Credibility:	0.050	0.080	.
(15) Countrywide Pure Premium:	0.000	0.014	0.014
(16) Countrywide Indicated Relativity:	0.000	0.022	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.487	0.443	0.930
(20) Relativity to Underlying Present Rate:	0.557	0.537	.
(21) Credibility to Underlying Relativity:	0.950	0.920	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.529	0.499	.
(24) Balanced Formula Relativity:	0.527	0.499	0.515

Class(es):		Effective: 1/1/2014							Manufacturing		
3612 PUMP MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	202,130	0	35	0	177,661	0	73,616	251,277	0.879	0.364	1.243
2008	221,707	1	23	181,097	68,419	34,999	109,365	393,880	1.125	0.651	1.777
2009	144,719	0	16	0	16,338	0	14,659	30,997	0.113	0.101	0.214
2010	183,893	0	19	0	121,072	0	136,743	257,816	0.658	0.744	1.402
2011	282,244	1	30	61,418	41,850	14,720	61,119	179,108	0.366	0.269	0.635
MA Total:	1,034,693	2	123	242,515	425,341	49,719	395,503	1,113,078	0.645	0.430	1.076

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.615	0.595	.
(14) Massachusetts Credibility:	0.260	0.430	.
(15) Countrywide Pure Premium:	0.950	0.657	1.606
(16) Countrywide Indicated Relativity:	1.055	1.068	.
(17) Countrywide Credibility:	0.370	0.290	.
(18) Countrywide Lost-Time Claims:	1558.0	.	.
(19) Pure Premium Underlying Present Rate:	0.769	0.700	1.468
(20) Relativity to Underlying Present Rate:	0.879	0.848	.
(21) Credibility to Underlying Relativity:	0.370	0.280	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.876	0.803	.
(24) Balanced Formula Relativity:	0.873	0.803	0.844

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Calculation of Class Relativities

Class(es): 3620 BOILERMAKING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	114,189	1	36	124,120	257,310	25,601	235,879	642,910	3,340	2,290	5,630
2008	116,661	1	40	20,804	615,103	14,693	299,820	950,420	5,451	2,696	8,147
2009	99,805	0	26	0	155,110	0	73,172	228,282	1,554	0,733	2,287
2010	137,463	0	39	0	201,948	0	191,603	393,550	1,469	1,394	2,863
2011	147,119	3	34	458,896	481,460	1,104,055	603,235	2,647,646	6,392	11,605	17,997
MA Total:	615,236	5	175	603,821	1,710,932	1,144,348	1,403,709	4,862,810	3,762	4,142	7,904

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.587	5.728	.
(14) Massachusetts Credibility:	0.300	0.510	.
(15) Countrywide Pure Premium:	1.935	1.133	3.068
(16) Countrywide Indicated Relativity:	2.150	1.843	.
(17) Countrywide Credibility:	0.350	0.250	.
(18) Countrywide Lost-Time Claims:	1412.0	.	.
(19) Pure Premium Underlying Present Rate:	1.843	1.845	3.688
(20) Relativity to Underlying Present Rate:	2.108	2.235	.
(21) Credibility to Underlying Relativity:	0.350	0.240	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.566	3.919	.
(24) Balanced Formula Relativity:	2.558	3.916	3.112

Class(es): 3634 VALVE MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	241,417	3	52	42,405	264,174	11,096	110,125	427,800	1,270	0,502	1,772
2008	231,025	3	27	16,641	129,564	6,683	87,371	240,259	0,633	0,407	1,040
2009	183,161	2	19	288,009	77,028	146,163	44,228	555,428	1,993	1,039	3,032
2010	230,560	1	28	167,153	109,072	46,031	80,343	402,598	1,198	0,548	1,746
2011	305,076	0	23	0	166,746	0	213,804	380,549	0,547	0,701	1,247
MA Total:	1,191,240	9	149	514,208	746,584	209,972	535,871	2,006,635	1,058	0,626	1,684

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.009	0.866	.
(14) Massachusetts Credibility:	0.280	0.430	.
(15) Countrywide Pure Premium:	0.717	0.491	1.208
(16) Countrywide Indicated Relativity:	0.797	0.798	.
(17) Countrywide Credibility:	0.360	0.290	.
(18) Countrywide Lost-Time Claims:	822.00	.	.
(19) Pure Premium Underlying Present Rate:	0.808	0.617	1.425
(20) Relativity to Underlying Present Rate:	0.924	0.747	.
(21) Credibility to Underlying Relativity:	0.360	0.280	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.902	0.813	.
(24) Balanced Formula Relativity:	0.899	0.813	0.864

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Calculation of Class Relativities

Class(es): 3635 GEAR MFG OR GRINDING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	225,603	2	59	575,335	153,589	609,276	127,733	1,465,933	3,231	3,267	6,498
2008	214,142	1	33	247	331,813	1,568	362,948	696,576	1,551	1,702	3,253
2009	183,540	1	41	128,200	71,837	44,084	100,794	344,915	1,090	0,789	1,879
2010	222,095	1	47	37,775	79,838	66,177	119,418	303,208	0,530	0,836	1,365
2011	242,217	2	51	63,591	125,228	110,715	199,732	499,266	0,780	1,282	2,061
MA Total:	1,087,597	7	231	805,147	762,305	831,821	910,625	3,309,898	1,441	1,602	3,043

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.374	2.216	.
(14) Massachusetts Credibility:	0.340	0.630	.
(15) Countrywide Pure Premium:	1.116	0.718	1.834
(16) Countrywide Indicated Relativity:	1.241	1.168	.
(17) Countrywide Credibility:	0.330	0.190	.
(18) Countrywide Lost-Time Claims:	465.00	.	.
(19) Pure Premium Underlying Present Rate:	1.427	1.728	3.155
(20) Relativity to Underlying Present Rate:	1.633	2.093	.
(21) Credibility to Underlying Relativity:	0.330	0.180	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.415	1.995	.
(24) Balanced Formula Relativity:	1.411	1.994	1.649

Class(es): 3642 BATTERY MFG-DRY		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	139,062	0	8	0	20,332	0	15,027	35,358	0,146	0,108	0,254
2008	138,486	0	5	0	36,290	0	5,065	41,355	0,262	0,037	0,299
2009	146,316	2	6	429,129	89,685	86,138	54,059	659,011	3,546	0,958	4,504
2010	149,297	0	10	0	1,470	0	12,177	13,647	0,010	0,082	0,091
2011	170,172	0	6	0	50,733	0	32,610	83,342	0,298	0,192	0,490
MA Total:	743,332	2	35	429,129	198,509	86,138	118,938	832,714	0,844	0,276	1,120

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.805	0.382	.
(14) Massachusetts Credibility:	0.190	0.270	.
(15) Countrywide Pure Premium:	0.564	0.377	0.941
(16) Countrywide Indicated Relativity:	0.627	0.614	.
(17) Countrywide Credibility:	0.370	0.370	.
(18) Countrywide Lost-Time Claims:	94.000	.	.
(19) Pure Premium Underlying Present Rate:	0.486	0.319	0.804
(20) Relativity to Underlying Present Rate:	0.556	0.386	.
(21) Credibility to Underlying Relativity:	0.440	0.360	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.629	0.469	.
(24) Balanced Formula Relativity:	0.627	0.469	0.563

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Calculation of Class Relativities

Class(es): 3647 BATTERY MFG-STORAGE		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	839	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	334	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	1,519	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	4,065	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	6,758	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.040	0.070	.
(15) Countrywide Pure Premium:	0.944	0.746	1.689
(16) Countrywide Indicated Relativity:	1.049	1.214	.
(17) Countrywide Credibility:	0.480	0.470	.
(18) Countrywide Lost-Time Claims:	398.00	.	.
(19) Pure Premium Underlying Present Rate:	1.092	1.015	2.107
(20) Relativity to Underlying Present Rate:	1.249	1.229	.
(21) Credibility to Underlying Relativity:	0.480	0.460	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.103	1.136	.
(24) Balanced Formula Relativity:	1.100	1.135	1.114

Class(es): 3648 AUTOMOTIVE LIGHTING, IGNITION APPARATUS MFG NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	848	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	257	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	383	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	395	0	1	0	916	0	1,090	2,006	2,318	2,760	5,078
2011	2,822	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	4,705	0	1	0	916	0	1,090	2,006	0.195	0.232	0.426

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.186	0.320	.
(14) Massachusetts Credibility:	0.030	0.050	.
(15) Countrywide Pure Premium:	0.606	0.434	1.040
(16) Countrywide Indicated Relativity:	0.674	0.706	.
(17) Countrywide Credibility:	0.490	0.480	.
(18) Countrywide Lost-Time Claims:	458.00	.	.
(19) Pure Premium Underlying Present Rate:	0.604	0.709	1.313
(20) Relativity to Underlying Present Rate:	0.690	0.859	.
(21) Credibility to Underlying Relativity:	0.480	0.470	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.667	0.759	.
(24) Balanced Formula Relativity:	0.665	0.758	0.703

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3681 TELEVISION, RADIO, TELEPHONE OR TELECOMMUNCTN DEVICE MFG NOC											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	9,900,313	18	661	1,878,312	2,478,673	1,196,020	1,685,619	7,238,625	0.440	0.291	0.731
2008	10,223,242	19	574	1,304,424	2,083,632	801,821	1,735,218	5,925,095	0.331	0.248	0.580
2009	9,041,424	15	487	1,187,246	2,303,329	1,227,056	1,606,313	6,323,944	0.386	0.313	0.699
2010	10,947,651	16	529	1,810,423	2,121,288	784,263	1,712,037	6,428,011	0.359	0.228	0.587
2011	10,502,148	13	499	954,067	2,240,285	619,683	1,710,035	5,524,071	0.304	0.222	0.526
MA Total:	50,614,779	81	2,750	7,134,471	11,227,209	4,628,843	8,449,223	31,439,746	0.363	0.258	0.621

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.346	0.357	.
(14) Massachusetts Credibility:	0.860	1.000	.
(15) Countrywide Pure Premium:	0.356	0.274	0.630
(16) Countrywide Indicated Relativity:	0.396	0.445	.
(17) Countrywide Credibility:	0.070	0.000	.
(18) Countrywide Lost-Time Claims:	5185.0	.	.
(19) Pure Premium Underlying Present Rate:	0.309	0.301	0.610
(20) Relativity to Underlying Present Rate:	0.353	0.365	.
(21) Credibility to Underlying Relativity:	0.070	0.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.350	0.357	.
(24) Balanced Formula Relativity:	0.349	0.357	0.352

Class(es):		Effective: 1/1/2014							Construction		
3724 MACHINERY OR EQUIPMENT ERECT OR REPAIR NOC &DR											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,124,743	22	427	2,783,479	2,527,984	1,506,105	1,443,558	8,261,126	2.500	1.388	3.888
2008	2,063,279	13	328	2,064,507	2,380,475	604,963	1,553,822	6,603,766	2.154	1.046	3.201
2009	1,977,262	9	329	995,741	3,373,760	238,456	2,510,502	7,118,458	2.210	1.390	3.600
2010	2,085,338	15	325	1,963,421	2,487,042	823,587	1,586,019	6,860,069	2.134	1.155	3.290
2011	2,173,626	14	323	1,567,889	2,554,675	650,824	2,023,876	6,797,264	1.897	1.231	3.127
MA Total:	10,424,248	73	1,732	9,375,037	13,323,935	3,823,935	9,117,776	35,640,683	2.178	1.242	3.419

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.728	0.762	.
(14) Massachusetts Credibility:	0.940	1.000	.
(15) Countrywide Pure Premium:	2.338	1.229	3.567
(16) Countrywide Indicated Relativity:	0.808	0.778	.
(17) Countrywide Credibility:	0.030	0.000	.
(18) Countrywide Lost-Time Claims:	7951.0	.	.
(19) Pure Premium Underlying Present Rate:	1.911	1.662	3.572
(20) Relativity to Underlying Present Rate:	0.900	0.917	.
(21) Credibility to Underlying Relativity:	0.030	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.736	0.762	.
(24) Balanced Formula Relativity:	0.751	0.766	0.756

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
3726 BOILER INSTALLATION OR REPAIR-STEAM											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	143,043	3	93	640,001	1,469,243	209,417	549,227	2,867,889	14,745	5,304	20,049
2008	36,369	0	16	0	115,496	0	83,182	198,678	3,176	2,287	5,463
2009	28,919	0	8	0	1,885	0	15,722	17,606	0,065	0,544	0,609
2010	83,742	1	20	216,037	201,571	90,325	91,330	599,262	4,987	2,169	7,156
2011	68,554	1	13	40,925	25,469	26,285	30,147	122,826	0,968	0,823	1,792
MA Total:	360,627	5	150	896,964	1,813,662	326,027	769,608	3,806,261	7,516	3,038	10,555

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.514	1.864	.
(14) Massachusetts Credibility:	0.410	0.580	.
(15) Countrywide Pure Premium:	2.562	1.280	3.842
(16) Countrywide Indicated Relativity:	0.885	0.811	.
(17) Countrywide Credibility:	0.300	0.210	.
(18) Countrywide Lost-Time Claims:	759.00	.	.
(19) Pure Premium Underlying Present Rate:	7.042	4.210	11.252
(20) Relativity to Underlying Present Rate:	3.319	2.323	.
(21) Credibility to Underlying Relativity:	0.290	0.210	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	2.258	1.739	.
(24) Balanced Formula Relativity:	2.305	1.750	2.109

Class(es):		Effective: 1/1/2014							Manufacturing		
3808 AUTOMOBILE MFG OR ASSEMBLY											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	166,326	1	47	81,682	508,674	13,040	163,601	766,997	3,549	1,062	4,611
2008	125,956	0	43	0	5,811	0	64,114	69,925	0,046	0,509	0,555
2009	101,095	1	35	183,033	132,067	78,450	60,907	454,456	3,117	1,378	4,495
2010	130,900	0	57	0	48,303	0	99,130	147,433	0,369	0,757	1,126
2011	119,558	0	43	0	954	0	40,636	41,590	0,008	0,340	0,348
MA Total:	643,834	2	225	264,715	695,808	91,490	428,389	1,480,402	1,492	0,807	2,299

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.422	1.117	.
(14) Massachusetts Credibility:	0.280	0.490	.
(15) Countrywide Pure Premium:	1.701	0.856	2.557
(16) Countrywide Indicated Relativity:	1.890	1.392	.
(17) Countrywide Credibility:	0.360	0.260	.
(18) Countrywide Lost-Time Claims:	3084.0	.	.
(19) Pure Premium Underlying Present Rate:	1.466	1.541	3.008
(20) Relativity to Underlying Present Rate:	1.677	1.867	.
(21) Credibility to Underlying Relativity:	0.360	0.250	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.683	1.376	.
(24) Balanced Formula Relativity:	1.677	1.375	1.554

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Calculation of Class Relativities

Class(es): 3821 AUTOMOBILE DISMANTLING & DRIVERS		Effective: 1/1/2014							Goods and Services		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	189,715	4	47	128,512	186,008	283,776	151,322	749,618	1,658	2,293	3,951
2008	157,743	3	45	759,732	88,464	425,700	184,110	1,458,006	5,377	3,866	9,243
2009	168,988	1	44	110,489	51,616	27,631	85,503	275,239	0,959	0,669	1,629
2010	182,144	1	37	83,814	128,687	34,426	121,601	368,528	1,167	0,857	2,023
2011	191,480	2	47	69,625	433,979	30,044	505,680	1,039,328	2,630	2,798	5,428
MA Total:	890,071	11	220	1,152,172	888,754	801,577	1,048,216	3,890,719	2,293	2,078	4,371

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.525	3.228	.
(14) Massachusetts Credibility:	0.330	0.530	.
(15) Countrywide Pure Premium:	2.346	1.613	3.959
(16) Countrywide Indicated Relativity:	2.588	2.528	.
(17) Countrywide Credibility:	0.340	0.240	.
(18) Countrywide Lost-Time Claims:	873.00	.	.
(19) Pure Premium Underlying Present Rate:	1.637	1.406	3.043
(20) Relativity to Underlying Present Rate:	2.613	2.158	.
(21) Credibility to Underlying Relativity:	0.330	0.230	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.575	2.814	.
(24) Balanced Formula Relativity:	2.547	2.818	2.659

Class(es): 3826 AIRCRAFT ENGINE MFG		Effective: 1/1/2014							Manufacturing		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,695,927	23	274	1,314,947	2,316,372	903,471	1,524,487	6,059,277	2,141	1,432	3,573
2008	1,737,983	18	299	1,022,610	2,848,330	874,569	2,143,469	6,888,979	2,227	1,737	3,964
2009	2,080,754	21	275	3,209,877	2,357,860	1,373,053	2,099,579	9,040,370	2,676	1,669	4,345
2010	1,919,404	16	303	2,537,613	4,069,788	937,338	2,860,181	10,404,921	3,442	1,978	5,421
2011	2,020,234	17	298	2,359,040	3,138,792	1,185,920	2,695,736	9,379,488	2,721	1,921	4,643
MA Total:	9,454,301	95	1,449	10,444,087	14,731,142	5,274,353	11,323,453	41,773,034	2,663	1,756	4,418

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.538	2.428	.
(14) Massachusetts Credibility:	0.890	1.000	.
(15) Countrywide Pure Premium:	0.490	0.228	0.718
(16) Countrywide Indicated Relativity:	0.545	0.370	.
(17) Countrywide Credibility:	0.060	0.000	.
(18) Countrywide Lost-Time Claims:	406.00	.	.
(19) Pure Premium Underlying Present Rate:	1.816	1.846	3.662
(20) Relativity to Underlying Present Rate:	2.077	2.236	.
(21) Credibility to Underlying Relativity:	0.050	0.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.396	2.428	.
(24) Balanced Formula Relativity:	2.388	2.427	2.404

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
3841 TUBULAR METAL PRODUCTS MFG OR ASSEMBLY											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	86,218	2	13	28,803	3,756	46,234	14,841	93,635	0.378	0.708	1.086
2008	69,215	3	10	310,821	0	179,137	14,362	504,320	4.491	2.796	7.286
2009	56,231	0	8	0	39,451	0	9,275	48,726	0.702	0.165	0.867
2010	59,128	0	8	0	8,661	0	7,577	16,238	0.146	0.128	0.275
2011	56,334	0	7	0	0	0	3,499	3,499	0.000	0.062	0.062
MA Total:	327,127	5	46	339,624	51,868	225,371	49,555	666,418	1.197	0.840	2.037

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.141	1.162	.
(14) Massachusetts Credibility:	0.160	0.270	.
(15) Countrywide Pure Premium:	0.432	0.391	0.823
(16) Countrywide Indicated Relativity:	0.480	0.637	.
(17) Countrywide Credibility:	0.230	0.250	.
(18) Countrywide Lost-Time Claims:	30.000	.	.
(19) Pure Premium Underlying Present Rate:	0.703	0.665	1.368
(20) Relativity to Underlying Present Rate:	0.804	0.806	.
(21) Credibility to Underlying Relativity:	0.610	0.480	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.783	0.860	.
(24) Balanced Formula Relativity:	0.781	0.859	0.813

Class(es):		Effective: 1/1/2014							Miscellaneous		
4000 SAND OR GRAVEL DIGGING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	335,881	3	45	322,348	48,247	54,942	63,004	488,541	1.103	0.351	1.455
2008	301,234	1	34	22,943	217,321	25,167	275,967	541,398	0.798	1.000	1.797
2009	285,959	1	46	206,392	234,186	123,120	220,560	784,258	1.541	1.202	2.743
2010	325,671	3	40	363,107	217,087	135,515	171,152	886,861	1.782	0.942	2.723
2011	327,696	1	47	14,638	628,328	17,823	233,888	894,678	1.962	0.768	2.730
MA Total:	1,576,442	9	212	929,429	1,345,170	356,567	964,571	3,595,736	1.443	0.838	2.281

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.517	0.496	.
(14) Massachusetts Credibility:	0.450	0.710	.
(15) Countrywide Pure Premium:	3.357	2.151	5.508
(16) Countrywide Indicated Relativity:	1.302	1.390	.
(17) Countrywide Credibility:	0.280	0.150	.
(18) Countrywide Lost-Time Claims:	1146.0	.	.
(19) Pure Premium Underlying Present Rate:	1.977	1.643	3.620
(20) Relativity to Underlying Present Rate:	1.124	0.939	.
(21) Credibility to Underlying Relativity:	0.270	0.140	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.901	0.692	.
(24) Balanced Formula Relativity:	0.890	0.688	0.814

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing			
4021 BRICK OR CLAY PRODUCTS MFG NOC & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	12,941	0	5	0	2,727	0	5,655	8,382	0.211	0.437	0.648	
2008	12,088	0	4	0	5,161	0	19,159	24,321	0.427	1.585	2.012	
2009	11,541	0	6	0	0	0	3,827	3,827	0.000	0.332	0.332	
2010	12,862	0	6	0	18,959	0	25,848	44,807	1.474	2.010	3.484	
2011	11,703	0	5	0	1,003	0	3,933	4,936	0.086	0.336	0.422	
MA Total:	61,135	0	26	0	27,850	0	58,423	86,273	0.456	0.956	1.411	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.434	1.322	.
(14) Massachusetts Credibility:	0.120	0.210	.
(15) Countrywide Pure Premium:	2.239	1.383	3.622
(16) Countrywide Indicated Relativity:	2.488	2.251	.
(17) Countrywide Credibility:	0.440	0.400	.
(18) Countrywide Lost-Time Claims:	328.00	.	.
(19) Pure Premium Underlying Present Rate:	1.843	1.911	3.755
(20) Relativity to Underlying Present Rate:	2.109	2.315	.
(21) Credibility to Underlying Relativity:	0.440	0.390	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.075	2.081	.
(24) Balanced Formula Relativity:	2.068	2.080	2.073

Class(es):		Effective: 1/1/2014							Manufacturing			
4024 REFRACTORY PRODUCTS MFG & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	6,851	0	1	0	600	0	2,031	2,631	0.088	0.296	0.384	
2008	7,098	0	2	0	0	0	2,064	2,064	0.000	0.291	0.291	
2009	4,923	0	1	0	0	0	1,042	1,042	0.000	0.212	0.212	
2010	10,973	0	1	0	594	0	4,237	4,831	0.054	0.386	0.440	
2011	36,915	0	3	0	28,315	0	33,067	61,382	0.767	0.896	1.663	
MA Total:	66,760	0	8	0	29,510	0	42,442	71,951	0.442	0.636	1.078	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.421	0.879	.
(14) Massachusetts Credibility:	0.110	0.160	.
(15) Countrywide Pure Premium:	1.360	1.042	2.403
(16) Countrywide Indicated Relativity:	1.512	1.696	.
(17) Countrywide Credibility:	0.440	0.420	.
(18) Countrywide Lost-Time Claims:	149.00	.	.
(19) Pure Premium Underlying Present Rate:	1.460	0.911	2.371
(20) Relativity to Underlying Present Rate:	1.669	1.104	.
(21) Credibility to Underlying Relativity:	0.450	0.420	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.463	1.317	.
(24) Balanced Formula Relativity:	1.458	1.316	1.400

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4034 CONCRETE PRODUCTS MFG & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	273.304	5	99	436.329	591.034	378.289	451.456	1,857.108	3.759	3.036	6.795
2008	272.949	0	128	0	242.504	0	392.995	635.499	0.888	1.440	2.328
2009	251.380	1	62	403.006	474.802	265.855	353.189	1,496.852	3.492	2.463	5.955
2010	285.634	3	49	127.891	190.878	28.046	210.293	557.108	1.116	0.834	1.950
2011	161.217	1	38	244.413	730.339	173.823	540.996	1,689.570	6.046	4.434	10.480
MA Total:	1,244.485	10	376	1,211.639	2,229.557	846.013	1,948.929	6,236.138	2.765	2.246	5.011

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.636	3.106	.
(14) Massachusetts Credibility:	0.420	0.720	.
(15) Countrywide Pure Premium:	2.709	1.759	4.468
(16) Countrywide Indicated Relativity:	3.010	2.862	.
(17) Countrywide Credibility:	0.290	0.140	.
(18) Countrywide Lost-Time Claims:	2830.0	.	.
(19) Pure Premium Underlying Present Rate:	2.138	2.104	4.242
(20) Relativity to Underlying Present Rate:	2.445	2.549	.
(21) Credibility to Underlying Relativity:	0.290	0.140	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.689	2.994	.
(24) Balanced Formula Relativity:	2.681	2.992	2.808

Class(es):		Effective: 1/1/2014							Manufacturing		
4036 PLASTERBOARD OR PLASTER BLOCK MFG & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	58.662	1	3	160.279	329.045	14.163	29.523	533.009	8.341	0.745	9.086
2008	21.901	0	1	0	0	0	1.414	1.414	0.000	0.065	0.065
2009	6.951	0	1	0	0	0	361	361	0.000	0.052	0.052
2010	8.504	0	1	0	0	0	675	675	0.000	0.079	0.079
2011	10.906	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	106.925	1	6	160.279	329.045	14.163	31.973	535.460	4.576	0.431	5.008

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.363	0.597	.
(14) Massachusetts Credibility:	0.130	0.190	.
(15) Countrywide Pure Premium:	0.840	0.599	1.439
(16) Countrywide Indicated Relativity:	0.934	0.974	.
(17) Countrywide Credibility:	0.440	0.410	.
(18) Countrywide Lost-Time Claims:	258.00	.	.
(19) Pure Premium Underlying Present Rate:	1.379	0.915	2.294
(20) Relativity to Underlying Present Rate:	1.577	1.108	.
(21) Credibility to Underlying Relativity:	0.430	0.400	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.656	0.956	.
(24) Balanced Formula Relativity:	1.651	0.956	1.367

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4038 PLASTER STATUARY OR ORNAMENT MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	27,978	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	24,290	0	4	0	90,908	0	37,868	128,776	3.743	1.559	5.302
2009	19,296	0	1	0	0	0	461	461	0.000	0.024	0.024
2010	20,294	1	0	140,524	0	113,269	0	253,794	6.925	5.581	12.506
2011	17,974	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	109,831	1	5	140,524	90,908	113,269	38,328	383,030	2.107	1.380	3.487

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.009	1.909	.
(14) Massachusetts Credibility:	0.120	0.180	.
(15) Countrywide Pure Premium:	0.794	0.588	1.381
(16) Countrywide Indicated Relativity:	0.882	0.956	.
(17) Countrywide Credibility:	0.280	0.290	.
(18) Countrywide Lost-Time Claims:	47.000	.	.
(19) Pure Premium Underlying Present Rate:	1.039	0.757	1.796
(20) Relativity to Underlying Present Rate:	1.189	0.917	.
(21) Credibility to Underlying Relativity:	0.600	0.530	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.201	1.107	.
(24) Balanced Formula Relativity:	1.197	1.106	1.160

Class(es):		Effective: 1/1/2014							Manufacturing		
4053 POTTERY MFG: CHINA OR TABLEWARE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	41,152	0	4	0	10,331	0	24,816	35,147	0.251	0.603	0.854
2008	37,431	0	5	0	37,697	0	15,782	53,478	1.007	0.422	1.429
2009	38,343	0	3	0	2,850	0	15,394	18,243	0.074	0.401	0.476
2010	32,392	0	1	0	1,571	0	897	2,468	0.048	0.028	0.076
2011	50,266	1	12	38,976	29,333	41,278	60,533	170,120	1.359	2.025	3.384
MA Total:	199,585	1	25	38,976	81,781	41,278	117,421	279,456	0.605	0.795	1.400

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.577	1.100	.
(14) Massachusetts Credibility:	0.140	0.220	.
(15) Countrywide Pure Premium:	0.817	0.487	1.304
(16) Countrywide Indicated Relativity:	0.908	0.792	.
(17) Countrywide Credibility:	0.280	0.290	.
(18) Countrywide Lost-Time Claims:	46.000	.	.
(19) Pure Premium Underlying Present Rate:	0.889	0.700	1.590
(20) Relativity to Underlying Present Rate:	1.017	0.848	.
(21) Credibility to Underlying Relativity:	0.580	0.490	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.925	0.887	.
(24) Balanced Formula Relativity:	0.922	0.887	0.908

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4061 POTTERY MFG: EARTHENWARE-GLAZD OR PORCELN-HAND MOLDED OR CAST											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	12,241	0	5	0	0	0	5,692	5,692	0.000	0.465	0.465
2008	13,594	0	2	0	9,794	0	5,077	14,870	0.720	0.373	1.094
2009	17,484	0	2	0	0	0	1,313	1,313	0.000	0.075	0.075
2010	10,331	0	2	0	0	0	273	273	0.000	0.026	0.026
2011	30,269	0	3	0	0	0	1,331	1,331	0.000	0.044	0.044
MA Total:	83,919	0	14	0	9,794	0	13,686	23,480	0.117	0.163	0.280

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.111	0.226	.
(14) Massachusetts Credibility:	0.110	0.230	.
(15) Countrywide Pure Premium:	0.756	0.571	1.327
(16) Countrywide Indicated Relativity:	0.840	0.929	.
(17) Countrywide Credibility:	0.450	0.390	.
(18) Countrywide Lost-Time Claims:	294.00	.	.
(19) Pure Premium Underlying Present Rate:	1.109	1.861	2.970
(20) Relativity to Underlying Present Rate:	1.269	2.254	.
(21) Credibility to Underlying Relativity:	0.440	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.948	1.271	.
(24) Balanced Formula Relativity:	0.945	1.270	1.078

Class(es):		Effective: 1/1/2014							Manufacturing		
4112 INCANDESCENT LAMP MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	86,406	0	11	0	6,239	0	13,257	19,497	0.072	0.153	0.226
2008	106,386	0	9	0	8,616	0	26,718	35,334	0.081	0.251	0.332
2009	117,159	0	6	0	7,843	0	26,839	34,682	0.067	0.229	0.296
2010	103,028	0	14	0	13,606	0	30,573	44,179	0.132	0.297	0.429
2011	182,773	0	2	0	0	0	307	307	0.000	0.002	0.002
MA Total:	595,752	0	42	0	36,305	0	97,693	133,998	0.061	0.164	0.225

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.058	0.227	.
(14) Massachusetts Credibility:	0.140	0.210	.
(15) Countrywide Pure Premium:	0.433	0.249	0.682
(16) Countrywide Indicated Relativity:	0.481	0.405	.
(17) Countrywide Credibility:	0.430	0.400	.
(18) Countrywide Lost-Time Claims:	217.00	.	.
(19) Pure Premium Underlying Present Rate:	0.277	0.207	0.484
(20) Relativity to Underlying Present Rate:	0.317	0.251	.
(21) Credibility to Underlying Relativity:	0.430	0.390	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.351	0.307	.
(24) Balanced Formula Relativity:	0.350	0.307	0.333

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Calculation of Class Relativities

Class(es): 4114 GLASSWARE MFG-NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	4.827	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	4.268	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	4.338	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	24.754	0	2	0	0	0	2.991	2.991	0.000	0.121	0.121
2011	135.079	1	17	50.440	30.290	14.806	38.401	133.936	0.598	0.394	0.992
MA Total:	173.265	1	19	50.440	30.290	14.806	41.392	136.927	0.466	0.324	0.790

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.444	0.449	.
(14) Massachusetts Credibility:	0.150	0.230	.
(15) Countrywide Pure Premium:	1.322	0.782	2.105
(16) Countrywide Indicated Relativity:	1.470	1.273	.
(17) Countrywide Credibility:	0.430	0.390	.
(18) Countrywide Lost-Time Claims:	367.00	.	.
(19) Pure Premium Underlying Present Rate:	1.126	0.881	2.007
(20) Relativity to Underlying Present Rate:	1.288	1.067	.
(21) Credibility to Underlying Relativity:	0.420	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.239	1.005	.
(24) Balanced Formula Relativity:	1.235	1.005	1.141

Class(es): 4130 GLASS MERCHANT		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	200.902	5	71	141.661	419.871	122.637	233.335	917.504	2.795	1.772	4.567
2008	201.370	3	85	606.495	412.789	113.281	266.400	1,398.964	5.062	1.885	6.947
2009	175.599	0	50	0	192.123	0	147.118	339.241	1.094	0.838	1.932
2010	165.879	0	25	0	73.107	0	92.964	166.071	0.441	0.560	1.001
2011	172.123	0	40	0	430.857	0	293.284	724.142	2.503	1.704	4.207
MA Total:	915.873	8	271	748.155	1,528.747	235.918	1,033.101	3,545.922	2.486	1.386	3.872

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.370	1.916	.
(14) Massachusetts Credibility:	0.360	0.630	.
(15) Countrywide Pure Premium:	1.483	1.088	2.571
(16) Countrywide Indicated Relativity:	1.648	1.771	.
(17) Countrywide Credibility:	0.320	0.190	.
(18) Countrywide Lost-Time Claims:	801.00	.	.
(19) Pure Premium Underlying Present Rate:	2.007	2.101	4.107
(20) Relativity to Underlying Present Rate:	2.295	2.545	.
(21) Credibility to Underlying Relativity:	0.320	0.180	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.115	2.002	.
(24) Balanced Formula Relativity:	2.108	2.001	2.064

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4133 CATHEDRAL OR ART GLASS WINDOW MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	11,416	0	1	0	0	0	307	307	0.000	0.027	0.027
2008	14,112	0	4	0	3,428	0	5,756	9,184	0.243	0.408	0.651
2009	9,924	0	1	0	0	0	110	110	0.000	0.011	0.011
2010	8,315	1	0	77,633	0	16,701	0	94,334	9.336	2.008	11.345
2011	8,692	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	52,459	1	6	77,633	3,428	16,701	6,173	103,936	1.545	0.436	1.981

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.473	0.603	.
(14) Massachusetts Credibility:	0.080	0.140	.
(15) Countrywide Pure Premium:	0.618	0.484	1.102
(16) Countrywide Indicated Relativity:	0.687	0.787	.
(17) Countrywide Credibility:	0.220	0.230	.
(18) Countrywide Lost-Time Claims:	26.000	.	.
(19) Pure Premium Underlying Present Rate:	0.722	0.786	1.508
(20) Relativity to Underlying Present Rate:	0.825	0.953	.
(21) Credibility to Underlying Relativity:	0.700	0.630	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.847	0.866	.
(24) Balanced Formula Relativity:	0.844	0.865	0.853

Class(es):		Effective: 1/1/2014							Manufacturing		
4150 OPTICAL GOODS MFG-NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,568,674	2	131	144,056	448,991	40,465	269,281	902,793	0.378	0.197	0.576
2008	1,548,944	3	134	233,651	139,431	70,645	239,965	683,692	0.241	0.201	0.441
2009	1,542,080	3	107	390,205	279,179	50,941	256,056	976,382	0.434	0.199	0.633
2010	1,704,120	4	102	85,566	243,275	65,176	246,008	640,025	0.193	0.183	0.376
2011	2,049,053	3	104	260,368	345,916	118,252	244,598	969,134	0.296	0.177	0.473
MA Total:	8,412,870	15	578	1,113,845	1,456,792	345,479	1,255,908	4,172,026	0.306	0.190	0.496

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.291	0.263	.
(14) Massachusetts Credibility:	0.480	0.730	.
(15) Countrywide Pure Premium:	0.319	0.244	0.563
(16) Countrywide Indicated Relativity:	0.354	0.398	.
(17) Countrywide Credibility:	0.260	0.140	.
(18) Countrywide Lost-Time Claims:	705.00	.	.
(19) Pure Premium Underlying Present Rate:	0.441	0.324	0.765
(20) Relativity to Underlying Present Rate:	0.504	0.393	.
(21) Credibility to Underlying Relativity:	0.260	0.130	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.363	0.299	.
(24) Balanced Formula Relativity:	0.362	0.299	0.336

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Calculation of Class Relativities

Class(es): 4239 PAPER MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	423.674	2	104	124.160	906.983	40.239	421.845	1,493.227	2.434	1.091	3.524
2008	418.453	2	85	19.021	494.162	178.464	349.574	1,041.221	1.226	1.262	2.488
2009	421.013	0	52	0	92.118	0	103.886	196.004	0.219	0.247	0.466
2010	448.955	1	78	149.910	463.917	204.553	490.833	1,309.213	1.367	1.549	2.916
2011	446.925	1	53	368.965	684.894	389.128	320.787	1,763.774	2.358	1.588	3.946
MA Total:	2,159,020	6	372	662,056	2,642,074	812,384	1,686,925	5,803,439	1.530	1.158	2.688

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.459	1.601	.
(14) Massachusetts Credibility:	0.450	0.700	.
(15) Countrywide Pure Premium:	1.038	0.584	1.622
(16) Countrywide Indicated Relativity:	1.154	0.950	.
(17) Countrywide Credibility:	0.280	0.150	.
(18) Countrywide Lost-Time Claims:	1682.0	.	.
(19) Pure Premium Underlying Present Rate:	1.423	1.155	2.578
(20) Relativity to Underlying Present Rate:	1.628	1.399	.
(21) Credibility to Underlying Relativity:	0.270	0.150	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.419	1.473	.
(24) Balanced Formula Relativity:	1.415	1.472	1.438

Class(es): 4243 BOX MFG-FOLDING PAPER-NOC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	324.961	8	94	866.763	462.259	659.880	217.763	2,206.665	4.090	2.701	6.791
2008	323.334	1	65	20.697	608.518	6.688	357.786	993.689	1.946	1.127	3.073
2009	290.765	1	46	42.731	376.740	96.312	199.698	715.481	1.443	1.018	2.461
2010	303.972	4	57	132.509	484.092	120.724	225.251	962.576	2.028	1.138	3.167
2011	258.162	2	57	137.335	862.242	69.108	282.337	1,351.023	3.872	1.361	5.233
MA Total:	1,501,194	16	319	1,200,034	2,793,851	952,712	1,282,836	6,229,433	2.660	1.489	4.150

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.536	2.060	.
(14) Massachusetts Credibility:	0.370	0.580	.
(15) Countrywide Pure Premium:	0.867	0.585	1.451
(16) Countrywide Indicated Relativity:	0.963	0.951	.
(17) Countrywide Credibility:	0.320	0.210	.
(18) Countrywide Lost-Time Claims:	1058.0	.	.
(19) Pure Premium Underlying Present Rate:	1.263	1.010	2.273
(20) Relativity to Underlying Present Rate:	1.444	1.224	.
(21) Credibility to Underlying Relativity:	0.310	0.210	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.694	1.651	.
(24) Balanced Formula Relativity:	1.689	1.650	1.673

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4244 CORRUGATED OR FIBERBOARD CONTAINER MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	143,184	1	45	337,413	129,934	183,711	104,163	755,222	3,264	2,011	5,274
2008	181,744	2	52	502,892	23,398	305,683	63,118	895,091	2,896	2,029	4,925
2009	159,797	0	44	0	596,807	0	310,280	907,087	3,735	1,942	5,676
2010	256,927	0	54	0	288,209	0	316,965	605,174	1,122	1,234	2,355
2011	372,179	2	43	17,192	279,574	20,173	187,810	504,749	0,797	0,559	1,356
MA Total:	1,113,831	5	238	857,497	1,317,921	509,567	982,337	3,667,322	1,953	1,339	3,293

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.862	1.852	.
(14) Massachusetts Credibility:	0.340	0.600	.
(15) Countrywide Pure Premium:	1.021	0.706	1.727
(16) Countrywide Indicated Relativity:	1.135	1.148	.
(17) Countrywide Credibility:	0.330	0.200	.
(18) Countrywide Lost-Time Claims:	975.00	.	.
(19) Pure Premium Underlying Present Rate:	1.366	1.529	2.896
(20) Relativity to Underlying Present Rate:	1.563	1.853	.
(21) Credibility to Underlying Relativity:	0.330	0.200	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.523	1.712	.
(24) Balanced Formula Relativity:	1.518	1.711	1.597

Class(es):		Effective: 1/1/2014							Manufacturing		
4250 PAPER COATING											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	769,298	4	105	595,209	717,173	97,465	440,193	1,850,040	1,706	0,699	2,405
2008	746,487	0	99	0	158,498	0	185,779	344,278	0,212	0,249	0,461
2009	778,123	1	106	151,844	687,409	47,932	458,462	1,345,647	1,079	0,651	1,729
2010	798,512	6	93	1,011,914	469,414	901,511	396,563	2,779,401	1,855	1,626	3,481
2011	817,487	1	85	37,632	674,492	66,134	772,946	1,551,204	0,871	1,026	1,898
MA Total:	3,909,908	12	488	1,796,599	2,706,986	1,113,042	2,253,942	7,870,570	1,152	0,861	2,013

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.098	1.191	.
(14) Massachusetts Credibility:	0.450	0.670	.
(15) Countrywide Pure Premium:	0.876	0.561	1.437
(16) Countrywide Indicated Relativity:	0.973	0.914	.
(17) Countrywide Credibility:	0.280	0.170	.
(18) Countrywide Lost-Time Claims:	684.00	.	.
(19) Pure Premium Underlying Present Rate:	0.781	0.563	1.344
(20) Relativity to Underlying Present Rate:	0.893	0.682	.
(21) Credibility to Underlying Relativity:	0.270	0.160	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.008	1.062	.
(24) Balanced Formula Relativity:	1.005	1.062	1.028

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Calculation of Class Relativities

Class(es): 4251 STATIONERY MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	188,026	0	19	0	107,271	0	52,943	160,214	0.571	0.282	0.852
2008	222,104	0	20	0	40,367	0	92,632	132,998	0.182	0.417	0.599
2009	185,919	0	11	0	26,576	0	27,252	53,828	0.143	0.147	0.290
2010	294,153	1	44	13,836	517,996	5,791	250,601	788,224	1.808	0.872	2.680
2011	149,016	0	6	0	46,313	0	23,015	69,327	0.311	0.154	0.465
MA Total:	1,039,217	1	100	13,836	738,523	5,791	446,443	1,204,592	0.724	0.435	1.159

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.690	0.602	.
(14) Massachusetts Credibility:	0.260	0.420	.
(15) Countrywide Pure Premium:	1.179	0.811	1.990
(16) Countrywide Indicated Relativity:	1.311	1.320	.
(17) Countrywide Credibility:	0.370	0.290	.
(18) Countrywide Lost-Time Claims:	427.00	.	.
(19) Pure Premium Underlying Present Rate:	0.781	0.644	1.425
(20) Relativity to Underlying Present Rate:	0.894	0.780	.
(21) Credibility to Underlying Relativity:	0.370	0.290	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.995	0.862	.
(24) Balanced Formula Relativity:	0.992	0.861	0.939

Class(es): 4273 BAG MFG-PAPER OR PLASTIC		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	48,086	0	15	0	5,209	0	12,677	17,886	0.108	0.264	0.372
2008	40,696	0	7	0	39,273	0	23,732	63,005	0.965	0.583	1.548
2009	37,745	0	10	0	17,277	0	13,132	30,409	0.458	0.348	0.806
2010	40,087	0	9	0	4,862	0	11,925	16,787	0.121	0.297	0.419
2011	39,265	0	11	0	3,808	0	9,488	13,295	0.097	0.242	0.339
MA Total:	205,879	0	52	0	70,430	0	70,954	141,384	0.342	0.345	0.687

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.326	0.477	.
(14) Massachusetts Credibility:	0.160	0.290	.
(15) Countrywide Pure Premium:	1.103	0.732	1.835
(16) Countrywide Indicated Relativity:	1.226	1.191	.
(17) Countrywide Credibility:	0.420	0.360	.
(18) Countrywide Lost-Time Claims:	702.00	.	.
(19) Pure Premium Underlying Present Rate:	1.068	1.274	2.342
(20) Relativity to Underlying Present Rate:	1.221	1.543	.
(21) Credibility to Underlying Relativity:	0.420	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.080	1.107	.
(24) Balanced Formula Relativity:	1.077	1.107	1.089

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4279 PAPER GOODS MFG NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	323,633	4	82	236,749	176,160	161,843	146,788	721,539	1,276	0,954	2,229
2008	285,344	1	60	69,169	237,609	107,681	133,131	547,591	1,075	0,844	1,919
2009	331,608	0	58	0	146,747	0	185,544	332,291	0,443	0,560	1,002
2010	329,240	1	50	100,053	211,754	3,923	166,885	482,614	0,947	0,519	1,466
2011	325,187	2	47	126,917	295,665	177,609	182,546	782,737	1,300	1,108	2,407
MA Total:	1,595,013	8	297	532,888	1,067,935	451,056	814,893	2,866,773	1,004	0,794	1,797

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.957	1.098	.
(14) Massachusetts Credibility:	0.380	0.690	.
(15) Countrywide Pure Premium:	1.072	0.771	1.843
(16) Countrywide Indicated Relativity:	1.191	1.255	.
(17) Countrywide Credibility:	0.310	0.160	.
(18) Countrywide Lost-Time Claims:	990.00	.	.
(19) Pure Premium Underlying Present Rate:	1.287	1.475	2.762
(20) Relativity to Underlying Present Rate:	1.472	1.787	.
(21) Credibility to Underlying Relativity:	0.310	0.150	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.189	1.226	.
(24) Balanced Formula Relativity:	1.185	1.226	1.202

Class(es):		Effective: 1/1/2014							Manufacturing		
4282 DRESS PATTERN MFG-PAPER											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	500	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	500	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	515	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	520	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	1,674	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	3,710	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.020	0.030	.
(15) Countrywide Pure Premium:	1.098	0.594	1.692
(16) Countrywide Indicated Relativity:	1.220	0.967	.
(17) Countrywide Credibility:	0.160	0.160	.
(18) Countrywide Lost-Time Claims:	11.000	.	.
(19) Pure Premium Underlying Present Rate:	0.263	0.266	0.529
(20) Relativity to Underlying Present Rate:	0.300	0.323	.
(21) Credibility to Underlying Relativity:	0.820	0.810	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.442	0.416	.
(24) Balanced Formula Relativity:	0.440	0.416	0.430

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4283 BUILDING OR ROOFING PAPER OR FELT PREPARATION-NO INSTALLATION											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	507	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	90	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	536	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	1,132	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.020	0.030	.
(15) Countrywide Pure Premium:	1.059	0.626	1.684
(16) Countrywide Indicated Relativity:	1.176	1.018	.
(17) Countrywide Credibility:	0.400	0.430	.
(18) Countrywide Lost-Time Claims:	120.00	.	.
(19) Pure Premium Underlying Present Rate:	1.226	1.016	2.242
(20) Relativity to Underlying Present Rate:	1.402	1.231	.
(21) Credibility to Underlying Relativity:	0.580	0.540	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.284	1.103	.
(24) Balanced Formula Relativity:	1.279	1.102	1.207

Class(es):		Effective: 1/1/2014							Manufacturing		
4299 PRINTING											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,674,481	7	349	916,278	1,371,920	261,410	1,048,108	3,597,715	0.856	0.490	1,345
2008	2,463,125	8	266	714,462	1,895,769	171,124	997,435	3,778,790	1.060	0.474	1,534
2009	2,175,170	8	282	971,628	1,713,422	376,408	1,069,490	4,130,948	1.234	0.665	1,899
2010	2,124,282	8	224	648,585	844,916	579,033	673,378	2,745,912	0.703	0.590	1,293
2011	2,216,937	14	237	664,205	1,050,064	410,617	679,775	2,804,661	0.773	0.492	1,265
MA Total:	11,653,996	45	1,358	3,915,159	6,876,091	1,798,592	4,468,186	17,058,027	0.926	0.538	1,464

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.883	0.744	.
(14) Massachusetts Credibility:	0.720	1.000	.
(15) Countrywide Pure Premium:	0.858	0.589	1.447
(16) Countrywide Indicated Relativity:	0.954	0.958	.
(17) Countrywide Credibility:	0.140	0.000	.
(18) Countrywide Lost-Time Claims:	6357.0	.	.
(19) Pure Premium Underlying Present Rate:	0.871	0.760	1.631
(20) Relativity to Underlying Present Rate:	0.996	0.921	.
(21) Credibility to Underlying Relativity:	0.140	0.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.909	0.744	.
(24) Balanced Formula Relativity:	0.906	0.743	0.839

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Calculation of Class Relativities

Class(es): 4301 WALLPAPER MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	21	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	154	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	99	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	16	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	291	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.020	0.030	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	2.834	2.446	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	2.522	2.055	4.577
(20) Relativity to Underlying Present Rate:	2.885	2.489	.
(21) Credibility to Underlying Relativity:	0.980	0.970	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.827	2.415	.
(24) Balanced Formula Relativity:	2.818	2.413	2.653

Class(es): 4304 NEWSPAPER PUBLISHING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	156.118	1	29	73.449	62.243	14.408	125.816	275.915	0.869	0.898	1.767
2008	254.615	1	38	292.922	107.744	153.498	149.384	703.549	1.574	1.190	2.763
2009	198.733	1	32	38.808	20.014	20.752	83.557	163.130	0.296	0.525	0.821
2010	216.206	2	39	319.335	11.013	176.046	39.392	545.785	1.528	0.996	2.524
2011	245.890	4	31	281.648	258.407	268.319	184.797	993.171	2.196	1.843	4.039
MA Total:	1,071.562	9	169	1,006.163	459.420	633.022	582.945	2,681.551	1.368	1.135	2.502

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.304	1.569	.
(14) Massachusetts Credibility:	0.350	0.580	.
(15) Countrywide Pure Premium:	1.533	1.104	2.637
(16) Countrywide Indicated Relativity:	1.704	1.797	.
(17) Countrywide Credibility:	0.330	0.210	.
(18) Countrywide Lost-Time Claims:	1812.0	.	.
(19) Pure Premium Underlying Present Rate:	1.520	1.450	2.970
(20) Relativity to Underlying Present Rate:	1.739	1.757	.
(21) Credibility to Underlying Relativity:	0.320	0.210	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.575	1.657	.
(24) Balanced Formula Relativity:	1.570	1.656	1.605

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Calculation of Class Relativities

Class(es): 4307 BOOKBINDING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	217,312	0	18	0	82,554	0	81,060	163,614	0.380	0.373	0.753
2008	221,497	2	27	240,630	82,032	111,447	76,143	510,252	1.457	0.847	2.304
2009	202,250	0	18	0	73,034	0	28,684	101,718	0.361	0.142	0.503
2010	195,513	1	23	110,202	134,382	3,898	109,855	358,337	1.251	0.582	1.833
2011	143,463	3	13	120,895	66,251	59,394	98,250	344,790	1.304	1.099	2.403
MA Total:	980,035	6	99	471,727	438,253	174,739	393,992	1,478,710	0.929	0.580	1.509

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.885	0.803	.
(14) Massachusetts Credibility:	0.220	0.370	.
(15) Countrywide Pure Premium:	0.811	0.508	1.319
(16) Countrywide Indicated Relativity:	0.901	0.827	.
(17) Countrywide Credibility:	0.390	0.320	.
(18) Countrywide Lost-Time Claims:	367.00	.	.
(19) Pure Premium Underlying Present Rate:	0.544	0.515	1.060
(20) Relativity to Underlying Present Rate:	0.623	0.624	.
(21) Credibility to Underlying Relativity:	0.390	0.310	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.789	0.755	.
(24) Balanced Formula Relativity:	0.787	0.755	0.774

Class(es): 4308 LINOTYPE OR HAND COMPOSITION		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	104	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	104	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	104	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	114	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	426	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.020	0.010	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	1.671	0.397	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	1.487	0.334	1.821
(20) Relativity to Underlying Present Rate:	1.701	0.404	.
(21) Credibility to Underlying Relativity:	0.980	0.990	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.667	0.400	.
(24) Balanced Formula Relativity:	1.662	0.400	1.147

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Calculation of Class Relativities

Class(es): 4350 ELECTROTYPING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	0	0	0	0	0	0	0	0	.	.	.

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.308	0.245	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.274	0.206	0.480
(20) Relativity to Underlying Present Rate:	0.313	0.250	.
(21) Credibility to Underlying Relativity:	1.000	1.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.313	0.250	.
(24) Balanced Formula Relativity:	0.312	0.250	0.287

Class(es): 4351 PHOTOENGRAVING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	257.810	0	31	0	906.602	0	184.773	1,091.374	3.517	0.717	4.233
2008	262.276	1	20	7.614	30.260	4.832	12.212	54.917	0.144	0.065	0.209
2009	246.799	0	17	0	3.365	0	22.919	26.284	0.014	0.093	0.106
2010	280.999	1	13	62.342	50.699	19.657	15.503	148.201	0.402	0.125	0.527
2011	240.577	0	25	0	76.057	0	35.542	111.599	0.316	0.148	0.464
MA Total:	1,288,461	2	106	69,956	1,066,983	24,488	270,948	1,432,375	0.882	0.229	1.112

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.841	0.317	.
(14) Massachusetts Credibility:	0.240	0.350	.
(15) Countrywide Pure Premium:	0.483	0.309	0.792
(16) Countrywide Indicated Relativity:	0.537	0.503	.
(17) Countrywide Credibility:	0.250	0.270	.
(18) Countrywide Lost-Time Claims:	37.000	.	.
(19) Pure Premium Underlying Present Rate:	0.481	0.331	0.812
(20) Relativity to Underlying Present Rate:	0.550	0.400	.
(21) Credibility to Underlying Relativity:	0.510	0.380	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.617	0.399	.
(24) Balanced Formula Relativity:	0.615	0.399	0.527

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Calculation of Class Relativities

Class(es): 4352 ENGRAVING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	81,469	0	6	0	0	0	3,802	3,802	0.000	0.047	0.047
2008	76,739	0	5	0	0	0	3,845	3,845	0.000	0.050	0.050
2009	66,594	0	1	0	0	0	1,354	1,354	0.000	0.020	0.020
2010	54,318	0	4	0	3,275	0	2,681	5,956	0.060	0.049	0.110
2011	58,801	0	3	0	537	0	2,617	3,154	0.009	0.044	0.054
MA Total:	337,921	0	19	0	3,812	0	14,299	18,111	0.011	0.042	0.054

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.011	0.059	.
(14) Massachusetts Credibility:	0.120	0.240	.
(15) Countrywide Pure Premium:	0.494	0.417	0.911
(16) Countrywide Indicated Relativity:	0.549	0.678	.
(17) Countrywide Credibility:	0.340	0.360	.
(18) Countrywide Lost-Time Claims:	80.000	.	.
(19) Pure Premium Underlying Present Rate:	0.372	0.476	0.848
(20) Relativity to Underlying Present Rate:	0.426	0.577	.
(21) Credibility to Underlying Relativity:	0.540	0.400	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.418	0.489	.
(24) Balanced Formula Relativity:	0.416	0.488	0.446

Class(es): 4360 MOTION PICTURE: DEVLPMNT OF NEGATIVES, PRINTING & ALL SUB OP		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	167,512	2	7	114,322	48,321	46,934	9,763	219,339	0.971	0.338	1.309
2008	168,996	3	13	291,424	241,275	219,978	121,441	874,117	3.152	2.020	5.172
2009	145,841	0	4	0	26,005	0	8,503	34,508	0.178	0.058	0.237
2010	126,006	0	4	0	12,382	0	7,930	20,312	0.098	0.063	0.161
2011	113,434	0	3	0	38,990	0	36,791	75,782	0.344	0.324	0.668
MA Total:	721,789	5	31	405,745	366,973	266,912	184,429	1,224,059	1.071	0.625	1.696

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.021	0.865	.
(14) Massachusetts Credibility:	0.190	0.290	.
(15) Countrywide Pure Premium:	0.420	0.417	0.837
(16) Countrywide Indicated Relativity:	0.467	0.679	.
(17) Countrywide Credibility:	0.410	0.360	.
(18) Countrywide Lost-Time Claims:	245.00	.	.
(19) Pure Premium Underlying Present Rate:	0.502	0.380	0.882
(20) Relativity to Underlying Present Rate:	0.575	0.460	.
(21) Credibility to Underlying Relativity:	0.400	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.615	0.656	.
(24) Balanced Formula Relativity:	0.613	0.656	0.631

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Office and Clerical		
4361 PHOTOGRAPHER - ALL EMP & CLERICAL, SALES, DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums		
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	915,309	1	37	126,786	193,617	250,381	165,777	736,561	0.350	0.455	0.805
2008	708,000	3	37	208,782	162,934	222,876	125,398	719,990	0.525	0.492	1.017
2009	715,567	1	23	103,399	54,499	36,875	130,630	325,403	0.221	0.234	0.455
2010	666,412	1	41	108,226	28,124	25,930	54,462	216,743	0.205	0.121	0.325
2011	645,303	1	33	239,596	55,354	36,651	76,031	407,632	0.457	0.175	0.632
MA Total:	3,650,591	7	171	786,790	494,528	572,713	552,298	2,406,329	0.351	0.308	0.659

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.441	5.109	.
(14) Massachusetts Credibility:	0.240	0.420	.
(15) Countrywide Pure Premium:	0.251	0.236	0.487
(16) Countrywide Indicated Relativity:	4.177	4.744	.
(17) Countrywide Credibility:	0.380	0.290	.
(18) Countrywide Lost-Time Claims:	725.00	.	.
(19) Pure Premium Underlying Present Rate:	0.178	0.187	0.365
(20) Relativity to Underlying Present Rate:	3.395	3.129	.
(21) Credibility to Underlying Relativity:	0.380	0.290	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	3.943	4.429	.
(24) Balanced Formula Relativity:	4.002	4.467	4.203

Class(es):		Effective: 1/1/2014							Goods and Services		
4362 MOTION PICTURE: FILM EXCH & PROJECTION RMS, CL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums		
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	12,323	0	1	0	0	0	1,418	1,418	0.000	0.115	0.115
2008	6,366	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	6,773	0	1	0	0	0	762	762	0.000	0.112	0.112
2010	7,685	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	10,871	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	44,019	0	2	0	0	0	2,179	2,179	0.000	0.050	0.050

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.077	.
(14) Massachusetts Credibility:	0.050	0.080	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.388	0.373	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.245	0.245	0.490
(20) Relativity to Underlying Present Rate:	0.391	0.376	.
(21) Credibility to Underlying Relativity:	0.950	0.920	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.372	0.352	.
(24) Balanced Formula Relativity:	0.368	0.352	0.361

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4410 RUBBER GOODS MFG NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	323,171	5	105	422,012	217,791	239,010	187,934	1,066,748	1,980	1,321	3,301
2008	369,970	6	97	651,273	496,637	176,135	596,145	1,920,190	3,103	2,087	5,190
2009	401,442	1	65	184,892	601,155	35,872	388,197	1,210,116	1,958	1,056	3,014
2010	330,791	2	73	333,440	227,985	39,997	169,969	771,391	1,697	0,635	2,332
2011	480,166	3	88	369,689	744,602	207,899	394,774	1,716,963	2,321	1,255	3,576
MA Total:	1,905,539	17	428	1,961,307	2,288,171	698,913	1,737,019	6,685,409	2,230	1,278	3,508

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.126	1.768	.
(14) Massachusetts Credibility:	0.460	0.780	.
(15) Countrywide Pure Premium:	1.404	0.969	2.373
(16) Countrywide Indicated Relativity:	1.561	1.577	.
(17) Countrywide Credibility:	0.270	0.110	.
(18) Countrywide Lost-Time Claims:	2498.0	.	.
(19) Pure Premium Underlying Present Rate:	1.754	1.697	3.451
(20) Relativity to Underlying Present Rate:	2.007	2.056	.
(21) Credibility to Underlying Relativity:	0.270	0.110	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.941	1.779	.
(24) Balanced Formula Relativity:	1.935	1.778	1.871

Class(es):		Effective: 1/1/2014							Manufacturing		
4417 BOOT OR SHOE MFG-RUBBER											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	952	0	1	0	0	0	602	602	0.000	0.632	0.632
MA Total:	952	0	1	0	0	0	602	602	0.000	0.632	0.632

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.874	.
(14) Massachusetts Credibility:	0.020	0.040	.
(15) Countrywide Pure Premium:	3.140	0.819	3.959
(16) Countrywide Indicated Relativity:	3.489	1.333	.
(17) Countrywide Credibility:	0.100	0.110	.
(18) Countrywide Lost-Time Claims:	4.000	.	.
(19) Pure Premium Underlying Present Rate:	2.102	1.910	4.012
(20) Relativity to Underlying Present Rate:	2.404	2.314	.
(21) Credibility to Underlying Relativity:	0.880	0.850	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	2.465	2.148	.
(24) Balanced Formula Relativity:	2.457	2.147	2.331

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Calculation of Class Relativities

Class(es): 4432 FOUNTAIN PEN MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	42,203	0	8	0	15,917	0	26,115	42,032	0.377	0.619	0.996
2008	42,825	0	7	0	2,419	0	10,276	12,695	0.056	0.240	0.296
2009	42,475	0	4	0	34,602	0	14,864	49,466	0.815	0.350	1.165
2010	35,688	0	3	0	47,730	0	15,061	62,792	1.337	0.422	1.759
2011	44,121	0	4	0	8,997	0	6,018	15,015	0.204	0.136	0.340
MA Total:	207,313	0	26	0	109,666	0	72,334	182,000	0.529	0.349	0.878

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.504	0.483	.
(14) Massachusetts Credibility:	0.110	0.200	.
(15) Countrywide Pure Premium:	0.579	0.304	0.883
(16) Countrywide Indicated Relativity:	0.644	0.494	.
(17) Countrywide Credibility:	0.290	0.310	.
(18) Countrywide Lost-Time Claims:	53.000	.	.
(19) Pure Premium Underlying Present Rate:	0.470	0.492	0.962
(20) Relativity to Underlying Present Rate:	0.538	0.596	.
(21) Credibility to Underlying Relativity:	0.600	0.490	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.565	0.542	.
(24) Balanced Formula Relativity:	0.563	0.542	0.554

Class(es): 4439 LACQUER OR SPIRIT VARNISH MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	43,478	0	3	0	6,047	0	15,216	21,263	0.139	0.350	0.489
2008	41,282	1	4	170,980	11,276	272,419	18,793	473,469	4.415	7.054	11.469
2009	35,122	0	5	0	314	0	1,653	1,967	0.009	0.047	0.056
2010	31,680	1	4	269,302	236,278	40,119	108,414	654,113	15.959	4.689	20.647
2011	38,625	1	5	284,744	21,517	69,552	34,093	409,906	7.929	2.683	10.613
MA Total:	190,187	3	21	725,027	275,432	382,090	178,170	1,560,718	5.260	2.946	8.206

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	5.015	4.074	.
(14) Massachusetts Credibility:	0.150	0.250	.
(15) Countrywide Pure Premium:	0.815	0.833	1.647
(16) Countrywide Indicated Relativity:	0.905	1.355	.
(17) Countrywide Credibility:	0.230	0.240	.
(18) Countrywide Lost-Time Claims:	28.000	.	.
(19) Pure Premium Underlying Present Rate:	0.981	0.970	1.951
(20) Relativity to Underlying Present Rate:	1.122	1.175	.
(21) Credibility to Underlying Relativity:	0.620	0.510	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.656	1.943	.
(24) Balanced Formula Relativity:	1.651	1.942	1.770

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4452 PLASTICS MFG: FABRICATED PRODUCTS NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	513.899	5	134	817.290	204.048	508.046	237.679	1.767.063	1.987	1.451	3.439
2008	498.552	4	137	460.396	630.722	224.947	413.884	1.729.950	2.189	1.281	3.470
2009	478.303	7	133	837.823	411.415	265.867	395.782	1.910.886	2.612	1.383	3.995
2010	519.447	3	139	398.717	667.128	73.694	477.352	1.616.892	2.052	1.061	3.113
2011	574.853	7	96	1.113.763	656.311	213.922	316.190	2.300.186	3.079	0.922	4.001
MA Total:	2,585,053	26	639	3,627,989	2,569,624	1,286,477	1,840,887	9,324,977	2.397	1.210	3.607

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.285	1.673	.
(14) Massachusetts Credibility:	0.440	0.750	.
(15) Countrywide Pure Premium:	1.291	0.990	2.281
(16) Countrywide Indicated Relativity:	1.435	1.610	.
(17) Countrywide Credibility:	0.280	0.130	.
(18) Countrywide Lost-Time Claims:	1949.0	.	.
(19) Pure Premium Underlying Present Rate:	1.121	1.128	2.249
(20) Relativity to Underlying Present Rate:	1.282	1.367	.
(21) Credibility to Underlying Relativity:	0.280	0.120	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.766	1.628	.
(24) Balanced Formula Relativity:	1.761	1.627	1.706

Class(es):		Effective: 1/1/2014							Manufacturing		
4459 PLASTICS MFG: SHEETS, RODS OR TUBES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	646.022	5	171	634.825	573.286	636.305	446.791	2.291.207	1.870	1.677	3.547
2008	641.393	7	129	1,013.208	475.545	539.981	372.423	2,401.157	2.321	1.423	3.744
2009	626.730	8	128	785.161	602.540	654.082	365.027	2,406.809	2.214	1.626	3.840
2010	654.601	2	125	93.687	328.260	23.377	270.396	715.720	0.645	0.449	1.093
2011	615.528	3	119	179.174	513.269	114.627	443.102	1,250.172	1.125	0.906	2.031
MA Total:	3,184,275	25	672	2,706,055	2,492,900	1,968,373	1,897,738	9,065,066	1.633	1.214	2.847

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.556	1.679	.
(14) Massachusetts Credibility:	0.470	0.840	.
(15) Countrywide Pure Premium:	1.019	0.706	1.725
(16) Countrywide Indicated Relativity:	1.132	1.148	.
(17) Countrywide Credibility:	0.270	0.080	.
(18) Countrywide Lost-Time Claims:	1964.0	.	.
(19) Pure Premium Underlying Present Rate:	1.093	1.227	2.320
(20) Relativity to Underlying Present Rate:	1.250	1.486	.
(21) Credibility to Underlying Relativity:	0.260	0.080	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.362	1.621	.
(24) Balanced Formula Relativity:	1.358	1.620	1.465

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4470 CABLE MFG - INSULATED ELECTRICAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	313,284	2	94	255,937	508,893	151,874	427,284	1,343,987	2,441	1,849	4,290
2008	341,275	2	42	77,577	96,321	11,414	68,981	254,293	0,510	0,236	0,745
2009	265,417	0	28	0	71,645	0	68,357	140,002	0,270	0,258	0,527
2010	436,481	3	47	531,596	346,086	151,079	126,100	1,154,861	2,011	0,635	2,646
2011	471,547	1	48	107,927	162,431	33,223	112,501	416,082	0,573	0,309	0,882
MA Total:	1,828,004	8	259	973,037	1,185,376	347,589	803,223	3,309,225	1.181	0.630	1.810

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.126	0.871	.
(14) Massachusetts Credibility:	0.380	0.640	.
(15) Countrywide Pure Premium:	0.960	0.612	1.572
(16) Countrywide Indicated Relativity:	1.067	0.995	.
(17) Countrywide Credibility:	0.310	0.180	.
(18) Countrywide Lost-Time Claims:	468.00	.	.
(19) Pure Premium Underlying Present Rate:	1.121	1.062	2.183
(20) Relativity to Underlying Present Rate:	1.282	1.287	.
(21) Credibility to Underlying Relativity:	0.310	0.180	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.156	0.968	.
(24) Balanced Formula Relativity:	1.152	0.967	1.077

Class(es):		Effective: 1/1/2014							Manufacturing		
4484 PLASTICS MFG: MOLDED PRODUCTS NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,002,565	12	340	857,379	795,694	238,111	913,102	2,804,286	0,825	0,575	1,400
2008	1,891,832	6	329	367,417	1,692,672	169,962	1,549,868	3,779,919	1,089	0,909	1,998
2009	1,626,038	7	234	472,493	2,076,123	821,905	990,191	4,360,713	1,567	1,114	2,682
2010	1,819,501	4	274	123,958	1,262,160	138,658	880,251	2,405,027	0,762	0,560	1,322
2011	1,766,150	10	251	752,179	1,346,043	359,721	1,190,591	3,648,534	1,188	0,878	2,066
MA Total:	9,106,087	39	1,428	2,573,427	7,172,691	1,728,357	5,524,003	16,998,478	1.070	0.796	1.867

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.020	1.101	.
(14) Massachusetts Credibility:	0.660	1.000	.
(15) Countrywide Pure Premium:	1.079	0.761	1.840
(16) Countrywide Indicated Relativity:	1.199	1.238	.
(17) Countrywide Credibility:	0.170	0.000	.
(18) Countrywide Lost-Time Claims:	7900.0	.	.
(19) Pure Premium Underlying Present Rate:	0.900	0.963	1.863
(20) Relativity to Underlying Present Rate:	1.030	1.167	.
(21) Credibility to Underlying Relativity:	0.170	0.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.052	1.101	.
(24) Balanced Formula Relativity:	1.049	1.101	1.070

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4493 FABRIC COATING OR IMPREGNATING NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	420.431	6	116	1,020,577	659,104	240,213	527,339	2,447,233	3,995	1,826	5,821
2008	382,335	4	93	308,385	336,572	82,817	380,086	1,107,859	1,687	1,211	2,898
2009	362,073	3	89	144,844	84,929	100,291	103,132	433,196	0,635	0,562	1,196
2010	368,142	1	91	134,303	455,205	155,602	499,171	1,244,281	1,601	1,779	3,380
2011	357,735	2	73	50,808	260,314	74,330	225,610	611,061	0,870	0,838	1,708
MA Total:	1,890,717	16	462	1,658,916	1,796,123	653,252	1,735,338	5,843,630	1,827	1,263	3,091

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.742	1.747	.
(14) Massachusetts Credibility:	0.390	0.710	.
(15) Countrywide Pure Premium:	0.855	0.570	1.425
(16) Countrywide Indicated Relativity:	0.951	0.927	.
(17) Countrywide Credibility:	0.310	0.150	.
(18) Countrywide Lost-Time Claims:	159.00	.	.
(19) Pure Premium Underlying Present Rate:	1.152	1.366	2.518
(20) Relativity to Underlying Present Rate:	1.317	1.655	.
(21) Credibility to Underlying Relativity:	0.300	0.140	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.369	1.611	.
(24) Balanced Formula Relativity:	1.365	1.610	1.465

Class(es):		Effective: 1/1/2014							Goods and Services		
4511 ANALYTICAL CHEMIST											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,810,512	5	99	75,348	298,029	69,950	372,802	816,129	0,098	0,116	0,214
2008	3,802,699	2	81	9,925	378,793	30,062	175,709	594,490	0,102	0,054	0,156
2009	4,734,995	1	110	128,619	471,074	46,857	492,572	1,139,122	0,127	0,114	0,241
2010	5,451,862	1	95	27,279	253,231	9,264	289,553	579,326	0,051	0,055	0,106
2011	4,828,609	1	99	80,379	103,723	118,557	253,517	556,176	0,038	0,077	0,115
MA Total:	22,628,678	10	484	321,549	1,504,850	274,690	1,584,154	3,685,243	0,081	0,082	0,163

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.089	0.128	.
(14) Massachusetts Credibility:	0.430	0.770	.
(15) Countrywide Pure Premium:	0.265	0.180	0.445
(16) Countrywide Indicated Relativity:	0.292	0.282	.
(17) Countrywide Credibility:	0.290	0.120	.
(18) Countrywide Lost-Time Claims:	1361.0	.	.
(19) Pure Premium Underlying Present Rate:	0.126	0.138	0.264
(20) Relativity to Underlying Present Rate:	0.202	0.212	.
(21) Credibility to Underlying Relativity:	0.280	0.110	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.179	0.155	.
(24) Balanced Formula Relativity:	0.177	0.156	0.168

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
4512 BIOMEDICAL RESEARCH LABS-INCL OUTSIDE OPERATNS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,212,411	2	97	71,114	14,591	8,118	106,987	200,809	0.016	0.022	0.039
2008	5,447,553	0	106	0	183,169	0	107,490	290,658	0.034	0.020	0.053
2009	5,808,621	1	102	23,666	460,719	6,125	654,212	1,144,721	0.083	0.114	0.197
2010	6,049,059	1	96	3,369	136,495	16,151	192,764	348,778	0.023	0.035	0.058
2011	8,077,129	1	102	193,525	201,045	100,711	250,133	745,414	0.049	0.043	0.092
MA Total:	30,594,772	5	503	291,673	996,018	131,105	1,311,585	2,730,381	0.042	0.047	0.089

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.046	0.073	.
(14) Massachusetts Credibility:	0.350	0.600	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.085	0.085	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.054	0.056	0.110
(20) Relativity to Underlying Present Rate:	0.086	0.086	.
(21) Credibility to Underlying Relativity:	0.650	0.400	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.072	0.078	.
(24) Balanced Formula Relativity:	0.071	0.078	0.074

Class(es):		Effective: 1/1/2014							Manufacturing		
4557 INK MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	554,980	3	100	434,607	391,335	69,295	445,578	1,340,815	1.488	0.928	2.416
2008	262,434	2	30	27,774	7,126	4,926	29,510	69,337	0.133	0.131	0.264
2009	308,136	1	21	218,418	163,767	50,869	42,028	475,082	1.240	0.301	1.542
2010	677,555	3	98	159,535	588,685	152,770	276,523	1,177,513	1.104	0.634	1.738
2011	688,304	4	94	464,558	309,285	251,383	254,350	1,279,576	1.124	0.735	1.859
MA Total:	2,491,409	13	343	1,304,892	1,460,198	529,244	1,047,990	4,342,323	1.110	0.633	1.743

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.058	0.876	.
(14) Massachusetts Credibility:	0.340	0.540	.
(15) Countrywide Pure Premium:	0.897	0.637	1.534
(16) Countrywide Indicated Relativity:	0.996	1.036	.
(17) Countrywide Credibility:	0.330	0.230	.
(18) Countrywide Lost-Time Claims:	527.00	.	.
(19) Pure Premium Underlying Present Rate:	0.602	0.525	1.127
(20) Relativity to Underlying Present Rate:	0.689	0.635	.
(21) Credibility to Underlying Relativity:	0.330	0.230	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.916	0.857	.
(24) Balanced Formula Relativity:	0.913	0.857	0.890

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Calculation of Class Relativities

Class(es): 4558 PAINT MFG		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	80,584	0	5	0	4,007	0	21,932	25,939	0.050	0.272	0.322
2008	72,617	0	9	0	41,300	0	55,558	96,859	0.569	0.765	1.334
2009	72,585	1	7	11,817	36,789	420	23,923	72,949	0.670	0.335	1.005
2010	78,148	1	7	8,928	2,076	47,809	5,516	64,330	0.141	0.682	0.823
2011	75,761	0	3	0	13,771	0	41,947	55,718	0.182	0.554	0.735
MA Total:	379,694	2	31	20,746	97,944	48,229	148,876	315,795	0.313	0.519	0.832

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.298	0.718	.
(14) Massachusetts Credibility:	0.170	0.270	.
(15) Countrywide Pure Premium:	0.724	0.492	1.216
(16) Countrywide Indicated Relativity:	0.805	0.801	.
(17) Countrywide Credibility:	0.420	0.370	.
(18) Countrywide Lost-Time Claims:	501.00	.	.
(19) Pure Premium Underlying Present Rate:	0.727	0.614	1.340
(20) Relativity to Underlying Present Rate:	0.831	0.743	.
(21) Credibility to Underlying Relativity:	0.410	0.360	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.729	0.758	.
(24) Balanced Formula Relativity:	0.727	0.757	0.739

Class(es): 4583 FERTILIZER MFG & DRIVERS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	53,516	1	7	28,437	2,972	9,420	10,571	51,400	0.587	0.374	0.960
2008	50,551	0	4	0	0	0	4,596	4,596	0.000	0.091	0.091
2009	45,919	0	5	0	41,422	0	19,753	61,175	0.902	0.430	1.332
2010	45,676	0	7	0	148,954	0	22,480	171,433	3.261	0.492	3.753
2011	48,412	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	244,075	1	23	28,437	193,347	9,420	57,400	288,605	0.909	0.274	1.182

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.866	0.379	.
(14) Massachusetts Credibility:	0.190	0.280	.
(15) Countrywide Pure Premium:	1.879	1.412	3.291
(16) Countrywide Indicated Relativity:	2.088	2.297	.
(17) Countrywide Credibility:	0.410	0.360	.
(18) Countrywide Lost-Time Claims:	633.00	.	.
(19) Pure Premium Underlying Present Rate:	1.483	1.012	2.494
(20) Relativity to Underlying Present Rate:	1.696	1.226	.
(21) Credibility to Underlying Relativity:	0.400	0.360	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.699	1.374	.
(24) Balanced Formula Relativity:	1.694	1.374	1.563

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Calculation of Class Relativities

Class(es): 4611 DRUG MEDICINE OR PHARMACEUTICAL PREP-NO MFG OF INGREDIENTS									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	304.832	2	30	128.366	369.920	45.569	150.225	694.080	1.635	0.642	2.277			
2008	419.295	1	37	250.875	23.382	423.486	54.600	752.343	0.654	1.140	1.794			
2009	827.425	0	62	0	68.561	0	126.869	195.430	0.083	0.153	0.236			
2010	527.732	5	37	436.452	26.600	341.896	35.310	840.258	0.877	0.715	1.592			
2011	1,537.064	3	40	83.117	141.600	72.966	201.824	499.507	0.146	0.179	0.325			
MA Total:	3,616.348	11	206	898.811	630.063	883.917	568.828	2,981.618	0.423	0.402	0.824			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.403	0.556	.
(14) Massachusetts Credibility:	0.410	0.650	.
(15) Countrywide Pure Premium:	0.415	0.292	0.707
(16) Countrywide Indicated Relativity:	0.461	0.475	.
(17) Countrywide Credibility:	0.300	0.180	.
(18) Countrywide Lost-Time Claims:	1918.0	.	.
(19) Pure Premium Underlying Present Rate:	0.676	0.572	1.248
(20) Relativity to Underlying Present Rate:	0.773	0.693	.
(21) Credibility to Underlying Relativity:	0.290	0.170	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.528	0.565	.
(24) Balanced Formula Relativity:	0.526	0.564	0.542

Class(es): 4635 OXYGEN OR HYDROGEN MFG & DRIVERS									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	68.903	1	9	1.217	11.411	3.486	35.435	51.548	0.183	0.565	0.748			
2008	151.611	2	20	151.048	10.020	30.300	94.207	285.574	1.062	0.821	1.884			
2009	82.429	2	17	57.843	261.893	59.802	219.864	599.402	3.879	3.393	7.272			
2010	156.848	1	39	8.318	73.569	11.246	155.029	248.162	0.522	1.060	1.582			
2011	170.281	1	34	294.126	940.525	120.985	411.460	1,767.097	7.251	3.127	10.378			
MA Total:	630.072	7	119	512.552	1,297.417	225.819	915.995	2,951.783	2.873	1.812	4.685			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.738	2.506	.
(14) Massachusetts Credibility:	0.270	0.460	.
(15) Countrywide Pure Premium:	1.110	0.791	1.901
(16) Countrywide Indicated Relativity:	1.233	1.288	.
(17) Countrywide Credibility:	0.370	0.270	.
(18) Countrywide Lost-Time Claims:	712.00	.	.
(19) Pure Premium Underlying Present Rate:	1.347	1.333	2.679
(20) Relativity to Underlying Present Rate:	1.540	1.614	.
(21) Credibility to Underlying Relativity:	0.360	0.270	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.750	1.936	.
(24) Balanced Formula Relativity:	1.745	1.935	1.823

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Calculation of Class Relativities

Class(es): 4653 GLUE MFG & DRIVERS		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	26.611	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	26.001	0	3	0	60.616	0	22.247	82.863	2.331	0.856	3.187
2009	30.824	0	2	0	0	0	3.495	3.495	0.000	0.113	0.113
2010	27.077	0	3	0	350.428	0	90.533	440.961	12.942	3.344	16.285
2011	27.065	0	1	0	789	0	1,289	2,078	0.029	0.048	0.077
MA Total:	137,580	0	9	0	411,833	0	117,564	529,396	2.993	0.855	3.848

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.854	1.182	.
(14) Massachusetts Credibility:	0.110	0.160	.
(15) Countrywide Pure Premium:	0.838	0.716	1.554
(16) Countrywide Indicated Relativity:	0.931	1.165	.
(17) Countrywide Credibility:	0.290	0.300	.
(18) Countrywide Lost-Time Claims:	51.000	.	.
(19) Pure Premium Underlying Present Rate:	0.606	0.452	1.058
(20) Relativity to Underlying Present Rate:	0.693	0.547	.
(21) Credibility to Underlying Relativity:	0.600	0.540	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.000	0.834	.
(24) Balanced Formula Relativity:	0.997	0.834	0.930

Class(es): 4665 RENDERING WORKS NOC & DR		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	40.903	0	13	0	107.316	0	46.943	154.259	2.624	1.148	3.771
2008	42.606	0	11	0	159.879	0	67.042	226.922	3.753	1.574	5.326
2009	44.738	0	11	0	33.054	0	57.865	90.919	0.739	1.293	2.032
2010	44.107	0	16	0	276.119	0	91.641	367.760	6.260	2.078	8.338
2011	46.413	1	18	4.824	124.968	1.306	171.021	302.118	2.796	3.713	6.509
MA Total:	218,767	1	69	4,824	701,336	1,306	434,513	1,141,978	3.228	1.992	5.220

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.077	2.755	.
(14) Massachusetts Credibility:	0.250	0.430	.
(15) Countrywide Pure Premium:	3.570	2.419	5.989
(16) Countrywide Indicated Relativity:	3.968	3.936	.
(17) Countrywide Credibility:	0.380	0.290	.
(18) Countrywide Lost-Time Claims:	305.00	.	.
(19) Pure Premium Underlying Present Rate:	3.198	3.397	6.596
(20) Relativity to Underlying Present Rate:	3.658	4.115	.
(21) Credibility to Underlying Relativity:	0.370	0.280	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	3.631	3.479	.
(24) Balanced Formula Relativity:	3.619	3.477	3.561

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4692 DENTAL LABORATORY											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	267.184	0	10	0	115.989	0	32.417	148.406	0.434	0.121	0.555
2008	290.466	1	13	280.773	140	17.918	9.912	308.742	0.967	0.096	1.063
2009	267.732	1	7	513.822	591	14.481	15.631	544.525	1.921	0.112	2.034
2010	284.609	0	5	0	100.707	0	21.713	122.420	0.354	0.076	0.430
2011	258.513	1	8	104.521	1.650	63.247	16.866	186.283	0.411	0.310	0.721
MA Total:	1,368,504	3	43	899,115	219,077	95,646	96,538	1,310,377	0.817	0.140	0.958

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.779	0.194	.
(14) Massachusetts Credibility:	0.190	0.290	.
(15) Countrywide Pure Premium:	0.260	0.157	0.417
(16) Countrywide Indicated Relativity:	0.289	0.256	.
(17) Countrywide Credibility:	0.410	0.360	.
(18) Countrywide Lost-Time Claims:	198.00	.	.
(19) Pure Premium Underlying Present Rate:	0.248	0.207	0.454
(20) Relativity to Underlying Present Rate:	0.283	0.250	.
(21) Credibility to Underlying Relativity:	0.400	0.350	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.380	0.236	.
(24) Balanced Formula Relativity:	0.378	0.236	0.320

Class(es):		Effective: 1/1/2014							Manufacturing		
4693 PHARMACEUTICAL OR SURGICAL GOODS MFG NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	252.056	3	18	350.634	235.545	88.249	205.537	879.964	2.326	1.166	3.491
2008	688.516	0	13	0	38.696	0	41.262	79.958	0.056	0.060	0.116
2009	308.732	1	9	158.828	8.384	22.215	10.598	200.026	0.542	0.106	0.648
2010	773.031	4	25	326.104	58.734	131.278	51.980	568.096	0.498	0.237	0.735
2011	850.720	2	57	167.509	218.602	53.679	348.382	788.172	0.454	0.473	0.926
MA Total:	2,873,055	10	122	1,003,075	559,962	295,421	657,760	2,516,218	0.544	0.332	0.876

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.519	0.459	.
(14) Massachusetts Credibility:	0.310	0.530	.
(15) Countrywide Pure Premium:	0.356	0.267	0.623
(16) Countrywide Indicated Relativity:	0.396	0.434	.
(17) Countrywide Credibility:	0.350	0.240	.
(18) Countrywide Lost-Time Claims:	860.00	.	.
(19) Pure Premium Underlying Present Rate:	0.421	0.434	0.855
(20) Relativity to Underlying Present Rate:	0.482	0.525	.
(21) Credibility to Underlying Relativity:	0.340	0.230	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.463	0.468	.
(24) Balanced Formula Relativity:	0.461	0.468	0.464

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4720 SOAP OR SYNTHETIC DETERGENT MFG											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	153.071	0	22	0	4.182	0	16.853	21.035	0.027	0.110	0.137
2008	162.930	0	27	0	38.925	0	96.713	135.638	0.239	0.594	0.832
2009	151.537	0	23	0	32.231	0	64.737	96.968	0.213	0.427	0.640
2010	167.306	0	12	0	123.084	0	81.541	204.625	0.736	0.487	1.223
2011	172.331	2	17	193.981	95.975	71.328	99.705	460.990	1.683	0.992	2.675
MA Total:	807.175	2	101	193.981	294.397	71.328	359.549	919.256	0.605	0.534	1.139

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.577	0.738	.
(14) Massachusetts Credibility:	0.230	0.400	.
(15) Countrywide Pure Premium:	0.858	0.614	1.473
(16) Countrywide Indicated Relativity:	0.954	1.000	.
(17) Countrywide Credibility:	0.390	0.300	.
(18) Countrywide Lost-Time Claims:	543.00	.	.
(19) Pure Premium Underlying Present Rate:	0.705	0.741	1.446
(20) Relativity to Underlying Present Rate:	0.806	0.898	.
(21) Credibility to Underlying Relativity:	0.380	0.300	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.811	0.864	.
(24) Balanced Formula Relativity:	0.808	0.864	0.831

Class(es):		Effective: 1/1/2014							Manufacturing		
4740 OIL REFINING - PETROLEUM & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	4.788	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	14.901	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	19.283	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	19.344	0	1	0	5.160	0	1.305	6.465	0.267	0.067	0.334
2011	12.335	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	70.651	0	1	0	5.160	0	1.305	6.465	0.073	0.018	0.092

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.070	0.026	.
(14) Massachusetts Credibility:	0.070	0.110	.
(15) Countrywide Pure Premium:	0.444	0.286	0.729
(16) Countrywide Indicated Relativity:	0.493	0.465	.
(17) Countrywide Credibility:	0.470	0.450	.
(18) Countrywide Lost-Time Claims:	480.00	.	.
(19) Pure Premium Underlying Present Rate:	0.436	0.329	0.764
(20) Relativity to Underlying Present Rate:	0.498	0.398	.
(21) Credibility to Underlying Relativity:	0.460	0.440	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.466	0.387	.
(24) Balanced Formula Relativity:	0.464	0.387	0.433

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Calculation of Class Relativities

Class(es): 4741 ASPHALT OR TAR DISTILLING OR REFINING & DRIVERS									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	36.046	1	2	122.584	11.024	55.237	4.662	193.507	3.707	1.662	5.368			
2008	10.781	0	2	0	0	0	791	791	0.000	0.073	0.073			
2009	7.658	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	11.027	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	9.977	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	75.490	1	4	122.584	11.024	55.237	5.452	194.298	1.770	0.804	2.574			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.687	1.112	.
(14) Massachusetts Credibility:	0.120	0.180	.
(15) Countrywide Pure Premium:	0.592	0.378	0.970
(16) Countrywide Indicated Relativity:	0.658	0.615	.
(17) Countrywide Credibility:	0.410	0.410	.
(18) Countrywide Lost-Time Claims:	124.00	.	.
(19) Pure Premium Underlying Present Rate:	1.653	1.059	2.712
(20) Relativity to Underlying Present Rate:	1.891	1.283	.
(21) Credibility to Underlying Relativity:	0.470	0.410	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.361	0.978	.
(24) Balanced Formula Relativity:	1.357	0.977	1.202

Class(es): 4770 EXPLOSIVES OR AMMUNITION MFG: BAG LOADING-PROPLNT CHRGS & DR									Effective: 1/1/2014			Manufacturing		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	0	0	0	0	0	0	0	0	0.000	0.000	0.000			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	8.301	1.272	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	7.388	1.069	8.457
(20) Relativity to Underlying Present Rate:	8.450	1.294	.
(21) Credibility to Underlying Relativity:	1.000	1.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	8.450	1.294	.
(24) Balanced Formula Relativity:	8.423	1.294	5.514

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Calculation of Class Relativities

Class(es):									Effective: 1/1/2014			Manufacturing		
4773 EXPLOSIVES OR AMMUNITION MFG: HIGH EXPLOSIVES MFG & DRIVERS														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	0	0	0	0	0	0	0	0	.	.	.			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	16.883	2.387	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	15.026	2.006	17.032
(20) Relativity to Underlying Present Rate:	17.187	2.430	.
(21) Credibility to Underlying Relativity:	1.000	1.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	17.187	2.430	.
(24) Balanced Formula Relativity:	17.132	2.429	11.133

Class(es):									Effective: 1/1/2014			Manufacturing		
4774 EXPLOSIVES OR AMMUNITION MFG: SMOKELESS PWDR MFG-SNGL BS & DR														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	0	0	0	0	0	0	0	0	.	.	.			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	13.851	2.218	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	12.328	1.864	14.191
(20) Relativity to Underlying Present Rate:	14.100	2.258	.
(21) Credibility to Underlying Relativity:	1.000	1.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	14.100	2.258	.
(24) Balanced Formula Relativity:	14.055	2.257	9.241

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 104

Calculation of Class Relativities

Class(es): 4775 EXPLOSIVES OR AMMUNITION MFG: SHELL CASE LOADING & DRIVERS									Effective: 1/1/2014 Manufacturing		
Converted Unlimited Losses											
Amount											
Claim Count				Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	0	0	0	0	0	0	0	0	.	.	.

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.000	0.025	0.025
(16) Countrywide Indicated Relativity:	0.000	0.041	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	37.445	34.179	71.624
(20) Relativity to Underlying Present Rate:	42.829	41.403	.
(21) Credibility to Underlying Relativity:	1.000	1.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	42.829	41.403	.
(24) Balanced Formula Relativity:	42.692	41.381	42.157

Class(es): 4776 EXPLOSIVES OR AMMUNITION MFG: PROJCTL,BOMB, MINE,GRENADE &DR									Effective: 1/1/2014 Manufacturing		
Converted Unlimited Losses											
Amount											
Claim Count				Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	0	0	0	0	0	0	0	0	.	.	.

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	12.463	1.219	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	11.093	1.025	12.117
(20) Relativity to Underlying Present Rate:	12.688	1.241	.
(21) Credibility to Underlying Relativity:	1.000	1.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	12.688	1.241	.
(24) Balanced Formula Relativity:	12.647	1.240	7.993

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 105

Calculation of Class Relativities

Class(es):									Effective: 1/1/2014			Manufacturing		
4779 EXPLOSIVES OR AMMUNITION MFG: CAP,PRIMER,FUSE, ASSEMBLY & DR														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	0	0	0	0	0	0	0	0	.	.	.			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.380	1.343	1.723
(16) Countrywide Indicated Relativity:	0.422	2.185	.
(17) Countrywide Credibility:	0.080	0.080	.
(18) Countrywide Lost-Time Claims:	2.000	.	.
(19) Pure Premium Underlying Present Rate:	8.931	2.055	10.985
(20) Relativity to Underlying Present Rate:	10.215	2.489	.
(21) Credibility to Underlying Relativity:	0.920	0.920	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	9.431	2.465	.
(24) Balanced Formula Relativity:	9.401	2.463	6.570

Class(es):									Effective: 1/1/2014			Manufacturing		
4799 EXPLOSIVES OR AMMUNITION MFG: BLACK POWDER MFG & DRIVERS														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2011	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	0	0	0	0	0	0	0	0	.	.	.			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.000	0.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	30.568	4.689	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	27.207	3.940	31.148
(20) Relativity to Underlying Present Rate:	31.119	4.773	.
(21) Credibility to Underlying Relativity:	1.000	1.000	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	31.119	4.773	.
(24) Balanced Formula Relativity:	31.020	4.771	20.310

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Manufacturing		
4825 DRUG, MEDICINE OR PHARM PREP MFG & INCIDENTAL MFG INGREDIENTS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	616,553	1	50	7,703	61,909	2,181	105,597	177,389	0.113	0.175	0.288
2008	1,027,275	0	40	0	177,665	0	114,554	292,218	0.173	0.112	0.284
2009	1,255,954	2	34	322,287	24,777	546,039	76,807	969,910	0.276	0.496	0.772
2010	2,654,673	4	63	1,280,631	160,640	663,604	241,051	2,345,926	0.543	0.341	0.884
2011	4,056,577	7	135	528,701	570,782	260,458	892,654	2,252,595	0.271	0.284	0.555
MA Total:	9,611,032	14	322	2,139,322	995,772	1,472,282	1,430,662	6,038,038	0.326	0.302	0.628

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.311	0.418	.
(14) Massachusetts Credibility:	0.420	0.680	.
(15) Countrywide Pure Premium:	0.395	0.237	0.633
(16) Countrywide Indicated Relativity:	0.439	0.386	.
(17) Countrywide Credibility:	0.290	0.160	.
(18) Countrywide Lost-Time Claims:	577.00	.	.
(19) Pure Premium Underlying Present Rate:	0.276	0.237	0.513
(20) Relativity to Underlying Present Rate:	0.316	0.287	.
(21) Credibility to Underlying Relativity:	0.290	0.160	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.350	0.392	.
(24) Balanced Formula Relativity:	0.349	0.392	0.366

Class(es):		Effective: 1/1/2014							Manufacturing		
4828 CHEMICAL BLENDING OR MIXING NOC- ALL OPERS & DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	775,910	3	37	383,378	299,186	302,962	117,956	1,103,483	0.880	0.542	1.422
2008	608,275	0	24	0	702,841	0	261,962	964,803	1.155	0.431	1.586
2009	965,246	1	30	245,964	156,779	111,274	120,748	634,765	0.417	0.240	0.658
2010	659,606	0	24	0	15,512	0	38,751	54,263	0.024	0.059	0.082
2011	589,120	0	31	0	9,827	0	65,438	75,265	0.017	0.111	0.128
MA Total:	3,598,158	4	146	629,342	1,184,146	414,236	604,855	2,832,579	0.504	0.283	0.787

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.480	0.392	.
(14) Massachusetts Credibility:	0.360	0.560	.
(15) Countrywide Pure Premium:	0.649	0.398	1.047
(16) Countrywide Indicated Relativity:	0.721	0.647	.
(17) Countrywide Credibility:	0.320	0.220	.
(18) Countrywide Lost-Time Claims:	1992.0	.	.
(19) Pure Premium Underlying Present Rate:	0.505	0.396	0.901
(20) Relativity to Underlying Present Rate:	0.578	0.480	.
(21) Credibility to Underlying Relativity:	0.320	0.220	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.589	0.467	.
(24) Balanced Formula Relativity:	0.587	0.467	0.538

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5020 CEILING INSTALLATION-SUSPENDED ACOUSTICAL GRID											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	220,492	2	27	156,820	887,400	129,103	219,478	1,392,800	4,736	1,581	6,317
2008	214,929	2	34	760,185	748,959	252,087	224,585	1,985,815	7,022	2,218	9,239
2009	177,841	2	25	168,176	207,320	52,959	134,731	563,186	2,111	1,055	3,167
2010	176,907	0	17	0	123,601	0	114,337	237,938	0,699	0,646	1,345
2011	168,023	1	12	197,167	2,155	11,596	14,990	225,907	1,186	0,158	1,345
MA Total:	958,193	7	115	1,282,348	1,969,434	445,744	708,119	4,405,646	3,394	1,204	4,598

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.135	0.739	.
(14) Massachusetts Credibility:	0.390	0.650	.
(15) Countrywide Pure Premium:	3.420	1.505	4.925
(16) Countrywide Indicated Relativity:	1.181	0.954	.
(17) Countrywide Credibility:	0.310	0.180	.
(18) Countrywide Lost-Time Claims:	374.00	.	.
(19) Pure Premium Underlying Present Rate:	2.329	2.122	4.451
(20) Relativity to Underlying Present Rate:	1.098	1.171	.
(21) Credibility to Underlying Relativity:	0.300	0.170	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.138	0.851	.
(24) Balanced Formula Relativity:	1.162	0.856	1.054

Class(es):		Effective: 1/1/2014							Construction		
5022 MASONRY NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	994,434	15	167	2,421,738	2,767,669	1,131,238	1,129,603	7,450,249	5,218	2,273	7,492
2008	971,061	9	132	1,261,751	2,129,344	727,990	1,089,686	5,208,770	3,492	1,872	5,364
2009	771,691	12	101	1,125,472	3,588,442	1,073,268	1,473,795	7,260,977	6,109	3,301	9,409
2010	864,528	6	100	946,936	2,428,835	408,473	967,527	4,751,772	3,905	1,592	5,496
2011	903,171	13	129	1,851,643	3,520,380	757,133	1,534,050	7,663,205	5,948	2,537	8,485
MA Total:	4,504,885	55	629	7,607,540	14,434,670	4,098,102	6,194,661	32,334,973	4,893	2,285	7,178

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.636	1.402	.
(14) Massachusetts Credibility:	0.940	1.000	.
(15) Countrywide Pure Premium:	4.133	2.183	6.316
(16) Countrywide Indicated Relativity:	1.428	1.383	.
(17) Countrywide Credibility:	0.030	0.000	.
(18) Countrywide Lost-Time Claims:	6916.0	.	.
(19) Pure Premium Underlying Present Rate:	4.407	3.107	7.514
(20) Relativity to Underlying Present Rate:	2.077	1.715	.
(21) Credibility to Underlying Relativity:	0.030	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.643	1.402	.
(24) Balanced Formula Relativity:	1.677	1.411	1.583

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5037 PAINTING: METAL STRUCTURES-OVER 2 STORIES IN HEIGHT & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	6.085	0	2	0	0	0	36.517	36.517	0.000	6.001	6.001
2008	11.609	0	1	0	0	0	12.135	12.135	0.000	1.045	1.045
2009	35.088	3	2	728.752	76.547	620.795	45.078	1,471.171	22.951	18.977	41.929
2010	65.472	1	5	187.141	473.132	28.247	90.887	779.407	10.085	1.820	11.904
2011	54.199	0	9	0	122.782	0	93.884	216.666	2.265	1.732	3.998
MA Total:	172.453	4	19	915.893	672.460	649.042	278.501	2,515.896	9.210	5.379	14.589

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.080	3.300	.
(14) Massachusetts Credibility:	0.370	0.470	.
(15) Countrywide Pure Premium:	11.831	4.628	16.459
(16) Countrywide Indicated Relativity:	4.086	2.932	.
(17) Countrywide Credibility:	0.310	0.270	.
(18) Countrywide Lost-Time Claims:	60.000	.	.
(19) Pure Premium Underlying Present Rate:	11.369	5.365	16.734
(20) Relativity to Underlying Present Rate:	5.358	2.960	.
(21) Credibility to Underlying Relativity:	0.320	0.260	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	4.121	3.112	.
(24) Balanced Formula Relativity:	4.207	3.132	3.827

Class(es):		Effective: 1/1/2014							Construction		
5040 IRON OR STEEL: ERECTION: ERECTION-FRAME STRUCTURES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	70.894	7	71	1,309,442	2,355,286	574,338	878,337	5,117,403	51.693	20.491	72.184
2008	58.266	6	54	500.381	1,425,359	98,233	598,029	2,622,002	33.051	11.950	45,000
2009	53.245	9	47	1,291,743	1,938,755	357,154	586,776	4,174,427	60.673	17,728	78,401
2010	49.859	3	28	1,577,649	2,059,068	319,297	535,029	4,491,043	72,941	17,135	90,076
2011	52,010	0	39	0	1,662,411	0	1,090,744	2,753,156	31,963	20,972	52,935
MA Total:	284,274	25	239	4,679,216	9,440,879	1,349,021	3,688,915	19,158,031	49,671	17,722	67,393

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	16.611	10.873	.
(14) Massachusetts Credibility:	0.620	0.890	.
(15) Countrywide Pure Premium:	8.250	3.970	12.220
(16) Countrywide Indicated Relativity:	2.849	2.515	.
(17) Countrywide Credibility:	0.190	0.060	.
(18) Countrywide Lost-Time Claims:	1277.0	.	.
(19) Pure Premium Underlying Present Rate:	24.518	15.598	40.116
(20) Relativity to Underlying Present Rate:	11.554	8.607	.
(21) Credibility to Underlying Relativity:	0.190	0.050	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	13.036	10.258	.
(24) Balanced Formula Relativity:	13.306	10.322	12.253

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5057 IRON OR STEEL: ERECTION-NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	83,083	3	51	589,538	631,206	992,734	459,376	2,672,855	14,693	17,478	32,171
2008	74,897	4	37	923,393	755,578	600,492	304,446	2,583,910	22,417	12,082	34,499
2009	68,321	2	13	761,261	302,823	121,617	118,685	1,304,386	15,575	3,517	19,092
2010	46,832	0	17	0	403,806	0	106,098	509,904	8,623	2,266	10,888
2011	39,379	0	14	0	100,540	0	63,770	164,310	2,553	1,619	4,173
MA Total:	312,511	9	132	2,274,192	2,193,954	1,714,843	1,052,375	7,235,364	14,298	8,855	23,152

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.781	5.433	.
(14) Massachusetts Credibility:	0.510	0.760	.
(15) Countrywide Pure Premium:	4.169	2.182	6.351
(16) Countrywide Indicated Relativity:	1.440	1.383	.
(17) Countrywide Credibility:	0.250	0.120	.
(18) Countrywide Lost-Time Claims:	1425.0	.	.
(19) Pure Premium Underlying Present Rate:	13.883	9.609	23.492
(20) Relativity to Underlying Present Rate:	6.542	5.303	.
(21) Credibility to Underlying Relativity:	0.240	0.120	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	4.369	4.931	.
(24) Balanced Formula Relativity:	4.459	4.962	4.637

Class(es):		Effective: 1/1/2014							Construction		
5102 DOOR, DOOR FRAME OR SASH ERECTION - METAL OR METAL COVERED											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	398,396	2	70	541,049	718,159	81,998	351,388	1,692,594	3,161	1,088	4,249
2008	409,593	2	59	402,359	683,486	83,602	305,575	1,475,022	2,651	0,950	3,601
2009	343,750	4	56	1,073,122	1,159,454	267,029	536,251	3,035,856	6,495	2,337	8,832
2010	356,601	2	34	480,407	221,019	136,729	225,813	1,063,968	1,967	1,017	2,984
2011	429,454	1	59	64,408	650,433	19,195	476,674	1,210,710	1,665	1,155	2,819
MA Total:	1,937,793	11	278	2,561,344	3,432,551	588,553	1,895,702	8,478,150	3,093	1,282	4,375

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.034	0.787	.
(14) Massachusetts Credibility:	0.570	0.830	.
(15) Countrywide Pure Premium:	3.667	1.903	5.570
(16) Countrywide Indicated Relativity:	1.267	1.206	.
(17) Countrywide Credibility:	0.220	0.090	.
(18) Countrywide Lost-Time Claims:	1795.0	.	.
(19) Pure Premium Underlying Present Rate:	2.939	1.968	4.907
(20) Relativity to Underlying Present Rate:	1.385	1.086	.
(21) Credibility to Underlying Relativity:	0.210	0.080	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.159	0.848	.
(24) Balanced Formula Relativity:	1.183	0.854	1.067

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5146 FURNITURE OR FIXTURES INSTALLATION - PORTABLE - NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	553,231	4	111	529,039	552,692	119,286	607,091	1,808,108	1,955	1,313	3,268
2008	536,375	6	94	279,112	562,593	142,479	321,846	1,306,031	1,569	0,866	2,435
2009	531,159	6	71	985,831	668,273	457,170	368,330	2,479,604	3,114	1,554	4,668
2010	451,526	11	65	1,584,810	273,892	981,031	351,794	3,191,527	4,116	2,952	7,068
2011	578,425	8	115	1,079,920	1,973,605	973,980	869,493	4,896,998	5,279	3,187	8,466
MA Total:	2,650,717	35	456	4,458,712	4,031,054	2,673,947	2,518,554	13,682,267	3,203	1,959	5,162

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.071	1.202	.
(14) Massachusetts Credibility:	0.570	0.880	.
(15) Countrywide Pure Premium:	2.893	1.500	4.393
(16) Countrywide Indicated Relativity:	0.999	0.950	.
(17) Countrywide Credibility:	0.220	0.060	.
(18) Countrywide Lost-Time Claims:	1753.0	.	.
(19) Pure Premium Underlying Present Rate:	2.152	1.649	3.801
(20) Relativity to Underlying Present Rate:	1.014	0.910	.
(21) Credibility to Underlying Relativity:	0.210	0.060	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.043	1.169	.
(24) Balanced Formula Relativity:	1.065	1.177	1.104

Class(es):		Effective: 1/1/2014							Construction		
5160 ELEVATOR ERECTION OR REPAIR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	438,315	4	69	353,249	501,610	175,360	449,603	1,479,822	1,950	1,426	3,376
2008	412,985	1	33	557,958	113,917	232,917	122,881	1,027,673	1,627	0,862	2,488
2009	328,544	2	33	728,541	123,192	80,787	122,380	1,054,900	2,592	0,618	3,211
2010	611,633	6	45	1,806,986	459,571	654,855	240,162	3,161,573	3,706	1,463	5,169
2011	627,514	1	37	111,111	72,822	22,813	165,682	372,429	0,293	0,300	0,593
MA Total:	2,418,991	14	217	3,557,845	1,271,112	1,166,732	1,100,708	7,096,397	1,996	0,937	2,934

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.668	0.575	.
(14) Massachusetts Credibility:	0.500	0.780	.
(15) Countrywide Pure Premium:	1.431	0.699	2.130
(16) Countrywide Indicated Relativity:	0.494	0.443	.
(17) Countrywide Credibility:	0.250	0.110	.
(18) Countrywide Lost-Time Claims:	670.00	.	.
(19) Pure Premium Underlying Present Rate:	1.664	1.354	3.017
(20) Relativity to Underlying Present Rate:	0.784	0.747	.
(21) Credibility to Underlying Relativity:	0.250	0.110	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.653	0.579	.
(24) Balanced Formula Relativity:	0.667	0.583	0.637

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5183 PLUMBING NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,487,329	30	855	3,914,998	6,223,375	2,139,113	3,323,152	15,600,638	1,848	0,995	2,843
2008	5,284,375	27	718	3,740,040	4,612,934	1,393,333	2,828,806	12,575,113	1,581	0,799	2,380
2009	4,724,432	26	605	3,326,012	5,692,674	1,217,828	3,324,616	13,561,129	1,909	0,961	2,870
2010	5,102,608	25	671	4,521,875	7,504,025	1,482,928	3,983,745	17,492,572	2,357	1,071	3,428
2011	5,307,402	24	605	3,446,844	4,512,038	1,068,613	3,141,884	12,169,379	1,500	0,793	2,293
MA Total:	25,906,146	132	3,454	18,949,768	28,545,045	7,301,815	16,602,203	71,398,831	1,833	0,923	2,756

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.613	0.566	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	2.104	1.019	3.123
(16) Countrywide Indicated Relativity:	0.727	0.645	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	12332	.	.
(19) Pure Premium Underlying Present Rate:	1.311	1.181	2.491
(20) Relativity to Underlying Present Rate:	0.618	0.651	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.613	0.566	.
(24) Balanced Formula Relativity:	0.626	0.570	0.606

Class(es):		Effective: 1/1/2014							Construction		
5188 AUTOMATIC SPRINKLER INSTALLATION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	724,817	9	99	1,515,365	709,768	574,893	580,161	3,380,188	3,070	1,594	4,664
2008	660,359	7	71	1,372,638	1,531,067	986,017	476,759	4,366,481	4,397	2,215	6,612
2009	519,505	1	64	398,387	1,629,160	111,242	834,283	2,973,072	3,903	1,820	5,723
2010	642,390	5	65	976,116	1,715,842	386,758	600,221	3,678,936	4,191	1,536	5,727
2011	646,913	3	71	137,282	551,367	134,843	274,266	1,097,758	1,065	0,632	1,697
MA Total:	3,193,984	25	370	4,399,787	6,137,203	2,193,753	2,765,691	15,496,434	3,299	1,553	4,852

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.103	0.953	.
(14) Massachusetts Credibility:	0.560	0.840	.
(15) Countrywide Pure Premium:	2.317	1.115	3.432
(16) Countrywide Indicated Relativity:	0.800	0.706	.
(17) Countrywide Credibility:	0.220	0.080	.
(18) Countrywide Lost-Time Claims:	1489.0	.	.
(19) Pure Premium Underlying Present Rate:	1.712	1.231	2.943
(20) Relativity to Underlying Present Rate:	0.807	0.679	.
(21) Credibility to Underlying Relativity:	0.220	0.080	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.971	0.911	.
(24) Balanced Formula Relativity:	0.991	0.917	0.965

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5190 ELECTRICAL WIRING - WITHIN BUILDINGS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	6,592,312	24	855	4,191,475	4,813,571	1,980,055	3,366,223	14,351,326	1,366	0,811	2,177
2008	6,178,836	24	688	4,226,983	4,237,766	2,337,487	3,008,992	13,811,227	1,370	0,865	2,235
2009	5,540,425	25	576	3,664,823	4,825,359	1,556,185	2,659,372	12,705,739	1,532	0,761	2,293
2010	5,797,641	17	616	2,294,244	5,944,798	1,404,357	4,589,006	14,232,405	1,421	1,034	2,455
2011	5,933,209	16	565	3,169,434	6,519,389	1,389,428	3,658,785	14,737,035	1,633	0,851	2,484
MA Total:	30,042,423	106	3,300	17,546,959	26,340,883	8,667,511	17,282,379	69,837,732	1,461	0,864	2,325

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.489	0.530	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	1.775	0.931	2.706
(16) Countrywide Indicated Relativity:	0.613	0.590	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	13272	.	.
(19) Pure Premium Underlying Present Rate:	1.047	0.976	2.023
(20) Relativity to Underlying Present Rate:	0.493	0.539	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.489	0.530	.
(24) Balanced Formula Relativity:	0.499	0.533	0.511

Class(es):		Effective: 1/1/2014							Goods and Services		
5191 OFFICE MACHICE OR APPLIANCE INSTALL, INSP, ADJSTMT OR REPAIR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,916,838	10	250	1,004,866	950,977	376,219	914,598	3,246,660	0,499	0,330	0,829
2008	3,623,827	11	211	939,348	1,402,924	1,281,522	765,849	4,389,643	0,646	0,565	1,211
2009	3,624,405	7	162	639,131	1,144,853	283,655	714,597	2,782,236	0,492	0,275	0,768
2010	3,762,759	6	179	869,473	1,640,530	367,249	936,859	3,814,112	0,667	0,347	1,014
2011	3,874,345	7	133	1,580,498	754,017	949,433	517,542	3,801,490	0,603	0,379	0,981
MA Total:	18,802,174	41	935	5,033,316	5,893,302	3,258,078	3,849,444	18,034,140	0,581	0,378	0,959

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.640	0.587	.
(14) Massachusetts Credibility:	0.620	1.000	.
(15) Countrywide Pure Premium:	0.426	0.248	0.674
(16) Countrywide Indicated Relativity:	0.470	0.389	.
(17) Countrywide Credibility:	0.190	0.000	.
(18) Countrywide Lost-Time Claims:	3816.0	.	.
(19) Pure Premium Underlying Present Rate:	0.374	0.363	0.737
(20) Relativity to Underlying Present Rate:	0.596	0.557	.
(21) Credibility to Underlying Relativity:	0.190	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.599	0.587	.
(24) Balanced Formula Relativity:	0.593	0.588	0.591

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services			
5192 VENDING OR COIN OPERTD MACHINES-INSTALL, SRVC OR RPR &SALES, DR												
Converted Unlimited Losses												
Amount												
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	344,257	6	63	510,515	96,249	223,916	111,717	942,398	1,763	0,975	2,737	
2008	317,044	5	45	375,415	275,163	248,799	165,896	1,065,273	2,052	1,308	3,360	
2009	328,336	1	55	15,315	256,764	2,891	310,441	585,411	0,829	0,954	1,783	
2010	384,650	3	70	21,850	561,198	33,456	253,855	870,358	1,516	0,747	2,263	
2011	317,996	4	70	273,135	406,282	192,177	216,443	1,088,037	2,137	1,285	3,422	
MA Total:	1,692,283	19	303	1,196,231	1,595,656	701,239	1,058,352	4,551,477	1,650	1,040	2,690	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.817	1.615	.
(14) Massachusetts Credibility:	0.420	0.660	.
(15) Countrywide Pure Premium:	1.582	0.963	2.545
(16) Countrywide Indicated Relativity:	1.745	1.510	.
(17) Countrywide Credibility:	0.290	0.170	.
(18) Countrywide Lost-Time Claims:	1938.0	.	.
(19) Pure Premium Underlying Present Rate:	1.544	1.272	2.816
(20) Relativity to Underlying Present Rate:	2.465	1.951	.
(21) Credibility to Underlying Relativity:	0.290	0.170	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.984	1.654	.
(24) Balanced Formula Relativity:	1.962	1.656	1.835

Class(es):		Effective: 1/1/2014							Construction			
5213 CONCRETE CONSTRUCTION-NOC												
Converted Unlimited Losses												
Amount												
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	452,938	7	198	1,170,624	2,864,086	562,868	1,110,649	5,708,227	8,908	3,695	12,603	
2008	373,064	8	135	2,008,006	1,159,688	1,057,093	648,970	4,873,757	8,491	4,573	13,064	
2009	265,333	2	68	463,022	1,509,671	231,022	662,313	2,866,028	7,435	3,367	10,802	
2010	279,623	4	76	514,614	2,459,277	340,404	1,058,224	4,372,519	10,635	5,002	15,637	
2011	411,763	2	136	145,023	1,535,446	129,468	866,674	2,676,610	4,081	2,419	6,500	
MA Total:	1,782,720	23	613	4,301,288	9,528,168	2,320,854	4,346,830	20,497,141	7,758	3,740	11,498	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.594	2.295	.
(14) Massachusetts Credibility:	0.830	1.000	.
(15) Countrywide Pure Premium:	3.682	1.894	5.576
(16) Countrywide Indicated Relativity:	1.272	1.200	.
(17) Countrywide Credibility:	0.090	0.000	.
(18) Countrywide Lost-Time Claims:	5356.0	.	.
(19) Pure Premium Underlying Present Rate:	8.118	5.304	13.422
(20) Relativity to Underlying Present Rate:	3.825	2.927	.
(21) Credibility to Underlying Relativity:	0.080	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	2.574	2.295	.
(24) Balanced Formula Relativity:	2.627	2.309	2.515

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5215 CONCRETE WORK - INCIDENTAL TO CONSTRUCTION OF PRIVATE RES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	520,182	4	84	134,905	505,831	134,927	302,148	1,077,811	1,232	0,840	2,072
2008	426,363	5	52	330,254	835,687	295,785	484,033	1,945,759	2,735	1,829	4,564
2009	374,331	3	61	280,832	1,013,438	71,203	634,713	2,000,186	3,458	1,886	5,343
2010	390,629	3	58	222,837	1,053,772	95,465	562,464	1,934,538	3,268	1,684	4,952
2011	406,943	1	44	24,921	375,049	1,179	274,701	675,851	0,983	0,678	1,661
MA Total:	2,118,447	16	299	993,749	3,783,778	598,559	2,258,058	7,634,145	2,255	1,348	3,604

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.754	0.827	.
(14) Massachusetts Credibility:	0.510	0.840	.
(15) Countrywide Pure Premium:	3.031	1.522	4.553
(16) Countrywide Indicated Relativity:	1.047	0.965	.
(17) Countrywide Credibility:	0.250	0.080	.
(18) Countrywide Lost-Time Claims:	2206.0	.	.
(19) Pure Premium Underlying Present Rate:	1.970	1.829	3.799
(20) Relativity to Underlying Present Rate:	0.928	1.009	.
(21) Credibility to Underlying Relativity:	0.240	0.080	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.869	0.853	.
(24) Balanced Formula Relativity:	0.887	0.858	0.877

Class(es):		Effective: 1/1/2014							Construction		
5221 CONCRETE OR CEMENT WORK-FLOORS DRIVEWAYS YRDS OR SIDEWALKS & DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,020,831	18	202	4,054,374	1,304,794	1,426,761	870,076	7,656,006	5,250	2,250	7,500
2008	1,033,284	11	169	2,117,299	2,007,416	2,033,334	1,365,306	7,523,356	3,992	3,289	7,281
2009	948,409	9	136	850,824	1,863,372	498,065	829,352	4,041,613	2,862	1,400	4,261
2010	971,860	11	131	907,956	2,228,076	469,622	877,030	4,482,684	3,227	1,386	4,612
2011	1,148,950	10	164	2,168,713	2,244,028	802,526	1,033,970	6,249,237	3,841	1,598	5,439
MA Total:	5,123,335	59	802	10,099,167	9,647,687	5,230,308	4,975,734	29,952,895	3,854	1,992	5,846

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.289	1.222	.
(14) Massachusetts Credibility:	0.790	1.000	.
(15) Countrywide Pure Premium:	2.553	1.310	3.863
(16) Countrywide Indicated Relativity:	0.882	0.830	.
(17) Countrywide Credibility:	0.110	0.000	.
(18) Countrywide Lost-Time Claims:	8022.0	.	.
(19) Pure Premium Underlying Present Rate:	2.482	1.961	4.442
(20) Relativity to Underlying Present Rate:	1.169	1.082	.
(21) Credibility to Underlying Relativity:	0.100	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.232	1.222	.
(24) Balanced Formula Relativity:	1.258	1.230	1.248

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5222 CONCRETE CONSTRUCTION IN CONNECTION WITH BRIDGES OR CULVERTS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	180,773	1	31	536,981	541,867	224,557	220,345	1,523,750	5,968	2,461	8,429
2008	204,719	3	19	889,916	236,783	194,107	343,573	1,664,378	5,504	2,626	8,130
2009	244,440	4	27	917,788	698,976	212,933	426,279	2,255,975	6,614	2,615	9,229
2010	279,634	2	54	777,497	1,255,338	200,498	301,804	2,535,136	7,270	1,796	9,066
2011	330,861	4	60	396,838	1,337,274	123,806	1,055,159	2,913,077	5,241	3,563	8,805
MA Total:	1,240,427	14	191	3,519,019	4,070,238	955,900	2,347,160	10,892,317	6,118	2,663	8,781

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.046	1.634	.
(14) Massachusetts Credibility:	0.510	0.790	.
(15) Countrywide Pure Premium:	4.793	2.300	7.093
(16) Countrywide Indicated Relativity:	1.656	1.457	.
(17) Countrywide Credibility:	0.250	0.110	.
(18) Countrywide Lost-Time Claims:	1199.0	.	.
(19) Pure Premium Underlying Present Rate:	3.478	2.717	6.195
(20) Relativity to Underlying Present Rate:	1.639	1.499	.
(21) Credibility to Underlying Relativity:	0.240	0.100	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.851	1.601	.
(24) Balanced Formula Relativity:	1.889	1.611	1.791

Class(es):		Effective: 1/1/2014							Construction		
5348 STONE, MOSAIC, TERRAZZO OR CERAMIC TILE WORK - INSIDE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	494,508	4	61	981,280	1,047,723	303,361	384,233	2,716,598	4,103	1,390	5,494
2008	455,906	2	57	707,922	1,149,936	315,116	580,859	2,753,833	4,075	1,965	6,040
2009	372,571	3	35	905,115	859,010	373,877	209,294	2,347,295	4,735	1,565	6,300
2010	389,858	3	35	480,749	985,264	162,429	410,908	2,039,350	3,760	1,471	5,231
2011	426,353	3	45	48,135	1,075,865	163,552	428,208	1,715,760	2,636	1,388	4,024
MA Total:	2,139,196	15	233	3,123,202	5,117,798	1,318,335	2,013,502	11,572,836	3,852	1,558	5,410

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.288	0.956	.
(14) Massachusetts Credibility:	0.540	0.850	.
(15) Countrywide Pure Premium:	2.788	1.322	4.110
(16) Countrywide Indicated Relativity:	0.963	0.838	.
(17) Countrywide Credibility:	0.230	0.080	.
(18) Countrywide Lost-Time Claims:	1988.0	.	.
(19) Pure Premium Underlying Present Rate:	2.267	1.871	4.138
(20) Relativity to Underlying Present Rate:	1.068	1.032	.
(21) Credibility to Underlying Relativity:	0.230	0.070	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.163	0.952	.
(24) Balanced Formula Relativity:	1.187	0.957	1.106

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5402 HOTHOUSE ERECTION - ALL OPERATIONS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,350	1	2	206,454	2,215	71,513	11,294	291,476	39,000	15,477	54,477
2008	7,192	0	2	0	0	0	1,013	1,013	0,000	0,141	0,141
2009	3,363	0	0	0	0	0	0	0	0,000	0,000	0,000
2010	3,497	0	5	0	202	0	9,301	9,504	0,058	2,660	2,718
2011	3,467	0	3	0	84,738	0	14,279	99,017	24,441	4,118	28,560
MA Total:	22,868	1	12	206,454	87,156	71,513	35,888	401,010	12,839	4,696	17,536

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.294	2.881	.
(14) Massachusetts Credibility:	0.100	0.180	.
(15) Countrywide Pure Premium:	2.030	1.528	3.558
(16) Countrywide Indicated Relativity:	0.701	0.968	.
(17) Countrywide Credibility:	0.220	0.230	.
(18) Countrywide Lost-Time Claims:	25,000	.	.
(19) Pure Premium Underlying Present Rate:	3.290	3.805	7,094
(20) Relativity to Underlying Present Rate:	1.550	2.099	.
(21) Credibility to Underlying Relativity:	0.680	0.590	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.638	1.980	.
(24) Balanced Formula Relativity:	1.672	1.992	1.785

Class(es):		Effective: 1/1/2014							Construction		
5403 CARPENTRY NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	889,764	15	243	2,922,943	2,293,134	1,754,961	1,233,246	8,204,285	5,862	3,358	9,221
2008	846,689	14	216	1,848,050	2,778,334	869,872	1,534,120	7,030,376	5,464	2,839	8,303
2009	602,842	8	133	1,025,019	2,855,907	299,437	1,489,006	5,669,368	6,438	2,967	9,404
2010	723,615	15	176	1,515,653	4,326,794	801,601	1,777,226	8,421,273	8,074	3,564	11,638
2011	955,846	10	192	3,088,283	3,779,123	1,897,572	1,686,323	10,451,302	7,185	3,749	10,934
MA Total:	4,018,757	62	960	10,399,948	16,033,292	5,623,443	7,719,922	39,776,605	6,577	3,320	9,898

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.200	2.037	.
(14) Massachusetts Credibility:	0.840	1.000	.
(15) Countrywide Pure Premium:	3.927	2.204	6.131
(16) Countrywide Indicated Relativity:	1.357	1.396	.
(17) Countrywide Credibility:	0.080	0.000	.
(18) Countrywide Lost-Time Claims:	8024.0	.	.
(19) Pure Premium Underlying Present Rate:	3.641	3.116	6.757
(20) Relativity to Underlying Present Rate:	1.716	1.719	.
(21) Credibility to Underlying Relativity:	0.080	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	2.093	2.037	.
(24) Balanced Formula Relativity:	2.137	2.050	2.106

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5437 CARPENTRY-INSTALL OF CABINET WORK OR INT TRIM											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,743,648	21	410	3,074,749	3,737,194	1,020,071	1,908,031	9,740,044	2,483	1,067	3,550
2008	2,376,193	13	319	1,408,100	2,767,839	814,467	1,942,402	6,932,806	1,757	1,160	2,918
2009	1,820,062	12	223	3,123,388	3,603,020	1,306,304	2,210,312	10,243,025	3,696	1,932	5,628
2010	1,904,461	16	290	1,948,612	5,984,812	754,405	2,302,497	10,990,326	4,166	1,605	5,771
2011	2,063,592	11	254	1,729,349	2,529,921	1,031,023	1,451,348	6,741,642	2,064	1,203	3,267
MA Total:	10,907,957	73	1,496	11,284,198	18,622,786	4,926,269	9,814,590	44,647,843	2,742	1,351	4,093

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.917	0.829	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	3.139	1.637	4.776
(16) Countrywide Indicated Relativity:	1.084	1.037	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	5018.0	.	.
(19) Pure Premium Underlying Present Rate:	2.214	1.512	3.726
(20) Relativity to Underlying Present Rate:	1.043	0.834	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.917	0.829	.
(24) Balanced Formula Relativity:	0.936	0.834	0.900

Class(es):		Effective: 1/1/2014							Construction		
5443 LATHING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	685	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	207	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	167	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	132	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	1,191	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.020	0.040	.
(15) Countrywide Pure Premium:	1.852	1.234	3.086
(16) Countrywide Indicated Relativity:	0.640	0.782	.
(17) Countrywide Credibility:	0.450	0.480	.
(18) Countrywide Lost-Time Claims:	156.00	.	.
(19) Pure Premium Underlying Present Rate:	1.889	1.629	3.518
(20) Relativity to Underlying Present Rate:	0.890	0.899	.
(21) Credibility to Underlying Relativity:	0.530	0.480	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.760	0.807	.
(24) Balanced Formula Relativity:	0.775	0.812	0.788

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5445 WALLBOARD INSTALLATION WITHIN BUILDINGS & DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,934,105	24	366	3,478,730	4,391,039	1,836,641	2,067,864	11,774,275	4,069	2,019	6,088
2008	1,721,976	9	282	1,312,525	6,999,676	1,031,256	2,870,066	12,213,524	4,827	2,266	7,093
2009	1,340,987	7	181	1,549,927	4,343,367	669,074	1,698,093	8,260,462	4,395	1,765	6,160
2010	1,368,241	18	164	3,693,628	3,419,042	1,652,622	1,544,889	10,310,181	5,198	2,337	7,535
2011	1,417,378	7	142	1,089,171	3,535,317	350,515	1,637,903	6,612,906	3,263	1,403	4,666
MA Total:	7,782,688	65	1,135	11,123,981	22,688,441	5,540,109	9,818,815	49,171,347	4,345	1,973	6,318

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.453	1.211	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	3.275	1.616	4.890
(16) Countrywide Indicated Relativity:	1.131	1.024	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	5208.0	.	.
(19) Pure Premium Underlying Present Rate:	3.159	1.998	5.157
(20) Relativity to Underlying Present Rate:	1.489	1.103	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.453	1.211	.
(24) Balanced Formula Relativity:	1.483	1.218	1.390

Class(es):		Effective: 1/1/2014							Construction		
5462 GLAZIER-AWAY FROM SHOP & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	455,694	7	145	471,959	1,297,427	114,713	609,941	2,494,040	3,883	1,590	5,473
2008	481,871	2	112	441,984	679,235	402,318	539,396	2,062,933	2,327	1,954	4,281
2009	357,058	7	53	821,486	988,807	199,429	290,815	2,300,538	5,070	1,373	6,443
2010	373,275	5	61	217,974	940,036	85,201	415,152	1,658,362	3,102	1,340	4,443
2011	394,734	5	75	586,978	827,200	244,549	493,667	2,152,395	3,583	1,870	5,453
MA Total:	2,062,632	26	446	2,540,381	4,732,705	1,046,210	2,348,972	10,668,268	3,526	1,646	5,172

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.179	1.010	.
(14) Massachusetts Credibility:	0.640	1.000	.
(15) Countrywide Pure Premium:	3.978	1.966	5.945
(16) Countrywide Indicated Relativity:	1.374	1.246	.
(17) Countrywide Credibility:	0.180	0.000	.
(18) Countrywide Lost-Time Claims:	1915.0	.	.
(19) Pure Premium Underlying Present Rate:	3.659	3.161	6.820
(20) Relativity to Underlying Present Rate:	1.724	1.745	.
(21) Credibility to Underlying Relativity:	0.180	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.312	1.010	.
(24) Balanced Formula Relativity:	1.340	1.016	1.226

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5472 ASBESTOS REMOVAL OP: ASBESTOS CONTR-PIPE&BOILR WORK EXCL &DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	228,970	5	50	594,058	1,014,387	156,953	465,369	2,230,767	7,025	2,718	9,743
2008	156,176	0	21	0	204,065	0	98,018	302,082	1,307	0,628	1,934
2009	151,158	3	25	569,981	983,606	217,243	315,638	2,086,468	10,278	3,525	13,803
2010	141,396	1	25	291,094	573,973	55,371	250,082	1,170,519	6,118	2,160	8,278
2011	137,258	1	26	90,190	1,340,410	25,859	517,083	1,973,542	10,423	3,956	14,378
MA Total:	814,958	10	147	1,545,322	4,116,440	455,426	1,646,189	7,763,378	6,947	2,579	9,526

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.323	1.582	.
(14) Massachusetts Credibility:	0.490	0.790	.
(15) Countrywide Pure Premium:	2.841	1.606	4.446
(16) Countrywide Indicated Relativity:	0.981	1.017	.
(17) Countrywide Credibility:	0.260	0.110	.
(18) Countrywide Lost-Time Claims:	180.00	.	.
(19) Pure Premium Underlying Present Rate:	4.672	4.021	8.693
(20) Relativity to Underlying Present Rate:	2.202	2.219	.
(21) Credibility to Underlying Relativity:	0.250	0.100	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.944	1.584	.
(24) Balanced Formula Relativity:	1.984	1.594	1.846

Class(es):		Effective: 1/1/2014							Construction		
5473 ASBESTOS REMOVAL OP: ASBESTOS CONTRCTR-NOC &DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	93,247	3	18	436,412	257,725	437,598	91,167	1,222,902	7,444	5,671	13,115
2008	67,458	0	11	0	157,951	0	114,071	272,022	2,341	1,691	4,032
2009	90,557	0	11	0	325,177	0	81,103	406,280	3,591	0,896	4,486
2010	136,333	2	13	68,514	46,700	7,139	51,504	173,858	0,845	0,430	1,275
2011	172,651	3	16	172,540	863,031	464,010	551,258	2,050,838	5,998	5,880	11,879
MA Total:	560,246	8	69	677,467	1,650,584	908,747	889,103	4,125,900	4,155	3,209	7,364

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.390	1.969	.
(14) Massachusetts Credibility:	0.440	0.660	.
(15) Countrywide Pure Premium:	4.706	2.864	7.571
(16) Countrywide Indicated Relativity:	1.626	1.815	.
(17) Countrywide Credibility:	0.280	0.170	.
(18) Countrywide Lost-Time Claims:	507.00	.	.
(19) Pure Premium Underlying Present Rate:	5.250	3.723	8.973
(20) Relativity to Underlying Present Rate:	2.474	2.055	.
(21) Credibility to Underlying Relativity:	0.280	0.170	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.759	1.957	.
(24) Balanced Formula Relativity:	1.796	1.969	1.857

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5474 PAINTING OR PAPERHANGING NOC & SHOP OPERS, DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,555,590	25	236	3,202,564	4,032,134	1,670,106	2,236,664	11,141,469	2,831	1,529	4,360
2008	2,342,236	19	199	2,947,059	3,742,943	2,493,277	2,622,440	11,805,719	2,856	2,184	5,040
2009	2,142,532	23	184	2,915,182	3,543,243	1,588,944	2,286,787	10,334,157	3,014	1,809	4,823
2010	2,297,432	11	153	1,791,334	6,092,650	906,355	3,074,294	11,864,632	3,432	1,733	5,164
2011	2,539,509	18	183	3,340,973	6,062,703	1,544,584	3,967,005	14,915,265	3,703	2,170	5,873
MA Total:	11,877,299	96	955	14,197,112	23,473,673	8,203,266	14,187,190	60,061,242	3,172	1,885	5,057

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.061	1.157	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	3.419	1.977	5.396
(16) Countrywide Indicated Relativity:	1.181	1.253	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	6233.0	.	.
(19) Pure Premium Underlying Present Rate:	1.917	1.707	3.624
(20) Relativity to Underlying Present Rate:	0.903	0.942	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.061	1.157	.
(24) Balanced Formula Relativity:	1.083	1.164	1.111

Class(es):		Effective: 1/1/2014							Construction		
5478 CARPET, LINOLEUM, VINYL, ASPHALT OR RUBBER FLOOR TILE INSTAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	546,110	7	82	1,114,520	1,650,252	210,272	531,484	3,506,528	5,063	1,358	6,421
2008	533,369	2	90	475,860	1,518,852	124,300	1,081,580	3,200,592	3,740	2,261	6,001
2009	509,024	3	65	198,408	1,351,531	252,314	686,222	2,488,476	3,045	1,844	4,889
2010	527,904	5	68	730,877	2,475,007	299,344	769,622	4,274,849	6,073	2,025	8,098
2011	571,814	7	64	975,884	1,369,980	380,636	542,621	3,269,121	4,102	1,615	5,717
MA Total:	2,688,222	24	369	3,495,549	8,365,622	1,266,866	3,611,529	16,739,565	4,412	1,815	6,227

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.476	1.113	.
(14) Massachusetts Credibility:	0.570	0.780	.
(15) Countrywide Pure Premium:	2.937	1.212	4.149
(16) Countrywide Indicated Relativity:	1.015	0.768	.
(17) Countrywide Credibility:	0.220	0.110	.
(18) Countrywide Lost-Time Claims:	1432.0	.	.
(19) Pure Premium Underlying Present Rate:	2.115	1.215	3.330
(20) Relativity to Underlying Present Rate:	0.997	0.671	.
(21) Credibility to Underlying Relativity:	0.210	0.110	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.274	1.027	.
(24) Balanced Formula Relativity:	1.300	1.033	1.206

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5479 INSULATION WORK NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	216.076	3	50	288.009	474.182	377.439	293.839	1,433.469	3.527	3.107	6.634
2008	214.789	0	56	0	249.400	0	290.974	540.375	1.161	1.355	2.516
2009	211.925	5	36	734.675	871.463	495.957	362.400	2,464.494	7.579	4.050	11.629
2010	257.577	4	50	424.216	568.899	267.669	447.902	1,708.686	3.856	2.778	6.634
2011	358.955	3	73	184.544	1,103.427	987.036	684.618	2,959.625	3.588	4.657	8.245
MA Total:	1,259,322	15	265	1,631,445	3,267,372	2,128,101	2,079,732	9,106,649	3.890	3.341	7.231

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.301	2.050	.
(14) Massachusetts Credibility:	0.480	0.790	.
(15) Countrywide Pure Premium:	3.327	1.948	5.275
(16) Countrywide Indicated Relativity:	1.149	1.234	.
(17) Countrywide Credibility:	0.260	0.110	.
(18) Countrywide Lost-Time Claims:	1508.0	.	.
(19) Pure Premium Underlying Present Rate:	2.935	2.604	5.539
(20) Relativity to Underlying Present Rate:	1.383	1.437	.
(21) Credibility to Underlying Relativity:	0.260	0.100	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.283	1.899	.
(24) Balanced Formula Relativity:	1.310	1.911	1.522

Class(es):		Effective: 1/1/2014							Construction		
5480 PLASTERING NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	426.792	3	51	256.422	597.349	114.549	433.049	1,401.370	2.000	1.283	3.283
2008	360.507	4	21	837.554	619.412	319.236	340.140	2,116.342	4.041	1.829	5.870
2009	301.560	2	27	350.088	549.272	56.134	259.078	1,214.572	2.982	1.045	4.028
2010	273.275	2	32	177.756	1,164.807	26.246	427.886	1,796.695	4.913	1.662	6.575
2011	311.695	0	20	0	423.467	0	288.129	711.596	1.359	0.924	2.283
MA Total:	1,673,829	11	151	1,621,819	3,354,307	516,166	1,748,283	7,240,575	2.973	1.353	4.326

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.994	0.830	.
(14) Massachusetts Credibility:	0.460	0.670	.
(15) Countrywide Pure Premium:	3.142	1.442	4.584
(16) Countrywide Indicated Relativity:	1.085	0.913	.
(17) Countrywide Credibility:	0.270	0.170	.
(18) Countrywide Lost-Time Claims:	200.00	.	.
(19) Pure Premium Underlying Present Rate:	2.010	1.323	3.333
(20) Relativity to Underlying Present Rate:	0.947	0.730	.
(21) Credibility to Underlying Relativity:	0.270	0.160	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.006	0.828	.
(24) Balanced Formula Relativity:	1.027	0.833	0.959

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction			
5506 STREET OR ROAD CONSTRUCTION: PAVING OR REPAVING & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	313,785	3	34	403,860	292,459	255,272	146,923	1,098,513	2,219	1,282	3,501	
2008	380,727	2	57	457,897	1,662,237	148,451	625,942	2,894,526	5,569	2,034	7,603	
2009	420,424	3	54	465,276	414,693	103,471	183,609	1,167,048	2,093	0,683	2,776	
2010	508,303	3	52	954,863	1,122,185	1,053,104	603,475	3,733,628	4,086	3,259	7,345	
2011	486,631	5	62	1,385,196	1,506,714	561,690	817,363	4,270,963	5,943	2,834	8,777	
MA Total:	2,109,870	16	259	3,667,092	4,998,287	2,121,988	2,377,311	13,164,678	4,107	2,133	6,240	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.373	1.308	.
(14) Massachusetts Credibility:	0.580	0.920	.
(15) Countrywide Pure Premium:	3.283	1.954	5.237
(16) Countrywide Indicated Relativity:	1.134	1.238	.
(17) Countrywide Credibility:	0.210	0.040	.
(18) Countrywide Lost-Time Claims:	4894.0	.	.
(19) Pure Premium Underlying Present Rate:	2.733	2.289	5.022
(20) Relativity to Underlying Present Rate:	1.288	1.263	.
(21) Credibility to Underlying Relativity:	0.210	0.040	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.305	1.304	.
(24) Balanced Formula Relativity:	1.332	1.312	1.325

Class(es):		Effective: 1/1/2014							Construction			
5507 STREET OR ROAD CONSTRUCTION: SUB-SURFACE WORK & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	220,871	2	43	203,693	313,417	143,957	211,088	872,155	2,341	1,607	3,949	
2008	218,799	2	34	963,766	844,989	503,324	264,927	2,577,006	8,267	3,511	11,778	
2009	209,474	2	19	425,796	316,590	159,175	152,252	1,053,813	3,544	1,487	5,031	
2010	222,556	4	35	642,268	347,454	572,675	297,639	1,860,036	4,447	3,911	8,358	
2011	256,274	3	21	1,292,187	189,106	548,074	78,750	2,108,118	5,780	2,446	8,226	
MA Total:	1,127,974	13	152	3,527,711	2,011,557	1,927,205	1,004,655	8,471,128	4,911	2,599	7,510	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.642	1.595	.
(14) Massachusetts Credibility:	0.450	0.700	.
(15) Countrywide Pure Premium:	2.306	1.216	3.522
(16) Countrywide Indicated Relativity:	0.797	0.770	.
(17) Countrywide Credibility:	0.280	0.150	.
(18) Countrywide Lost-Time Claims:	1311.0	.	.
(19) Pure Premium Underlying Present Rate:	2.818	2.204	5.021
(20) Relativity to Underlying Present Rate:	1.328	1.216	.
(21) Credibility to Underlying Relativity:	0.270	0.150	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.321	1.414	.
(24) Balanced Formula Relativity:	1.348	1.423	1.374

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5509 STREET OR ROAD MAINTENANCE BY COUNTY OR MUNICIPAL EMP & DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	17,307	0	1	0	0	0	106	106	0.000	0.006	0.006
2008	103,486	2	38	138,339	370,387	16,690	210,849	736,265	4.916	2.199	7.115
2009	179,252	0	36	0	387,960	0	130,528	518,488	2.164	0.728	2.893
2010	219,178	1	15	3,862	3,687	20,216	11,051	38,816	0.034	0.143	0.177
2011	85,471	0	12	0	93,748	0	47,036	140,784	1.097	0.550	1.647
MA Total:	604,693	3	102	142,200	855,782	36,907	399,570	1,434,459	1.650	0.722	2.372

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.552	0.443	.
(14) Massachusetts Credibility:	0.260	0.420	.
(15) Countrywide Pure Premium:	1.613	1.307	2.920
(16) Countrywide Indicated Relativity:	0.557	0.828	.
(17) Countrywide Credibility:	0.370	0.290	.
(18) Countrywide Lost-Time Claims:	469.00	.	.
(19) Pure Premium Underlying Present Rate:	1.252	1.130	2.383
(20) Relativity to Underlying Present Rate:	0.590	0.624	.
(21) Credibility to Underlying Relativity:	0.370	0.290	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.568	0.607	.
(24) Balanced Formula Relativity:	0.580	0.611	0.591

Class(es):		Effective: 1/1/2014							Construction		
5538 SHEET METAL WORK-SHOP & OUTSIDE-NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,666,614	23	360	4,327,360	2,864,841	1,990,855	1,310,228	10,493,285	4.315	1.981	6.296
2008	1,585,298	8	302	1,891,067	1,670,291	1,023,763	1,473,415	6,058,536	2.246	1.575	3.822
2009	1,443,109	6	234	424,453	1,755,815	312,439	901,050	3,393,757	1.511	0.841	2.352
2010	1,431,566	7	252	926,196	2,324,162	396,997	1,627,329	5,274,684	2.270	1.414	3.685
2011	1,660,389	11	256	1,981,143	2,392,046	673,266	1,742,514	6,788,970	2.634	1.455	4.089
MA Total:	7,786,976	55	1,404	9,550,220	11,007,156	4,397,320	7,054,536	32,009,232	2.640	1.471	4.111

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.883	0.902	.
(14) Massachusetts Credibility:	0.880	1.000	.
(15) Countrywide Pure Premium:	3.520	1.842	5.362
(16) Countrywide Indicated Relativity:	1.216	1.167	.
(17) Countrywide Credibility:	0.060	0.000	.
(18) Countrywide Lost-Time Claims:	1109.0	.	.
(19) Pure Premium Underlying Present Rate:	2.150	1.921	4.071
(20) Relativity to Underlying Present Rate:	1.013	1.060	.
(21) Credibility to Underlying Relativity:	0.060	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.911	0.902	.
(24) Balanced Formula Relativity:	0.930	0.908	0.922

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5545 ROOFING NOC & YARD EMP, DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	108,350	7	24	1,291,931	1,165,851	525,674	637,090	3,620,545	22,684	10,732	33,415
2008	97,838	4	38	562,502	1,425,222	635,580	693,459	3,316,763	20,317	13,584	33,901
2009	95,740	5	32	576,175	1,378,292	391,049	1,041,175	3,386,691	20,414	14,960	35,374
2010	98,993	13	29	1,460,495	2,135,912	1,609,400	456,881	5,662,688	36,330	20,873	57,203
2011	154,125	10	33	2,088,660	1,171,485	1,439,794	648,572	5,348,511	21,153	13,550	34,702
MA Total:	555,047	39	156	5,979,763	7,276,761	4,601,497	3,477,177	21,335,198	23,884	14,555	38,439

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	7.987	8.930	.
(14) Massachusetts Credibility:	0.560	1.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	4.461	6.330	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	9.907	12.166	22.073
(20) Relativity to Underlying Present Rate:	4.669	6.713	.
(21) Credibility to Underlying Relativity:	0.440	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	6.527	8.930	.
(24) Balanced Formula Relativity:	6.663	8.985	7.482

Class(es):		Effective: 1/1/2014							Construction		
5547 ROOFING-BUILT UP - YARD EMP & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	427,741	15	77	1,889,392	2,544,559	1,672,824	1,311,214	7,417,988	10,366	6,976	17,342
2008	442,124	10	102	1,170,101	1,675,121	1,014,868	1,209,414	5,069,504	6,435	5,031	11,466
2009	455,262	12	87	2,722,966	1,722,584	1,563,178	1,017,426	7,026,154	9,765	5,668	15,433
2010	475,867	8	83	890,705	1,515,513	1,064,249	1,178,654	4,649,122	5,056	4,713	9,770
2011	513,594	5	75	1,667,778	1,524,706	1,501,201	1,353,184	6,046,869	6,216	5,558	11,774
MA Total:	2,314,588	50	424	8,340,941	8,982,483	6,816,319	6,069,893	30,209,636	7,484	5,567	13,052

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.503	3.416	.
(14) Massachusetts Credibility:	0.800	1.000	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	2.551	3.396	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	5.664	6.527	12.191
(20) Relativity to Underlying Present Rate:	2.669	3.602	.
(21) Credibility to Underlying Relativity:	0.200	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	2.536	3.416	.
(24) Balanced Formula Relativity:	2.589	3.437	2.888

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5606 CONTRACTOR-EXECUTIVE SUPERVISOR OR CONSTRUCT SUPERINTENDENT											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,272,810	14	265	2,615,766	2,857,560	1,225,261	2,119,406	8,817,993	1,038	0,634	1,672
2008	5,026,340	7	204	1,505,652	4,666,381	530,336	2,079,807	8,782,176	1,228	0,519	1,747
2009	4,450,610	10	167	2,462,859	3,192,181	944,554	1,433,155	8,032,749	1,271	0,534	1,805
2010	4,579,863	9	203	848,577	2,707,996	367,309	2,015,173	5,939,055	0,777	0,520	1,297
2011	4,952,045	9	229	1,741,105	3,930,274	1,004,739	2,541,146	9,217,265	1,145	0,716	1,861
MA Total:	24,281,668	49	1,068	9,173,959	17,354,393	4,072,200	10,188,687	40,789,238	1,093	0,587	1,680

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.365	0.360	.
(14) Massachusetts Credibility:	0.830	1.000	.
(15) Countrywide Pure Premium:	0.709	0.397	1.106
(16) Countrywide Indicated Relativity:	0.245	0.252	.
(17) Countrywide Credibility:	0.090	0.000	.
(18) Countrywide Lost-Time Claims:	4330.0	.	.
(19) Pure Premium Underlying Present Rate:	0.595	0.559	1.154
(20) Relativity to Underlying Present Rate:	0.281	0.308	.
(21) Credibility to Underlying Relativity:	0.080	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.348	0.360	.
(24) Balanced Formula Relativity:	0.355	0.363	0.358

Class(es):		Effective: 1/1/2014							Construction		
5610 CLEANER - DEBRIS REMOVAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	348,734	2	58	393,964	1,710,306	62,107	264,813	2,431,190	6,034	0,937	6,971
2008	310,834	3	51	655,593	471,966	111,402	235,529	1,474,490	3,628	1,116	4,744
2009	279,425	5	48	1,657,765	631,258	580,098	640,963	3,510,083	8,192	4,370	12,562
2010	320,875	5	40	781,846	1,119,698	130,650	317,514	2,349,709	5,926	1,397	7,323
2011	313,636	1	30	74,787	1,109,879	87,723	493,277	1,765,667	3,777	1,852	5,630
MA Total:	1,573,504	16	227	3,563,955	5,043,108	971,981	1,952,095	11,531,139	5,470	1,858	7,328

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.829	1.140	.
(14) Massachusetts Credibility:	0.480	0.700	.
(15) Countrywide Pure Premium:	2.661	1.525	4.187
(16) Countrywide Indicated Relativity:	0.919	0.967	.
(17) Countrywide Credibility:	0.260	0.150	.
(18) Countrywide Lost-Time Claims:	748.00	.	.
(19) Pure Premium Underlying Present Rate:	2.324	1.539	3.863
(20) Relativity to Underlying Present Rate:	1.095	0.849	.
(21) Credibility to Underlying Relativity:	0.260	0.150	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.402	1.070	.
(24) Balanced Formula Relativity:	1.431	1.077	1.306

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5645 CARPENTRY-DETACHED ONE OR TWO FAMILY DWELLINGS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,250,420	62	1,057	8,224,475	12,942,645	5,171,839	8,866,658	35,205,617	4,032	2,674	6,705
2008	4,641,361	57	846	8,343,511	11,241,606	4,458,836	7,476,653	31,520,606	4,220	2,572	6,791
2009	4,094,690	46	714	6,990,542	9,580,533	4,447,998	7,671,490	28,690,564	4,047	2,960	7,007
2010	4,223,073	53	703	5,470,029	9,430,488	4,043,195	6,354,847	25,298,560	3,528	2,462	5,991
2011	4,341,505	38	671	6,663,170	11,277,442	3,591,838	6,971,223	28,503,673	4,132	2,433	6,565
MA Total:	22,551,050	256	3,991	35,691,727	54,472,715	21,713,707	37,340,872	149,219,020	3,998	2,619	6,617

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.337	1.607	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	5.431	3.329	8.760
(16) Countrywide Indicated Relativity:	1.876	2.109	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	14994	.	.
(19) Pure Premium Underlying Present Rate:	3.042	3.141	6.183
(20) Relativity to Underlying Present Rate:	1.434	1.733	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.337	1.607	.
(24) Balanced Formula Relativity:	1.365	1.617	1.454

Class(es):		Effective: 1/1/2014							Construction		
5701 WRECKING: BUILDING OR STRUCTURES-NOT MARINE- ALL OPERATIONS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	115,514	2	13	682,548	158,213	358,215	250,374	1,449,350	7,278	5,269	12,547
2008	100,293	0	6	0	464,827	0	232,838	697,665	4,635	2,322	6,956
2009	12,429	1	1	17,500	632,262	15,484	252,726	917,971	52,280	21,580	73,860
2010	39,505	1	8	272,271	20,683	791,853	21,119	1,105,926	7,416	20,579	27,994
2011	33,107	2	5	702,066	170,197	777,008	263,936	1,913,207	26,347	31,442	57,789
MA Total:	300,848	6	33	1,674,384	1,446,181	1,942,560	1,020,994	6,084,119	10,373	9,851	20,223

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.469	6.044	.
(14) Massachusetts Credibility:	0.380	0.700	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	2.985	4.291	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	6.630	8.248	14.878
(20) Relativity to Underlying Present Rate:	3.124	4.552	.
(21) Credibility to Underlying Relativity:	0.620	0.300	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	3.255	5.596	.
(24) Balanced Formula Relativity:	3.323	5.631	4.137

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
5703 BUILDING RAISING OR MOVING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	13,140	1	0	13,887	0	192,045	0	205,932	1,057	14,615	15,672
2008	8,866	0	2	0	18,139	0	12,466	30,604	2,046	1,406	3,452
2009	8,438	0	0	0	0	0	0	0	0,000	0,000	0,000
2010	6,508	0	4	0	16,778	0	13,585	30,364	2,578	2,087	4,666
2011	11,802	0	1	0	0	0	2,389	2,389	0,000	0,202	0,202
MA Total:	48,754	1	7	13,887	34,917	192,045	28,440	269,288	1,001	4,522	5,523

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.335	2.775	.
(14) Massachusetts Credibility:	0.240	0.300	.
(15) Countrywide Pure Premium:	8.201	3.625	11.826
(16) Countrywide Indicated Relativity:	2.832	2.297	.
(17) Countrywide Credibility:	0.260	0.280	.
(18) Countrywide Lost-Time Claims:	41.000	.	.
(19) Pure Premium Underlying Present Rate:	12.801	6.215	19.015
(20) Relativity to Underlying Present Rate:	6.032	3.429	.
(21) Credibility to Underlying Relativity:	0.500	0.420	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	3.833	2.916	.
(24) Balanced Formula Relativity:	3.913	2.934	3.567

Class(es):		Effective: 1/1/2014							Construction		
5705 SALVAGE OPERATION - NO WRECKING OR ANY STRUCTURAL OPERATIONS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	744	0	0	0	0	0	0	0	0,000	0,000	0,000
2008	1,491	0	1	0	0	0	729	729	0,000	0,489	0,489
2009	567	0	0	0	0	0	0	0	0,000	0,000	0,000
2010	1,058	0	2	0	0	0	1,240	1,240	0,000	1,171	1,171
2011	87	0	0	0	0	0	0	0	0,000	0,000	0,000
MA Total:	3,947	0	3	0	0	0	1,969	1,969	0,000	0,499	0,499

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.306	.
(14) Massachusetts Credibility:	0.060	0.090	.
(15) Countrywide Pure Premium:	2.455	4.407	6.862
(16) Countrywide Indicated Relativity:	0.848	2.792	.
(17) Countrywide Credibility:	0.230	0.240	.
(18) Countrywide Lost-Time Claims:	29.000	.	.
(19) Pure Premium Underlying Present Rate:	4.594	3.348	7.942
(20) Relativity to Underlying Present Rate:	2.165	1.847	.
(21) Credibility to Underlying Relativity:	0.710	0.670	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.732	1.935	.
(24) Balanced Formula Relativity:	1.768	1.948	1.831

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
6003 PILE DRIVING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	59,108	1	20	467,678	22,563	115,282	29,907	635,430	8,294	2,456	10,750
2008	59,568	0	9	0	43,285	0	53,620	96,905	0,727	0,900	1,627
2009	43,912	0	13	0	24,706	0	56,059	80,766	0,563	1,277	1,839
2010	40,004	0	5	0	215,933	0	138,087	354,020	5,398	3,452	8,850
2011	51,624	0	17	0	716,449	0	271,358	987,807	13,878	5,256	19,135
MA Total:	254,217	1	64	467,678	1,022,937	115,282	549,032	2,154,929	5,864	2,613	8,477

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.961	1.603	.
(14) Massachusetts Credibility:	0.340	0.460	.
(15) Countrywide Pure Premium:	4.155	2.017	6.172
(16) Countrywide Indicated Relativity:	1.435	1.278	.
(17) Countrywide Credibility:	0.330	0.270	.
(18) Countrywide Lost-Time Claims:	124.00	.	.
(19) Pure Premium Underlying Present Rate:	5.869	3.328	9.197
(20) Relativity to Underlying Present Rate:	2.766	1.836	.
(21) Credibility to Underlying Relativity:	0.330	0.270	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	2.053	1.578	.
(24) Balanced Formula Relativity:	2.096	1.588	1.917

Class(es):		Effective: 1/1/2014							Construction		
6204 DRILLING NOC & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	135,572	3	33	783,175	270,553	204,584	184,193	1,442,505	7,772	2,868	10,640
2008	145,206	5	16	966,348	201,224	389,956	63,670	1,621,198	8,041	3,124	11,165
2009	126,883	0	16	0	512,260	0	195,068	707,328	4,037	1,537	5,575
2010	111,134	0	13	0	241,599	0	109,618	351,217	2,174	0,986	3,160
2011	128,068	1	16	36,595	95,789	18,713	129,138	280,235	1,034	1,154	2,188
MA Total:	646,863	9	94	1,786,118	1,321,425	613,253	681,687	4,402,483	4,804	2,002	6,806

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.607	1.228	.
(14) Massachusetts Credibility:	0.410	0.650	.
(15) Countrywide Pure Premium:	5.802	2.921	8.724
(16) Countrywide Indicated Relativity:	2.004	1.851	.
(17) Countrywide Credibility:	0.300	0.180	.
(18) Countrywide Lost-Time Claims:	1353.0	.	.
(19) Pure Premium Underlying Present Rate:	3.758	3.125	6.883
(20) Relativity to Underlying Present Rate:	1.771	1.725	.
(21) Credibility to Underlying Relativity:	0.290	0.170	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.773	1.425	.
(24) Balanced Formula Relativity:	1.810	1.434	1.677

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
6217 EXCAVATION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,423,815	30	373	4,768,494	3,227,085	2,616,302	2,137,701	12,749,581	2,335	1,389	3,724
2008	3,011,867	21	279	4,162,621	4,715,333	2,165,352	2,469,456	13,512,762	2,948	1,539	4,487
2009	2,663,550	14	278	1,964,696	3,700,887	1,181,995	2,456,521	9,304,099	2,127	1,366	3,493
2010	2,930,006	19	269	3,209,523	3,996,324	2,415,158	1,926,718	11,547,723	2,459	1,482	3,941
2011	3,219,290	15	287	2,213,425	6,761,403	1,098,588	3,125,157	13,198,574	2,788	1,312	4,100
MA Total:	15,248,527	99	1,486	16,318,759	22,401,032	9,477,395	12,115,553	60,312,739	2,539	1,416	3,955

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.849	0.869	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	2.933	1.474	4.407
(16) Countrywide Indicated Relativity:	1.013	0.934	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	8620.0	.	.
(19) Pure Premium Underlying Present Rate:	1.650	1.446	3.096
(20) Relativity to Underlying Present Rate:	0.777	0.798	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.849	0.869	.
(24) Balanced Formula Relativity:	0.867	0.874	0.869

Class(es):		Effective: 1/1/2014							Construction		
6233 OIL OR GAS PIPELINE CONSTRUCTION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	8,736	0	5	0	0	0	3,816	3,816	0.000	0.437	0.437
2008	5,177	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	21,672	1	4	273,076	39,093	18,631	33,665	364,465	14,404	2,413	16,817
2010	12,170	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	13,463	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	61,217	1	9	273,076	39,093	18,631	37,481	368,282	5,099	0,917	6,016

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.705	0.562	.
(14) Massachusetts Credibility:	0.110	0.160	.
(15) Countrywide Pure Premium:	2.485	1.097	3.583
(16) Countrywide Indicated Relativity:	0.858	0.695	.
(17) Countrywide Credibility:	0.450	0.420	.
(18) Countrywide Lost-Time Claims:	881.00	.	.
(19) Pure Premium Underlying Present Rate:	1.627	1.053	2.679
(20) Relativity to Underlying Present Rate:	0.767	0.581	.
(21) Credibility to Underlying Relativity:	0.440	0.420	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.911	0.626	.
(24) Balanced Formula Relativity:	0.930	0.630	0.824

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
6251 TUNNELING - NOT PNEUMATIC - ALL OPERATIONS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	12,217	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	5,835	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	117	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	18,169	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.090	0.110	.
(15) Countrywide Pure Premium:	4.884	1.179	6.063
(16) Countrywide Indicated Relativity:	1.687	0.747	.
(17) Countrywide Credibility:	0.330	0.350	.
(18) Countrywide Lost-Time Claims:	71.000	.	.
(19) Pure Premium Underlying Present Rate:	2.856	1.404	4.261
(20) Relativity to Underlying Present Rate:	1.346	0.775	.
(21) Credibility to Underlying Relativity:	0.580	0.540	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.337	0.680	.
(24) Balanced Formula Relativity:	1.365	0.684	1.125

Class(es):		Effective: 1/1/2014							Construction		
6252 SHAFT SINKING - ALL OPERATIONS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	27,400	0	1	0	5,931	0	54,034	59,965	0,216	1,972	2,189
2008	19,110	0	2	0	159,225	0	190,805	350,030	8,332	9,984	18,316
2009	10,066	0	1	0	0	0	3,627	3,627	0,000	0,360	0,360
2010	26,948	0	1	0	20,581	0	65,346	85,927	0,764	2,425	3,189
2011	43,088	2	6	334,707	860,870	74,260	199,504	1,469,342	27,747	6,354	34,101
MA Total:	126,612	2	11	334,707	1,046,606	74,260	513,317	1,968,891	10,910	4,641	15,551

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.648	2.847	.
(14) Massachusetts Credibility:	0.200	0.300	.
(15) Countrywide Pure Premium:	2.751	1.468	4.219
(16) Countrywide Indicated Relativity:	0.950	0.930	.
(17) Countrywide Credibility:	0.370	0.350	.
(18) Countrywide Lost-Time Claims:	93.000	.	.
(19) Pure Premium Underlying Present Rate:	3.299	2.272	5.572
(20) Relativity to Underlying Present Rate:	1.555	1.254	.
(21) Credibility to Underlying Relativity:	0.430	0.350	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.750	1.619	.
(24) Balanced Formula Relativity:	1.786	1.629	1.731

IX 000200

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
6306 SEWER CONSTRUCTION - ALL OPERATIONS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	272,715	6	35	945,066	1,003,885	180,097	552,498	2,681,546	7,146	2,686	9,833
2008	245,101	6	17	1,382,323	118,307	1,125,136	180,096	2,805,862	6,123	5,325	11,448
2009	248,940	8	35	2,002,617	504,529	503,463	443,239	3,453,849	10,071	3,803	13,874
2010	199,675	3	22	684,547	150,872	186,690	70,716	1,092,826	4,184	1,289	5,473
2011	211,666	1	28	40,255	845,670	4,043	214,145	1,104,112	4,185	1,031	5,216
MA Total:	1,178,097	24	137	5,054,808	2,623,263	1,999,430	1,460,693	11,138,194	6,517	2,937	9,454

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.180	1.802	.
(14) Massachusetts Credibility:	0.490	0.770	.
(15) Countrywide Pure Premium:	2.918	1.483	4.401
(16) Countrywide Indicated Relativity:	1.008	0.940	.
(17) Countrywide Credibility:	0.260	0.120	.
(18) Countrywide Lost-Time Claims:	1480.0	.	.
(19) Pure Premium Underlying Present Rate:	3.237	2.613	5.850
(20) Relativity to Underlying Present Rate:	1.525	1.442	.
(21) Credibility to Underlying Relativity:	0.250	0.110	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.711	1.659	.
(24) Balanced Formula Relativity:	1.747	1.669	1.720

Class(es):		Effective: 1/1/2014							Construction		
6319 GAS MAIN OR CONNECTION CONSTRUCTION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	468,563	4	76	1,145,545	604,836	842,944	507,720	3,101,046	3,736	2,883	6,618
2008	460,438	3	65	498,654	961,107	72,778	355,904	1,888,443	3,170	0,931	4,101
2009	453,332	1	63	120,852	493,330	30,374	279,462	924,017	1,355	0,683	2,038
2010	473,094	4	55	875,181	511,114	1,014,786	263,807	2,664,889	2,930	2,703	5,633
2011	519,101	1	56	25,044	438,875	14,534	459,553	938,006	0,894	0,913	1,807
MA Total:	2,374,528	13	315	2,665,276	3,009,262	1,975,417	1,866,445	9,516,400	2,390	1,618	4,008

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.799	0.993	.
(14) Massachusetts Credibility:	0.530	0.810	.
(15) Countrywide Pure Premium:	2.035	1.076	3.110
(16) Countrywide Indicated Relativity:	0.703	0.681	.
(17) Countrywide Credibility:	0.240	0.100	.
(18) Countrywide Lost-Time Claims:	1398.0	.	.
(19) Pure Premium Underlying Present Rate:	1.972	1.490	3.462
(20) Relativity to Underlying Present Rate:	0.929	0.822	.
(21) Credibility to Underlying Relativity:	0.230	0.090	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.806	0.946	.
(24) Balanced Formula Relativity:	0.823	0.952	0.868

IX 000201

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction			
6325 CONDUIT CONSTRUCTION - FOR CABLES OR WIRES & DR												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	191,211	2	24	873,827	304,075	534,984	140,693	1,853,578	6,160	3,534	9,694	
2008	174,424	1	31	210,073	980,223	266,390	394,898	1,851,584	6,824	3,791	10,615	
2009	167,780	2	12	270,951	545,930	241,418	420,513	1,478,813	4,869	3,945	8,814	
2010	188,035	1	10	6,224	359,354	8,695	106,291	480,564	1,944	0,612	2,556	
2011	199,737	3	7	120,581	15,596	122,951	15,792	274,919	0,682	0,695	1,376	
MA Total:	921,186	9	84	1,481,656	2,205,178	1,174,437	1,078,186	5,939,457	4,002	2,445	6,448	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.338	1.500	.
(14) Massachusetts Credibility:	0.350	0.590	.
(15) Countrywide Pure Premium:	2.929	1.551	4.480
(16) Countrywide Indicated Relativity:	1.012	0.983	.
(17) Countrywide Credibility:	0.330	0.210	.
(18) Countrywide Lost-Time Claims:	1375.0	.	.
(19) Pure Premium Underlying Present Rate:	1.790	1.715	3.505
(20) Relativity to Underlying Present Rate:	0.843	0.947	.
(21) Credibility to Underlying Relativity:	0.320	0.200	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.072	1.281	.
(24) Balanced Formula Relativity:	1.094	1.289	1.163

Class(es):		Effective: 1/1/2014							Construction			
6400 FENCE ERECTION - ALL TYPES												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	251,667	10	73	1,236,863	603,916	338,718	339,878	2,519,374	7,314	2,696	10,011	
2008	228,540	1	60	165,794	213,864	30,719	154,343	564,720	1,661	0,810	2,471	
2009	238,112	1	51	34,317	246,268	18,014	135,911	434,509	1,178	0,646	1,825	
2010	258,215	3	72	351,690	661,464	433,563	362,654	1,809,371	3,924	3,084	7,007	
2011	281,602	5	57	435,315	545,340	224,861	429,760	1,635,276	3,482	2,325	5,807	
MA Total:	1,258,136	20	313	2,223,978	2,270,852	1,045,875	1,422,546	6,963,251	3,573	1,962	5,535	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.195	1.204	.
(14) Massachusetts Credibility:	0.450	0.780	.
(15) Countrywide Pure Premium:	3.369	1.909	5.278
(16) Countrywide Indicated Relativity:	1.164	1.209	.
(17) Countrywide Credibility:	0.280	0.110	.
(18) Countrywide Lost-Time Claims:	907.00	.	.
(19) Pure Premium Underlying Present Rate:	2.444	2.579	5.023
(20) Relativity to Underlying Present Rate:	1.152	1.423	.
(21) Credibility to Underlying Relativity:	0.270	0.110	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.174	1.228	.
(24) Balanced Formula Relativity:	1.199	1.236	1.212

IX 000202

Calculation of Class Relativities

Class(es): 6834 BOAT BUILDING OR REPAIRING & DRIVERS: MA ACT									Effective: 1/1/2014			Miscellaneous	
Converted Unlimited Losses													
Amount													
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)		
2007	158,656	0	27	0	10,057	0	19,666	29,723	0.063	0.124	0.187		
2008	156,240	1	30	18,627	53,938	7,292	90,697	170,555	0.464	0.627	1.092		
2009	142,646	1	15	6,418	8,597	304	23,062	38,381	0.105	0.164	0.269		
2010	139,518	0	14	0	107,713	0	60,445	168,158	0.772	0.433	1.205		
2011	149,943	0	14	0	4,211	0	22,256	26,466	0.028	0.148	0.177		
MA Total:	747,004	2	100	25,046	184,516	7,596	216,126	433,283	0.281	0.299	0.580		

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.101	0.177	.
(14) Massachusetts Credibility:	0.260	0.460	.
(15) Countrywide Pure Premium:	1.932	1.162	3.094
(16) Countrywide Indicated Relativity:	0.749	0.751	.
(17) Countrywide Credibility:	0.370	0.270	.
(18) Countrywide Lost-Time Claims:	944.00	.	.
(19) Pure Premium Underlying Present Rate:	1.104	1.129	2.233
(20) Relativity to Underlying Present Rate:	0.628	0.645	.
(21) Credibility to Underlying Relativity:	0.370	0.270	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.536	0.459	.
(24) Balanced Formula Relativity:	0.529	0.455	0.501

Class(es): 6836 MARINA & DRIVERS: MA ACT									Effective: 1/1/2014			Miscellaneous	
Converted Unlimited Losses													
Amount													
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)		
2007	429,849	3	92	545,772	676,584	121,804	236,090	1,580,250	2.844	0.833	3.676		
2008	441,545	1	81	48,543	200,804	2,559	208,529	460,435	0.565	0.478	1.043		
2009	418,727	3	64	209,654	108,635	64,804	278,124	661,218	0.760	0.819	1.579		
2010	418,091	2	60	1,080,138	701,536	337,708	522,028	2,641,410	4.261	2.056	6.318		
2011	415,469	1	56	106,280	150,000	105,872	220,074	582,227	0.617	0.785	1.401		
MA Total:	2,123,681	10	353	1,990,388	1,837,559	632,748	1,464,845	5,925,540	1.803	0.988	2.790		

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.646	0.585	.
(14) Massachusetts Credibility:	0.370	0.640	.
(15) Countrywide Pure Premium:	2.180	1.725	3.905
(16) Countrywide Indicated Relativity:	0.845	1.115	.
(17) Countrywide Credibility:	0.320	0.180	.
(18) Countrywide Lost-Time Claims:	711.00	.	.
(19) Pure Premium Underlying Present Rate:	0.891	0.938	1.829
(20) Relativity to Underlying Present Rate:	0.507	0.536	.
(21) Credibility to Underlying Relativity:	0.310	0.180	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.667	0.671	.
(24) Balanced Formula Relativity:	0.659	0.667	0.662

IX 000203

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous		
7219 TRUCKING: NOC - ALL EMP & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,391,904	45	457	7,705,617	6,055,848	4,591,110	3,320,666	21,673,241	5,753	3,308	9,061
2008	2,226,399	50	364	6,271,134	5,051,519	3,695,905	3,607,921	18,626,478	5,086	3,281	8,366
2009	2,144,239	40	381	5,052,581	6,509,670	2,935,862	2,762,845	17,260,958	5,392	2,658	8,050
2010	2,292,563	38	414	5,189,378	9,407,800	2,845,245	4,864,606	22,307,030	6,367	3,363	9,730
2011	2,502,650	30	438	5,923,758	8,256,054	1,790,810	3,655,028	19,625,650	5,666	2,176	7,842
MA Total:	11,557,755	203	2,054	30,142,468	35,280,891	15,858,932	18,211,066	99,493,357	5,661	2,948	8,608

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.029	1.745	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	4.980	2.311	7.291
(16) Countrywide Indicated Relativity:	1.931	1.493	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	11242	.	.
(19) Pure Premium Underlying Present Rate:	3.311	2.910	6.221
(20) Relativity to Underlying Present Rate:	1.882	1.663	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	2.029	1.745	.
(24) Balanced Formula Relativity:	2.005	1.734	1.903

Class(es):		Effective: 1/1/2014							Miscellaneous		
7230 TRUCKING: PARCEL OR PACKAGE DELIVERY- ALL EMP & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	31,923	0	4	0	1,611	0	4,339	5,950	0.050	0.136	0.186
2008	30,948	0	4	0	41,596	0	38,034	79,630	1,344	1,229	2,573
2009	28,855	1	7	168,231	143,580	53,938	61,386	427,135	10,806	3,997	14,803
2010	30,519	0	6	0	12,248	0	17,777	30,025	0.401	0.582	0.984
2011	33,108	1	7	23,269	53,795	33,376	19,142	129,582	2,328	1,586	3,914
MA Total:	155,353	2	28	191,500	252,831	87,314	140,678	672,323	2,860	1,468	4,328

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.025	0.869	.
(14) Massachusetts Credibility:	0.190	0.310	.
(15) Countrywide Pure Premium:	4.984	2.957	7.941
(16) Countrywide Indicated Relativity:	1.932	1.911	.
(17) Countrywide Credibility:	0.410	0.350	.
(18) Countrywide Lost-Time Claims:	401.00	.	.
(19) Pure Premium Underlying Present Rate:	2.432	2.106	4.538
(20) Relativity to Underlying Present Rate:	1.382	1.203	.
(21) Credibility to Underlying Relativity:	0.400	0.340	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.540	1.347	.
(24) Balanced Formula Relativity:	1.521	1.338	1.452

IX 000204

Calculation of Class Relativities

Class(es):									Effective: 1/1/2014			Miscellaneous		
7231 TRUCKING: MAIL, PARCEL OR PACKAGE DELIVERY-ALL EMP & DRIVERS														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums						
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	199,456	6	65	993,433	256,085	459,154	174,903	1,883,575	6,265	3,179	9,444			
2008	199,480	4	36	66,733	680,777	84,836	453,275	1,285,621	3,747	2,698	6,445			
2009	231,059	7	39	278,262	237,877	140,935	97,430	754,504	2,234	1,032	3,265			
2010	332,368	8	87	863,969	1,373,038	452,901	737,229	3,427,137	6,731	3,581	10,311			
2011	433,506	15	78	4,161,834	1,121,607	1,065,324	910,492	7,259,256	12,188	4,558	16,745			
MA Total:	1,395,870	40	305	6,364,230	3,669,384	2,203,150	2,373,329	14,610,093	7,188	3,279	10,467			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.577	1.941	.
(14) Massachusetts Credibility:	0.470	0.810	.
(15) Countrywide Pure Premium:	5.115	2.567	7.682
(16) Countrywide Indicated Relativity:	1.983	1.659	.
(17) Countrywide Credibility:	0.270	0.100	.
(18) Countrywide Lost-Time Claims:	3965.0	.	.
(19) Pure Premium Underlying Present Rate:	2.508	2.502	5.010
(20) Relativity to Underlying Present Rate:	1.426	1.430	.
(21) Credibility to Underlying Relativity:	0.260	0.090	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	2.117	1.867	.
(24) Balanced Formula Relativity:	2.092	1.855	2.002

Class(es):									Effective: 1/1/2014			Miscellaneous		
7360 FREIGHT HANDLING NOC: MA ACT														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums						
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	71,365	4	22	1,091,528	111,930	174,259	113,442	1,491,159	16,863	4,031	20,895			
2008	66,862	0	14	0	81,140	0	45,057	126,197	1,214	0,674	1,887			
2009	59,725	0	15	0	51,164	0	59,808	110,972	0,857	1,001	1,858			
2010	91,320	0	22	0	58,999	0	51,174	110,173	0,646	0,560	1,206			
2011	93,332	2	22	286,087	255,980	211,823	131,107	884,996	5,808	3,674	9,482			
MA Total:	382,603	6	95	1,377,615	559,213	386,081	400,588	2,723,497	5,062	2,056	7,118			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.815	1.217	.
(14) Massachusetts Credibility:	0.260	0.440	.
(15) Countrywide Pure Premium:	2.833	1.837	4.670
(16) Countrywide Indicated Relativity:	1.098	1.187	.
(17) Countrywide Credibility:	0.370	0.280	.
(18) Countrywide Lost-Time Claims:	1235.0	.	.
(19) Pure Premium Underlying Present Rate:	2.068	2.070	4.137
(20) Relativity to Underlying Present Rate:	1.175	1.183	.
(21) Credibility to Underlying Relativity:	0.370	0.280	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.313	1.199	.
(24) Balanced Formula Relativity:	1.297	1.191	1.257

IX 000205

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous			
7370 TAXICAB CO: ALL OTHER EMP & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	996,815	23	458	1,353,232	1,210,146	1,007,840	1,435,218	5,006,436	2,572	2,451	5,022	
2008	1,089,455	20	428	1,711,012	682,528	870,105	923,481	4,187,125	2,197	1,646	3,843	
2009	1,266,576	16	521	1,220,460	1,092,200	554,907	1,143,902	4,011,470	1,826	1,341	3,167	
2010	1,267,581	18	526	1,189,753	1,608,847	665,479	1,251,847	4,715,926	2,208	1,513	3,720	
2011	1,234,716	11	417	824,234	1,839,707	334,072	1,352,582	4,350,594	2,158	1,366	3,524	
MA Total:	5,855,143	88	2,350	6,298,691	6,433,429	3,432,402	6,107,030	22,271,552	2,175	1,629	3,804	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.780	0.965	.
(14) Massachusetts Credibility:	0.680	1.000	.
(15) Countrywide Pure Premium:	2.472	1.697	4.169
(16) Countrywide Indicated Relativity:	0.958	1.097	.
(17) Countrywide Credibility:	0.160	0.000	.
(18) Countrywide Lost-Time Claims:	2605.0	.	.
(19) Pure Premium Underlying Present Rate:	1.475	1.986	3.461
(20) Relativity to Underlying Present Rate:	0.838	1.135	.
(21) Credibility to Underlying Relativity:	0.160	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.818	0.965	.
(24) Balanced Formula Relativity:	0.808	0.958	0.864

Class(es):		Effective: 1/1/2014							Miscellaneous			
7380 DRIVERS, CHAUFFEURS AND HELPERS-NOC-COMMERCIAL												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	3,201,354	53	986	4,785,896	6,395,155	2,408,230	4,207,114	17,796,394	3,493	2,066	5,559	
2008	3,099,334	48	929	3,758,783	6,536,310	1,837,565	4,252,614	16,385,272	3,322	1,965	5,287	
2009	3,026,027	34	720	2,386,615	5,338,779	1,322,719	3,370,548	12,418,662	2,553	1,551	4,104	
2010	3,242,873	48	789	4,357,490	6,417,519	2,643,971	3,708,355	17,127,336	3,323	1,959	5,282	
2011	3,484,135	59	769	5,009,023	7,080,718	2,597,797	4,279,752	18,967,290	3,470	1,974	5,444	
MA Total:	16,053,722	242	4,193	20,297,808	31,768,481	10,810,282	19,818,383	82,694,954	3,243	1,908	5,151	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.163	1.130	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	2.692	1.587	4.279
(16) Countrywide Indicated Relativity:	1.044	1.026	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	23877	.	.
(19) Pure Premium Underlying Present Rate:	2.239	2.055	4.294
(20) Relativity to Underlying Present Rate:	1.273	1.174	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.163	1.130	.
(24) Balanced Formula Relativity:	1.149	1.122	1.139

IX 000206

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous			
7382 BUS CO: ALL OTHER EMPLOYEES & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	1,955,970	37	494	2,315,088	2,058,757	1,619,859	1,636,327	7,630,031	2,236	1,665	3,901	
2008	2,022,762	28	470	1,522,568	1,547,151	544,568	1,670,853	5,285,140	1,518	1,095	2,613	
2009	2,404,637	45	539	1,912,329	2,377,718	1,458,053	1,773,027	7,521,127	1,784	1,344	3,128	
2010	2,917,729	54	654	2,115,530	3,107,351	1,258,549	2,873,563	9,354,992	1,790	1,416	3,206	
2011	2,910,167	52	609	3,224,596	3,080,606	1,900,831	2,132,260	10,338,292	2,167	1,386	3,552	
MA Total:	12,211,264	216	2,766	11,090,110	12,171,583	6,781,860	10,086,029	40,129,582	1,905	1,381	3,286	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.683	0.818	.
(14) Massachusetts Credibility:	0.910	1.000	.
(15) Countrywide Pure Premium:	2.120	1.516	3.636
(16) Countrywide Indicated Relativity:	0.822	0.979	.
(17) Countrywide Credibility:	0.050	0.000	.
(18) Countrywide Lost-Time Claims:	6273.0	.	.
(19) Pure Premium Underlying Present Rate:	1.504	1.572	3.076
(20) Relativity to Underlying Present Rate:	0.855	0.898	.
(21) Credibility to Underlying Relativity:	0.040	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.697	0.818	.
(24) Balanced Formula Relativity:	0.688	0.812	0.735

Class(es):		Effective: 1/1/2014							Miscellaneous			
7403 AIRCRAFT OR HELICOP OP: AIR CARRIER-SCHD/ SUPPL: A/O EMP & DR												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	273,806	6	110	595,525	399,086	517,688	416,135	1,928,434	3,633	3,411	7,043	
2008	598,061	6	167	324,524	433,552	158,528	666,504	1,583,109	1,268	1,380	2,647	
2009	658,088	7	153	328,448	403,340	182,093	608,883	1,522,764	1,112	1,202	2,314	
2010	1,158,227	15	363	1,312,506	1,587,088	726,140	1,638,985	5,264,719	2,503	2,042	4,545	
2011	1,271,498	13	356	1,444,728	1,982,707	700,034	1,615,946	5,743,416	2,696	1,821	4,517	
MA Total:	3,959,679	47	1,149	4,005,731	4,805,774	2,284,482	4,946,454	16,042,441	2,225	1,826	4,051	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.798	1.081	.
(14) Massachusetts Credibility:	0.580	1.000	.
(15) Countrywide Pure Premium:	2.198	1.447	3.645
(16) Countrywide Indicated Relativity:	0.852	0.935	.
(17) Countrywide Credibility:	0.210	0.000	.
(18) Countrywide Lost-Time Claims:	15940	.	.
(19) Pure Premium Underlying Present Rate:	1.467	2.087	3.554
(20) Relativity to Underlying Present Rate:	0.834	1.192	.
(21) Credibility to Underlying Relativity:	0.210	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.817	1.081	.
(24) Balanced Formula Relativity:	0.807	1.074	0.908

IX 000207

Calculation of Class Relativities

Class(es): 7405 AIRCRAFT OR HELICOP OP: AIR CARRIER-SCHD/ SUPPL: FLYING CREW									Miscellaneous		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	262,561	4	27	239,459	680,439	211,849	106,310	1,238,057	3,504	1,212	4,715
2008	262,325	1	26	25,287	90,378	17,102	157,645	290,413	0,441	0,666	1,107
2009	251,915	1	17	163,335	43,391	29,230	46,405	282,361	0,821	0,300	1,121
2010	1,339,528	7	105	1,148,195	1,094,931	660,642	548,514	3,452,281	1,675	0,903	2,577
2011	1,455,711	5	79	225,352	754,628	175,865	505,973	1,661,819	0,673	0,468	1,142
MA Total:	3,572,040	18	254	1,801,628	2,663,767	1,094,688	1,364,847	6,924,930	1,250	0,689	1,939

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.448	0.408	.
(14) Massachusetts Credibility:	0.390	0.650	.
(15) Countrywide Pure Premium:	0.644	0.335	0.979
(16) Countrywide Indicated Relativity:	0.250	0.217	.
(17) Countrywide Credibility:	0.310	0.180	.
(18) Countrywide Lost-Time Claims:	3963.0	.	.
(19) Pure Premium Underlying Present Rate:	0.609	0.570	1.179
(20) Relativity to Underlying Present Rate:	0.346	0.326	.
(21) Credibility to Underlying Relativity:	0.300	0.170	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.356	0.359	.
(24) Balanced Formula Relativity:	0.352	0.357	0.354

Class(es): 7420 AIRCRAFT OR HELICOP OP: PUBLIC EXHIB STUNT FLYING: FLY CREW									Miscellaneous		
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	456	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	2,036	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	2,377	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	5,238	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	3,515	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	13,621	0	0	0	0	0	0	0	0.000	0.000	0.000

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.080	0.100	.
(15) Countrywide Pure Premium:	8.603	1.658	10.262
(16) Countrywide Indicated Relativity:	3.335	1.072	.
(17) Countrywide Credibility:	0.220	0.230	.
(18) Countrywide Lost-Time Claims:	26.000	.	.
(19) Pure Premium Underlying Present Rate:	3.038	1.368	4.406
(20) Relativity to Underlying Present Rate:	1.727	0.782	.
(21) Credibility to Underlying Relativity:	0.700	0.670	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.943	0.770	.
(24) Balanced Formula Relativity:	1.919	0.765	1.484

IX 000208

Calculation of Class Relativities

Class(es):									Effective: 1/1/2014			Miscellaneous		
7421 AIRCRAFT OR HELICOP OP: TRANSPORT PERS IN EMPLR BUS: FLY CRW														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	(9)	Indemnity (10)	Medical (11)	Total (12)			
2007	238.976	0	17	0	708.347	0	133.606	841.953	2.964	0.559	3.523			
2008	210.429	0	6	0	35.458	0	67.891	103.348	0.169	0.323	0.491			
2009	200.736	0	4	0	46.638	0	19.376	66.014	0.232	0.097	0.329			
2010	227.492	0	8	0	421.365	0	188.941	610.306	1.852	0.831	2.683			
2011	233.092	0	7	0	8.181	0	33.631	41.812	0.035	0.144	0.179			
MA Total:	1,110.725	0	42	0	1,219.989	0	443.443	1,663.433	1.098	0.399	1.498			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.394	0.236	.
(14) Massachusetts Credibility:	0.300	0.390	.
(15) Countrywide Pure Premium:	1.025	0.418	1.443
(16) Countrywide Indicated Relativity:	0.398	0.270	.
(17) Countrywide Credibility:	0.350	0.310	.
(18) Countrywide Lost-Time Claims:	566.00	.	.
(19) Pure Premium Underlying Present Rate:	1.016	0.499	1.515
(20) Relativity to Underlying Present Rate:	0.577	0.285	.
(21) Credibility to Underlying Relativity:	0.350	0.300	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.459	0.261	.
(24) Balanced Formula Relativity:	0.454	0.260	0.381

Class(es):									Effective: 1/1/2014			Miscellaneous		
7425 AIRCRAFT OR HELICOP OP: NOC- HELICOPTERS: FLYING CREW														
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical		Total	MA Indicated Pure Premiums					
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	(9)	Indemnity (10)	Medical (11)	Total (12)			
2007	0	0	0	0	0	0	0	0	0.000	0.000	0.000			
2008	50.653	0	0	0	0	0	0	0	0.000	0.000	0.000			
2009	63.694	0	2	0	0	0	444	444	0.000	0.007	0.007			
2010	63.585	0	7	0	3.307	0	7.690	10.997	0.052	0.121	0.173			
2011	66.164	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	244.095	0	9	0	3.307	0	8.134	11.441	0.014	0.033	0.047			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.005	0.020	.
(14) Massachusetts Credibility:	0.210	0.280	.
(15) Countrywide Pure Premium:	2.481	0.811	3.291
(16) Countrywide Indicated Relativity:	0.962	0.524	.
(17) Countrywide Credibility:	0.400	0.360	.
(18) Countrywide Lost-Time Claims:	198.00	.	.
(19) Pure Premium Underlying Present Rate:	1.911	1.042	2.953
(20) Relativity to Underlying Present Rate:	1.086	0.595	.
(21) Credibility to Underlying Relativity:	0.390	0.360	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.809	0.408	.
(24) Balanced Formula Relativity:	0.800	0.406	0.651

IX 000209

Calculation of Class Relativities

Class(es): 7502 GAS COMPANY: GAS CO-NATURAL GAS-LOCAL DISTRIBUTION & DR									Effective: 1/1/2014			Miscellaneous		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	123.411	2	37	317.670	102.207	102.036	65.315	587.227	3.402	1.356	4.758			
2008	129.883	1	36	112	92.281	1.184	204.669	298.245	0.711	1.585	2.296			
2009	173.356	0	32	0	25.410	0	38.191	63.602	0.147	0.220	0.367			
2010	186.728	1	42	24.752	35.416	46.179	74.551	180.897	0.322	0.647	0.969			
2011	197.246	1	30	30.090	51.573	24.289	92.986	198.937	0.414	0.595	1.009			
MA Total:	810.624	5	177	372.623	306.886	173.687	475.712	1,328.908	0.838	0.801	1.639			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.301	0.474	.
(14) Massachusetts Credibility:	0.290	0.540	.
(15) Countrywide Pure Premium:	1.374	0.964	2.338
(16) Countrywide Indicated Relativity:	0.533	0.623	.
(17) Countrywide Credibility:	0.360	0.230	.
(18) Countrywide Lost-Time Claims:	649.00	.	.
(19) Pure Premium Underlying Present Rate:	1.299	1.581	2.879
(20) Relativity to Underlying Present Rate:	0.738	0.903	.
(21) Credibility to Underlying Relativity:	0.350	0.230	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.537	0.607	.
(24) Balanced Formula Relativity:	0.531	0.603	0.558

Class(es): 7515 OIL OR GAS PIPELINE OPERATION & DRIVERS									Effective: 1/1/2014			Miscellaneous		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	25.621	0	2	0	5.195	0	17.077	22.272	0.203	0.667	0.869			
2008	36.930	0	2	0	9.855	0	188.800	198.655	0.267	5.112	5.379			
2009	10.729	0	0	0	0	0	0	0	0.000	0.000	0.000			
2010	34.838	0	9	0	83.296	0	70.877	154.173	2.391	2.034	4.425			
2011	13.382	0	0	0	0	0	0	0	0.000	0.000	0.000			
MA Total:	121.500	0	13	0	98.346	0	276.754	375.100	0.809	2.278	3.087			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.290	1.349	.
(14) Massachusetts Credibility:	0.120	0.200	.
(15) Countrywide Pure Premium:	0.585	0.460	1.045
(16) Countrywide Indicated Relativity:	0.227	0.297	.
(17) Countrywide Credibility:	0.440	0.400	.
(18) Countrywide Lost-Time Claims:	355.00	.	.
(19) Pure Premium Underlying Present Rate:	0.863	0.847	1.711
(20) Relativity to Underlying Present Rate:	0.491	0.484	.
(21) Credibility to Underlying Relativity:	0.440	0.400	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.351	0.582	.
(24) Balanced Formula Relativity:	0.346	0.578	0.434

IX 000210

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
7538 ELECTRIC LIGHT OR POWER LINE CONSTRUCTION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	256.685	2	43	72.666	268.493	241.184	278.427	860.770	1.329	2.024	3.353
2008	280.144	0	27	0	73.186	0	161.340	234.526	0.261	0.576	0.837
2009	299.021	0	38	0	491.490	0	323.393	814.882	1.644	1.082	2.725
2010	269.072	2	19	289.712	1.063.460	174.791	602.796	2.130.759	5.029	2.890	7.919
2011	368.472	1	34	211.728	619.140	104.343	233.077	1.168.288	2.255	0.916	3.171
MA Total:	1,473.394	5	161	574.106	2,515.769	520.317	1,599.033	5,209.225	2.097	1.438	3.536

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.701	0.883	.
(14) Massachusetts Credibility:	0.480	0.750	.
(15) Countrywide Pure Premium:	4.620	2.494	7.115
(16) Countrywide Indicated Relativity:	1.596	1.580	.
(17) Countrywide Credibility:	0.260	0.130	.
(18) Countrywide Lost-Time Claims:	1273.0	.	.
(19) Pure Premium Underlying Present Rate:	2.437	1.959	4.396
(20) Relativity to Underlying Present Rate:	1.148	1.081	.
(21) Credibility to Underlying Relativity:	0.260	0.120	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.050	0.997	.
(24) Balanced Formula Relativity:	1.072	1.003	1.048

Class(es):		Effective: 1/1/2014							Miscellaneous		
7539 ELECTRIC LIGHT OR POWER CO NOC-ALL EMP & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	658.851	1	45	538.360	73.615	73.766	96.216	781.956	0.929	0.258	1.187
2008	653.907	0	48	0	602.792	0	404.630	1,007.422	0.922	0.619	1.541
2009	683.007	2	33	352.127	53.143	119.505	55.510	580.285	0.593	0.256	0.850
2010	814.609	1	35	65.287	154.278	22.959	202.798	445.322	0.270	0.277	0.547
2011	772.655	1	37	64.283	376.933	69.979	248.488	759.684	0.571	0.412	0.983
MA Total:	3,583.029	5	198	1,020.056	1,260.761	286.209	1,007.642	3,574.668	0.637	0.361	0.998

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.228	0.214	.
(14) Massachusetts Credibility:	0.360	0.560	.
(15) Countrywide Pure Premium:	1.079	0.670	1.749
(16) Countrywide Indicated Relativity:	0.418	0.433	.
(17) Countrywide Credibility:	0.320	0.220	.
(18) Countrywide Lost-Time Claims:	1645.0	.	.
(19) Pure Premium Underlying Present Rate:	0.495	0.392	0.887
(20) Relativity to Underlying Present Rate:	0.282	0.224	.
(21) Credibility to Underlying Relativity:	0.320	0.220	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.306	0.264	.
(24) Balanced Formula Relativity:	0.302	0.262	0.287

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Calculation of Class Relativities

Class(es): 7580 SEWAGE DISPOSAL PLANT OPERATION & DRIVERS									Effective: 1/1/2014			Miscellaneous		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	150.962	2	19	27.751	29.508	47.229	20.941	125.429	0.379	0.452	0.831			
2008	204.997	2	27	50.061	268.836	29.477	165.772	514.145	1.556	0.952	2.508			
2009	270.672	1	36	34.507	309.719	10.863	102.313	457.402	1.272	0.418	1.690			
2010	286.769	2	21	182.678	259.044	21.929	157.406	621.057	1.540	0.625	2.166			
2011	397.007	4	35	774.233	249.497	661.767	284.892	1,970.389	2.579	2.384	4.963			
MA Total:	1,310,407	11	138	1,069,230	1,116,604	771,265	731,324	3,688,422	1.668	1.147	2.815			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.598	0.679	.
(14) Massachusetts Credibility:	0.300	0.540	.
(15) Countrywide Pure Premium:	1.386	0.937	2.323
(16) Countrywide Indicated Relativity:	0.537	0.605	.
(17) Countrywide Credibility:	0.350	0.230	.
(18) Countrywide Lost-Time Claims:	814.00	.	.
(19) Pure Premium Underlying Present Rate:	0.882	0.975	1.857
(20) Relativity to Underlying Present Rate:	0.502	0.557	.
(21) Credibility to Underlying Relativity:	0.350	0.230	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.543	0.634	.
(24) Balanced Formula Relativity:	0.537	0.630	0.572

Class(es): 7590 GARBAGE WORKS									Effective: 1/1/2014			Miscellaneous		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	42.139	1	3	24.544	0	4.690	2.431	31.666	0.582	0.169	0.751			
2008	11.365	1	3	48.039	107.825	2.592	90.235	248.692	13.714	8.168	21.882			
2009	21.870	0	1	0	3.114	0	5.792	8.906	0.142	0.265	0.407			
2010	14.920	1	3	1.275	1.222	1.811	3.546	7.853	0.167	0.359	0.526			
2011	22.429	0	1	0	11.708	0	19.770	31.478	0.522	0.881	1.403			
MA Total:	112,723	3	11	73.858	123.869	9.093	121.773	328,594	1.754	1.161	2.915			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.629	0.687	.
(14) Massachusetts Credibility:	0.180	0.270	.
(15) Countrywide Pure Premium:	2.048	1.270	3.319
(16) Countrywide Indicated Relativity:	0.794	0.821	.
(17) Countrywide Credibility:	0.410	0.370	.
(18) Countrywide Lost-Time Claims:	413.00	.	.
(19) Pure Premium Underlying Present Rate:	2.709	2.047	4.756
(20) Relativity to Underlying Present Rate:	1.540	1.169	.
(21) Credibility to Underlying Relativity:	0.410	0.360	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.070	0.910	.
(24) Balanced Formula Relativity:	1.057	0.904	1.000

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Calculation of Class Relativities

Class(es): 7600 TELEPHONE OR TELEGRAPH CO: ALL OTHER EMP & DR									Effective: 1/1/2014			Miscellaneous		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	1,388,503	16	244	2,183,410	1,496,283	800,726	984,461	5,464,881	2,650	1,286	3,936			
2008	1,305,035	11	246	2,338,972	2,880,830	1,521,414	1,356,998	8,098,215	4,000	2,206	6,205			
2009	1,314,301	16	215	2,343,954	1,334,111	891,955	805,926	5,375,947	2,798	1,292	4,090			
2010	3,079,309	33	423	2,368,879	6,115,078	1,346,961	2,717,353	12,548,270	2,755	1,320	4,075			
2011	3,655,432	21	333	4,440,004	4,587,976	1,520,930	2,105,926	12,654,836	2,470	0,992	3,462			
MA Total:	10,742,580	97	1,461	13,675,220	16,414,278	6,081,985	7,970,664	44,142,148	2,801	1,308	4,109			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.004	0.774	.
(14) Massachusetts Credibility:	0.810	1.000	.
(15) Countrywide Pure Premium:	1.817	1.052	2.870
(16) Countrywide Indicated Relativity:	0.705	0.680	.
(17) Countrywide Credibility:	0.100	0.000	.
(18) Countrywide Lost-Time Claims:	7302.0	.	.
(19) Pure Premium Underlying Present Rate:	1.278	1.146	2.424
(20) Relativity to Underlying Present Rate:	0.727	0.655	.
(21) Credibility to Underlying Relativity:	0.090	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.949	0.774	.
(24) Balanced Formula Relativity:	0.938	0.769	0.874

Class(es): 7610 RADIO OR TV BROADCAST STATION-ALL EMP & CL, DR									Effective: 1/1/2014			Office and Clerical		
Converted Unlimited Losses														
Amount														
		Claim Count		Indemnity		Medical				MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)			
2007	3,602,741	3	93	195,222	98,002	45,916	134,457	473,598	0.081	0.050	0.131			
2008	3,541,633	2	73	68,925	576,031	168,089	315,628	1,128,674	0.182	0.137	0.319			
2009	3,525,480	5	41	615,179	412,499	268,417	341,065	1,637,160	0.292	0.173	0.464			
2010	3,553,014	0	52	0	738,147	0	244,439	982,586	0.208	0.069	0.277			
2011	4,563,322	9	120	2,477,078	1,420,250	482,299	546,188	4,925,815	0.854	0.225	1.079			
MA Total:	18,786,190	19	379	3,356,404	3,244,930	964,721	1,581,777	9,147,832	0.351	0.136	0.487			

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.446	2.247	.
(14) Massachusetts Credibility:	0.320	0.540	.
(15) Countrywide Pure Premium:	0.142	0.103	0.245
(16) Countrywide Indicated Relativity:	2.361	2.081	.
(17) Countrywide Credibility:	0.340	0.230	.
(18) Countrywide Lost-Time Claims:	1767.0	.	.
(19) Pure Premium Underlying Present Rate:	0.069	0.068	0.137
(20) Relativity to Underlying Present Rate:	1.313	1.145	.
(21) Credibility to Underlying Relativity:	0.340	0.230	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	2.672	1.955	.
(24) Balanced Formula Relativity:	2.712	1.972	2.392

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous		
7704 FIREFIGHTERS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	29,626	0	4	0	749	0	1,480	2,228	0.025	0.050	0.075
2008	25,020	0	1	0	0	0	316	316	0.000	0.013	0.013
2009	26,038	0	2	0	557	0	4,187	4,744	0.021	0.161	0.182
2010	13,417	1	1	170,631	3,950	102,632	2,893	280,106	13.012	7.865	20.877
2011	12,606	0	2	0	0	0	687	687	0.000	0.055	0.055
MA Total:	106,708	1	10	170,631	5,256	102,632	9,564	288,083	1.648	1.051	2.700

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.591	0.623	.
(14) Massachusetts Credibility:	0.090	0.160	.
(15) Countrywide Pure Premium:	2,606	2,155	4,761
(16) Countrywide Indicated Relativity:	1.010	1.393	.
(17) Countrywide Credibility:	0.460	0.420	.
(18) Countrywide Lost-Time Claims:	2665.0	.	.
(19) Pure Premium Underlying Present Rate:	0.532	0.595	1.126
(20) Relativity to Underlying Present Rate:	0.302	0.340	.
(21) Credibility to Underlying Relativity:	0.450	0.420	.
(22) Industry Group Converted Pure Premium:	2,789	1,689	4,478
(23) Formula Relativity:	0.654	0.827	.
(24) Balanced Formula Relativity:	0.646	0.822	0.712

Class(es):		Effective: 1/1/2014							Miscellaneous		
7720 POLICE OFFICERS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,378,368	6	99	481,445	353,253	364,202	392,903	1,591,804	0.606	0.549	1,155
2008	1,403,940	7	94	898,457	494,950	577,535	867,035	2,837,977	0.992	1.029	2,021
2009	1,534,795	5	94	293,205	1,570,021	425,942	625,570	2,914,738	1.214	0.685	1,899
2010	1,716,571	3	100	401,137	727,471	157,096	380,715	1,666,419	0.657	0.313	0,971
2011	1,867,655	4	134	536,528	744,974	435,457	658,618	2,375,578	0.686	0.586	1,272
MA Total:	7,901,329	25	521	2,610,773	3,890,668	1,960,233	2,924,841	11,386,515	0.823	0.618	1,441

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.295	0.366	.
(14) Massachusetts Credibility:	0.550	0.940	.
(15) Countrywide Pure Premium:	1,427	1,014	2,441
(16) Countrywide Indicated Relativity:	0.553	0.655	.
(17) Countrywide Credibility:	0.230	0.030	.
(18) Countrywide Lost-Time Claims:	12401	.	.
(19) Pure Premium Underlying Present Rate:	0.641	0.656	1.297
(20) Relativity to Underlying Present Rate:	0.365	0.375	.
(21) Credibility to Underlying Relativity:	0.220	0.030	.
(22) Industry Group Converted Pure Premium:	2,789	1,689	4,478
(23) Formula Relativity:	0.370	0.375	.
(24) Balanced Formula Relativity:	0.365	0.373	0.368

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
7855 RAILROAD CONSTR: LAYING/RELAYING TRACK OR MAINT BY CONTR &DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	14,380	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	9,068	0	1	0	4,124	0	3,927	8,051	0.455	0.433	0.888
2009	7,184	0	1	0	0	0	1,249	1,249	0.000	0.174	0.174
2010	9,131	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	20,598	0	1	0	2,048	0	3,118	5,166	0.099	0.151	0.251
MA Total:	60,360	0	3	0	6,172	0	8,294	14,466	0.102	0.137	0.240

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.034	0.084	.
(14) Massachusetts Credibility:	0.140	0.180	.
(15) Countrywide Pure Premium:	3.533	1.753	5.286
(16) Countrywide Indicated Relativity:	1.220	1.111	.
(17) Countrywide Credibility:	0.430	0.410	.
(18) Countrywide Lost-Time Claims:	303.00	.	.
(19) Pure Premium Underlying Present Rate:	2.690	1.362	4.051
(20) Relativity to Underlying Present Rate:	1.268	0.751	.
(21) Credibility to Underlying Relativity:	0.430	0.410	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.075	0.779	.
(24) Balanced Formula Relativity:	1.097	0.784	0.986

Class(es):		Effective: 1/1/2014							Goods and Services		
8001 STORE: FLORISTS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums		
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	676,884	5	85	214,368	379,540	75,318	350,250	1,019,476	0.877	0.629	1.506
2008	610,116	1	66	128,733	266,448	16,149	186,459	597,790	0.648	0.332	0.980
2009	588,849	3	79	435,825	302,686	514,906	314,926	1,568,343	1.254	1.409	2.663
2010	620,504	1	88	211,715	154,324	17,645	194,262	577,946	0.590	0.342	0.931
2011	620,835	2	62	11,528	247,195	18,672	301,490	578,885	0.417	0.516	0.932
MA Total:	3,117,188	12	380	1,002,169	1,350,193	642,691	1,347,388	4,342,440	0.755	0.638	1.393

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.831	0.992	.
(14) Massachusetts Credibility:	0.360	0.650	.
(15) Countrywide Pure Premium:	1.104	0.811	1.914
(16) Countrywide Indicated Relativity:	1.217	1.271	.
(17) Countrywide Credibility:	0.320	0.180	.
(18) Countrywide Lost-Time Claims:	1320.0	.	.
(19) Pure Premium Underlying Present Rate:	0.568	0.664	1.233
(20) Relativity to Underlying Present Rate:	0.907	1.019	.
(21) Credibility to Underlying Relativity:	0.320	0.170	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.979	1.047	.
(24) Balanced Formula Relativity:	0.968	1.048	1.001

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services			
8002 AUTOMOBILE RENTAL CO: ALL OTHER EMP & COUNTER PERSONNEL, DR												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	121,565	2	19	4,346	65,371	7,222	82,891	159,830	0.573	0.741	1.315	
2008	127,102	1	12	47,658	4,281	6,005	11,427	69,372	0.409	0.137	0.546	
2009	103,429	0	9	0	18,018	0	82,592	100,611	0.174	0.799	0.973	
2010	179,610	1	32	167	1,137	30,287	27,862	59,453	0.007	0.324	0.331	
2011	185,420	0	32	0	101,540	0	113,078	214,618	0.548	0.610	1.157	
MA Total:	717,126	4	104	52,171	190,348	43,514	317,850	603,884	0.338	0.504	0.842	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.372	0.783	.
(14) Massachusetts Credibility:	0.220	0.420	.
(15) Countrywide Pure Premium:	0.833	0.792	1.624
(16) Countrywide Indicated Relativity:	0.918	1.241	.
(17) Countrywide Credibility:	0.390	0.290	.
(18) Countrywide Lost-Time Claims:	1713.0	.	.
(19) Pure Premium Underlying Present Rate:	0.752	0.961	1.713
(20) Relativity to Underlying Present Rate:	1.200	1.474	.
(21) Credibility to Underlying Relativity:	0.390	0.290	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.908	1.116	.
(24) Balanced Formula Relativity:	0.898	1.117	0.989

Class(es):		Effective: 1/1/2014							Goods and Services			
8006 STORE: GROCERY STORES-RETAIL-NO HANDLING OF FRESH MEATS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical			MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	2,048,858	11	275	601,903	478,138	324,470	636,124	2,040,635	0.527	0.469	0.996	
2008	2,076,961	15	279	1,332,580	569,275	557,813	633,317	3,092,984	0.916	0.573	1.489	
2009	2,153,298	14	272	1,778,811	686,863	1,668,874	849,536	4,984,084	1.145	1.170	2.315	
2010	2,212,821	8	272	656,343	664,536	343,382	793,022	2,457,282	0.597	0.514	1.110	
2011	2,374,213	10	252	652,028	416,116	386,233	518,927	1,973,304	0.450	0.381	0.831	
MA Total:	10,866,150	58	1,350	5,021,665	2,814,928	3,280,771	3,430,925	14,548,289	0.721	0.618	1.339	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.794	0.959	.
(14) Massachusetts Credibility:	0.550	1.000	.
(15) Countrywide Pure Premium:	0.979	0.731	1.710
(16) Countrywide Indicated Relativity:	1.080	1.146	.
(17) Countrywide Credibility:	0.230	0.000	.
(18) Countrywide Lost-Time Claims:	10336	.	.
(19) Pure Premium Underlying Present Rate:	0.476	0.675	1.150
(20) Relativity to Underlying Present Rate:	0.760	1.035	.
(21) Credibility to Underlying Relativity:	0.220	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.852	0.959	.
(24) Balanced Formula Relativity:	0.843	0.961	0.892

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8008 STORE: CLOTHING, WEARING APPAREL OR DRY GOODS - RETAIL											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,505,223	5	271	249,352	497,037	71,452	597,432	1,415,275	0.213	0.191	0.404
2008	3,150,631	6	268	687,318	883,468	358,533	690,759	2,620,079	0.499	0.333	0.832
2009	2,956,704	9	235	709,881	595,545	412,756	572,119	2,290,301	0.442	0.333	0.775
2010	2,958,976	8	215	554,998	589,846	146,973	394,623	1,686,440	0.387	0.183	0.570
2011	3,381,637	6	253	314,771	796,123	268,942	716,856	2,096,691	0.329	0.292	0.620
MA Total:	15,953,172	34	1,242	2,516,321	3,362,019	1,258,656	2,971,790	10,108,786	0.368	0.265	0.634

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.406	0.412	.
(14) Massachusetts Credibility:	0.480	0.850	.
(15) Countrywide Pure Premium:	0.527	0.422	0.949
(16) Countrywide Indicated Relativity:	0.581	0.662	.
(17) Countrywide Credibility:	0.260	0.080	.
(18) Countrywide Lost-Time Claims:	9136.0	.	.
(19) Pure Premium Underlying Present Rate:	0.230	0.247	0.477
(20) Relativity to Underlying Present Rate:	0.367	0.379	.
(21) Credibility to Underlying Relativity:	0.260	0.070	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.441	0.430	.
(24) Balanced Formula Relativity:	0.436	0.430	0.434

Class(es):		Effective: 1/1/2014							Goods and Services		
8010 STORE: HARDWARE											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,885,377	11	254	792,334	922,444	421,523	649,405	2,785,706	0.910	0.568	1.478
2008	1,947,067	8	236	952,389	766,818	469,139	647,680	2,836,026	0.883	0.574	1.457
2009	1,684,510	4	213	520,148	1,050,305	228,280	733,216	2,531,950	0.932	0.571	1.503
2010	1,744,272	4	208	601,651	316,763	315,953	569,319	1,803,687	0.527	0.508	1.034
2011	2,041,735	6	249	234,649	706,489	331,916	905,697	2,178,752	0.461	0.606	1.067
MA Total:	9,302,961	33	1,160	3,101,172	3,762,820	1,766,811	3,505,319	12,136,121	0.738	0.567	1.305

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.813	0.880	.
(14) Massachusetts Credibility:	0.540	0.990	.
(15) Countrywide Pure Premium:	0.760	0.575	1.335
(16) Countrywide Indicated Relativity:	0.839	0.901	.
(17) Countrywide Credibility:	0.230	0.010	.
(18) Countrywide Lost-Time Claims:	4940.0	.	.
(19) Pure Premium Underlying Present Rate:	0.524	0.630	1.154
(20) Relativity to Underlying Present Rate:	0.837	0.967	.
(21) Credibility to Underlying Relativity:	0.230	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.824	0.881	.
(24) Balanced Formula Relativity:	0.815	0.882	0.843

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Calculation of Class Relativities

Class(es): 8013 STORE: JEWELRY STORES		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,112,572	3	19	121,405	72,202	90,273	56,213	340,093	0.174	0.132	0.306
2008	1,172,288	3	26	52,585	49,276	206,282	326,425	634,567	0.087	0.454	0.541
2009	1,145,806	3	29	184,221	252,087	57,446	143,458	637,212	0.381	0.175	0.556
2010	1,394,579	2	30	95,369	188,497	176,596	109,142	569,603	0.204	0.205	0.408
2011	1,400,373	0	28	0	120,723	0	149,385	270,108	0.086	0.107	0.193
MA Total:	6,225,618	11	132	453,579	682,785	530,597	784,623	2,451,584	0.183	0.211	0.394

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.201	0.328	.
(14) Massachusetts Credibility:	0.290	0.500	.
(15) Countrywide Pure Premium:	0.207	0.129	0.336
(16) Countrywide Indicated Relativity:	0.229	0.202	.
(17) Countrywide Credibility:	0.360	0.250	.
(18) Countrywide Lost-Time Claims:	732.00	.	.
(19) Pure Premium Underlying Present Rate:	0.170	0.170	0.340
(20) Relativity to Underlying Present Rate:	0.272	0.261	.
(21) Credibility to Underlying Relativity:	0.350	0.250	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.236	0.280	.
(24) Balanced Formula Relativity:	0.233	0.280	0.253

Class(es): 8017 STORE: RETAIL NOC		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	14,280,087	68	2,347	3,279,762	4,594,910	1,683,058	5,080,754	14,638,483	0.551	0.474	1.025
2008	12,847,567	49	1,594	3,693,423	4,158,204	1,965,837	3,883,065	13,700,528	0.611	0.455	1.066
2009	12,842,591	47	1,440	3,581,131	3,630,776	2,289,287	3,784,931	13,286,125	0.562	0.473	1.035
2010	13,035,202	43	1,325	2,339,386	4,321,521	1,220,032	3,497,232	11,378,170	0.511	0.362	0.873
2011	13,224,478	30	1,298	2,097,990	4,985,004	2,011,743	3,792,823	12,887,559	0.536	0.439	0.975
MA Total:	66,229,925	237	8,004	14,991,691	21,690,415	9,169,956	20,038,804	65,890,866	0.554	0.441	0.995

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.610	0.685	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	0.620	0.521	1.140
(16) Countrywide Indicated Relativity:	0.684	0.816	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	44131	.	.
(19) Pure Premium Underlying Present Rate:	0.384	0.482	0.866
(20) Relativity to Underlying Present Rate:	0.613	0.740	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.610	0.685	.
(24) Balanced Formula Relativity:	0.603	0.686	0.637

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8018 STORE: WHOLESALE NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,815,766	31	744	1,538,076	2,276,844	668,249	1,778,552	6,261,721	1,355	0,869	2,224
2008	2,797,259	17	770	1,524,427	4,376,627	963,993	3,276,471	10,141,518	2,110	1,516	3,626
2009	2,512,913	20	588	1,352,394	2,400,044	646,255	1,688,045	6,086,738	1,493	0,929	2,422
2010	2,873,579	23	637	1,773,289	2,725,148	750,466	1,875,482	7,124,385	1,565	0,914	2,479
2011	3,058,084	20	662	1,193,066	2,868,830	549,836	2,289,086	6,900,819	1,328	0,928	2,257
MA Total:	14,057,602	111	3,401	7,381,252	14,647,494	3,578,799	10,907,636	36,515,181	1,567	1,031	2,598

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.726	1.601	.
(14) Massachusetts Credibility:	0.880	1.000	.
(15) Countrywide Pure Premium:	1.231	0.834	2.065
(16) Countrywide Indicated Relativity:	1.358	1.307	.
(17) Countrywide Credibility:	0.060	0.000	.
(18) Countrywide Lost-Time Claims:	19668	.	.
(19) Pure Premium Underlying Present Rate:	1.175	1.194	2.369
(20) Relativity to Underlying Present Rate:	1.875	1.832	.
(21) Credibility to Underlying Relativity:	0.060	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.713	1.601	.
(24) Balanced Formula Relativity:	1.693	1.603	1.656

Class(es):		Effective: 1/1/2014							Goods and Services		
8021 STORE: MEAT, FISH OR POULTRY DEALER- WHOLESALE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	640,462	4	116	156,238	751,907	33,080	291,583	1,232,808	1,418	0,507	1,925
2008	645,598	6	124	436,140	1,041,579	332,601	777,409	2,587,729	2,289	1,719	4,008
2009	625,932	1	109	280,069	302,661	119,088	333,491	1,035,310	0,931	0,723	1,654
2010	686,285	8	103	590,011	646,867	247,319	531,138	2,015,335	1,802	1,134	2,937
2011	703,438	4	126	255,083	1,503,962	94,425	506,728	2,360,198	2,501	0,855	3,355
MA Total:	3,301,715	23	578	1,717,542	4,246,976	826,513	2,440,349	9,231,380	1,806	0,989	2,796

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.989	1.537	.
(14) Massachusetts Credibility:	0.460	0.790	.
(15) Countrywide Pure Premium:	1.116	0.893	2.010
(16) Countrywide Indicated Relativity:	1.232	1.400	.
(17) Countrywide Credibility:	0.270	0.110	.
(18) Countrywide Lost-Time Claims:	2651.0	.	.
(19) Pure Premium Underlying Present Rate:	0.990	1.019	2.009
(20) Relativity to Underlying Present Rate:	1.581	1.563	.
(21) Credibility to Underlying Relativity:	0.270	0.100	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.674	1.525	.
(24) Balanced Formula Relativity:	1.656	1.526	1.602

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8031 STORE: MEAT, FISH OR POULTRY - RETAIL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	191,381	1	25	386,149	6,781	88,208	68,369	549,507	2,053	0,818	2,871
2008	214,314	2	36	88,278	37,507	48,953	67,446	242,183	0,587	0,543	1,130
2009	222,428	1	53	278,294	171,049	62,736	136,479	648,559	2,020	0,896	2,916
2010	229,087	1	36	1,604	217,976	20,327	153,947	393,854	0,958	0,761	1,719
2011	224,946	0	37	0	822,582	0	167,424	990,006	3,657	0,744	4,401
MA Total:	1,082,165	5	187	754,324	1,255,895	220,224	593,665	2,824,109	1,858	0,752	2,610

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.046	1.168	.
(14) Massachusetts Credibility:	0.290	0.500	.
(15) Countrywide Pure Premium:	0.891	0.785	1.676
(16) Countrywide Indicated Relativity:	0.983	1.230	.
(17) Countrywide Credibility:	0.360	0.250	.
(18) Countrywide Lost-Time Claims:	565.00	.	.
(19) Pure Premium Underlying Present Rate:	0.994	0.990	1.984
(20) Relativity to Underlying Present Rate:	1.587	1.519	.
(21) Credibility to Underlying Relativity:	0.350	0.250	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.502	1.271	.
(24) Balanced Formula Relativity:	1.486	1.273	1.397

Class(es):		Effective: 1/1/2014							Goods and Services		
8032 STORE: CLOTHING, WEARING APPAREL OR DRY GOODS - WHOLESALE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	332,042	1	44	1,748	66,990	3,451	113,447	185,637	0,207	0,352	0,559
2008	379,314	1	49	1,427	293,548	10,740	143,060	448,775	0,778	0,405	1,183
2009	351,723	2	74	119,114	148,837	30,122	239,877	537,949	0,762	0,768	1,529
2010	343,716	1	53	179,541	46,005	5,789	86,776	318,111	0,656	0,269	0,926
2011	285,894	0	44	0	227,820	0	79,579	307,399	0,797	0,278	1,075
MA Total:	1,692,689	5	264	301,830	783,201	50,102	662,739	1,797,871	0,641	0,421	1,062

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.706	0.654	.
(14) Massachusetts Credibility:	0.280	0.490	.
(15) Countrywide Pure Premium:	0.956	0.706	1.661
(16) Countrywide Indicated Relativity:	1.054	1.106	.
(17) Countrywide Credibility:	0.360	0.260	.
(18) Countrywide Lost-Time Claims:	1129.0	.	.
(19) Pure Premium Underlying Present Rate:	0.543	0.597	1.140
(20) Relativity to Underlying Present Rate:	0.867	0.916	.
(21) Credibility to Underlying Relativity:	0.360	0.250	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.889	0.837	.
(24) Balanced Formula Relativity:	0.879	0.838	0.862

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8033 STORE: MEAT, GROCERY & PROVISION COMBINED RETAIL-NOC											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	705.777	6	161	257.278	185.346	132.645	248.057	823.326	0.627	0.539	1.167
2008	704.868	7	133	651.627	448.154	384.645	376.359	1,860.785	1.560	1.080	2.640
2009	708.035	3	118	116.606	349.619	39.818	315.516	821.558	0.658	0.502	1.160
2010	763.513	5	154	274.646	787.612	168.451	501.138	1,731.846	1.391	0.877	2.268
2011	819.231	3	125	377.806	637.483	63.567	477.874	1,556.730	1.239	0.661	1.900
MA Total:	3,701,424	24	691	1,677,963	2,408,213	789,126	1,918,943	6,794,244	1.104	0.732	1.836

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.216	1.137	.
(14) Massachusetts Credibility:	0.410	0.740	.
(15) Countrywide Pure Premium:	0.838	0.681	1.519
(16) Countrywide Indicated Relativity:	0.924	1.067	.
(17) Countrywide Credibility:	0.300	0.130	.
(18) Countrywide Lost-Time Claims:	19387	.	.
(19) Pure Premium Underlying Present Rate:	0.677	0.753	1.430
(20) Relativity to Underlying Present Rate:	1.080	1.156	.
(21) Credibility to Underlying Relativity:	0.290	0.130	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.089	1.130	.
(24) Balanced Formula Relativity:	1.077	1.131	1.100

Class(es):		Effective: 1/1/2014							Goods and Services		
8034 STORE: GROCERY STORES - WHOLESALE											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	144.055	1	46	135.375	178.633	24.327	97.212	435.548	2.180	0.844	3.023
2008	138.632	2	34	151.097	412.412	58.930	98.239	720.679	4.065	1.134	5.198
2009	147.541	2	22	79.353	50.938	75.074	37.514	242.878	0.883	0.763	1.646
2010	548.687	9	103	805.283	998.330	555.864	493.541	2,853.017	3.287	1.913	5.200
2011	515.388	6	78	360.065	1,106.636	171.069	475.105	2,112.875	2.846	1.254	4.100
MA Total:	1,494,304	20	283	1,531,174	2,746,949	885,264	1,201,610	6,364,996	2.863	1.397	4.260

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.153	2.169	.
(14) Massachusetts Credibility:	0.390	0.660	.
(15) Countrywide Pure Premium:	0.973	0.572	1.545
(16) Countrywide Indicated Relativity:	1.073	0.896	.
(17) Countrywide Credibility:	0.310	0.170	.
(18) Countrywide Lost-Time Claims:	161.00	.	.
(19) Pure Premium Underlying Present Rate:	1.488	1.436	2.924
(20) Relativity to Underlying Present Rate:	2.376	2.203	.
(21) Credibility to Underlying Relativity:	0.300	0.170	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.275	1.959	.
(24) Balanced Formula Relativity:	2.249	1.961	2.130

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Calculation of Class Relativities

Class(es): 8039 STORE: DEPARTMENT - RETAIL		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	673,076	8	131	330,654	116,045	116,973	245,680	809,353	0.664	0.539	1.202
2008	638,413	2	102	16,816	7,304	44,904	91,249	160,273	0.038	0.213	0.251
2009	609,914	2	75	147,575	24,424	57,338	105,781	335,119	0.282	0.267	0.549
2010	382,858	2	66	21,687	22,926	17,021	68,123	129,758	0.117	0.222	0.339
2011	675,213	4	104	135,907	105,682	116,736	193,258	551,584	0.358	0.459	0.817
MA Total:	2,979,474	18	478	652,640	276,383	352,972	704,092	1,986,087	0.312	0.355	0.667

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.343	0.551	.
(14) Massachusetts Credibility:	0.340	0.650	.
(15) Countrywide Pure Premium:	0.670	0.609	1.279
(16) Countrywide Indicated Relativity:	0.739	0.954	.
(17) Countrywide Credibility:	0.330	0.180	.
(18) Countrywide Lost-Time Claims:	4906.0	.	.
(19) Pure Premium Underlying Present Rate:	0.528	0.691	1.220
(20) Relativity to Underlying Present Rate:	0.843	1.061	.
(21) Credibility to Underlying Relativity:	0.330	0.170	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.639	0.710	.
(24) Balanced Formula Relativity:	0.632	0.711	0.665

Class(es): 8044 STORE: FURNITURE & DRIVERS		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	714,362	6	158	208,251	1,101,106	241,025	1,099,953	2,650,336	1.833	1.877	3.710
2008	631,497	4	143	280,206	497,987	395,242	380,899	1,554,334	1.232	1.229	2.461
2009	665,614	13	141	1,092,296	681,385	1,772,915	560,521	4,107,118	2.665	3.506	6.170
2010	818,135	13	124	1,538,368	656,842	537,690	680,358	3,413,258	2.683	1.489	4.172
2011	681,012	8	105	617,154	563,034	267,202	564,711	2,012,101	1.733	1.222	2.955
MA Total:	3,510,619	44	671	3,736,276	3,500,354	3,214,075	3,286,442	13,737,146	2.061	1.852	3.913

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.270	2.876	.
(14) Massachusetts Credibility:	0.500	0.890	.
(15) Countrywide Pure Premium:	1.349	0.838	2.186
(16) Countrywide Indicated Relativity:	1.488	1.313	.
(17) Countrywide Credibility:	0.250	0.060	.
(18) Countrywide Lost-Time Claims:	7288.0	.	.
(19) Pure Premium Underlying Present Rate:	1.135	1.281	2.417
(20) Relativity to Underlying Present Rate:	1.812	1.966	.
(21) Credibility to Underlying Relativity:	0.250	0.050	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.960	2.737	.
(24) Balanced Formula Relativity:	1.938	2.740	2.271

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8046 STORE: AUTOMOBILE ACCESSORIES-RETAIL-NOC & DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	310,388	2	56	63,286	104,800	8,430	118,014	294,529	0.542	0.407	0.949
2008	422,525	6	72	601,100	452,284	343,837	386,491	1,783,711	2.493	1.728	4.222
2009	377,314	3	47	338,990	290,598	134,810	356,080	1,120,478	1.669	1.301	2.970
2010	711,260	6	121	245,995	227,126	161,032	288,881	923,034	0.665	0.633	1.298
2011	622,139	5	75	750,693	164,477	316,636	317,139	1,548,945	1.471	1.019	2.490
MA Total:	2,443,626	22	371	2,000,063	1,239,284	964,745	1,466,605	5,670,697	1.326	0.995	2.321

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.460	1.546	.
(14) Massachusetts Credibility:	0.370	0.700	.
(15) Countrywide Pure Premium:	0.966	0.737	1.702
(16) Countrywide Indicated Relativity:	1.065	1.155	.
(17) Countrywide Credibility:	0.320	0.150	.
(18) Countrywide Lost-Time Claims:	4790.0	.	.
(19) Pure Premium Underlying Present Rate:	0.774	1.013	1.787
(20) Relativity to Underlying Present Rate:	1.236	1.554	.
(21) Credibility to Underlying Relativity:	0.310	0.150	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.264	1.488	.
(24) Balanced Formula Relativity:	1.250	1.490	1.350

Class(es):		Effective: 1/1/2014							Goods and Services		
8048 STORE: FRUIT OR VEGETABLE -WHOLESALE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	316,590	2	37	171,741	508,274	221,648	391,078	1,292,741	2.148	1.935	4.083
2008	310,723	1	30	69,948	9,505	31,976	31,786	143,215	0.256	0.205	0.461
2009	261,432	3	30	536,297	187,178	42,614	171,325	937,413	2.767	0.818	3.586
2010	283,003	2	31	126,365	335,161	29,884	176,515	667,925	1.631	0.729	2.360
2011	309,175	1	37	129,017	284,381	26,316	227,815	667,528	1.337	0.822	2.159
MA Total:	1,480,924	9	165	1,033,368	1,324,499	352,438	998,518	3,708,822	1.592	0.912	2.504

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.753	1.417	.
(14) Massachusetts Credibility:	0.370	0.610	.
(15) Countrywide Pure Premium:	1.008	0.841	1.850
(16) Countrywide Indicated Relativity:	1.112	1.319	.
(17) Countrywide Credibility:	0.310	0.200	.
(18) Countrywide Lost-Time Claims:	64.000	.	.
(19) Pure Premium Underlying Present Rate:	1.301	1.162	2.463
(20) Relativity to Underlying Present Rate:	2.077	1.783	.
(21) Credibility to Underlying Relativity:	0.320	0.190	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.658	1.467	.
(24) Balanced Formula Relativity:	1.640	1.469	1.569

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8050 STORE: FIVE & TEN CENT STORES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	7.402	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	7.253	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	7.312	0	1	0	0	0	899	899	0.000	0.123	0.123
2010	10.396	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	9.843	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	42,206	0	1	0	0	0	899	899	0.000	0.021	0.021

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.033	.
(14) Massachusetts Credibility:	0.060	0.120	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.920	1.046	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.580	0.687	1.267
(20) Relativity to Underlying Present Rate:	0.926	1.054	.
(21) Credibility to Underlying Relativity:	0.940	0.880	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.871	0.932	.
(24) Balanced Formula Relativity:	0.861	0.933	0.891

Class(es):		Effective: 1/1/2014							Goods and Services		
8058 BUILDING MATERIAL DEALER-NEW MATERIALS ONLY-STORE EMP											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	273.817	1	36	2.554	74.976	635	50.905	129.070	0.283	0.188	0.471
2008	243.969	2	59	153.850	336.759	181.694	170.007	842.309	2.011	1.442	3.453
2009	235.049	2	60	153.180	299.521	58.904	270.844	782.450	1.926	1.403	3.329
2010	255.184	2	57	107.871	126.183	187.422	192.851	614.328	0.917	1.490	2.407
2011	292.669	0	59	0	467.263	0	315.150	782.412	1.597	1.077	2.673
MA Total:	1,300,689	7	271	417.456	1,304.702	428.656	999.757	3,150,570	1,324	1,098	2,422

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.458	1.706	.
(14) Massachusetts Credibility:	0.300	0.570	.
(15) Countrywide Pure Premium:	1.088	0.923	2.011
(16) Countrywide Indicated Relativity:	1.200	1.446	.
(17) Countrywide Credibility:	0.350	0.220	.
(18) Countrywide Lost-Time Claims:	5926.0	.	.
(19) Pure Premium Underlying Present Rate:	0.885	1.124	2.009
(20) Relativity to Underlying Present Rate:	1.413	1.725	.
(21) Credibility to Underlying Relativity:	0.350	0.210	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.352	1.653	.
(24) Balanced Formula Relativity:	1.337	1.655	1.469

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Calculation of Class Relativities

Class(es): 8103 WOOL MERCHANT		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	20,505	0	8	0	7,645	0	6,107	13,752	0.373	0.298	0.671
2008	20,134	0	6	0	39,500	0	12,900	52,400	1.962	0.641	2.603
2009	8,441	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	1,985	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	2,381	0	1	0	31,794	0	12,852	44,646	13.354	5.398	18.753
MA Total:	53,446	0	15	0	78,939	0	31,859	110,798	1.477	0.596	2.073

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.626	0.926	.
(14) Massachusetts Credibility:	0.090	0.160	.
(15) Countrywide Pure Premium:	1.472	1.167	2.639
(16) Countrywide Indicated Relativity:	1.624	1.829	.
(17) Countrywide Credibility:	0.270	0.280	.
(18) Countrywide Lost-Time Claims:	42.000	.	.
(19) Pure Premium Underlying Present Rate:	1.155	1.099	2.254
(20) Relativity to Underlying Present Rate:	1.844	1.686	.
(21) Credibility to Underlying Relativity:	0.640	0.560	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.765	1.605	.
(24) Balanced Formula Relativity:	1.745	1.607	1.688

Class(es): 8105 STORE: HIDE OR LEATHER DEALERS OR STORES		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	8,820	0	1	0	3,388	0	95	3,484	0.384	0.011	0.395
2008	8,540	0	1	0	276	0	352	627	0.032	0.041	0.073
2009	7,805	0	1	0	4,682	0	8,381	13,063	0.600	1.074	1.674
2010	2,782	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	7,906	1	1	157,973	11,355	36,639	10,224	216,191	21.417	5.927	27.345
MA Total:	35,852	1	4	157,973	19,702	36,639	19,052	233,366	4.956	1.553	6.509

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	5.457	2.413	.
(14) Massachusetts Credibility:	0.090	0.160	.
(15) Countrywide Pure Premium:	0.567	0.586	1.153
(16) Countrywide Indicated Relativity:	0.625	0.919	.
(17) Countrywide Credibility:	0.140	0.140	.
(18) Countrywide Lost-Time Claims:	8.000	.	.
(19) Pure Premium Underlying Present Rate:	1.720	1.717	3.437
(20) Relativity to Underlying Present Rate:	2.746	2.634	.
(21) Credibility to Underlying Relativity:	0.770	0.700	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.693	2.359	.
(24) Balanced Formula Relativity:	2.663	2.362	2.538

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8106 IRON OR STEEL MERCHANT & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	149,291	4	50	531,815	351,604	473,481	428,837	1,785,737	5,917	6,044	11,961
2008	117,602	1	30	140,921	107,180	47,697	153,114	448,912	2,110	1,708	3,817
2009	123,495	2	34	742,099	421,457	369,829	107,201	1,640,587	9,422	3,863	13,285
2010	128,382	1	22	37,556	130,209	45,399	73,633	286,797	1,307	0,927	2,234
2011	137,989	3	21	520,525	20,124	311,860	30,214	882,723	3,918	2,479	6,397
MA Total:	656,760	11	157	1,972,917	1,030,575	1,248,266	792,998	5,044,756	4,573	3,108	7,681

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	5.036	4.828	.
(14) Massachusetts Credibility:	0.340	0.660	.
(15) Countrywide Pure Premium:	2.140	1.397	3.536
(16) Countrywide Indicated Relativity:	2.360	2.189	.
(17) Countrywide Credibility:	0.330	0.170	.
(18) Countrywide Lost-Time Claims:	2462.0	.	.
(19) Pure Premium Underlying Present Rate:	2.302	3.271	5.573
(20) Relativity to Underlying Present Rate:	3.675	5.019	.
(21) Credibility to Underlying Relativity:	0.330	0.170	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	3.704	4.412	.
(24) Balanced Formula Relativity:	3.662	4.417	3.976

Class(es):		Effective: 1/1/2014							Goods and Services		
8107 MACHINERY DEALER- NOC- STORE OR YARD & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	631,007	3	141	342,561	422,466	415,023	689,903	1,869,952	1,212	1,751	2,963
2008	571,051	2	108	296,934	1,127,054	62,764	449,070	1,935,822	2,494	0,896	3,390
2009	524,255	3	73	88,403	501,981	57,202	348,126	995,711	1,126	0,773	1,899
2010	557,513	3	88	56,724	255,991	166,478	401,809	881,003	0,561	1,019	1,580
2011	563,607	2	86	343,654	207,839	138,585	248,131	938,208	0,979	0,686	1,665
MA Total:	2,847,433	13	496	1,128,275	2,515,331	840,051	2,137,039	6,620,696	1,280	1,046	2,325

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.409	1.624	.
(14) Massachusetts Credibility:	0.490	0.910	.
(15) Countrywide Pure Premium:	1.502	0.932	2.434
(16) Countrywide Indicated Relativity:	1.657	1.461	.
(17) Countrywide Credibility:	0.260	0.050	.
(18) Countrywide Lost-Time Claims:	6410.0	.	.
(19) Pure Premium Underlying Present Rate:	1.327	1.672	2.999
(20) Relativity to Underlying Present Rate:	2.118	2.565	.
(21) Credibility to Underlying Relativity:	0.250	0.040	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.651	1.654	.
(24) Balanced Formula Relativity:	1.632	1.656	1.642

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8111 PLUMBERS SUPPLIES DEALERS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	489,623	4	96	160,605	272,729	189,785	382,435	1,005,554	0.885	1.169	2.054
2008	492,677	1	104	113,056	276,300	159,243	278,518	827,117	0.790	0.889	1.679
2009	423,473	3	81	359,426	218,698	204,083	272,419	1,054,625	1.365	1.125	2.490
2010	599,345	2	84	45,332	474,445	27,627	570,196	1,117,600	0.867	0.997	1.865
2011	684,544	6	83	997,982	189,404	404,465	308,871	1,900,723	1.735	1.042	2.777
MA Total:	2,689,661	16	448	1,676,400	1,431,576	985,203	1,812,440	5,905,619	1.156	1.040	2.196

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.273	1.616	.
(14) Massachusetts Credibility:	0.470	0.790	.
(15) Countrywide Pure Premium:	1.045	0.745	1.790
(16) Countrywide Indicated Relativity:	1.152	1.168	.
(17) Countrywide Credibility:	0.270	0.110	.
(18) Countrywide Lost-Time Claims:	1179.0	.	.
(19) Pure Premium Underlying Present Rate:	1.262	1.252	2.515
(20) Relativity to Underlying Present Rate:	2.015	1.921	.
(21) Credibility to Underlying Relativity:	0.260	0.100	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.433	1.597	.
(24) Balanced Formula Relativity:	1.417	1.599	1.493

Class(es):		Effective: 1/1/2014							Goods and Services		
8203 ICE DEALER & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	30,758	0	2	0	5,458	0	5,778	11,236	0.177	0.188	0.365
2008	32,038	0	13	0	55,251	0	61,782	117,034	1.725	1.928	3.653
2009	36,619	0	16	0	27,800	0	78,883	106,682	0.759	2.154	2.913
2010	37,272	1	9	138,293	17,824	180,234	19,080	355,431	4.189	5.348	9.536
2011	38,315	1	7	94,379	64,839	87,079	60,958	307,256	4.156	3.864	8.019
MA Total:	175,002	2	47	232,672	171,173	267,313	226,481	897,639	2.308	2.822	5.129

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.541	4.383	.
(14) Massachusetts Credibility:	0.200	0.320	.
(15) Countrywide Pure Premium:	2.559	1.718	4.276
(16) Countrywide Indicated Relativity:	2.823	2.692	.
(17) Countrywide Credibility:	0.400	0.340	.
(18) Countrywide Lost-Time Claims:	366.00	.	.
(19) Pure Premium Underlying Present Rate:	2.293	2.044	4.338
(20) Relativity to Underlying Present Rate:	3.661	3.137	.
(21) Credibility to Underlying Relativity:	0.400	0.340	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	3.102	3.384	.
(24) Balanced Formula Relativity:	3.067	3.389	3.200

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 158

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8204 BUILDING MATERIAL YARD & LOCAL MANAGERS, DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	19,664	1	1	174,051	16,051	55,004	18,611	263,718	9,667	3,744	13,411
2008	26,569	0	3	0	446,099	0	90,125	536,223	16,790	3,392	20,182
2009	21,658	0	6	0	5,626	0	26,597	32,223	0,260	1,228	1,488
2010	30,188	0	3	0	44,017	0	32,410	76,428	1,458	1,074	2,532
2011	15,434	0	1	0	4,452	0	8,155	12,607	0,288	0,528	0,817
MA Total:	113,513	1	14	174,051	516,244	55,004	175,899	921,199	6,081	2,034	8,115

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	6.697	3.160	.
(14) Massachusetts Credibility:	0.160	0.230	.
(15) Countrywide Pure Premium:	1.581	1.029	2.610
(16) Countrywide Indicated Relativity:	1.743	1.613	.
(17) Countrywide Credibility:	0.420	0.390	.
(18) Countrywide Lost-Time Claims:	163.00	.	.
(19) Pure Premium Underlying Present Rate:	2.190	1.345	3.535
(20) Relativity to Underlying Present Rate:	3.496	2.064	.
(21) Credibility to Underlying Relativity:	0.420	0.380	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	3.272	2.140	.
(24) Balanced Formula Relativity:	3.236	2.143	2.782

Class(es):		Effective: 1/1/2014							Goods and Services		
8215 HAY, GRAIN OR FEED DEALER & LOCAL MANAGERS, DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	64,489	0	12	0	43,146	0	10,125	53,271	0,669	0,157	0,826
2008	51,653	0	10	0	0	0	8,994	8,994	0,000	0,174	0,174
2009	47,243	1	12	116,760	4,417	42,883	49,620	213,681	2,565	1,958	4,523
2010	64,265	1	14	340,298	5,373	135,058	20,464	501,193	5,379	2,420	7,799
2011	55,991	0	10	0	47,147	0	17,582	64,729	0,842	0,314	1,156
MA Total:	283,642	2	58	457,058	100,083	177,942	106,784	841,867	1,964	1,004	2,968

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.163	1.559	.
(14) Massachusetts Credibility:	0.190	0.300	.
(15) Countrywide Pure Premium:	1.698	1.150	2.848
(16) Countrywide Indicated Relativity:	1.873	1.803	.
(17) Countrywide Credibility:	0.410	0.350	.
(18) Countrywide Lost-Time Claims:	1568.0	.	.
(19) Pure Premium Underlying Present Rate:	1.249	1.059	2.308
(20) Relativity to Underlying Present Rate:	1.994	1.625	.
(21) Credibility to Underlying Relativity:	0.400	0.350	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.977	1.667	.
(24) Balanced Formula Relativity:	1.954	1.670	1.836

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
8227 CONTRACTORS PERMANENT YARD											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	927,271	10	95	1,738,140	863,233	797,528	692,166	4,091,067	2,805	1,607	4,412
2008	931,372	3	74	367,786	2,189,089	287,004	1,367,843	4,211,723	2,745	1,777	4,522
2009	801,635	2	93	196,656	1,904,554	169,171	1,440,251	3,710,631	2,621	2,008	4,629
2010	853,634	1	69	619,465	909,028	131,541	998,441	2,658,475	1,791	1,324	3,114
2011	921,834	4	64	850,102	272,144	237,856	351,571	1,711,674	1,217	0,639	1,857
MA Total:	4,435,747	20	395	3,772,150	6,138,048	1,623,099	4,850,272	16,383,570	2,234	1,459	3,694

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.747	0.895	.
(14) Massachusetts Credibility:	0.610	1.000	.
(15) Countrywide Pure Premium:	2.407	1.467	3.873
(16) Countrywide Indicated Relativity:	0.831	0.929	.
(17) Countrywide Credibility:	0.200	0.000	.
(18) Countrywide Lost-Time Claims:	3494.0	.	.
(19) Pure Premium Underlying Present Rate:	1.508	1.689	3.197
(20) Relativity to Underlying Present Rate:	0.711	0.932	.
(21) Credibility to Underlying Relativity:	0.190	0.000	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.757	0.895	.
(24) Balanced Formula Relativity:	0.773	0.901	0.818

Class(es):		Effective: 1/1/2014							Goods and Services		
8232 LUMBER YARD-NEW MATERIALS ONLY: A/O EMP INCL YRD & WHSE & DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,028,066	8	251	698,260	1,251,983	229,668	1,012,672	3,192,582	1,897	1,208	3,105
2008	948,817	7	203	773,919	1,861,301	491,996	1,053,767	4,180,983	2,777	1,629	4,407
2009	847,275	7	156	1,074,660	1,756,523	512,135	1,090,161	4,433,479	3,342	1,891	5,233
2010	861,166	9	171	1,382,727	1,188,091	504,780	902,006	3,977,603	2,985	1,634	4,619
2011	972,739	7	209	969,621	1,758,181	609,318	1,315,457	4,652,578	2,804	1,979	4,783
MA Total:	4,658,062	38	990	4,899,187	7,816,079	2,347,897	5,374,062	20,437,225	2,730	1,658	4,387

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.006	2.575	.
(14) Massachusetts Credibility:	0.640	1.000	.
(15) Countrywide Pure Premium:	2.185	1.309	3.493
(16) Countrywide Indicated Relativity:	2.410	2.051	.
(17) Countrywide Credibility:	0.180	0.000	.
(18) Countrywide Lost-Time Claims:	9794.0	.	.
(19) Pure Premium Underlying Present Rate:	1.622	1.719	3.342
(20) Relativity to Underlying Present Rate:	2.590	2.638	.
(21) Credibility to Underlying Relativity:	0.180	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.824	2.575	.
(24) Balanced Formula Relativity:	2.792	2.578	2.704

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8233 COAL MERCHANT & LOCAL MANAGERS & DRIVERS											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	185,353	5	56	465,548	249,773	184,496	309,774	1,209,591	3,859	2,667	6,526
2008	161,094	1	36	62,552	282,037	13,009	156,319	513,919	2,139	1,051	3,190
2009	159,014	0	41	0	99,552	0	132,878	232,431	0,626	0,836	1,462
2010	182,560	2	39	381,094	92,244	163,658	158,572	795,569	2,593	1,765	4,358
2011	292,407	1	44	198,337	580,498	222,412	430,305	1,431,553	2,664	2,232	4,896
MA Total:	980,429	9	216	1,107,532	1,304,106	583,575	1,187,849	4,183,063	2,460	1,807	4,267

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.709	2.807	.
(14) Massachusetts Credibility:	0.430	0.830	.
(15) Countrywide Pure Premium:	2.588	1.847	4.435
(16) Countrywide Indicated Relativity:	2.854	2.895	.
(17) Countrywide Credibility:	0.290	0.090	.
(18) Countrywide Lost-Time Claims:	2151.0	.	.
(19) Pure Premium Underlying Present Rate:	2.808	3.814	6.622
(20) Relativity to Underlying Present Rate:	4.482	5.852	.
(21) Credibility to Underlying Relativity:	0.280	0.080	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	3.248	3.058	.
(24) Balanced Formula Relativity:	3.211	3.062	3.149

Class(es):		Effective: 1/1/2014							Goods and Services		
8235 SASH, DOOR OR ASSEMBLED MILLWORK DEALER & DR											
Converted Unlimited Losses											
Amount											
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	160,447	2	61	237,795	31,663	46,837	83,987	400,282	1,679	0,815	2,495
2008	154,347	1	58	203,338	365,333	122,006	171,345	862,022	3,684	1,901	5,585
2009	130,986	1	48	46,432	516,212	57,184	291,010	910,839	4,295	2,658	6,954
2010	123,067	1	35	109,351	123,283	26,052	154,387	413,073	1,890	1,466	3,357
2011	138,881	1	35	49,298	227,647	30,817	236,760	544,522	1,994	1,927	3,921
MA Total:	707,727	6	237	646,215	1,264,138	282,896	937,489	3,130,739	2,699	1,724	4,424

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.973	2.679	.
(14) Massachusetts Credibility:	0.290	0.490	.
(15) Countrywide Pure Premium:	1.954	1.191	3.145
(16) Countrywide Indicated Relativity:	2.156	1.867	.
(17) Countrywide Credibility:	0.360	0.260	.
(18) Countrywide Lost-Time Claims:	564.00	.	.
(19) Pure Premium Underlying Present Rate:	1.441	1.424	2.865
(20) Relativity to Underlying Present Rate:	2.301	2.184	.
(21) Credibility to Underlying Relativity:	0.350	0.250	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.444	2.344	.
(24) Balanced Formula Relativity:	2.416	2.347	2.387

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Calculation of Class Relativities

Class(es): 8263 JUNK DEALERS & DRIVERS		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	61,489	0	10	0	87,556	0	181,666	269,222	1,424	2,954	4,378
2008	55,974	1	11	194,041	49,307	102,841	147,703	493,893	4,348	4,476	8,824
2009	66,697	0	16	0	38,882	0	39,145	78,027	0,583	0,587	1,170
2010	71,395	1	9	272,774	15,537	46,554	37,317	372,182	4,038	1,175	5,213
2011	83,373	0	12	0	93,358	0	74,085	167,443	1,120	0,889	2,008
MA Total:	338,928	2	58	466,815	284,641	149,395	479,916	1,380,768	2,217	1,857	4,074

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.442	2.884	.
(14) Massachusetts Credibility:	0.290	0.470	.
(15) Countrywide Pure Premium:	3.272	2.361	5.633
(16) Countrywide Indicated Relativity:	3.609	3.700	.
(17) Countrywide Credibility:	0.360	0.270	.
(18) Countrywide Lost-Time Claims:	167.00	.	.
(19) Pure Premium Underlying Present Rate:	3.020	2.679	5.699
(20) Relativity to Underlying Present Rate:	4.821	4.110	.
(21) Credibility to Underlying Relativity:	0.350	0.260	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	3.695	3.423	.
(24) Balanced Formula Relativity:	3.653	3.428	3.560

Class(es): 8264 BOTTLE DEALER-USED & DRIVERS		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	186,668	1	41	83,470	126,746	5,644	128,834	344,694	1,126	0,720	1,847
2008	198,122	1	31	5,146	666,697	30,031	304,140	1,006,014	3,391	1,687	5,078
2009	205,594	7	81	409,586	702,611	172,294	305,464	1,589,956	5,410	2,324	7,733
2010	223,357	3	57	975,145	937,203	220,199	317,658	2,450,205	8,562	2,408	10,970
2011	273,449	5	59	420,761	231,712	219,259	336,109	1,207,840	2,386	2,031	4,417
MA Total:	1,087,190	17	269	1,894,107	2,664,968	647,428	1,392,206	6,598,709	4,193	1,876	6,070

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.618	2.914	.
(14) Massachusetts Credibility:	0.370	0.630	.
(15) Countrywide Pure Premium:	2.544	1.675	4.219
(16) Countrywide Indicated Relativity:	2.806	2.625	.
(17) Countrywide Credibility:	0.320	0.190	.
(18) Countrywide Lost-Time Claims:	1055.0	.	.
(19) Pure Premium Underlying Present Rate:	1.779	1.742	3.521
(20) Relativity to Underlying Present Rate:	2.840	2.673	.
(21) Credibility to Underlying Relativity:	0.310	0.180	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	3.487	2.816	.
(24) Balanced Formula Relativity:	3.448	2.820	3.187

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8279 STABLE OR BREEDING FARM & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	151,825	1	28	49,633	123,955	2,945	167,290	343,823	1,143	1,121	2,265
2008	149,110	2	36	477,567	147,943	395,651	175,263	1,196,424	4,195	3,829	8,024
2009	150,847	6	24	477,629	121,265	605,102	196,322	1,400,318	3,970	5,313	9,283
2010	146,515	2	22	28,718	134,519	56,229	224,558	444,025	1,114	1,916	3,031
2011	159,313	0	31	0	403,906	0	278,212	682,118	2,535	1,746	4,282
MA Total:	757,609	11	141	1,033,547	931,589	1,059,928	1,041,645	4,066,708	2,594	2,774	5,368

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.856	4.309	.
(14) Massachusetts Credibility:	0.300	0.500	.
(15) Countrywide Pure Premium:	2.483	2.089	4.572
(16) Countrywide Indicated Relativity:	2.740	3.274	.
(17) Countrywide Credibility:	0.350	0.250	.
(18) Countrywide Lost-Time Claims:	1173.0	.	.
(19) Pure Premium Underlying Present Rate:	1.503	1.403	2.906
(20) Relativity to Underlying Present Rate:	2.400	2.153	.
(21) Credibility to Underlying Relativity:	0.350	0.250	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.656	3.511	.
(24) Balanced Formula Relativity:	2.626	3.516	2.995

Class(es):		Effective: 1/1/2014							Goods and Services		
8291 STORAGE WAREHOUSE-COLD											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	210,701	2	69	118,551	386,480	19,010	317,492	841,532	2,397	1,597	3,994
2008	206,032	4	46	339,832	79,184	226,458	110,561	756,036	2,034	1,636	3,669
2009	163,597	3	50	157,999	62,505	73,221	103,448	397,174	1,348	1,080	2,428
2010	141,710	2	44	339,418	139,874	153,395	115,947	748,634	3,382	1,901	5,283
2011	139,060	2	31	177,231	911,145	87,589	354,876	1,530,841	7,827	3,182	11,008
MA Total:	861,101	13	240	1,133,032	1,579,189	559,673	1,002,323	4,274,216	3,150	1,814	4,964

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.469	2.818	.
(14) Massachusetts Credibility:	0.320	0.560	.
(15) Countrywide Pure Premium:	1.725	1.152	2.876
(16) Countrywide Indicated Relativity:	1.902	1.805	.
(17) Countrywide Credibility:	0.340	0.220	.
(18) Countrywide Lost-Time Claims:	977.00	.	.
(19) Pure Premium Underlying Present Rate:	1.512	1.615	3.127
(20) Relativity to Underlying Present Rate:	2.414	2.478	.
(21) Credibility to Underlying Relativity:	0.340	0.220	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.577	2.520	.
(24) Balanced Formula Relativity:	2.549	2.523	2.538

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Calculation of Class Relativities

Class(es): 8292 STORAGE WAREHOUSE NOC		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	552,661	9	145	334,258	351,099	96,193	352,977	1,134,527	1,240	0,813	2,053
2008	508,248	5	104	642,431	711,813	610,343	431,349	2,395,936	2,665	2,050	4,714
2009	365,692	1	70	80	552,824	10,595	215,422	778,920	1,512	0,618	2,130
2010	496,665	1	71	117,656	122,328	21,967	180,065	442,017	0,483	0,407	0,890
2011	521,304	2	101	138,370	416,419	53,027	446,013	1,053,829	1,064	0,957	2,022
MA Total:	2,444,570	18	491	1,232,795	2,154,482	792,125	1,625,826	5,805,228	1,386	0,989	2,375

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.526	1.536	.
(14) Massachusetts Credibility:	0.460	0.830	.
(15) Countrywide Pure Premium:	1.582	1.094	2.676
(16) Countrywide Indicated Relativity:	1.746	1.714	.
(17) Countrywide Credibility:	0.270	0.090	.
(18) Countrywide Lost-Time Claims:	6658.0	.	.
(19) Pure Premium Underlying Present Rate:	1.382	1.524	2.906
(20) Relativity to Underlying Present Rate:	2.206	2.338	.
(21) Credibility to Underlying Relativity:	0.270	0.080	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.769	1.617	.
(24) Balanced Formula Relativity:	1.749	1.619	1.695

Class(es): 8293 STORAGE WAREHOUSE-FURNITURE & DRIVERS		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	391,377	7	112	243,251	789,657	58,020	834,121	1,925,050	2,639	2,279	4,919
2008	390,753	14	122	1,588,735	1,073,168	1,028,160	795,253	4,485,315	6,812	4,666	11,479
2009	344,958	14	108	1,362,694	1,326,436	864,605	842,647	4,396,382	7,796	4,949	12,745
2010	375,787	5	101	381,277	1,568,796	672,420	867,079	3,489,573	5,189	4,097	9,286
2011	395,254	8	113	781,751	1,057,443	673,516	894,838	3,407,548	4,653	3,968	8,621
MA Total:	1,898,129	48	556	4,357,708	5,815,500	3,296,721	4,233,938	17,703,868	5,360	3,967	9,327

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	5.902	6.163	.
(14) Massachusetts Credibility:	0.580	0.990	.
(15) Countrywide Pure Premium:	4.829	2.554	7.382
(16) Countrywide Indicated Relativity:	5.326	4.003	.
(17) Countrywide Credibility:	0.210	0.010	.
(18) Countrywide Lost-Time Claims:	4492.0	.	.
(19) Pure Premium Underlying Present Rate:	3.144	3.099	6.243
(20) Relativity to Underlying Present Rate:	5.019	4.755	.
(21) Credibility to Underlying Relativity:	0.210	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	5.596	6.141	.
(24) Balanced Formula Relativity:	5.533	6.149	5.789

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8350 GASOLINE OR OIL DEALER & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,536,019	20	302	2,926,946	2,586,099	1,161,837	1,774,401	8,449,284	3,589	1,912	5,501
2008	1,526,776	16	269	2,747,251	2,653,648	1,091,822	1,583,249	8,075,970	3,537	1,752	5,290
2009	1,622,793	14	263	2,514,456	2,846,616	1,382,401	1,643,138	8,386,612	3,304	1,864	5,168
2010	1,594,160	20	285	3,021,584	2,481,463	1,370,584	2,139,489	9,013,120	3,452	2,202	5,654
2011	1,512,073	9	265	1,379,499	2,950,059	591,532	1,943,721	6,864,811	2,863	1,677	4,540
MA Total:	7,791,821	79	1,384	12,589,737	13,517,885	5,598,176	9,083,998	40,789,796	3,351	1,884	5,235

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.690	2.927	.
(14) Massachusetts Credibility:	0.900	1.000	.
(15) Countrywide Pure Premium:	2.850	1.509	4,359
(16) Countrywide Indicated Relativity:	3.144	2.365	.
(17) Countrywide Credibility:	0.050	0.000	.
(18) Countrywide Lost-Time Claims:	3921.0	.	.
(19) Pure Premium Underlying Present Rate:	2.271	2.067	4,338
(20) Relativity to Underlying Present Rate:	3.626	3.172	.
(21) Credibility to Underlying Relativity:	0.050	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1,552
(23) Formula Relativity:	3.659	2.927	.
(24) Balanced Formula Relativity:	3.618	2.931	3,333

Class(es):		Effective: 1/1/2014							Goods and Services		
8380 AUTOMOBILE SERVICE OR REPAIR CENTER & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	7,740,582	48	1,374	5,653,931	5,349,184	2,310,066	4,351,098	17,664,279	1,421	0,861	2,282
2008	7,472,185	38	1,135	4,012,983	6,148,968	2,005,506	5,672,541	17,839,998	1,360	1,028	2,388
2009	7,345,834	44	1,144	3,389,245	8,683,945	1,620,891	5,582,310	19,276,390	1,644	0,981	2,624
2010	7,441,480	46	1,116	5,035,125	8,616,059	2,514,676	6,272,469	22,438,329	1,834	1,181	3,015
2011	7,555,548	35	1,007	3,711,421	8,394,352	2,963,056	5,581,433	20,650,263	1,602	1,131	2,733
MA Total:	37,555,630	211	5,776	21,802,704	37,192,509	11,414,195	27,459,852	97,869,260	1,571	1,035	2,606

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.730	1.608	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	1.362	0.846	2,209
(16) Countrywide Indicated Relativity:	1.503	1.326	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	26725	.	.
(19) Pure Premium Underlying Present Rate:	0.955	0.892	1,847
(20) Relativity to Underlying Present Rate:	1.525	1.368	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1,552
(23) Formula Relativity:	1.730	1.608	.
(24) Balanced Formula Relativity:	1.711	1.610	1,669

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8381 GASOLINE STATION-RETAIL-SELF SERVICE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	205,312	2	20	73,060	86,488	139,183	120,407	419,137	0.777	1.264	2.041
2008	203,946	0	16	0	191,721	0	128,805	320,526	0.940	0.632	1.572
2009	191,038	1	14	42,003	77,330	37,110	28,420	184,863	0.625	0.343	0.968
2010	188,907	2	12	305,885	22,712	121,502	61,155	511,254	1.739	0.967	2.706
2011	199,772	2	6	80,172	33,900	375,645	53,123	542,840	0.571	2.146	2.717
MA Total:	988,975	7	68	501,120	412,151	673,439	391,910	1,978,620	0.923	1.077	2.001

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.017	1.673	.
(14) Massachusetts Credibility:	0.240	0.400	.
(15) Countrywide Pure Premium:	0.839	0.731	1.570
(16) Countrywide Indicated Relativity:	0.925	1.146	.
(17) Countrywide Credibility:	0.380	0.300	.
(18) Countrywide Lost-Time Claims:	620.00	.	.
(19) Pure Premium Underlying Present Rate:	0.651	0.617	1.268
(20) Relativity to Underlying Present Rate:	1.039	0.947	.
(21) Credibility to Underlying Relativity:	0.380	0.300	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.990	1.297	.
(24) Balanced Formula Relativity:	0.979	1.299	1.112

Class(es):		Effective: 1/1/2014							Goods and Services		
8385 BUS CO: GARAGE EMPLOYEES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	301,512	3	78	1,204,306	341,401	218,577	227,082	1,991,365	5.127	1.478	6.605
2008	301,742	3	77	5,569	94,892	26,610	190,353	317,423	0.333	0.719	1.052
2009	306,795	2	42	353,996	268,512	201,809	177,355	1,001,672	2.029	1.236	3.265
2010	427,004	3	70	18,314	274,791	7,662	252,851	553,617	0.686	0.610	1.297
2011	426,980	2	66	235,277	273,469	60,025	247,206	815,977	1.191	0.720	1.911
MA Total:	1,764,033	13	333	1,817,462	1,253,064	514,682	1,094,847	4,680,054	1.741	0.912	2.653

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.917	1.417	.
(14) Massachusetts Credibility:	0.400	0.650	.
(15) Countrywide Pure Premium:	1.132	0.728	1.860
(16) Countrywide Indicated Relativity:	1.249	1.141	.
(17) Countrywide Credibility:	0.300	0.180	.
(18) Countrywide Lost-Time Claims:	1360.0	.	.
(19) Pure Premium Underlying Present Rate:	1.319	1.177	2.496
(20) Relativity to Underlying Present Rate:	2.106	1.807	.
(21) Credibility to Underlying Relativity:	0.300	0.170	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.773	1.434	.
(24) Balanced Formula Relativity:	1.753	1.436	1.621

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8392 AUTOMOBILE STORAGE GARAGE OR PARKING STATION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	594,692	2	72	65,939	245,400	25,722	207,024	544,084	0.524	0.391	0.915
2008	504,202	3	64	91,334	418,501	24,158	461,440	995,433	1.011	0.963	1.974
2009	511,913	2	78	210,766	297,047	78,571	199,562	785,945	0.992	0.543	1.535
2010	624,438	8	76	293,204	113,845	310,214	136,928	854,190	0.652	0.716	1.368
2011	518,028	5	50	229,472	74,183	95,329	87,277	486,261	0.586	0.353	0.939
MA Total:	2,753,274	20	340	890,714	1,148,976	533,994	1,092,231	3,665,914	0.741	0.591	1.331

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.816	0.918	.
(14) Massachusetts Credibility:	0.330	0.520	.
(15) Countrywide Pure Premium:	0.950	0.764	1.714
(16) Countrywide Indicated Relativity:	1.048	1.197	.
(17) Countrywide Credibility:	0.340	0.240	.
(18) Countrywide Lost-Time Claims:	1217.0	.	.
(19) Pure Premium Underlying Present Rate:	0.509	0.422	0.930
(20) Relativity to Underlying Present Rate:	0.812	0.647	.
(21) Credibility to Underlying Relativity:	0.330	0.240	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.894	0.920	.
(24) Balanced Formula Relativity:	0.884	0.921	0.899

Class(es):		Effective: 1/1/2014							Goods and Services		
8393 AUTOMOBILE BODY REPAIR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,622,328	8	204	472,902	1,126,267	96,857	721,857	2,417,883	0.986	0.505	1.490
2008	1,630,044	8	210	429,843	1,035,082	178,702	557,631	2,201,258	0.899	0.452	1.350
2009	1,671,020	12	199	1,515,879	1,231,735	973,435	628,798	4,349,846	1.644	0.959	2.603
2010	1,749,314	6	198	684,405	927,061	442,007	812,464	2,865,937	0.921	0.717	1.638
2011	2,019,016	7	190	567,453	1,301,823	259,743	663,871	2,792,890	0.926	0.457	1.383
MA Total:	8,691,722	41	1,001	3,670,482	5,621,968	1,950,744	3,384,620	14,627,814	1.069	0.614	1.683

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.177	0.954	.
(14) Massachusetts Credibility:	0.620	0.950	.
(15) Countrywide Pure Premium:	1.006	0.530	1.536
(16) Countrywide Indicated Relativity:	1.110	0.830	.
(17) Countrywide Credibility:	0.190	0.030	.
(18) Countrywide Lost-Time Claims:	2947.0	.	.
(19) Pure Premium Underlying Present Rate:	0.809	0.610	1.419
(20) Relativity to Underlying Present Rate:	1.291	0.937	.
(21) Credibility to Underlying Relativity:	0.190	0.020	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.186	0.950	.
(24) Balanced Formula Relativity:	1.173	0.951	1.081

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Office and Clerical		
8601 ARCHITECT OR ENGINEER-CONSULTING											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	8,824,401	1	173	158,750	569,542	24,314	575,504	1,328,110	0.083	0.068	0.151
2008	9,185,558	2	175	174,440	1,101,778	203,467	373,867	1,853,552	0.139	0.063	0.202
2009	9,302,163	0	185	0	784,582	0	1,418,156	2,202,738	0.084	0.152	0.237
2010	11,198,442	6	195	871,039	1,212,551	138,231	751,049	2,972,870	0.186	0.079	0.265
2011	12,687,809	4	194	629,169	744,235	657,001	744,392	2,774,796	0.108	0.110	0.219
MA Total:	51,198,373	13	922	1,833,397	4,412,687	1,023,014	3,862,968	11,132,066	0.122	0.095	0.217

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.543	1.582	.
(14) Massachusetts Credibility:	0.530	0.960	.
(15) Countrywide Pure Premium:	0.156	0.109	0.264
(16) Countrywide Indicated Relativity:	2.585	2.187	.
(17) Countrywide Credibility:	0.240	0.020	.
(18) Countrywide Lost-Time Claims:	3564.0	.	.
(19) Pure Premium Underlying Present Rate:	0.091	0.107	0.198
(20) Relativity to Underlying Present Rate:	1.738	1.785	.
(21) Credibility to Underlying Relativity:	0.230	0.020	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	1.838	1.598	.
(24) Balanced Formula Relativity:	1.866	1.612	1.756

Class(es):		Effective: 1/1/2014							Goods and Services		
8710 FIELD BONDED WAREHOUSING - ALL EMP & CLERICAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,748	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	6,236	0	1	0	2,648	0	9,982	12,630	0.425	1.601	2.025
2009	7,005	0	1	0	225,195	0	125,965	351,160	32.147	17.982	50.129
2010	7,275	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	7,206	0	0	0	0	0	0	0	0.000	0.000	0.000
MA Total:	33,471	0	2	0	227,842	0	135,947	363,789	6.807	4.062	10.869

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	7.496	6.309	.
(14) Massachusetts Credibility:	0.070	0.120	.
(15) Countrywide Pure Premium:	2.271	1.173	3.444
(16) Countrywide Indicated Relativity:	2.505	1.838	.
(17) Countrywide Credibility:	0.270	0.290	.
(18) Countrywide Lost-Time Claims:	45.000	.	.
(19) Pure Premium Underlying Present Rate:	0.812	0.831	1.643
(20) Relativity to Underlying Present Rate:	1.296	1.275	.
(21) Credibility to Underlying Relativity:	0.660	0.590	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.056	2.043	.
(24) Balanced Formula Relativity:	2.033	2.045	2.038

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services			
8720 INSPECTION OF RISKS FOR INSURANCE OR VALUATION PURPOSES NOC												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	1,330,778	3	47	186,520	66,317	277,251	135,450	665,539	0.190	0.310	0.500	
2008	1,341,329	1	62	13,181	528,990	182,761	289,510	1,014,442	0.404	0.352	0.756	
2009	1,379,532	2	39	108,747	103,016	117,774	155,160	484,697	0.154	0.198	0.351	
2010	1,434,209	3	48	66,413	282,128	30,084	324,726	703,351	0.243	0.247	0.490	
2011	1,513,310	2	64	20,992	267,965	7,775	229,671	526,403	0.191	0.157	0.348	
MA Total:	6,999,159	11	260	395,852	1,248,417	615,645	1,134,517	3,394,432	0.235	0.250	0.485	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.259	0.388	.
(14) Massachusetts Credibility:	0.450	0.680	.
(15) Countrywide Pure Premium:	0.728	0.404	1.131
(16) Countrywide Indicated Relativity:	0.803	0.633	.
(17) Countrywide Credibility:	0.280	0.160	.
(18) Countrywide Lost-Time Claims:	956.00	.	.
(19) Pure Premium Underlying Present Rate:	0.435	0.328	0.763
(20) Relativity to Underlying Present Rate:	0.695	0.504	.
(21) Credibility to Underlying Relativity:	0.270	0.160	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.529	0.446	.
(24) Balanced Formula Relativity:	0.523	0.446	0.491

Class(es):		Effective: 1/1/2014							Office and Clerical			
8721 REAL ESTATE APPRAISAL CO - OUTSIDE EMPLOYEES												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	232,173	0	4	0	3,563	0	5,441	9,003	0.015	0.023	0.039	
2008	210,047	1	0	100,603	0	179,566	0	280,169	0.479	0.855	1.334	
2009	220,261	0	3	0	22,063	0	9,778	31,841	0.100	0.044	0.145	
2010	241,311	0	2	0	0	0	864	0,000	0.000	0.004	0.004	
2011	273,309	1	2	213,472	37,951	934,075	20,499	1,205,996	0.920	3.493	4.413	
MA Total:	1,177,101	2	11	314,074	63,576	1,113,641	36,581	1,527,873	0.321	0.977	1.298	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.059	16.199	.
(14) Massachusetts Credibility:	0.100	0.180	.
(15) Countrywide Pure Premium:	0.095	0.081	0.176
(16) Countrywide Indicated Relativity:	1.573	1.640	.
(17) Countrywide Credibility:	0.340	0.350	.
(18) Countrywide Lost-Time Claims:	75.000	.	.
(19) Pure Premium Underlying Present Rate:	0.060	0.066	0.126
(20) Relativity to Underlying Present Rate:	1.148	1.105	.
(21) Credibility to Underlying Relativity:	0.560	0.470	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	1.583	4.009	.
(24) Balanced Formula Relativity:	1.607	4.043	2.662

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Office and Clerical		
8742 SALESPERSONS, COLLECTORS OR MESSENGERS-OUTSIDE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	73,920,828	33	700	2,757,548	3,941,439	2,214,192	3,323,140	12,236,318	0.091	0.075	0.166
2008	75,191,485	32	582	3,090,785	3,399,239	1,554,801	3,282,169	11,326,994	0.086	0.064	0.151
2009	73,770,164	28	486	2,597,457	4,187,916	1,203,964	3,052,794	11,042,132	0.092	0.058	0.150
2010	80,620,304	34	583	2,962,293	3,297,177	1,375,694	3,059,032	10,694,197	0.078	0.055	0.133
2011	85,902,839	31	492	4,292,161	2,352,795	2,340,697	2,391,189	11,376,842	0.077	0.055	0.132
MA Total:	389,405,619	158	2,843	15,700,245	17,178,565	8,689,348	15,108,325	56,676,483	0.084	0.061	0.146

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.068	1.013	.
(14) Massachusetts Credibility:	0.960	1.000	.
(15) Countrywide Pure Premium:	0.095	0.071	0.166
(16) Countrywide Indicated Relativity:	1.584	1.428	.
(17) Countrywide Credibility:	0.020	0.000	.
(18) Countrywide Lost-Time Claims:	18328	.	.
(19) Pure Premium Underlying Present Rate:	0.054	0.059	0.112
(20) Relativity to Underlying Present Rate:	1.025	0.980	.
(21) Credibility to Underlying Relativity:	0.020	0.000	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	1.078	1.013	.
(24) Balanced Formula Relativity:	1.094	1.022	1.063

Class(es):		Effective: 1/1/2014							Goods and Services		
8745 NEWS AGENT OR DISTRIB OF MAGAZINE-NOT RETAIL & SALES,DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	152,791	0	35	0	277,129	0	114,313	391,442	1.814	0.748	2.562
2008	138,256	0	25	0	32,811	0	53,372	86,183	0.237	0.386	0.623
2009	119,586	3	35	428,300	394,919	234,988	337,985	1,396,192	6.884	4.791	11.675
2010	108,460	1	34	1,349	77,728	64	42,105	121,246	0.729	0.389	1.118
2011	153,402	3	36	537,625	607,161	270,407	245,748	1,660,941	7.463	3.365	10.827
MA Total:	672,495	7	165	967,274	1,389,748	505,458	793,524	3,656,004	3.505	1.932	5.436

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.860	3.001	.
(14) Massachusetts Credibility:	0.260	0.460	.
(15) Countrywide Pure Premium:	1.570	1.074	2.644
(16) Countrywide Indicated Relativity:	1.732	1.683	.
(17) Countrywide Credibility:	0.370	0.270	.
(18) Countrywide Lost-Time Claims:	399.00	.	.
(19) Pure Premium Underlying Present Rate:	1.212	1.263	2.475
(20) Relativity to Underlying Present Rate:	1.935	1.938	.
(21) Credibility to Underlying Relativity:	0.370	0.270	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.360	2.358	.
(24) Balanced Formula Relativity:	2.334	2.361	2.345

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8747 DISPLAY SHOWROOMS - ALL TYPES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	160.354	0	2	0	8.056	0	19.278	27.333	0.050	0.120	0.170
2008	36.259	0	2	0	0	0	5.156	5.156	0.000	0.142	0.142
2009	25.058	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	57.096	0	2	0	6.059	0	523	6.582	0.106	0.009	0.115
2011	73.931	0	3	0	0	0	2.632	2.632	0.000	0.036	0.036
MA Total:	352.697	0	9	0	14.115	0	27.588	41.703	0.040	0.078	0.118

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.044	0.122	.
(14) Massachusetts Credibility:	0.130	0.240	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.608	0.735	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	0.384	0.482	0.866
(20) Relativity to Underlying Present Rate:	0.613	0.740	.
(21) Credibility to Underlying Relativity:	0.870	0.760	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.539	0.592	.
(24) Balanced Formula Relativity:	0.533	0.592	0.557

Class(es):		Effective: 1/1/2014							Office and Clerical		
8748 AUTOMOBILE SALESPERSONS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,367.493	6	91	400.727	451.447	120.200	524.693	1,497.066	0.360	0.272	0.632
2008	2,172.200	2	88	172.113	962.449	52.380	592.440	1,779.383	0.522	0.297	0.819
2009	2,289.331	2	76	87.040	169.861	61.243	189.806	507.951	0.112	0.110	0.222
2010	2,473.458	5	95	585.087	743.913	219.074	549.030	2,097.103	0.537	0.311	0.848
2011	2,547.542	3	99	223.643	848.597	90.441	524.786	1,687.468	0.421	0.241	0.662
MA Total:	11,850.024	18	449	1,468.611	3,176.266	543.338	2,380.756	7,568.971	0.392	0.247	0.639

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.959	4.091	.
(14) Massachusetts Credibility:	0.370	0.660	.
(15) Countrywide Pure Premium:	0.203	0.136	0.338
(16) Countrywide Indicated Relativity:	3.368	2.734	.
(17) Countrywide Credibility:	0.320	0.170	.
(18) Countrywide Lost-Time Claims:	1905.0	.	.
(19) Pure Premium Underlying Present Rate:	0.162	0.177	0.338
(20) Relativity to Underlying Present Rate:	3.085	2.963	.
(21) Credibility to Underlying Relativity:	0.310	0.170	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	3.869	3.668	.
(24) Balanced Formula Relativity:	3.927	3.700	3.829

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Section IX - Classification Pricing
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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Office and Clerical		
8800 MAILING OR ADDRESSING CO & CLERICAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	711,650	3	46	474,857	962,331	238,307	612,475	2,287,969	2,020	1,196	3,215
2008	594,488	1	41	82,341	505,560	22,260	672,225	1,282,386	0,989	1,168	2,157
2009	524,749	0	20	0	219,522	0	130,234	349,756	0,418	0,248	0,667
2010	504,123	2	22	224,130	32,513	52,401	53,988	363,031	0,509	0,211	0,720
2011	425,567	2	19	299,390	263,676	57,753	116,613	737,433	1,323	0,410	1,733
MA Total:	2,760,577	8	148	1,080,718	1,983,602	370,722	1,585,535	5,020,576	1,110	0,709	1,819

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	14.044	11.747	.
(14) Massachusetts Credibility:	0.260	0.470	.
(15) Countrywide Pure Premium:	0.371	0.315	0.685
(16) Countrywide Indicated Relativity:	6.158	6.343	.
(17) Countrywide Credibility:	0.370	0.270	.
(18) Countrywide Lost-Time Claims:	917.00	.	.
(19) Pure Premium Underlying Present Rate:	0.296	0.322	0.618
(20) Relativity to Underlying Present Rate:	5.650	5.400	.
(21) Credibility to Underlying Relativity:	0.370	0.260	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	8.020	8.638	.
(24) Balanced Formula Relativity:	8.141	8.711	8.388

Class(es):		Effective: 1/1/2014							Office and Clerical		
8803 AUDITORS, ACCOUNTANT OR FACTORY COST OR OFF SYSTEMZR-TRAV											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	23,669,491	0	53	0	128,939	0	296,314	425,254	0.005	0.013	0.018
2008	23,035,842	1	43	70,435	164,632	131,563	84,369	450,999	0.010	0.009	0.020
2009	21,908,464	1	52	14,727	31,691	48,510	139,907	234,834	0.002	0.009	0.011
2010	27,362,027	1	45	10,136	133,819	38,921	192,815	375,692	0.005	0.008	0.014
2011	28,848,344	2	49	53,575	108,296	69,859	378,713	610,443	0.006	0.016	0.021
MA Total:	124,824,168	5	242	148,872	567,378	288,853	1,092,117	2,097,221	0.006	0.011	0.017

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.073	0.183	.
(14) Massachusetts Credibility:	0.370	0.600	.
(15) Countrywide Pure Premium:	0.023	0.017	0.040
(16) Countrywide Indicated Relativity:	0.381	0.346	.
(17) Countrywide Credibility:	0.320	0.200	.
(18) Countrywide Lost-Time Claims:	915.00	.	.
(19) Pure Premium Underlying Present Rate:	0.016	0.013	0.029
(20) Relativity to Underlying Present Rate:	0.296	0.225	.
(21) Credibility to Underlying Relativity:	0.310	0.200	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	0.241	0.224	.
(24) Balanced Formula Relativity:	0.244	0.226	0.236

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Office and Clerical		
8810 CLERICAL OFFICE EMPLOYEES NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	381,417,477	92	2,220	5,722,064	8,300,564	3,331,659	7,674,108	25,028,397	0.037	0.029	0.066
2008	386,897,070	81	1,936	7,807,164	6,487,422	5,553,703	6,721,874	26,570,163	0.037	0.032	0.069
2009	362,912,670	69	1,795	4,293,383	5,276,182	3,097,091	6,329,907	18,996,563	0.026	0.026	0.052
2010	402,074,768	79	1,937	5,623,210	8,159,282	3,285,812	7,738,762	24,807,065	0.034	0.027	0.062
2011	434,581,181	83	1,678	5,471,619	6,780,538	4,222,605	6,783,956	23,258,717	0.028	0.025	0.054
MA Total:	1,967,883,166	404	9,566	28,917,440	35,003,988	19,490,870	35,248,608	118,660,906	0.032	0.028	0.060

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.411	0.461	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	0.043	0.036	0.079
(16) Countrywide Indicated Relativity:	0.715	0.734	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	53440	.	.
(19) Pure Premium Underlying Present Rate:	0.030	0.034	0.065
(20) Relativity to Underlying Present Rate:	0.576	0.578	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	0.411	0.461	.
(24) Balanced Formula Relativity:	0.417	0.465	0.438

Class(es):		Effective: 1/1/2014							Office and Clerical		
8820 ATTORNEY-ALL EMP & CLERICAL, MESSENGERS, DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	23,742,335	10	101	1,019,670	395,005	458,220	277,740	2,150,635	0.060	0.031	0.091
2008	23,993,828	5	82	338,102	476,316	144,150	478,061	1,436,629	0.034	0.026	0.060
2009	23,010,800	6	82	571,682	453,350	276,559	394,118	1,695,709	0.045	0.029	0.074
2010	23,414,253	7	94	551,271	448,302	484,423	421,516	1,905,512	0.043	0.039	0.081
2011	23,197,933	0	80	0	1,438,767	0	421,941	1,860,708	0.062	0.018	0.080
MA Total:	117,359,149	28	439	2,480,724	3,211,740	1,363,353	1,993,375	9,049,192	0.049	0.029	0.077

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.614	0.474	.
(14) Massachusetts Credibility:	0.490	0.830	.
(15) Countrywide Pure Premium:	0.039	0.033	0.072
(16) Countrywide Indicated Relativity:	0.648	0.669	.
(17) Countrywide Credibility:	0.260	0.090	.
(18) Countrywide Lost-Time Claims:	2121.0	.	.
(19) Pure Premium Underlying Present Rate:	0.033	0.032	0.065
(20) Relativity to Underlying Present Rate:	0.621	0.544	.
(21) Credibility to Underlying Relativity:	0.250	0.080	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	0.624	0.497	.
(24) Balanced Formula Relativity:	0.634	0.501	0.577

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8829 CONVALESCENT OR NURSING HOME-ALL EMPLOYEES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	8,150,294	52	2,280	2,949,070	4,369,306	1,472,335	3,916,349	12,707,060	0.898	0.661	1.559
2008	8,708,593	45	2,230	4,013,972	5,817,301	2,021,059	4,348,459	16,200,791	1.129	0.731	1.860
2009	8,814,298	47	2,224	3,855,724	6,054,947	1,704,154	4,190,994	15,805,819	1.124	0.669	1.793
2010	9,584,712	45	2,264	3,261,925	6,993,157	1,502,700	4,509,520	16,267,301	1.070	0.627	1.697
2011	10,163,803	53	2,226	4,377,162	10,358,041	1,471,552	6,431,478	22,638,233	1.450	0.778	2.227
MA Total:	45,421,699	242	11,224	18,457,853	33,592,751	8,171,800	23,396,799	83,619,203	1.146	0.695	1.841

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.262	1.080	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	1.083	0.761	1.844
(16) Countrywide Indicated Relativity:	1.194	1.193	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	25027	.	.
(19) Pure Premium Underlying Present Rate:	0.796	0.755	1.551
(20) Relativity to Underlying Present Rate:	1.271	1.159	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.262	1.080	.
(24) Balanced Formula Relativity:	1.248	1.081	1.179

Class(es):		Effective: 1/1/2014							Goods and Services		
8831 PET GROOMING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,960,115	10	531	840,333	609,541	1,042,330	795,940	3,288,144	0.740	0.938	1.678
2008	2,306,771	6	580	373,583	470,324	188,412	871,519	1,903,838	0.366	0.459	0.825
2009	2,375,825	5	518	152,065	374,061	133,559	807,261	1,466,946	0.221	0.396	0.617
2010	2,514,995	5	612	357,048	467,618	180,253	1,148,469	2,153,388	0.328	0.528	0.856
2011	2,456,636	2	547	1,243	902,972	30,767	1,268,289	2,203,271	0.368	0.529	0.897
MA Total:	11,614,342	28	2,788	1,724,272	2,824,516	1,575,321	4,891,478	11,015,587	0.392	0.557	0.948

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.431	0.865	.
(14) Massachusetts Credibility:	0.460	1.000	.
(15) Countrywide Pure Premium:	0.468	0.498	0.966
(16) Countrywide Indicated Relativity:	0.516	0.781	.
(17) Countrywide Credibility:	0.270	0.000	.
(18) Countrywide Lost-Time Claims:	3937.0	.	.
(19) Pure Premium Underlying Present Rate:	0.276	0.597	0.873
(20) Relativity to Underlying Present Rate:	0.441	0.916	.
(21) Credibility to Underlying Relativity:	0.270	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.457	0.865	.
(24) Balanced Formula Relativity:	0.452	0.866	0.624

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Calculation of Class Relativities

Class(es): 8832 PHYSICIAN & CLERICAL		Effective: 1/1/2014							Office and Clerical		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	43,808,489	30	1,185	2,077,590	3,612,792	894,750	2,066,072	8,651,204	0.130	0.068	0.197
2008	44,813,876	21	1,158	1,747,565	3,431,674	848,143	2,603,381	8,630,762	0.116	0.077	0.193
2009	46,494,764	32	1,170	2,584,827	4,284,337	833,903	2,986,683	10,689,751	0.148	0.082	0.230
2010	47,650,855	30	1,152	2,797,892	3,758,955	1,852,342	2,891,607	11,300,797	0.138	0.100	0.237
2011	49,194,045	45	1,113	4,093,120	4,492,494	1,778,772	3,284,817	13,649,203	0.175	0.103	0.277
MA Total:	231,962,028	158	5,778	13,300,995	19,580,252	6,207,910	13,832,560	52,921,717	0.142	0.086	0.228

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.793	1.432	.
(14) Massachusetts Credibility:	0.920	1.000	.
(15) Countrywide Pure Premium:	0.085	0.068	0.153
(16) Countrywide Indicated Relativity:	1.407	1.375	.
(17) Countrywide Credibility:	0.040	0.000	.
(18) Countrywide Lost-Time Claims:	13333	.	.
(19) Pure Premium Underlying Present Rate:	0.081	0.084	0.165
(20) Relativity to Underlying Present Rate:	1.548	1.403	.
(21) Credibility to Underlying Relativity:	0.040	0.000	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	1.768	1.432	.
(24) Balanced Formula Relativity:	1.795	1.444	1.643

Class(es): 8833 HOSPITAL: PROFESSIONAL EMPLOYEES		Effective: 1/1/2014							Office and Clerical		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	7,751,884	21	1,045	1,419,902	3,753,989	585,295	2,301,024	8,060,210	0.667	0.372	1.040
2008	6,388,261	26	805	2,891,859	2,536,051	1,088,506	1,930,761	8,447,177	0.850	0.473	1.322
2009	6,629,755	18	776	2,253,726	2,102,223	1,176,024	1,751,732	7,283,704	0.657	0.442	1.099
2010	7,441,766	20	914	2,170,340	1,777,598	845,663	1,534,338	6,327,939	0.531	0.320	0.850
2011	7,858,840	22	826	1,765,097	2,956,302	704,516	2,394,682	7,820,597	0.601	0.394	0.995
MA Total:	36,070,506	107	4,366	10,500,924	13,126,162	4,400,004	9,912,537	37,939,627	0.655	0.397	1.052

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	8.287	6.578	.
(14) Massachusetts Credibility:	0.850	1.000	.
(15) Countrywide Pure Premium:	0.266	0.210	0.476
(16) Countrywide Indicated Relativity:	4.420	4.223	.
(17) Countrywide Credibility:	0.080	0.000	.
(18) Countrywide Lost-Time Claims:	18732	.	.
(19) Pure Premium Underlying Present Rate:	0.423	0.389	0.813
(20) Relativity to Underlying Present Rate:	8.080	6.523	.
(21) Credibility to Underlying Relativity:	0.070	0.000	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	7.963	6.578	.
(24) Balanced Formula Relativity:	8.083	6.634	7.456

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
8835 NURSING-HOME HEALTH, PUBLIC & TRAVELING-ALL EMPLOYEES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	4,138,191	39	668	1,607,346	2,063,170	1,054,669	1,499,658	6,224,843	0.887	0.617	1.504
2008	4,492,277	40	653	2,310,481	2,071,985	1,803,492	1,763,088	7,949,046	0.976	0.794	1.769
2009	4,882,834	30	776	1,341,281	3,272,726	670,230	1,878,930	7,163,167	0.945	0.522	1.467
2010	5,364,148	47	703	3,060,445	2,878,774	1,307,917	1,928,475	9,175,611	1.107	0.603	1.711
2011	5,910,738	35	690	4,340,479	4,417,839	1,533,850	2,274,117	12,566,285	1.482	0.644	2.126
MA Total:	24,788,187	191	3,490	12,660,032	14,704,494	6,370,159	9,344,268	43,078,953	1.104	0.634	1.738

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.216	0.985	.
(14) Massachusetts Credibility:	0.940	1.000	.
(15) Countrywide Pure Premium:	1.103	0.689	1.792
(16) Countrywide Indicated Relativity:	1.216	1.080	.
(17) Countrywide Credibility:	0.030	0.000	.
(18) Countrywide Lost-Time Claims:	14506	.	.
(19) Pure Premium Underlying Present Rate:	0.801	0.734	1.534
(20) Relativity to Underlying Present Rate:	1.278	1.125	.
(21) Credibility to Underlying Relativity:	0.030	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.218	0.985	.
(24) Balanced Formula Relativity:	1.204	0.986	1.114

Class(es):		Effective: 1/1/2014							Office and Clerical		
8868 COLLEGE: PROFESSIONAL EMPLOYEES & CLERICAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	28,739,202	75	3,331	4,474,351	5,860,943	3,536,554	6,658,750	20,530,597	0.360	0.355	0.714
2008	30,941,447	67	3,669	3,426,873	6,176,717	2,539,967	7,067,347	19,210,904	0.310	0.310	0.621
2009	33,109,012	71	3,609	5,704,096	7,873,738	2,648,629	7,891,204	24,117,667	0.410	0.318	0.728
2010	35,168,408	119	3,848	6,920,358	8,220,916	3,981,719	8,627,262	27,750,255	0.431	0.359	0.789
2011	35,387,777	88	3,392	5,858,795	8,706,771	2,794,101	9,210,307	26,569,974	0.412	0.339	0.751
MA Total:	163,345,845	420	17,849	26,384,473	36,839,084	15,500,969	39,454,870	118,179,396	0.387	0.336	0.723

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	4.897	5.577	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	0.080	0.087	0.167
(16) Countrywide Indicated Relativity:	1.333	1.745	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	16209	.	.
(19) Pure Premium Underlying Present Rate:	0.204	0.276	0.480
(20) Relativity to Underlying Present Rate:	3.886	4.625	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	4.897	5.577	.
(24) Balanced Formula Relativity:	4.971	5.625	5.254

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
9014 BUILDINGS - OPERATION BY CONTRACTORS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	5,406,590	32	707	2,112,512	3,227,877	1,020,644	2,399,468	8,760,500	0.988	0.633	1,620
2008	4,251,068	27	504	2,299,431	3,236,328	1,407,733	2,105,072	9,048,565	1.302	0.826	2,129
2009	4,295,015	21	445	2,995,493	3,203,163	2,116,511	2,179,936	10,495,103	1.443	1.000	2,444
2010	4,927,289	38	657	3,505,477	3,452,576	1,884,385	2,155,457	10,997,895	1.412	0.820	2,232
2011	5,138,625	50	518	4,453,659	5,457,193	2,240,295	3,508,046	15,659,192	1.929	1.119	3,047
MA Total:	24,018,586	168	2,831	15,366,572	18,577,136	8,669,569	12,347,978	54,961,255	1.413	0.875	2,288

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.556	1.359	.
(14) Massachusetts Credibility:	0.990	1.000	.
(15) Countrywide Pure Premium:	1.352	0.938	2.290
(16) Countrywide Indicated Relativity:	1.492	1.470	.
(17) Countrywide Credibility:	0.010	0.000	.
(18) Countrywide Lost-Time Claims:	16610	.	.
(19) Pure Premium Underlying Present Rate:	0.930	0.841	1.771
(20) Relativity to Underlying Present Rate:	1.484	1.291	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.556	1.359	.
(24) Balanced Formula Relativity:	1.538	1.361	1.465

Class(es):		Effective: 1/1/2014							Goods and Services		
9015 BUILDINGS-OPERATION BY OWNER OR LESSEE											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	4,785,161	28	870	2,458,075	4,684,342	1,115,858	3,609,111	11,867,385	1.493	0.987	2,480
2008	4,901,894	37	900	5,574,716	5,477,704	2,844,104	3,793,407	17,689,930	2.255	1.354	3,609
2009	5,038,227	37	810	4,174,844	5,078,261	1,784,088	3,282,040	14,319,233	1.837	1.006	2,842
2010	5,157,317	36	831	3,428,153	4,444,686	1,921,140	2,776,496	12,570,476	1.527	0.911	2,437
2011	5,300,373	25	807	2,804,498	5,596,057	1,944,432	3,604,194	13,949,181	1.585	1.047	2,632
MA Total:	25,182,972	163	4,218	18,440,286	25,281,050	9,609,621	17,065,247	70,396,205	1.736	1.059	2,795

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.912	1.645	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	1.563	0.984	2.546
(16) Countrywide Indicated Relativity:	1.724	1.542	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	14622	.	.
(19) Pure Premium Underlying Present Rate:	1.053	1.001	2.054
(20) Relativity to Underlying Present Rate:	1.682	1.536	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.912	1.645	.
(24) Balanced Formula Relativity:	1.891	1.647	1.790

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services			
9016 AMUSEMENT PARK OR EXHIBITION OPERATION & DR												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	564,663	0	94	0	486,511	0	415,414	901,924	0.862	0.736	1.597	
2008	562,964	3	106	96,704	108,037	58,776	308,273	571,790	0.364	0.652	1.016	
2009	470,345	1	96	229,895	367,828	352,186	274,828	1,224,736	1.271	1.333	2.604	
2010	480,960	0	94	0	93,216	0	255,527	348,742	0.194	0.531	0.725	
2011	540,642	3	102	251,453	663,451	878,961	348,976	2,142,840	1.692	2.271	3.964	
MA Total:	2,619,573	7	492	578,051	1,719,042	1,289,923	1,603,016	5,190,032	0.877	1.104	1.981	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.966	1.716	.
(14) Massachusetts Credibility:	0.340	0.590	.
(15) Countrywide Pure Premium:	1.031	0.939	1.970
(16) Countrywide Indicated Relativity:	1.137	1.472	.
(17) Countrywide Credibility:	0.330	0.210	.
(18) Countrywide Lost-Time Claims:	2386.0	.	.
(19) Pure Premium Underlying Present Rate:	0.570	0.619	1.189
(20) Relativity to Underlying Present Rate:	0.910	0.950	.
(21) Credibility to Underlying Relativity:	0.330	0.200	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.004	1.511	.
(24) Balanced Formula Relativity:	0.993	1.513	1.209

Class(es):		Effective: 1/1/2014							Miscellaneous			
9019 BRIDGE OR VEHICULAR TUNNEL OPERATION & DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	6,139	0	0	0	0	0	0	0	0.000	0.000	0.000	
2008	11,112	0	0	0	0	0	0	0	0.000	0.000	0.000	
2009	12,921	0	0	0	0	0	0	0	0.000	0.000	0.000	
2010	18,182	0	0	0	0	0	0	0	0.000	0.000	0.000	
2011	18,613	0	0	0	0	0	0	0	0.000	0.000	0.000	
MA Total:	66,966	0	0	0	0	0	0	0	0.000	0.000	0.000	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.000	0.000	.
(14) Massachusetts Credibility:	0.090	0.120	.
(15) Countrywide Pure Premium:	1.066	0.591	1.657
(16) Countrywide Indicated Relativity:	0.413	0.382	.
(17) Countrywide Credibility:	0.210	0.220	.
(18) Countrywide Lost-Time Claims:	24.000	.	.
(19) Pure Premium Underlying Present Rate:	0.796	0.440	1.237
(20) Relativity to Underlying Present Rate:	0.453	0.252	.
(21) Credibility to Underlying Relativity:	0.700	0.660	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.404	0.250	.
(24) Balanced Formula Relativity:	0.399	0.248	0.342

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services			
9033 HOUSING AUTHORITY & CLERICAL, SALES, DRIVERS												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	93,055	0	18	0	20,675	0	67,753	88,428	0.222	0.728	0.950	
2008	541,715	2	108	43,092	832,143	28,378	385,978	1,289,590	1.616	0.765	2.381	
2009	552,009	5	91	801,780	1,095,966	205,385	592,404	2,695,535	3.438	1.445	4.883	
2010	96,753	0	15	0	0	0	14,334	14,334	0.000	0.148	0.148	
2011	212,743	2	39	524,007	172,265	127,769	121,723	945,765	3.273	1.173	4.446	
MA Total:	1,496,275	9	271	1,368,879	2,121,048	361,532	1,182,191	5,033,651	2.332	1.032	3.364	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	2.569	1.603	.
(14) Massachusetts Credibility:	0.440	0.680	.
(15) Countrywide Pure Premium:	0.998	0.640	1.638
(16) Countrywide Indicated Relativity:	1.101	1.003	.
(17) Countrywide Credibility:	0.280	0.160	.
(18) Countrywide Lost-Time Claims:	832.00	.	.
(19) Pure Premium Underlying Present Rate:	2.007	1.509	3.516
(20) Relativity to Underlying Present Rate:	3.204	2.315	.
(21) Credibility to Underlying Relativity:	0.280	0.160	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	2.336	1.621	.
(24) Balanced Formula Relativity:	2.309	1.623	2.025

Class(es):		Effective: 1/1/2014							Goods and Services			
9040 HOSPITAL: ALL OTHER EMPLOYEES												
		Converted Unlimited Losses										
		Amount										
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums				
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)	
2007	661,942	6	232	514,037	577,787	107,388	569,060	1,768,272	1.649	1.022	2.671	
2008	598,834	3	212	12,224	259,564	40,735	432,163	744,687	0.454	0.790	1.244	
2009	608,165	3	265	274,067	890,738	116,522	335,370	1,616,698	1.915	0.743	2.658	
2010	669,225	4	237	336,298	333,574	80,146	371,063	1,121,081	1.001	0.674	1.675	
2011	737,122	5	222	320,276	600,235	135,015	500,820	1,556,345	1.249	0.863	2.111	
MA Total:	3,275,288	21	1,168	1,456,902	2,661,898	479,806	2,208,476	6,807,083	1.258	0.821	2.078	

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.385	1.275	.
(14) Massachusetts Credibility:	0.480	0.820	.
(15) Countrywide Pure Premium:	1.534	1.256	2.790
(16) Countrywide Indicated Relativity:	1.693	1.969	.
(17) Countrywide Credibility:	0.260	0.090	.
(18) Countrywide Lost-Time Claims:	7598.0	.	.
(19) Pure Premium Underlying Present Rate:	1.115	1.103	2.218
(20) Relativity to Underlying Present Rate:	1.780	1.692	.
(21) Credibility to Underlying Relativity:	0.260	0.090	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.568	1.375	.
(24) Balanced Formula Relativity:	1.550	1.377	1.478

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
9052 HOTEL: ALL OTHER EMPLOYEES & SALES, DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	6,035,150	33	1,133	2,605,782	2,244,961	2,137,363	2,349,754	9,337,860	0.804	0.743	1.547
2008	6,249,851	29	1,090	1,516,272	2,707,015	1,093,717	2,381,284	7,698,287	0.676	0.556	1.232
2009	6,282,615	29	1,091	1,899,926	3,042,824	878,869	2,575,102	8,396,721	0.787	0.550	1.337
2010	7,812,220	44	1,238	3,101,023	4,986,959	1,671,705	3,192,452	12,952,139	1.035	0.623	1.658
2011	8,842,786	37	1,255	2,481,149	3,699,293	1,377,884	3,221,623	10,779,949	0.699	0.520	1.219
MA Total:	35,222,621	172	5,807	11,604,151	16,681,052	7,159,538	13,720,215	49,164,957	0.803	0.593	1.396

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.884	0.921	.
(14) Massachusetts Credibility:	0.920	1.000	.
(15) Countrywide Pure Premium:	0.899	0.698	1.596
(16) Countrywide Indicated Relativity:	0.991	1.093	.
(17) Countrywide Credibility:	0.040	0.000	.
(18) Countrywide Lost-Time Claims:	22745	.	.
(19) Pure Premium Underlying Present Rate:	0.528	0.596	1.124
(20) Relativity to Underlying Present Rate:	0.842	0.915	.
(21) Credibility to Underlying Relativity:	0.040	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.887	0.921	.
(24) Balanced Formula Relativity:	0.877	0.922	0.896

Class(es):		Effective: 1/1/2014							Goods and Services		
9060 CLUB-COUNTRY, GOLF, FISHING OR YACHT & CLERICAL											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	2,668,883	9	381	246,897	302,212	212,106	605,204	1,366,419	0.206	0.306	0.512
2008	2,733,347	7	366	387,292	1,274,366	454,134	1,549,653	3,665,446	0.608	0.733	1.341
2009	2,730,228	5	317	265,798	455,707	107,544	928,641	1,757,690	0.264	0.380	0.644
2010	2,793,676	2	302	44,108	588,703	45,855	721,493	1,400,158	0.227	0.275	0.501
2011	2,799,728	4	326	351,475	860,595	211,214	960,239	2,383,523	0.433	0.418	0.851
MA Total:	13,725,861	27	1,692	1,295,570	3,481,584	1,030,853	4,765,229	10,573,236	0.348	0.422	0.770

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.383	0.656	.
(14) Massachusetts Credibility:	0.550	1.000	.
(15) Countrywide Pure Premium:	0.686	0.542	1.227
(16) Countrywide Indicated Relativity:	0.756	0.849	.
(17) Countrywide Credibility:	0.230	0.000	.
(18) Countrywide Lost-Time Claims:	5518.0	.	.
(19) Pure Premium Underlying Present Rate:	0.371	0.479	0.850
(20) Relativity to Underlying Present Rate:	0.592	0.735	.
(21) Credibility to Underlying Relativity:	0.220	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.515	0.656	.
(24) Balanced Formula Relativity:	0.509	0.657	0.571

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Calculation of Class Relativities

Class(es): 9061 CLUB NOC & CLERICAL		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	698,506	1	55	142,397	79,933	176,124	125,164	523,617	0.318	0.431	0.750
2008	696,753	0	33	0	178,551	0	163,082	341,633	0.256	0.234	0.490
2009	660,211	1	32	41,224	17,277	26,335	39,854	124,691	0.089	0.100	0.189
2010	677,853	1	45	38	361,835	9,693	373,681	745,247	0.534	0.566	1.099
2011	711,376	2	44	175,494	282,638	68,299	190,734	717,165	0.644	0.364	1.008
MA Total:	3,444,700	5	209	359,154	920,233	280,451	892,516	2,452,354	0.371	0.341	0.712

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.409	0.529	.
(14) Massachusetts Credibility:	0.300	0.550	.
(15) Countrywide Pure Premium:	0.571	0.429	1.000
(16) Countrywide Indicated Relativity:	0.630	0.673	.
(17) Countrywide Credibility:	0.350	0.230	.
(18) Countrywide Lost-Time Claims:	788.00	.	.
(19) Pure Premium Underlying Present Rate:	0.339	0.387	0.726
(20) Relativity to Underlying Present Rate:	0.542	0.593	.
(21) Credibility to Underlying Relativity:	0.350	0.220	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.533	0.576	.
(24) Balanced Formula Relativity:	0.527	0.577	0.548

Class(es): 9063 YMCA, YWCA, YMHA OR YWHA, INSTITUTION-ALL EMPLOYEES & CLERICAL		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	4,003,481	8	355	188,205	491,183	89,724	754,325	1,523,437	0.170	0.211	0.381
2008	4,064,470	5	381	462,115	937,141	134,260	1,217,618	2,751,135	0.344	0.333	0.677
2009	4,217,047	10	340	588,154	1,320,819	242,763	1,191,859	3,343,594	0.453	0.340	0.793
2010	4,432,502	8	323	647,169	975,011	685,738	983,558	3,291,477	0.366	0.377	0.743
2011	4,615,632	10	301	688,244	749,206	310,876	910,312	2,658,638	0.311	0.265	0.576
MA Total:	21,333,132	41	1,700	2,573,887	4,473,360	1,463,362	5,057,673	13,568,281	0.330	0.306	0.636

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.364	0.475	.
(14) Massachusetts Credibility:	0.510	1.000	.
(15) Countrywide Pure Premium:	0.360	0.349	0.709
(16) Countrywide Indicated Relativity:	0.397	0.547	.
(17) Countrywide Credibility:	0.250	0.000	.
(18) Countrywide Lost-Time Claims:	2962.0	.	.
(19) Pure Premium Underlying Present Rate:	0.200	0.306	0.506
(20) Relativity to Underlying Present Rate:	0.320	0.469	.
(21) Credibility to Underlying Relativity:	0.240	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.361	0.475	.
(24) Balanced Formula Relativity:	0.357	0.475	0.406

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Calculation of Class Relativities

Class(es): 9079 RESTAURANT NOC		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	16,905,722	61	2,866	3,471,086	5,408,497	1,352,746	6,005,310	16,237,638	0.525	0.435	0.960
2008	17,276,657	59	2,665	2,850,655	6,385,423	1,853,244	6,055,611	17,144,933	0.535	0.458	0.992
2009	17,650,042	55	2,717	3,340,183	6,229,563	2,121,963	6,397,125	18,088,834	0.542	0.483	1.025
2010	20,817,537	54	3,057	3,856,201	6,971,317	2,602,648	6,258,136	19,688,302	0.520	0.426	0.946
2011	21,999,939	61	3,206	4,057,340	9,751,298	2,601,704	9,255,734	25,666,076	0.628	0.539	1.167
MA Total:	94,649,897	290	14,511	17,575,464	34,746,098	10,532,306	33,971,915	96,825,783	0.553	0.470	1.023

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.609	0.730	.
(14) Massachusetts Credibility:	1.000	1.000	.
(15) Countrywide Pure Premium:	0.488	0.472	0.960
(16) Countrywide Indicated Relativity:	0.539	0.740	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	3059.0	.	.
(19) Pure Premium Underlying Present Rate:	0.365	0.442	0.807
(20) Relativity to Underlying Present Rate:	0.582	0.678	.
(21) Credibility to Underlying Relativity:	0.000	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.609	0.730	.
(24) Balanced Formula Relativity:	0.602	0.731	0.656

Class(es): 9089 BILLIARD HALL		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	34,868	0	13	0	12,161	0	15,206	27,367	0.349	0.436	0.785
2008	11,364	0	1	0	0	0	182	182	0.000	0.016	0.016
2009	7,416	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	7,043	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	4,637	0	1	0	0	0	721	721	0.000	0.155	0.155
MA Total:	65,329	0	15	0	12,161	0	16,108	28,269	0.186	0.247	0.433

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.205	0.383	.
(14) Massachusetts Credibility:	0.070	0.120	.
(15) Countrywide Pure Premium:	0.695	0.547	1.242
(16) Countrywide Indicated Relativity:	0.767	0.858	.
(17) Countrywide Credibility:	0.170	0.180	.
(18) Countrywide Lost-Time Claims:	13.000	.	.
(19) Pure Premium Underlying Present Rate:	0.433	0.495	0.928
(20) Relativity to Underlying Present Rate:	0.691	0.760	.
(21) Credibility to Underlying Relativity:	0.760	0.700	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.670	0.732	.
(24) Balanced Formula Relativity:	0.662	0.733	0.691

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Calculation of Class Relativities

Class(es): 9093 BOWLING LANE		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	93.240	0	12	0	8.109	0	21.268	29.378	0.087	0.228	0.315
2008	111.007	0	11	0	16.803	0	28.697	45.500	0.151	0.259	0.410
2009	114.470	0	10	0	4.817	0	28.627	33.444	0.042	0.250	0.292
2010	133.296	0	10	0	23.695	0	64.887	88.581	0.178	0.487	0.665
2011	154.073	1	22	4.336	175.782	26.089	233.108	439.314	1.169	1.682	2.851
MA Total:	606.086	1	65	4.336	229.206	26.089	376.587	636.217	0.385	0.664	1.050

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.424	1.032	.
(14) Massachusetts Credibility:	0.150	0.290	.
(15) Countrywide Pure Premium:	0.563	0.569	1.132
(16) Countrywide Indicated Relativity:	0.621	0.892	.
(17) Countrywide Credibility:	0.430	0.360	.
(18) Countrywide Lost-Time Claims:	499.00	.	.
(19) Pure Premium Underlying Present Rate:	0.307	0.443	0.749
(20) Relativity to Underlying Present Rate:	0.490	0.679	.
(21) Credibility to Underlying Relativity:	0.420	0.350	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.536	0.858	.
(24) Balanced Formula Relativity:	0.530	0.859	0.667

Class(es): 9101 COLLEGE: ALL OTHER EMPLOYEES		Effective: 1/1/2014							Goods and Services		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	1,196,927	16	607	1,075,216	1,101,890	538,073	1,217,155	3,932,333	1.819	1.466	3.285
2008	1,340,340	17	610	1,497,228	1,894,864	555,891	1,669,987	5,617,970	2.531	1.661	4.191
2009	1,453,399	13	576	1,215,989	1,468,961	724,071	1,173,858	4,582,880	1.847	1.306	3.153
2010	1,594,586	11	409	649,006	901,126	255,167	1,033,827	2,839,125	0.972	0.808	1.780
2011	1,464,735	14	563	966,290	1,312,476	488,587	1,355,748	4,123,100	1.556	1.259	2.815
MA Total:	7,049,988	71	2,765	5,403,729	6,679,316	2,561,788	6,450,575	21,095,408	1.714	1.278	2.992

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.887	1.986	.
(14) Massachusetts Credibility:	0.660	1.000	.
(15) Countrywide Pure Premium:	1.585	1.221	2.806
(16) Countrywide Indicated Relativity:	1.748	1.914	.
(17) Countrywide Credibility:	0.170	0.000	.
(18) Countrywide Lost-Time Claims:	15770	.	.
(19) Pure Premium Underlying Present Rate:	1.158	1.233	2.391
(20) Relativity to Underlying Present Rate:	1.848	1.893	.
(21) Credibility to Underlying Relativity:	0.170	0.000	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.857	1.986	.
(24) Balanced Formula Relativity:	1.836	1.988	1.899

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous		
9102 PARK NOC- ALL EMPLOYEES & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	173,226	1	26	131,032	42,233	12,084	45,880	231,230	1,000	0,335	1,335
2008	189,867	1	44	64,202	64,966	22,966	88,953	241,087	0,680	0,589	1,270
2009	206,753	0	34	0	387,068	0	156,365	543,433	1,872	0,756	2,628
2010	228,624	0	24	0	48,218	0	75,633	123,852	0,211	0,331	0,542
2011	171,600	0	22	0	370,545	0	611,378	981,923	2,159	3,563	5,722
MA Total:	970,069	2	150	195,235	913,031	35,051	978,208	2,121,525	1,142	1,045	2,187

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.410	0.618	.
(14) Massachusetts Credibility:	0.260	0.460	.
(15) Countrywide Pure Premium:	1.551	1.160	2.711
(16) Countrywide Indicated Relativity:	0.601	0.750	.
(17) Countrywide Credibility:	0.370	0.270	.
(18) Countrywide Lost-Time Claims:	6539.0	.	.
(19) Pure Premium Underlying Present Rate:	0.821	0.865	1.686
(20) Relativity to Underlying Present Rate:	0.467	0.494	.
(21) Credibility to Underlying Relativity:	0.370	0.270	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.502	0.620	.
(24) Balanced Formula Relativity:	0.496	0.616	0.541

Class(es):		Effective: 1/1/2014							Miscellaneous		
9154 THEATER NOC: ALL OTHER EMPLOYEES											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	599,601	2	95	227,564	32,224	100,166	112,196	472,150	0,433	0,354	0,787
2008	606,283	2	90	14,319	314,341	57,520	210,605	596,786	0,542	0,442	0,984
2009	624,879	1	67	189,945	536,408	70,999	421,176	1,218,527	1,162	0,788	1,950
2010	662,274	3	92	429,575	430,407	168,744	222,434	1,251,160	1,299	0,591	1,889
2011	663,321	0	96	0	757,433	0	495,392	1,252,825	1,142	0,747	1,889
MA Total:	3,156,358	8	440	861,403	2,070,814	397,428	1,461,803	4,791,447	0,929	0,589	1,518

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.333	0.349	.
(14) Massachusetts Credibility:	0.320	0.570	.
(15) Countrywide Pure Premium:	0.867	0.693	1.560
(16) Countrywide Indicated Relativity:	0.336	0.448	.
(17) Countrywide Credibility:	0.340	0.220	.
(18) Countrywide Lost-Time Claims:	1470.0	.	.
(19) Pure Premium Underlying Present Rate:	0.434	0.469	0.904
(20) Relativity to Underlying Present Rate:	0.247	0.268	.
(21) Credibility to Underlying Relativity:	0.340	0.210	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.305	0.354	.
(24) Balanced Formula Relativity:	0.301	0.351	0.320

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Office and Clerical		
9156 THEATER NOC: PLAYERS, ENTERTAINERS OR MUSICIANS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	477,204	0	60	0	61,289	0	114,008	175,297	0.128	0.239	0.367
2008	470,881	3	105	42,191	499,387	39,649	361,040	942,267	1.150	0.851	2.001
2009	447,841	0	70	0	100,679	0	197,603	298,282	0.225	0.441	0.666
2010	487,696	0	61	0	55,028	0	104,963	159,991	0.113	0.215	0.328
2011	496,724	1	97	3,511	901,181	40,794	337,423	1,282,909	1.821	0.761	2.583
MA Total:	2,380,346	4	393	45,702	1,617,564	80,443	1,115,036	2,858,746	0.699	0.502	1.201

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	8.840	8.326	.
(14) Massachusetts Credibility:	0.250	0.530	.
(15) Countrywide Pure Premium:	0.547	0.485	1.032
(16) Countrywide Indicated Relativity:	9.098	9.768	.
(17) Countrywide Credibility:	0.380	0.240	.
(18) Countrywide Lost-Time Claims:	782.00	.	.
(19) Pure Premium Underlying Present Rate:	0.316	0.513	0.829
(20) Relativity to Underlying Present Rate:	6.041	8.593	.
(21) Credibility to Underlying Relativity:	0.370	0.230	.
(22) Industry Group Converted Pure Premium:	0.079	0.060	0.139
(23) Formula Relativity:	7.902	8.733	.
(24) Balanced Formula Relativity:	8.022	8.808	8.362

Class(es):		Effective: 1/1/2014							Miscellaneous		
9178 ATHLETIC TEAM OR PARK: NON-CONTACT SPORTS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	30,366	2	50	14,039	38,074	33,368	160,591	246,072	1.716	6.387	8.104
2008	20,202	0	18	0	313,224	0	97,411	410,635	15.504	4.822	20.326
2009	8,115	1	5	50,712	33,660	9,556	8,438	102,366	10.396	2.217	12.614
2010	16,012	2	29	87,312	187,383	7,774	181,018	463,487	17.156	11.791	28.947
2011	12,877	1	30	41,763	166,430	30,553	268,167	506,913	16.168	23.199	39.367
MA Total:	87,572	6	132	193,826	738,771	81,251	715,625	1,729,473	10.649	9.100	19.749

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	3.818	5.388	.
(14) Massachusetts Credibility:	0.130	0.380	.
(15) Countrywide Pure Premium:	1.232	2.338	3.570
(16) Countrywide Indicated Relativity:	0.478	1.511	.
(17) Countrywide Credibility:	0.440	0.310	.
(18) Countrywide Lost-Time Claims:	485.00	.	.
(19) Pure Premium Underlying Present Rate:	1.658	6.284	7.942
(20) Relativity to Underlying Present Rate:	0.943	3.590	.
(21) Credibility to Underlying Relativity:	0.430	0.310	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.112	3.629	.
(24) Balanced Formula Relativity:	1.098	3.605	2.044

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous		
9179 ATHLETIC TEAM OR PARK: CONTACT SPORTS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	34,709	14	83	417,950	967,161	105,537	477,297	1,967,944	39,906	16,792	56,698
2008	29,415	15	47	573,899	376,095	61,019	118,798	1,129,811	32,296	6,113	38,410
2009	37,523	5	50	62,230	232,228	3,222	103,349	401,029	7,847	2,840	10,687
2010	30,982	2	18	55,011	261,487	1,550	77,875	395,924	10,216	2,564	12,779
2011	28,259	0	45	0	186,310	0	388,472	574,783	6,593	13,747	20,339
MA Total:	160,888	36	243	1,109,090	2,023,281	171,328	1,165,792	4,469,491	19,469	8,311	27,780

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	6.980	4.921	.
(14) Massachusetts Credibility:	0.340	0.550	.
(15) Countrywide Pure Premium:	6.347	4.250	10.596
(16) Countrywide Indicated Relativity:	2.461	2.746	.
(17) Countrywide Credibility:	0.330	0.230	.
(18) Countrywide Lost-Time Claims:	1075.0	.	.
(19) Pure Premium Underlying Present Rate:	9.478	8.509	17.987
(20) Relativity to Underlying Present Rate:	5.388	4.862	.
(21) Credibility to Underlying Relativity:	0.330	0.220	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	4.963	4.408	.
(24) Balanced Formula Relativity:	4.903	4.378	4.705

Class(es):		Effective: 1/1/2014							Miscellaneous		
9180 AMUSEMENT DEVICE OPERATION NOC-NOT TRAV & DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	116,028	1	33	5,669	18,528	291	136,214	160,701	0.209	1.176	1.385
2008	118,127	1	36	13,724	53,941	31,411	219,878	318,954	0.573	2.127	2.700
2009	129,290	0	37	0	84,469	0	116,239	200,708	0.653	0.899	1.552
2010	147,317	0	38	0	8,901	0	101,109	110,011	0.060	0.686	0.747
2011	142,891	0	27	0	83,485	0	182,289	265,775	0.584	1.276	1.860
MA Total:	653,653	2	171	19,393	249,324	31,702	755,729	1,056,148	0.411	1.205	1.616

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.147	0.713	.
(14) Massachusetts Credibility:	0.240	0.540	.
(15) Countrywide Pure Premium:	2.757	2.956	5.714
(16) Countrywide Indicated Relativity:	1.069	1.910	.
(17) Countrywide Credibility:	0.380	0.230	.
(18) Countrywide Lost-Time Claims:	2113.0	.	.
(19) Pure Premium Underlying Present Rate:	1.000	1.995	2.995
(20) Relativity to Underlying Present Rate:	0.568	1.140	.
(21) Credibility to Underlying Relativity:	0.380	0.230	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.658	1.087	.
(24) Balanced Formula Relativity:	0.650	1.080	0.812

IX 000255

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous		
9182 ATHLETIC TEAM OR PARK: OPERATIONS & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	214,984	1	69	295,079	36,385	10,493	288,129	630,086	1,542	1,389	2,931
2008	126,669	5	42	268,229	212,169	1,083,183	252,182	1,815,764	3,793	10,542	14,335
2009	136,834	3	37	61,219	53,771	227,665	240,901	583,557	0,840	3,424	4,265
2010	207,168	2	60	8,426	85,192	5,551	189,180	288,348	0,452	0,940	1,392
2011	206,857	1	52	11,750	475,228	17,871	317,963	822,813	2,354	1,624	3,978
MA Total:	892,512	12	260	644,702	862,746	1,344,764	1,288,356	4,140,568	1,689	2,950	4,639

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.605	1.747	.
(14) Massachusetts Credibility:	0.270	0.560	.
(15) Countrywide Pure Premium:	0.851	0.908	1.759
(16) Countrywide Indicated Relativity:	0.330	0.587	.
(17) Countrywide Credibility:	0.370	0.220	.
(18) Countrywide Lost-Time Claims:	415.00	.	.
(19) Pure Premium Underlying Present Rate:	0.998	1.543	2.541
(20) Relativity to Underlying Present Rate:	0.567	0.882	.
(21) Credibility to Underlying Relativity:	0.360	0.220	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	0.490	1.301	.
(24) Balanced Formula Relativity:	0.484	1.293	0.789

Class(es):		Effective: 1/1/2014							Goods and Services		
9220 CEMETERY OPERATION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	174,443	2	54	66,828	188,876	55,605	120,213	431,523	1,466	1,008	2,474
2008	185,983	0	39	0	646,367	0	334,283	980,650	3,475	1,797	5,273
2009	194,535	1	30	9,438	257,193	4,502	179,320	450,453	1,371	0,945	2,316
2010	191,882	0	33	0	7,212	0	25,274	32,487	0,038	0,132	0,169
2011	186,918	1	32	9,452	14,883	9,358	50,552	84,245	0,130	0,321	0,451
MA Total:	933,762	4	188	85,719	1,114,532	69,464	709,642	1,979,357	1,285	0,834	2,120

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.416	1.296	.
(14) Massachusetts Credibility:	0.310	0.520	.
(15) Countrywide Pure Premium:	2.121	1.536	3.658
(16) Countrywide Indicated Relativity:	2.340	2.408	.
(17) Countrywide Credibility:	0.350	0.240	.
(18) Countrywide Lost-Time Claims:	740.00	.	.
(19) Pure Premium Underlying Present Rate:	1.362	1.267	2.629
(20) Relativity to Underlying Present Rate:	2.174	1.945	.
(21) Credibility to Underlying Relativity:	0.340	0.240	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.997	1.719	.
(24) Balanced Formula Relativity:	1.975	1.721	1.869

IX 000256

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Miscellaneous		
9402 STREET CLEANING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	576,039	3	98	186,197	961,780	538,531	819,761	2,506,268	1,993	2,358	4,351
2008	635,100	3	76	864,719	749,237	251,962	411,327	2,277,245	2,541	1,044	3,586
2009	588,494	8	80	1,588,991	468,312	666,587	499,306	3,223,196	3,496	1,981	5,477
2010	719,783	2	73	183,564	1,665,406	28,177	816,063	2,693,209	2,569	1,173	3,742
2011	598,875	5	79	1,102,906	782,686	460,915	597,769	2,944,277	3,149	1,768	4,916
MA Total:	3,118,291	21	406	3,926,376	4,627,420	1,946,172	3,144,226	13,644,195	2,743	1,632	4,376

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.983	0.966	.
(14) Massachusetts Credibility:	0.570	0.990	.
(15) Countrywide Pure Premium:	3.065	1.667	4.733
(16) Countrywide Indicated Relativity:	1.188	1.077	.
(17) Countrywide Credibility:	0.220	0.010	.
(18) Countrywide Lost-Time Claims:	1968.0	.	.
(19) Pure Premium Underlying Present Rate:	1.842	1.855	3.697
(20) Relativity to Underlying Present Rate:	1.047	1.060	.
(21) Credibility to Underlying Relativity:	0.210	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.042	0.968	.
(24) Balanced Formula Relativity:	1.029	0.961	1.004

Class(es):		Effective: 1/1/2014							Miscellaneous		
9403 GARBAGE, ASHES OR REFUSE COLLECTION & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	765,538	9	273	1,540,349	3,013,962	663,751	2,328,057	7,546,119	5,949	3,908	9,857
2008	920,478	15	268	2,894,101	2,649,747	1,422,655	2,250,219	9,216,721	6,023	3,990	10,013
2009	887,463	9	248	875,852	3,686,047	441,206	1,756,684	6,759,789	5,140	2,477	7,617
2010	995,070	15	271	1,986,399	3,621,399	1,123,889	1,863,754	8,595,441	5,636	3,002	8,638
2011	1,042,258	12	270	1,493,741	3,612,517	440,465	2,093,225	7,639,947	4,899	2,431	7,330
MA Total:	4,610,808	60	1,330	8,790,442	16,583,672	4,091,966	10,291,938	39,758,017	5,503	3,120	8,623

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.973	1.847	.
(14) Massachusetts Credibility:	0.820	1.000	.
(15) Countrywide Pure Premium:	4.213	2.624	6.837
(16) Countrywide Indicated Relativity:	1.633	1.696	.
(17) Countrywide Credibility:	0.090	0.000	.
(18) Countrywide Lost-Time Claims:	7475.0	.	.
(19) Pure Premium Underlying Present Rate:	3.032	3.020	6.052
(20) Relativity to Underlying Present Rate:	1.723	1.725	.
(21) Credibility to Underlying Relativity:	0.090	0.000	.
(22) Industry Group Converted Pure Premium:	2.789	1.689	4.478
(23) Formula Relativity:	1.920	1.847	.
(24) Balanced Formula Relativity:	1.897	1.835	1.873

IX 000257

Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
9410 MUNICIPAL, TOWN, COUNTY OR STATE EMP NOC											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	16.844	0	5	0	24.458	0	53.050	77.508	1.452	3.150	4.602
2008	126.113	0	17	0	24.185	0	20.539	44.724	0.192	0.163	0.355
2009	121.053	2	45	287.261	454.464	410.489	470.982	1,623.196	6.127	7.282	13.409
2010	170.313	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	66.000	0	25	0	37.320	0	52.304	89.625	0.565	0.792	1.358
MA Total:	500.323	2	92	287.261	540.427	410.489	596.875	1,835.053	1.654	2.013	3.668

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.822	3.128	.
(14) Massachusetts Credibility:	0.180	0.340	.
(15) Countrywide Pure Premium:	0.974	0.633	1.607
(16) Countrywide Indicated Relativity:	1.074	0.992	.
(17) Countrywide Credibility:	0.410	0.330	.
(18) Countrywide Lost-Time Claims:	1064.0	.	.
(19) Pure Premium Underlying Present Rate:	0.639	0.829	1.468
(20) Relativity to Underlying Present Rate:	1.019	1.272	.
(21) Credibility to Underlying Relativity:	0.410	0.330	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	1.186	1.811	.
(24) Balanced Formula Relativity:	1.173	1.813	1.438

Class(es):		Effective: 1/1/2014							Manufacturing		
9501 SIGN PAINTING OR LETTERING-INSIDE & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	298.057	2	56	274.657	237.200	676.949	141.338	1,330.144	1.717	2.745	4.463
2008	295.399	2	54	85.120	131.327	20.287	144.397	381.131	0.733	0.557	1.290
2009	273.041	0	32	0	5.377	0	32.979	38.356	0.020	0.121	0.140
2010	299.506	0	32	0	99.520	0	231.215	330.734	0.332	0.772	1.104
2011	298.839	4	41	383.382	65.458	348.634	114.074	911.548	1.502	1.548	3.050
MA Total:	1,464.842	8	215	743.159	538.882	1,045.871	664.002	2,991.913	0.875	1.167	2.042

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.834	1.614	.
(14) Massachusetts Credibility:	0.340	0.620	.
(15) Countrywide Pure Premium:	1.243	0.904	2.147
(16) Countrywide Indicated Relativity:	1.382	1.471	.
(17) Countrywide Credibility:	0.330	0.190	.
(18) Countrywide Lost-Time Claims:	1025.0	.	.
(19) Pure Premium Underlying Present Rate:	1.041	1.241	2.282
(20) Relativity to Underlying Present Rate:	1.191	1.504	.
(21) Credibility to Underlying Relativity:	0.330	0.190	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	1.133	1.566	.
(24) Balanced Formula Relativity:	1.129	1.565	1.307

IX 000258

Calculation of Class Relativities

Class(es): 9519 HOUSEHOLD APPLIANCES-ELECTRICAL-INSTALL, SERV OR REPAIR & DR												Effective: 1/1/2014												Goods and Services											
												Converted Unlimited Losses																							
												Amount																							
				Claim Count				Indemnity				Medical								MA Indicated Pure Premiums															
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)																								
2007	749,158	3	127	211,243	151,973	176,399	464,000	1,003,615	0.485	0.855	1.340																								
2008	753,375	7	111	769,987	579,626	553,467	540,019	2,443,099	1.791	1.451	3.243																								
2009	706,040	3	92	274,298	950,274	213,893	622,424	2,060,889	1.734	1.185	2.919																								
2010	716,880	5	110	221,744	509,609	218,777	411,198	1,361,328	1.020	0.879	1.899																								
2011	786,474	15	140	1,714,159	569,745	735,783	549,634	3,569,322	2.904	1.634	4.538																								
MA Total:	3,711,929	33	580	3,191,432	2,761,227	1,898,319	2,587,276	10,438,253	1.604	1.208	2.812																								

				Pure Premium Relativities		
				Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:				1.766	1.877	.
(14) Massachusetts Credibility:				0.470	0.810	.
(15) Countrywide Pure Premium:				1.778	1.007	2.785
(16) Countrywide Indicated Relativity:				1.961	1.578	.
(17) Countrywide Credibility:				0.270	0.100	.
(18) Countrywide Lost-Time Claims:				1839.0	.	.
(19) Pure Premium Underlying Present Rate:				0.959	0.944	1.903
(20) Relativity to Underlying Present Rate:				1.530	1.449	.
(21) Credibility to Underlying Relativity:				0.260	0.090	.
(22) Industry Group Converted Pure Premium:				0.908	0.644	1.552
(23) Formula Relativity:				1.757	1.809	.
(24) Balanced Formula Relativity:				1.738	1.811	1.768

Class(es): 9521 HOUSE FURNISHINGS INSTALLATION-NOC												Effective: 1/1/2014												Manufacturing											
												Converted Unlimited Losses																							
												Amount																							
				Claim Count				Indemnity				Medical								MA Indicated Pure Premiums															
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)																								
2007	285,214	2	28	176,902	18,757	72,587	51,182	319,427	0.686	0.434	1.120																								
2008	221,868	1	19	248,660	43,257	79,008	38,714	409,639	1.316	0.531	1.846																								
2009	192,689	1	26	58,988	152,599	42,921	140,460	394,968	1.098	0.952	2.050																								
2010	202,716	0	32	0	393,114	0	166,276	559,390	1.939	0.820	2.759																								
2011	236,389	0	16	0	33,065	0	78,239	111,304	0.140	0.331	0.471																								
MA Total:	1,138,876	4	121	484,550	640,793	194,515	474,870	1,794,728	0.988	0.588	1.576																								

				Pure Premium Relativities		
				Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:				0.942	0.813	.
(14) Massachusetts Credibility:				0.380	0.600	.
(15) Countrywide Pure Premium:				2.067	1.097	3.163
(16) Countrywide Indicated Relativity:				2.297	1.784	.
(17) Countrywide Credibility:				0.310	0.200	.
(18) Countrywide Lost-Time Claims:				513.00	.	.
(19) Pure Premium Underlying Present Rate:				1.845	1.445	3.290
(20) Relativity to Underlying Present Rate:				2.110	1.751	.
(21) Credibility to Underlying Relativity:				0.310	0.200	.
(22) Industry Group Converted Pure Premium:				1.049	0.723	1.772
(23) Formula Relativity:				1.724	1.195	.
(24) Balanced Formula Relativity:				1.719	1.194	1.505

IX 000259

Calculation of Class Relativities

Class(es): 9522 UPHOLSTERING		Effective: 1/1/2014							Manufacturing		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	146,843	0	14	0	244,128	0	102,428	346,555	1,663	0,698	2,360
2008	130,081	0	9	0	98,396	0	28,076	126,472	0,756	0,216	0,972
2009	111,785	0	7	0	66,465	0	30,535	97,000	0,595	0,273	0,868
2010	137,691	0	35	0	56,059	0	58,111	114,169	0,407	0,422	0,829
2011	145,403	0	10	0	53,245	0	34,965	88,210	0,366	0,240	0,607
MA Total:	671,804	0	75	0	518,292	0	254,115	772,407	0,771	0,378	1,150

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.735	0.523	.
(14) Massachusetts Credibility:	0.230	0.360	.
(15) Countrywide Pure Premium:	0.949	0.625	1.573
(16) Countrywide Indicated Relativity:	1.055	1.016	.
(17) Countrywide Credibility:	0.390	0.320	.
(18) Countrywide Lost-Time Claims:	1176.0	.	.
(19) Pure Premium Underlying Present Rate:	0.844	0.691	1.535
(20) Relativity to Underlying Present Rate:	0.965	0.837	.
(21) Credibility to Underlying Relativity:	0.380	0.320	.
(22) Industry Group Converted Pure Premium:	1.049	0.723	1.772
(23) Formula Relativity:	0.947	0.781	.
(24) Balanced Formula Relativity:	0.944	0.781	0.878

Class(es): 9533 SCAFFOLDING: SCAFFOLD INST, RPR OR REMOVAL- BUILT UP FROM GROUND		Effective: 1/1/2014							Construction		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	68,382	2	5	163,417	138,691	52,337	42,568	397,013	4,418	1,388	5,806
2008	63,093	1	9	175,863	345,478	76,303	163,343	760,986	8,263	3,798	12,061
2009	48,116	2	10	81,018	308,495	29,543	124,064	543,120	8,095	3,192	11,288
2010	25,698	0	5	0	213,968	0	92,244	306,212	8,326	3,590	11,916
2011	82,588	1	13	3,660	270,277	15,724	226,725	516,386	3,317	2,936	6,253
MA Total:	287,876	6	42	423,958	1,276,909	173,908	648,943	2,523,718	5,908	2,858	8,767

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.976	1.754	.
(14) Massachusetts Credibility:	0.400	0.510	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	3.556	2.002	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	7.896	3.849	11,744
(20) Relativity to Underlying Present Rate:	3.721	2.124	.
(21) Credibility to Underlying Relativity:	0.600	0.490	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4,620
(23) Formula Relativity:	3.023	1.935	.
(24) Balanced Formula Relativity:	3.086	1.947	2,684

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Construction		
9534 MOBILE CRANE & HOIST SERV CONTR-NOC-ALL OP -INCL YRD EMP &DR											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	264,659	3	17	616,698	658,384	418,247	298,875	1,992,204	4,818	2,710	7,527
2008	267,701	2	15	952,161	988,818	322,760	313,728	2,577,467	7,251	2,378	9,628
2009	186,595	0	16	0	224,047	0	343,570	567,617	1,201	1,841	3,042
2010	209,656	2	14	571,805	952,199	665,089	217,188	2,406,281	7,269	4,208	11,477
2011	214,190	2	11	230,214	437,385	99,128	259,139	1,025,866	3,117	1,673	4,790
MA Total:	1,142,800	9	73	2,370,879	3,260,833	1,505,225	1,432,499	8,569,435	4,928	2,571	7,499

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.648	1.577	.
(14) Massachusetts Credibility:	0.430	0.570	.
(15) Countrywide Pure Premium:	3.040	1.472	4.512
(16) Countrywide Indicated Relativity:	1.050	0.933	.
(17) Countrywide Credibility:	0.290	0.220	.
(18) Countrywide Lost-Time Claims:	480.00	.	.
(19) Pure Premium Underlying Present Rate:	2.473	1.289	3.762
(20) Relativity to Underlying Present Rate:	1.166	0.711	.
(21) Credibility to Underlying Relativity:	0.280	0.210	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.340	1.254	.
(24) Balanced Formula Relativity:	1.367	1.261	1.330

Class(es):		Effective: 1/1/2014							Construction		
9545 BILL POSTING & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	807	0	0	0	0	0	0	0	0.000	0.000	0.000
2008	643	0	0	0	0	0	0	0	0.000	0.000	0.000
2009	0	0	0	0	0	0	0	0	0.000	0.000	0.000
2010	796	0	0	0	0	0	0	0	0.000	0.000	0.000
2011	2,021	0	3	0	10,492	0	11,642	22,134	5,192	5,761	10,953
MA Total:	4,267	0	3	0	10,492	0	11,642	22,134	2,459	2,729	5,188

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.822	1.674	.
(14) Massachusetts Credibility:	0.040	0.060	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.747	0.656	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	1.658	1.261	2.920
(20) Relativity to Underlying Present Rate:	0.781	0.696	.
(21) Credibility to Underlying Relativity:	0.960	0.940	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.783	0.755	.
(24) Balanced Formula Relativity:	0.799	0.759	0.785

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Section IX - Classification Pricing
 Subsection G - Class Relativities
 1/1/2014

Section IX - G
 Exhibit 192

Calculation of Class Relativities

Class(es): 9549 ADVERTISING CO & DRIVERS		Effective: 1/1/2014							Construction		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	10,427	0	2	0	98,387	0	33,806	132,193	9,436	3,242	12,678
2008	11,201	0	2	0	0	0	1,145	1,145	0,000	0,102	0,102
2009	14,260	0	1	0	0	0	296	296	0,000	0,021	0,021
2010	21,199	0	0	0	0	0	0	0	0,000	0,000	0,000
2011	26,286	0	4	0	458	0	8,233	8,691	0,017	0,313	0,331
MA Total:	83,374	0	9	0	98,844	0	43,480	142,325	1,186	0,522	1,707

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.396	0.320	.
(14) Massachusetts Credibility:	0.130	0.240	.
(15) Countrywide Pure Premium:	0.000	0.000	0.000
(16) Countrywide Indicated Relativity:	0.794	1.076	.
(17) Countrywide Credibility:	0.000	0.000	.
(18) Countrywide Lost-Time Claims:	0.000	.	.
(19) Pure Premium Underlying Present Rate:	1.764	2.068	3.831
(20) Relativity to Underlying Present Rate:	0.831	1.141	.
(21) Credibility to Underlying Relativity:	0.870	0.760	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	0.775	0.944	.
(24) Balanced Formula Relativity:	0.791	0.950	0.847

Class(es): 9552 SIGN MFG-ERECTION, REPAIR OR MAINT & SHOP, DR		Effective: 1/1/2014							Construction		
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	117,810	2	21	129,928	404,003	112,750	212,952	859,633	4,532	2,765	7,297
2008	118,515	0	14	0	319,628	0	135,887	455,514	2,697	1,147	3,844
2009	110,918	0	22	0	668,626	0	103,239	771,865	6,028	0,931	6,959
2010	113,025	3	21	388,110	101,607	102,207	154,132	746,056	4,333	2,268	6,601
2011	120,906	0	19	0	381,606	0	171,174	552,780	3,156	1,416	4,572
MA Total:	581,173	5	97	518,037	1,875,470	214,958	777,383	3,385,848	4,118	1,707	5,826

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	1.377	1.048	.
(14) Massachusetts Credibility:	0.380	0.590	.
(15) Countrywide Pure Premium:	5.824	2.438	8.262
(16) Countrywide Indicated Relativity:	2.012	1.545	.
(17) Countrywide Credibility:	0.170	0.180	.
(18) Countrywide Lost-Time Claims:	13.000	.	.
(19) Pure Premium Underlying Present Rate:	3.458	2.818	6.276
(20) Relativity to Underlying Present Rate:	1.630	1.555	.
(21) Credibility to Underlying Relativity:	0.450	0.230	.
(22) Industry Group Converted Pure Premium:	2.990	1.630	4.620
(23) Formula Relativity:	1.599	1.254	.
(24) Balanced Formula Relativity:	1.632	1.262	1.501

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Calculation of Class Relativities

Class(es):		Effective: 1/1/2014							Goods and Services		
9586 BARBER SHOP, BEAUTY PARLOR, HAIR STYLING SALON											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	3,243,181	4	103	171,343	240,629	50,655	190,943	653,571	0.127	0.074	0.202
2008	3,497,068	2	110	189,625	744,102	16,356	348,071	1,298,155	0.267	0.104	0.371
2009	3,600,401	5	79	437,680	158,165	542,670	188,490	1,327,005	0.165	0.203	0.369
2010	3,730,502	4	77	401,318	393,374	104,367	297,494	1,196,553	0.213	0.108	0.321
2011	3,995,410	4	78	205,438	485,600	107,123	382,678	1,180,839	0.173	0.123	0.296
MA Total:	18,066,561	19	447	1,405,405	2,021,870	821,172	1,407,676	5,656,122	0.190	0.123	0.313

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.209	0.192	.
(14) Massachusetts Credibility:	0.460	0.750	.
(15) Countrywide Pure Premium:	0.299	0.219	0.518
(16) Countrywide Indicated Relativity:	0.330	0.343	.
(17) Countrywide Credibility:	0.270	0.130	.
(18) Countrywide Lost-Time Claims:	2138.0	.	.
(19) Pure Premium Underlying Present Rate:	0.179	0.164	0.343
(20) Relativity to Underlying Present Rate:	0.286	0.251	.
(21) Credibility to Underlying Relativity:	0.270	0.120	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.262	0.218	.
(24) Balanced Formula Relativity:	0.259	0.219	0.243

Class(es):		Effective: 1/1/2014							Goods and Services		
9620 FUNERAL DIRECTOR & DRIVERS											
		Converted Unlimited Losses									
		Amount									
		Claim Count		Indemnity		Medical		MA Indicated Pure Premiums			
Policy Period (1)	Exposure (2)	Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)	Likely (7)	Not-Likely (8)	Total (9)	Indemnity (10)	Medical (11)	Total (12)
2007	538,425	2	9	130,360	53,655	17,849	72,747	274,612	0.342	0.168	0.510
2008	547,049	1	10	16,839	90,143	3,023	145,910	255,914	0.196	0.272	0.468
2009	567,515	0	14	0	137,561	0	75,109	212,670	0.242	0.132	0.375
2010	604,410	1	9	20,144	37,133	56,583	139,453	139,453	0.095	0.136	0.231
2011	615,306	1	17	59,349	68,760	118,959	107,665	354,732	0.208	0.368	0.577
MA Total:	2,872,705	5	59	226,691	387,252	196,413	427,024	1,237,381	0.214	0.217	0.431

	Pure Premium Relativities		
	Indemnity	Medical	Total
(13) Massachusetts Indicated Relativity:	0.235	0.337	.
(14) Massachusetts Credibility:	0.270	0.440	.
(15) Countrywide Pure Premium:	0.391	0.339	0.731
(16) Countrywide Indicated Relativity:	0.432	0.532	.
(17) Countrywide Credibility:	0.370	0.280	.
(18) Countrywide Lost-Time Claims:	483.00	.	.
(19) Pure Premium Underlying Present Rate:	0.313	0.267	0.580
(20) Relativity to Underlying Present Rate:	0.499	0.410	.
(21) Credibility to Underlying Relativity:	0.360	0.280	.
(22) Industry Group Converted Pure Premium:	0.908	0.644	1.552
(23) Formula Relativity:	0.403	0.412	.
(24) Balanced Formula Relativity:	0.399	0.412	0.404

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Section IX - Classification Pricing
 Subsection H - Industry Group Rate Change and Rate Level Factors
 1/1/2014

Section IX - H
 Exhibit 1

Calculation of Industry Group Rate Change and Limits

	Industry Group				
	Manufacturing	Construction	Office & Clerical	Goods & Services	Miscellaneous
(1) Industry Group Differential	0.885	0.990	1.046	1.024	1.066
(2) Experience and Benefit Level Change - Overall	7.7%	7.7%	7.7%	7.7%	7.7%
(3) Target Rate Change = (1) x [1.000 + (2)] - 1.000	-4.7%	6.7%	12.7%	10.3%	14.8%
(4) Benefit Level Change - Overall	1.3%	1.3%	1.3%	1.3%	1.3%
(5) Experience Change - Overall = {[1.000 + (2)] / [1.000 + (4)]} - 1.000	6.3%	6.3%	6.3%	6.3%	6.3%
(6) Experience Change - by Group = {(1) x [1.000 + (5)]} - 1.000	-5.9%	5.3%	11.3%	8.9%	13.4%
(7) 1/2 Experience Change - by Group = (6) / 2.000	-2.9%	2.7%	5.6%	4.4%	6.7%
(8) Maximum Rate Change = (4) + (7) + 20.0%	18.3%	23.9%	26.9%	25.7%	28.0%
(9) Minimum Rate Change = (4) + (7) - 20.0%	-21.7%	-16.1%	-13.1%	-14.3%	-12.0%
(10) Present Average Rate	2.330	5.468	0.156	1.777	4.860
(11) Uncapped Rate Level Factor = [1.000 + (3)] x (10)	2.222	5.833	0.176	1.960	5.581
(12) Capped Rate Level Factor	2.310	5.929	0.192	1.965	5.739

In addition, the WCRIBMA is limiting the increase in average rates for any class to \$15.00 and no average rate shall exceed \$90.00 per \$100.00 of payroll.

Notes:

- (1): Exhibit 2.
- (2): Indicated Rate Change, from Section I-A, Exhibit 1.
- (4): Section IV - A, Exhibit 1.
- (10): Rates by class consistent with the 09/01/10 stipulation, weighted by five years of exposure.
- (12): Proposed average uncapped rates are capped by an iterative process using rate levels to determine if the required change is achieved.

Calculation of Massachusetts Industry Group Differentials
 Excluding Large Deductibles

Industry Group (1)	Expected Losses (2)	Converted Unlimited Losses (3)	Industry Group Differential = (3) / (2) (4)	Lost-Time Cases (5)	Full Standard for Credibility Lost-Time Cases (6)	Credibility (7)	Credibility Weighted (8)	Balanced Industry Group Differential = (8) / 1.186 (9)
Manufacturing	462,244,030	481,889,243	1.042	10,830	12,000	0.950	1.050	0.885
Construction	917,705,174	1,077,716,231	1.174	12,639	12,000	1.000	1.174	0.990
Office & Clerical	349,987,621	435,186,935	1.243	10,835	12,000	0.950	1.241	1.046
Goods & Services	893,506,543	1,084,808,216	1.214	28,960	12,000	1.000	1.214	1.024
Miscellaneous	364,696,450	465,424,865	1.276	9,023	12,000	0.867	1.264	1.066
All	2,988,139,818	3,545,025,490	1.186			1.000	1.186	1.000

Notes:

(2): Five Years of Exposure x Pure Premium Underlying Present Rate from Section IX - F.

(3): Section IX - C. Goods and Services includes Per Capita classes.

(7) = $\text{Min} (1.0 , [(5)/(6)]^{0.5})$

(8) = $[(7) \times (4)] + [(1.0 - (7)) \times (4) \text{ Total}]$

(8) Total = $\text{sum} [(2) \times (8)] / (2) \text{ Total}$

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Section IX - Classification Pricing
 Subsection I - Average Uncapped Rates
 1/1/2014

Section IX - I
 Exhibit 1

Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
0005	1.436	1.535	1.477	1.960	2.89
0008	1.330	1.479	1.392	1.960	2.73
0016	2.116	2.330	2.205	1.960	4.32
0034	1.903	2.594	2.190	1.960	4.29
0035	1.150	1.219	1.179	1.960	2.31
0036	1.903	2.594	2.190	1.960	4.29
0037	1.330	1.479	1.392	1.960	2.73
0042	2.225	2.502	2.340	1.960	4.59
0046	1.023	1.139	1.071	1.960	2.10
0050	1.268	1.039	1.187	5.833	6.92
0079	1.419	1.551	1.474	1.960	2.89
0083	2.243	3.824	2.899	1.960	5.68
0106	2.301	3.922	2.912	5.581	16.25
0113	1.903	2.594	2.190	1.960	4.29
0170	1.903	2.594	2.190	1.960	4.29
0251	0.748	0.734	0.743	5.581	4.14
0908	103.006	86.455	96.140	1.960	94.20
0909	112.768	257.965	173.001	1.960	169.51
0912	112.768	257.965	173.001	1.960	339.01
0913	103.006	86.455	96.140	1.960	188.40
0917	1.793	2.110	1.924	1.960	3.77
0918	0.473	0.216	0.366	1.960	0.72
1430	3.674	2.124	3.041	2.222	6.76
1438	1.637	1.632	1.635	2.222	3.63
1463	5.429	4.254	4.949	2.222	11.00
1624	1.051	0.875	0.984	5.581	5.49
1655	0.943	1.099	1.002	5.581	5.59
1701	2.052	1.479	1.818	2.222	4.04
1710	1.051	0.875	0.984	5.581	5.49
1747	1.416	1.328	1.380	2.222	3.07
1748	1.516	1.615	1.557	2.222	3.46
1852	4.073	1.895	3.184	2.222	7.07
1853	0.895	0.531	0.746	2.222	1.66
1860	1.117	1.005	1.071	2.222	2.38
1924	0.969	0.880	0.932	2.222	2.07
1925	1.536	1.586	1.557	2.222	3.46
2001	1.651	1.927	1.763	2.222	3.92
2002	1.506	1.871	1.655	2.222	3.68
2003	1.651	1.927	1.763	2.222	3.92
2014	1.768	1.788	1.776	2.222	3.95
2021	1.635	1.491	1.576	2.222	3.50
2039	1.172	1.012	1.106	2.222	2.46

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Section IX - Classification Pricing
 Subsection I - Average Uncapped Rates
 1/1/2014

Section IX - I
 Exhibit 1

Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
2041	1.264	1.151	1.218	2.222	2.71
2070	2.084	1.941	2.026	2.222	4.50
2081	1.472	2.109	1.732	2.222	3.85
2089	1.247	1.106	1.189	2.222	2.64
2095	1.910	1.736	1.839	2.222	4.09
2101	1.247	1.106	1.189	2.222	2.64
2111	1.159	1.081	1.127	2.222	2.50
2114	1.247	1.106	1.189	2.222	2.64
2115	1.684	2.026	1.823	2.222	4.05
2121	0.774	0.813	0.790	2.222	1.76
2130	1.124	0.988	1.068	2.222	2.37
2131	1.059	1.020	1.043	2.222	2.32
2143	1.060	1.155	1.099	2.222	2.44
2150	2.801	2.879	2.833	2.222	6.29
2156	3.417	2.714	3.130	2.222	6.95
2157	2.508	2.204	2.384	2.222	5.30
2172	1.391	0.856	1.172	2.222	2.60
2174	1.816	1.368	1.633	2.222	3.63
2211	2.782	3.332	3.007	2.222	6.68
2220	1.313	1.490	1.385	2.222	3.08
2260	3.610	2.597	3.197	2.222	7.10
2286	1.313	1.490	1.385	2.222	3.08
2288	1.310	1.222	1.274	2.222	2.83
2302	1.313	1.490	1.385	2.222	3.08
2305	1.427	1.135	1.308	2.222	2.91
2362	0.938	1.022	0.972	2.222	2.16
2380	1.086	1.163	1.118	2.222	2.48
2402	1.160	1.033	1.108	2.222	2.46
2413	1.666	1.453	1.579	2.222	3.51
2416	1.207	1.220	1.212	2.222	2.69
2417	1.885	1.473	1.717	2.222	3.81
2501	1.015	0.955	0.991	2.222	2.20
2503	0.499	0.563	0.525	2.222	1.17
2534	1.015	0.955	0.991	2.222	2.20
2570	2.379	2.275	2.337	2.222	5.19
2576	1.241	1.011	1.147	2.222	2.55
2578	1.241	1.011	1.147	2.222	2.55
2585	1.538	1.834	1.659	2.222	3.69
2586	0.859	0.731	0.807	2.222	1.79
2587	2.234	2.367	2.290	1.960	4.49
2623	2.190	1.867	2.058	2.222	4.57
2640	0.919	0.986	0.946	2.222	2.10

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Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
2651	0.919	0.986	0.946	2.222	2.10
2660	0.883	0.999	0.931	2.222	2.07
2683	1.012	0.948	0.986	2.222	2.19
2688	1.320	1.323	1.322	2.222	2.94
2702	3.123	2.610	2.930	5.581	16.35
2710	3.236	3.906	3.509	2.222	7.80
2731	1.953	1.845	1.909	2.222	4.24
2741	2.774	2.057	2.481	2.222	5.51
2747	3.099	2.916	3.025	2.222	6.72
2790	0.757	0.827	0.786	2.222	1.75
2802	2.037	2.172	2.092	2.222	4.65
2835	0.936	0.920	0.929	2.222	2.06
2836	1.335	1.084	1.233	2.222	2.74
2841	2.101	1.537	1.871	2.222	4.16
2883	1.632	1.530	1.591	2.222	3.53
2923	0.787	0.775	0.782	2.222	1.74
2942	0.875	1.110	0.971	2.222	2.16
3018	1.776	1.474	1.653	2.222	3.67
3022	1.649	1.901	1.752	2.222	3.89
3027	1.491	1.372	1.443	2.222	3.21
3028	1.565	1.537	1.554	2.222	3.45
3030	3.189	4.067	3.547	2.222	7.88
3040	4.061	3.517	3.839	2.222	8.53
3041	2.298	2.345	2.317	2.222	5.15
3042	3.694	2.216	3.091	2.222	6.87
3064	1.392	1.330	1.367	2.222	3.04
3066	1.392	1.330	1.367	2.222	3.04
3076	1.156	1.420	1.264	2.222	2.81
3081	2.666	2.592	2.636	2.222	5.86
3082	2.666	2.592	2.636	2.222	5.86
3085	2.005	1.865	1.948	2.222	4.33
3110	3.201	3.406	3.285	2.222	7.30
3111	1.151	1.312	1.216	2.222	2.70
3113	0.932	0.773	0.867	2.222	1.93
3114	1.305	1.215	1.268	2.222	2.82
3118	0.932	0.773	0.867	2.222	1.93
3119	0.397	0.488	0.434	2.222	0.96
3120	0.938	0.595	0.798	2.222	1.77
3122	0.779	0.787	0.782	2.222	1.74
3127	0.372	0.486	0.418	2.222	0.93
3131	0.781	0.805	0.791	2.222	1.76
3132	1.713	1.969	1.818	2.222	4.04

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Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
3145	0.867	0.933	0.894	2.222	1.99
3146	0.917	0.869	0.898	2.222	1.99
3169	1.474	1.454	1.466	2.222	3.26
3179	0.632	0.487	0.573	2.222	1.27
3180	1.269	1.365	1.308	2.222	2.91
3188	1.165	1.026	1.108	2.222	2.46
3200	1.174	1.324	1.235	2.222	2.74
3220	1.635	1.404	1.541	2.222	3.42
3227	1.474	1.454	1.466	2.222	3.26
3241	0.969	0.880	0.932	2.222	2.07
3255	1.437	1.349	1.401	2.222	3.11
3257	1.408	1.187	1.318	2.222	2.93
3270	1.208	1.280	1.237	2.222	2.75
3300	2.454	2.272	2.380	2.222	5.29
3315	1.609	1.532	1.577	2.222	3.50
3336	1.830	1.551	1.716	2.222	3.81
3365	1.340	1.223	1.299	5.833	7.58
3372	1.148	1.255	1.191	2.222	2.65
3373	2.177	2.004	2.106	2.222	4.68
3381	1.392	1.395	1.393	2.222	3.10
3383	0.562	0.545	0.555	2.222	1.23
3385	0.413	0.410	0.411	2.222	0.91
3400	1.474	1.454	1.466	2.222	3.26
3507	1.417	1.552	1.472	2.222	3.27
3515	1.132	1.221	1.168	2.222	2.60
3548	0.727	0.752	0.737	2.222	1.64
3558	0.368	0.579	0.454	2.222	1.01
3559	0.727	0.752	0.737	2.222	1.64
3571	0.527	0.499	0.515	2.222	1.15
3574	0.727	0.752	0.737	2.222	1.64
3612	0.873	0.803	0.844	2.222	1.88
3620	2.558	3.916	3.112	2.222	6.91
3629	0.727	0.752	0.737	2.222	1.64
3632	0.727	0.752	0.737	2.222	1.64
3634	0.899	0.813	0.864	2.222	1.92
3635	1.411	1.994	1.649	2.222	3.66
3638	0.727	0.752	0.737	2.222	1.64
3642	0.627	0.469	0.563	2.222	1.25
3643	0.632	0.487	0.573	2.222	1.27
3647	1.100	1.135	1.114	2.222	2.48
3648	0.665	0.758	0.703	2.222	1.56
3681	0.349	0.357	0.352	2.222	0.78

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Calculation of Average Uncapped Rates
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Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
3685	0.349	0.357	0.352	2.222	0.78
3724	0.751	0.766	0.756	5.833	4.41
3726	2.305	1.750	2.109	5.833	12.30
3807	1.474	1.454	1.466	2.222	3.26
3808	1.677	1.375	1.554	2.222	3.45
3821	2.547	2.818	2.659	1.960	5.21
3826	2.388	2.427	2.404	2.222	5.34
3830	0.727	0.752	0.737	2.222	1.64
3841	0.781	0.859	0.813	2.222	1.81
4000	0.890	0.688	0.814	5.581	4.54
4021	2.068	2.080	2.073	2.222	4.60
4024	1.458	1.316	1.400	2.222	3.11
4034	2.681	2.992	2.808	2.222	6.24
4036	1.651	0.956	1.367	2.222	3.04
4038	1.197	1.106	1.160	2.222	2.58
4053	0.922	0.887	0.908	2.222	2.02
4061	0.945	1.270	1.078	2.222	2.39
4062	0.945	1.270	1.078	2.222	2.39
4112	0.350	0.307	0.333	2.222	0.74
4113	0.922	0.887	0.908	2.222	2.02
4114	1.235	1.005	1.141	2.222	2.54
4130	2.108	2.001	2.064	2.222	4.59
4133	0.844	0.865	0.853	2.222	1.89
4150	0.362	0.299	0.336	2.222	0.75
4239	1.415	1.472	1.438	2.222	3.19
4243	1.689	1.650	1.673	2.222	3.72
4244	1.518	1.711	1.597	2.222	3.55
4250	1.005	1.062	1.028	2.222	2.28
4251	0.992	0.861	0.939	2.222	2.09
4273	1.077	1.107	1.089	2.222	2.42
4279	1.185	1.226	1.202	2.222	2.67
4282	0.440	0.416	0.430	2.222	0.96
4283	1.279	1.102	1.207	2.222	2.68
4299	0.906	0.743	0.839	2.222	1.86
4301	2.818	2.413	2.653	2.222	5.89
4304	1.570	1.656	1.605	2.222	3.57
4307	0.787	0.755	0.774	2.222	1.72
4308	1.662	0.400	1.147	2.222	2.55
4350	0.312	0.250	0.287	2.222	0.64
4351	0.615	0.399	0.527	2.222	1.17
4352	0.416	0.488	0.446	2.222	0.99
4360	0.613	0.656	0.631	2.222	1.40

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Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
4361	4.002	4.467	4.203	0.176	0.74
4362	0.368	0.352	0.361	1.960	0.71
4410	1.935	1.778	1.871	2.222	4.16
4417	2.457	2.147	2.331	2.222	5.18
4432	0.563	0.542	0.554	2.222	1.23
4439	1.651	1.942	1.770	2.222	3.93
4452	1.761	1.627	1.706	2.222	3.79
4459	1.358	1.620	1.465	2.222	3.25
4470	1.152	0.967	1.077	2.222	2.39
4484	1.049	1.101	1.070	2.222	2.38
4493	1.365	1.610	1.465	2.222	3.25
4511	0.177	0.156	0.168	1.960	0.33
4512	0.071	0.078	0.074	1.960	0.15
4557	0.913	0.857	0.890	2.222	1.98
4558	0.727	0.757	0.739	2.222	1.64
4561	1.651	1.942	1.770	2.222	3.93
4583	1.694	1.374	1.563	2.222	3.47
4611	0.526	0.564	0.542	2.222	1.20
4635	1.745	1.935	1.823	2.222	4.05
4653	0.997	0.834	0.930	2.222	2.07
4665	3.619	3.477	3.561	2.222	7.91
4692	0.378	0.236	0.320	2.222	0.71
4693	0.461	0.468	0.464	2.222	1.03
4720	0.808	0.864	0.831	2.222	1.85
4740	0.464	0.387	0.433	2.222	0.96
4741	1.357	0.977	1.202	2.222	2.67
4770	8.423	1.294	5.514	2.222	12.25
4773	17.132	2.429	11.133	2.222	24.73
4774	14.055	2.257	9.241	2.222	20.53
4775	42.692	41.381	42.157	2.222	93.66
4776	12.647	1.240	7.993	2.222	17.76
4777	1.694	1.374	1.563	2.222	3.47
4779	9.401	2.463	6.570	2.222	14.60
4799	31.020	4.771	20.310	2.222	45.12
4825	0.349	0.392	0.366	2.222	0.81
4828	0.587	0.467	0.538	2.222	1.20
4829	0.587	0.467	0.538	2.222	1.20
4902	0.875	1.110	0.971	2.222	2.16
4923	0.613	0.656	0.631	2.222	1.40
5020	1.162	0.856	1.054	5.833	6.15
5022	1.677	1.411	1.583	5.833	9.23
5037	4.207	3.132	3.827	5.833	22.32

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Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
5040	13.306	10.322	12.253	5.833	71.47
5057	4.459	4.962	4.637	5.833	27.04
5059	4.459	4.962	4.637	5.833	27.04
5069	4.459	4.962	4.637	5.833	27.04
5102	1.183	0.854	1.067	5.833	6.22
5146	1.065	1.177	1.104	5.833	6.44
5160	0.667	0.583	0.637	5.833	3.72
5183	0.626	0.570	0.606	5.833	3.53
5188	0.991	0.917	0.965	5.833	5.63
5190	0.499	0.533	0.511	5.833	2.98
5191	0.593	0.588	0.591	1.960	1.16
5192	1.962	1.656	1.835	1.960	3.60
5213	2.627	2.309	2.515	5.833	14.67
5215	0.887	0.858	0.877	5.833	5.11
5221	1.258	1.230	1.248	5.833	7.28
5222	1.889	1.611	1.791	5.833	10.45
5223	0.887	0.858	0.877	5.833	5.11
5348	1.187	0.957	1.106	5.833	6.45
5402	1.672	1.992	1.785	5.833	10.41
5403	2.137	2.050	2.106	5.833	12.28
5437	0.936	0.834	0.900	5.833	5.25
5443	0.775	0.812	0.788	5.833	4.60
5445	1.483	1.218	1.390	5.833	8.11
5462	1.340	1.016	1.226	5.833	7.15
5472	1.984	1.594	1.846	5.833	10.77
5473	1.796	1.969	1.857	5.833	10.83
5474	1.083	1.164	1.111	5.833	6.48
5478	1.300	1.033	1.206	5.833	7.03
5479	1.310	1.911	1.522	5.833	8.88
5480	1.027	0.833	0.959	5.833	5.59
5506	1.332	1.312	1.325	5.833	7.73
5507	1.348	1.423	1.374	5.833	8.02
5508	1.268	1.039	1.187	5.833	6.92
5509	0.580	0.611	0.591	5.833	3.45
5538	0.930	0.908	0.922	5.833	5.38
5545	6.663	8.985	7.482	5.833	43.64
5547	2.589	3.437	2.888	5.833	16.85
5606	0.355	0.363	0.358	5.833	2.09
5610	1.431	1.077	1.306	5.833	7.62
5645	1.365	1.617	1.454	5.833	8.48
5651	1.365	1.617	1.454	5.833	8.48
5701	3.323	5.631	4.137	5.833	24.13

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Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
5703	3.913	2.934	3.567	5.833	20.81
5705	1.768	1.948	1.831	5.833	10.68
6003	2.096	1.588	1.917	5.833	11.18
6005	1.268	1.039	1.187	5.833	6.92
6204	1.810	1.434	1.677	5.833	9.78
6217	0.867	0.874	0.869	5.833	5.07
6229	0.867	0.874	0.869	5.833	5.07
6233	0.930	0.630	0.824	5.833	4.81
6251	1.365	0.684	1.125	5.833	6.56
6252	1.786	1.629	1.731	5.833	10.09
6306	1.747	1.669	1.720	5.833	10.03
6319	0.823	0.952	0.868	5.833	5.06
6325	1.094	1.289	1.163	5.833	6.78
6400	1.199	1.236	1.212	5.833	7.07
6504	1.247	1.106	1.189	2.222	2.64
6834	0.529	0.455	0.501	5.581	2.80
6836	0.659	0.667	0.662	5.581	3.69
7219	2.005	1.734	1.903	5.581	10.62
7230	1.521	1.338	1.452	5.581	8.11
7231	2.092	1.855	2.002	5.581	11.17
7360	1.297	1.191	1.257	5.581	7.02
7370	0.808	0.958	0.864	5.581	4.82
7380	1.149	1.122	1.139	5.581	6.35
7382	0.688	0.812	0.735	5.581	4.10
7403	0.807	1.074	0.908	5.581	5.07
7405	0.352	0.357	0.354	5.581	1.97
7420	1.919	0.765	1.484	5.581	8.28
7421	0.454	0.260	0.381	5.581	2.12
7422	0.454	0.260	0.381	5.581	2.12
7425	0.800	0.406	0.651	5.581	3.63
7431	0.454	0.260	0.381	5.581	2.12
7502	0.531	0.603	0.558	5.581	3.11
7515	0.346	0.578	0.434	5.581	2.42
7520	0.748	0.734	0.743	5.581	4.14
7538	1.072	1.003	1.048	5.833	6.11
7539	0.302	0.262	0.287	5.581	1.60
7580	0.537	0.630	0.572	5.581	3.19
7590	1.057	0.904	1.000	5.581	5.58
7600	0.938	0.769	0.874	5.581	4.88
7601	1.072	1.003	1.048	5.833	6.11
7610	2.712	1.972	2.392	0.176	0.42
7704	0.646	0.822	0.712	5.581	3.98

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Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
7720	0.365	0.373	0.368	5.581	2.05
7855	1.097	0.784	0.986	5.833	5.75
8001	0.968	1.048	1.001	1.960	1.96
8002	0.898	1.117	0.989	1.960	1.94
8006	0.843	0.961	0.892	1.960	1.75
8008	0.436	0.430	0.434	1.960	0.85
8010	0.815	0.882	0.843	1.960	1.65
8013	0.233	0.280	0.253	1.960	0.49
8017	0.603	0.686	0.637	1.960	1.25
8018	1.693	1.603	1.656	1.960	3.24
8021	1.656	1.526	1.602	1.960	3.14
8031	1.486	1.273	1.397	1.960	2.74
8032	0.879	0.838	0.862	1.960	1.69
8033	1.077	1.131	1.100	1.960	2.15
8034	2.249	1.961	2.130	1.960	4.17
8039	0.632	0.711	0.665	1.960	1.30
8044	1.938	2.740	2.271	1.960	4.45
8046	1.250	1.490	1.350	1.960	2.64
8048	1.640	1.469	1.569	1.960	3.07
8050	0.861	0.933	0.891	1.960	1.75
8058	1.337	1.655	1.469	1.960	2.88
8103	1.745	1.607	1.688	1.960	3.31
8105	2.663	2.362	2.538	1.960	4.97
8106	3.662	4.417	3.976	1.960	7.79
8107	1.632	1.656	1.642	1.960	3.22
8111	1.417	1.599	1.493	1.960	2.92
8116	1.632	1.656	1.642	1.960	3.22
8203	3.067	3.389	3.200	1.960	6.27
8204	3.236	2.143	2.782	1.960	5.45
8215	1.954	1.670	1.836	1.960	3.60
8227	0.773	0.901	0.818	5.833	4.77
8232	2.792	2.578	2.704	1.960	5.30
8233	3.211	3.062	3.149	1.960	6.17
8235	2.416	2.347	2.387	1.960	4.68
8263	3.653	3.428	3.560	1.960	6.98
8264	3.448	2.820	3.187	1.960	6.25
8265	3.211	3.062	3.149	1.960	6.17
8279	2.626	3.516	2.995	1.960	5.87
8291	2.549	2.523	2.538	1.960	4.97
8292	1.749	1.619	1.695	1.960	3.32
8293	5.533	6.149	5.789	1.960	11.34
8350	3.618	2.931	3.333	1.960	6.53

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Section IX - Classification Pricing
 Subsection I - Average Uncapped Rates
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Section IX - I
 Exhibit 1

Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
8380	1.711	1.610	1.669	1.960	3.27
8381	0.979	1.299	1.112	1.960	2.18
8385	1.753	1.436	1.621	1.960	3.18
8392	0.884	0.921	0.899	1.960	1.76
8393	1.173	0.951	1.081	1.960	2.12
8500	3.211	3.062	3.149	1.960	6.17
8601	1.866	1.612	1.756	0.176	0.31
8710	2.033	2.045	2.038	1.960	3.99
8719	2.033	2.045	2.038	1.960	3.99
8720	0.523	0.446	0.491	1.960	0.96
8721	1.607	4.043	2.662	0.176	0.47
8742	1.094	1.022	1.063	0.176	0.19
8745	2.334	2.361	2.345	1.960	4.60
8747	0.533	0.592	0.557	1.960	1.09
8748	3.927	3.700	3.829	0.176	0.67
8800	8.141	8.711	8.388	0.176	1.47
8803	0.244	0.226	0.236	0.176	0.04
8810	0.417	0.465	0.438	0.176	0.08
8820	0.634	0.501	0.577	0.176	0.10
8829	1.248	1.081	1.179	1.960	2.31
8831	0.452	0.866	0.624	1.960	1.22
8832	1.795	1.444	1.643	0.176	0.29
8833	8.083	6.634	7.456	0.176	1.31
8835	1.204	0.986	1.114	1.960	2.18
8868	4.971	5.625	5.254	0.176	0.92
8901	0.417	0.465	0.438	0.176	0.08
9014	1.538	1.361	1.465	1.960	2.87
9015	1.891	1.647	1.790	1.960	3.51
9016	0.993	1.513	1.209	1.960	2.37
9019	0.399	0.248	0.342	5.581	1.91
9033	2.309	1.623	2.025	1.960	3.97
9040	1.550	1.377	1.478	1.960	2.90
9052	0.877	0.922	0.896	1.960	1.76
9058	0.877	0.922	0.896	1.960	1.76
9060	0.509	0.657	0.571	1.960	1.12
9061	0.527	0.577	0.548	1.960	1.07
9063	0.357	0.475	0.406	1.960	0.80
9079	0.602	0.731	0.656	1.960	1.28
9089	0.662	0.733	0.691	1.960	1.36
9093	0.530	0.859	0.667	1.960	1.31
9101	1.836	1.988	1.899	1.960	3.72
9102	0.496	0.616	0.541	5.581	3.02

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Section IX - Classification Pricing
Subsection I - Average Uncapped Rates
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Section IX - I
Exhibit 1

Calculation of Average Uncapped Rates All Industry Groups

Class (1)	Balanced Formula Relativity			Uncapped Rate Level Factor (6)	Proposed Average Uncapped Rate (7)
	Indemnity (2)	Medical (4)	Total (5)		
9154	0.301	0.351	0.320	5.581	1.79
9156	8.022	8.808	8.362	0.176	1.47
9178	1.098	3.605	2.044	5.581	11.41
9179	4.903	4.378	4.705	5.581	26.26
9180	0.650	1.080	0.812	5.581	4.53
9182	0.484	1.293	0.789	5.581	4.40
9186	0.650	1.080	0.812	5.581	4.53
9220	1.975	1.721	1.869	1.960	3.66
9402	1.029	0.961	1.004	5.581	5.60
9403	1.897	1.835	1.873	5.581	10.46
9410	1.173	1.813	1.438	1.960	2.82
9501	1.129	1.565	1.307	2.222	2.90
9505	1.129	1.565	1.307	2.222	2.90
9519	1.738	1.811	1.768	1.960	3.46
9521	1.719	1.194	1.505	2.222	3.34
9522	0.944	0.781	0.878	2.222	1.95
9533	3.086	1.947	2.684	5.833	15.65
9534	1.367	1.261	1.330	5.833	7.76
9545	0.799	0.759	0.785	5.833	4.58
9549	0.791	0.950	0.847	5.833	4.94
9552	1.632	1.262	1.501	5.833	8.76
9553	1.632	1.262	1.501	5.833	8.76
9586	0.259	0.219	0.243	1.960	0.48
9620	0.399	0.412	0.404	1.960	0.79

Notes:

(2), (3), (4), (5): Section IX - G.

(6): Section IX - H, Exhibit 1.

(7) = (5) x (6)

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Section IX - Classification Pricing
Subsection J - Average Rates and Proposed Premium Change
1/1/2014

Section IX - J
Exhibit 1

Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
0005	2.95	2.89	2.90
0008	2.45	2.73	2.73
0016	3.67	4.32	4.33
0034	3.81	4.29	4.30
0035	2.08	2.31	2.32
0036	3.81	4.29	4.30
0037	2.45	2.73	2.73
0042	4.22	4.59	4.60
0046	2.97	2.10	2.55
0050	5.95	6.92	7.04
0079	2.97	2.89	2.90
0083	5.43	5.68	5.70
0106	15.31	16.25	16.71
0113	3.81	4.29	4.30
0170	3.81	4.29	4.30
0251	3.29	4.14	4.21
0908	98.54	94.20	94.45
0909	140.84	169.51	169.95
0912	281.69	339.01	339.90
0913	197.07	188.40	188.89
0917	2.66	3.77	3.34
0918	0.66	0.72	0.72
1430	12.61	6.76	9.88
1438	3.24	3.63	3.78
1463	7.87	11.00	9.32
1624	5.57	5.49	5.65
1655	6.37	5.59	5.75
1701	5.21	4.04	4.20
1710	5.57	5.49	5.65
1747	4.36	3.07	3.42
1748	3.54	3.46	3.60
1852	8.12	7.07	7.36
1853	1.91	1.66	1.72
1860	2.84	2.38	2.47
1924	2.82	2.07	2.21
1925	4.70	3.46	3.68
2001	3.48	3.92	4.07
2002	4.01	3.68	3.82
2003	3.48	3.92	4.07
2014	4.10	3.95	4.10
2021	3.52	3.50	3.64
2039	3.02	2.46	2.56
2041	2.74	2.71	2.81
2070	4.55	4.50	4.68
2081	4.21	3.85	4.00
2089	2.70	2.64	2.75
2095	4.57	4.09	4.25
2101	2.70	2.64	2.75

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Section IX - Classification Pricing
 Subsection J - Average Rates and Proposed Premium Change
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Section IX - J
 Exhibit 1

Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
2111	2.84	2.50	2.60
2114	2.70	2.64	2.75
2115	3.51	4.05	4.15
2121	2.32	1.76	1.83
2130	2.89	2.37	2.47
2131	2.54	2.32	2.41
2143	3.32	2.44	2.60
2150	5.58	6.29	6.54
2156	8.48	6.95	7.23
2157	6.15	5.30	5.51
2172	1.72	2.60	2.04
2174	4.88	3.63	3.83
2211	6.42	6.68	6.95
2220	3.83	3.08	3.20
2260	6.29	7.10	7.38
2286	3.83	3.08	3.20
2288	2.30	2.83	2.72
2302	3.83	3.08	3.20
2305	2.07	2.91	2.46
2362	2.55	2.16	2.25
2380	3.11	2.48	2.58
2402	3.29	2.46	2.58
2413	3.82	3.51	3.65
2416	3.49	2.69	2.80
2417	3.28	3.81	3.88
2501	2.55	2.20	2.29
2503	1.08	1.17	1.21
2534	2.55	2.20	2.29
2570	5.16	5.19	5.40
2576	3.47	2.55	2.72
2578	3.47	2.55	2.72
2585	3.02	3.69	3.57
2586	1.64	1.79	1.86
2587	2.59	4.49	3.26
2623	3.67	4.57	4.35
2640	2.64	2.10	2.19
2651	2.64	2.10	2.19
2660	2.23	2.07	2.15
2683	2.31	2.19	2.28
2688	2.84	2.94	3.05
2702	16.20	16.35	16.81
2710	6.90	7.80	8.11
2731	5.04	4.24	4.41
2741	6.50	5.51	5.73
2747	8.32	6.72	6.99
2790	2.42	1.75	1.90
2802	4.84	4.65	4.83
2835	2.40	2.06	2.15

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Section IX - Classification Pricing
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Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
2836	3.45	2.74	2.85
2841	3.99	4.16	4.32
2883	3.93	3.53	3.67
2923	2.13	1.74	1.81
2942	2.42	2.16	2.24
3018	3.04	3.67	3.60
3022	4.21	3.89	4.05
3027	5.12	3.21	4.01
3028	4.65	3.45	3.65
3030	8.92	7.88	8.19
3040	8.13	8.53	8.87
3041	4.92	5.15	5.35
3042	4.82	6.87	5.71
3064	3.22	3.04	3.16
3066	3.22	3.04	3.16
3076	2.86	2.81	2.92
3081	8.85	5.86	6.93
3082	8.85	5.86	6.93
3085	5.29	4.33	4.50
3110	9.01	7.30	7.59
3111	2.76	2.70	2.81
3113	2.36	1.93	2.00
3114	3.89	2.82	3.05
3118	2.36	1.93	2.00
3119	1.11	0.96	1.00
3120	2.09	1.77	1.84
3122	2.81	1.74	2.20
3127	0.96	0.93	0.97
3131	2.30	1.76	1.83
3132	2.82	4.04	3.34
3145	2.09	1.99	2.06
3146	2.26	1.99	2.07
3169	4.65	3.26	3.65
3179	1.82	1.27	1.42
3180	3.11	2.91	3.02
3188	3.68	2.46	2.88
3200	3.42	2.74	2.85
3220	2.09	3.42	2.48
3227	4.65	3.26	3.65
3241	2.82	2.07	2.21
3255	3.73	3.11	3.24
3257	3.29	2.93	3.04
3270	2.09	2.75	2.48
3300	7.64	5.29	5.99
3315	2.93	3.50	3.46
3336	3.47	3.81	3.96
3365	9.58	7.58	8.04
3372	2.63	2.65	2.75

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Section IX - Classification Pricing
Subsection J - Average Rates and Proposed Premium Change
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Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
3373	3.95	4.68	4.67
3381	3.64	3.10	3.22
3383	1.50	1.23	1.28
3385	0.92	0.91	0.95
3400	4.65	3.26	3.65
3507	3.62	3.27	3.40
3515	3.13	2.60	2.70
3548	2.09	1.64	1.70
3558	0.65	1.01	0.77
3559	2.09	1.64	1.70
3571	1.34	1.15	1.19
3574	2.09	1.64	1.70
3612	2.11	1.88	1.95
3620	5.31	6.91	6.29
3629	2.09	1.64	1.70
3632	2.09	1.64	1.70
3634	2.05	1.92	2.00
3635	4.20	3.66	3.81
3638	2.09	1.64	1.70
3642	1.16	1.25	1.30
3643	1.82	1.27	1.42
3647	3.03	2.48	2.57
3648	1.89	1.56	1.62
3681	0.88	0.78	0.81
3685	0.88	0.78	0.81
3724	5.42	4.41	4.55
3726	15.27	12.30	12.82
3807	4.65	3.26	3.65
3808	4.16	3.45	3.59
3821	4.22	5.21	5.22
3826	2.55	5.34	3.02
3830	2.09	1.64	1.70
3841	1.97	1.81	1.88
4000	5.04	4.54	4.67
4021	4.20	4.60	4.79
4024	3.42	3.11	3.23
4034	6.11	6.24	6.49
4036	2.96	3.04	3.16
4038	2.59	2.58	2.68
4053	2.22	2.02	2.10
4061	3.26	2.39	2.56
4062	3.26	2.39	2.56
4112	0.70	0.74	0.77
4113	2.22	2.02	2.10
4114	2.89	2.54	2.64
4130	5.49	4.59	4.77
4133	2.17	1.89	1.97
4150	1.10	0.75	0.86

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Section IX - Classification Pricing
Subsection J - Average Rates and Proposed Premium Change
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Section IX - J
Exhibit 1

Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
4239	3.71	3.19	3.32
4243	3.27	3.72	3.86
4244	4.17	3.55	3.69
4250	2.05	2.28	2.37
4251	2.05	2.09	2.17
4273	3.37	2.42	2.64
4279	3.98	2.67	3.12
4282	0.76	0.96	0.90
4283	3.23	2.68	2.79
4299	2.35	1.86	1.94
4301	4.36	5.89	5.16
4304	4.28	3.57	3.71
4307	1.53	1.72	1.79
4308	1.00	2.55	1.19
4350	0.69	0.64	0.66
4351	1.03	1.17	1.22
4352	1.22	0.99	1.03
4360	1.27	1.40	1.46
4361	0.50	0.74	0.64
4362	0.68	0.71	0.71
4410	4.97	4.16	4.32
4417	5.78	5.18	5.38
4432	1.39	1.23	1.28
4439	2.58	3.93	3.05
4452	3.24	3.79	3.83
4459	3.34	3.25	3.38
4470	3.14	2.39	2.49
4484	2.68	2.38	2.47
4493	3.63	3.25	3.38
4511	0.37	0.33	0.33
4512	0.15	0.15	0.15
4557	1.62	1.98	1.92
4558	1.93	1.64	1.71
4561	2.58	3.93	3.05
4583	3.59	3.47	3.61
4611	1.74	1.20	1.36
4635	3.59	4.05	4.21
4653	3.43	2.07	2.69
4665	9.35	7.91	8.23
4692	0.62	0.71	0.73
4693	1.08	1.03	1.07
4720	2.08	1.85	1.92
4740	1.37	0.96	1.07
4741	3.65	2.67	2.86
4770	12.19	12.25	12.74
4773	24.56	24.73	25.72
4774	20.46	20.53	21.35
4775	18.32	93.66	21.69

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Section IX - Classification Pricing
 Subsection J - Average Rates and Proposed Premium Change
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Section IX - J
 Exhibit 1

Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
4776	17.47	17.76	18.46
4777	3.59	3.47	3.61
4779	15.84	14.60	15.18
4799	44.91	45.12	46.91
4825	0.65	0.81	0.77
4828	1.40	1.20	1.24
4829	1.40	1.20	1.24
4902	2.42	2.16	2.24
4923	1.27	1.40	1.46
5020	6.19	6.15	6.25
5022	10.45	9.23	9.39
5037	23.28	22.32	22.69
5040	53.55	71.47	66.38
5057	32.68	27.04	27.49
5059	32.68	27.04	27.49
5069	32.68	27.04	27.49
5102	6.82	6.22	6.33
5146	5.29	6.44	6.55
5160	4.17	3.72	3.78
5183	3.46	3.53	3.59
5188	4.09	5.63	5.07
5190	2.81	2.98	3.03
5191	1.02	1.16	1.16
5192	4.22	3.60	3.62
5213	18.67	14.67	15.67
5215	5.28	5.11	5.20
5221	6.18	7.28	7.40
5222	8.62	10.45	10.62
5223	5.28	5.11	5.20
5348	5.75	6.45	6.56
5402	11.38	10.41	10.58
5403	9.52	12.28	11.80
5437	5.18	5.25	5.34
5443	5.22	4.60	4.67
5445	7.17	8.11	8.24
5462	9.48	7.15	7.96
5472	8.67	10.77	10.74
5473	12.48	10.83	11.01
5474	5.04	6.48	6.25
5478	4.63	7.03	5.74
5479	7.70	8.88	9.02
5480	4.64	5.59	5.68
5506	6.98	7.73	7.86
5507	6.98	8.02	8.15
5508	5.95	6.92	7.04
5509	3.40	3.45	3.50
5538	5.66	5.38	5.47
5545	30.68	43.64	38.03

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Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
5547	16.91	16.85	17.12
5606	1.60	2.09	1.99
5610	5.37	7.62	6.66
5645	8.60	8.48	8.62
5651	8.60	8.48	8.62
5701	23.52	24.13	24.53
5703	26.46	20.81	22.21
5705	11.05	10.68	10.86
6003	12.79	11.18	11.36
6005	5.95	6.92	7.04
6204	9.57	9.78	9.95
6217	4.30	5.07	5.16
6229	4.30	5.07	5.16
6233	3.78	4.81	4.69
6251	5.93	6.56	6.67
6252	7.75	10.09	9.61
6306	7.54	10.03	9.34
6319	4.82	5.06	5.15
6325	4.34	6.78	5.38
6400	6.98	7.07	7.19
6504	2.70	2.64	2.75
6834	3.11	2.80	2.88
6836	2.54	3.69	3.26
7219	8.66	10.62	10.92
7230	6.53	8.11	8.34
7231	6.62	11.17	8.48
7360	5.73	7.02	7.22
7370	4.81	4.82	4.96
7380	5.97	6.35	6.53
7382	4.28	4.10	4.22
7403	4.94	5.07	5.21
7405	1.29	1.97	1.65
7420	6.13	8.28	7.85
7421	2.11	2.12	2.18
7422	2.11	2.12	2.18
7425	3.50	3.63	3.74
7431	2.11	2.12	2.18
7502	4.01	3.11	3.52
7515	2.38	2.42	2.49
7520	3.29	4.14	4.21
7538	5.34	6.11	6.21
7539	1.23	1.60	1.58
7580	2.58	3.19	3.28
7590	6.62	5.58	5.82
7600	3.37	4.88	4.32
7601	5.34	6.11	6.21
7610	0.19	0.42	0.24
7704	1.89	3.98	2.41

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Section IX - Classification Pricing
 Subsection J - Average Rates and Proposed Premium Change
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Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
7720	1.80	2.05	2.11
7855	6.10	5.75	5.85
8001	1.53	1.96	1.92
8002	2.37	1.94	2.04
8006	1.59	1.75	1.75
8008	0.66	0.85	0.83
8010	1.60	1.65	1.66
8013	0.47	0.49	0.50
8017	1.20	1.25	1.25
8018	3.28	3.24	3.25
8021	2.86	3.14	3.15
8031	2.75	2.74	2.75
8032	1.58	1.69	1.69
8033	1.98	2.15	2.16
8034	4.05	4.17	4.18
8039	1.69	1.30	1.45
8044	3.35	4.45	4.21
8046	2.48	2.64	2.65
8048	3.42	3.07	3.08
8050	1.76	1.75	1.75
8058	2.84	2.88	2.89
8103	3.13	3.31	3.32
8105	4.77	4.97	4.99
8106	7.72	7.79	7.81
8107	4.16	3.22	3.56
8111	3.49	2.92	2.99
8116	4.16	3.22	3.56
8203	6.02	6.27	6.29
8204	5.67	5.45	5.47
8215	3.23	3.60	3.61
8227	3.89	4.77	4.82
8232	4.63	5.30	5.31
8233	9.18	6.17	7.87
8235	3.97	4.68	4.69
8263	6.21	6.98	6.99
8264	4.88	6.25	6.14
8265	9.18	6.17	7.87
8279	4.56	5.87	5.73
8291	4.34	4.97	4.99
8292	4.03	3.32	3.45
8293	8.66	11.34	10.88
8350	6.02	6.53	6.55
8380	2.56	3.27	3.22
8381	1.76	2.18	2.18
8385	3.46	3.18	3.19
8392	1.29	1.76	1.62
8393	1.97	2.12	2.12
8500	9.18	6.17	7.87

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Section IX - Classification Pricing
Subsection J - Average Rates and Proposed Premium Change
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Section IX - J
Exhibit 1

Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
8601	0.27	0.31	0.34
8710	2.28	3.99	2.86
8719	2.28	3.99	2.86
8720	1.06	0.96	0.96
8721	0.17	0.47	0.22
8742	0.16	0.19	0.20
8745	3.43	4.60	4.31
8747	1.20	1.09	1.10
8748	0.47	0.67	0.59
8800	0.79	1.47	1.00
8803	0.04	0.04	0.05
8810	0.09	0.08	0.08
8820	0.09	0.10	0.11
8829	2.15	2.31	2.32
8831	1.21	1.22	1.23
8832	0.23	0.29	0.29
8833	1.12	1.31	1.42
8835	2.13	2.18	2.19
8868	0.64	0.92	0.81
8901	0.09	0.08	0.08
9014	2.46	2.87	2.88
9015	2.85	3.51	3.52
9016	1.65	2.37	2.07
9019	3.79	1.91	3.34
9033	4.88	3.97	4.18
9040	3.08	2.90	2.90
9052	1.56	1.76	1.76
9058	1.56	1.76	1.76
9060	1.18	1.12	1.12
9061	1.01	1.07	1.08
9063	0.70	0.80	0.80
9079	1.12	1.28	1.29
9089	1.29	1.36	1.36
9093	1.16	1.31	1.31
9101	3.32	3.72	3.73
9102	2.35	3.02	3.00
9154	1.26	1.79	1.61
9156	1.14	1.47	1.45
9178	18.51	11.41	16.28
9179	25.03	26.26	27.00
9180	4.16	4.53	4.66
9182	3.53	4.40	4.52
9186	4.16	4.53	4.66
9220	3.65	3.66	3.67
9402	5.14	5.60	5.76
9403	8.12	10.46	10.40
9410	2.03	2.82	2.55
9501	3.29	2.90	3.02

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Section IX - Classification Pricing
Subsection J - Average Rates and Proposed Premium Change
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Section IX - J
Exhibit 1

Comparison of Average Rates All Industry Groups

Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
9505	3.29	2.90	3.02
9519	2.64	3.46	3.32
9521	4.74	3.34	3.71
9522	2.06	1.95	2.03
9533	20.72	15.65	17.39
9534	5.55	7.76	6.88
9545	4.06	4.58	4.66
9549	5.07	4.94	5.02
9552	8.73	8.76	8.90
9553	8.73	8.76	8.90
9586	0.48	0.48	0.48
9620	0.80	0.79	0.79

Notes:

(2) = (4) from Section IX - J of the 09/01/2010 stipulation.

(3): Section IX - I.

(4): Total Balanced Formula Relativity (from Section IX - I, Exhibit 1) x Capped Rate Level Factors and subject to maximum and minimum caps (from Section IX - H, Exhibit 1.)

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Section IX - Classification Pricing
Subsection J - Average Rates and Proposed Premium Change
1/1/2014

Section IX - J
Exhibit 2

Summary of Proposed Premium Change All Industry Groups

Industry Group (1)	Present Premium (2)	Proposed Premium (3)	Proposed Change (4)	Target Change (5)	Capped Rate Level Factor (6)
Manufacturing	633,635,481	604,152,293	-4.7%	-4.7%	2.310
Construction	1,275,459,317	1,360,543,868	6.7%	6.7%	5.929
Office & Clerical	487,215,871	549,030,259	12.7%	12.7%	0.192
Goods & Services	1,242,176,852	1,369,884,418	10.3%	10.3%	1.965
Miscellaneous	505,059,356	579,995,549	14.8%	14.8%	5.739
All Groups	4,143,546,877	4,463,606,387	7.7%		

Notes:

(2), (3): Exposure x Average Rates from Exhibit 1.

(4) = [(3) - (2)] / (2)

(5): Section IX - H, Exhibit 1.

(6): Section IX - H, Exhibit 1. Proposed average uncapped rates are capped by an iterative process using rate levels to determine if the required change is achieved.

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Section IX - Classification Pricing
Subsection K - Adjustments to Derive Final Manual Rates
1/1/2014

Section IX - K
Exhibit 1

Calculation of Proposed Manual Rates

The proposed manual rates in Section IX - A, Exhibit 1 are derived from the proposed average capped rates in Section IX - J, Exhibit 1 as follows:

$$\text{Proposed Manual Rate} = [\text{Proposed Average Rate} / (\text{Factor 1} \times \text{Factor 2} \times \text{Factor 3})] \times [1.000 / (1.000 - \text{Factor 4})]$$

(1)	Factor 1 =	0.997	The offset for Merit Rating and Average Experience Modification
(2)	Factor 2 =	1.052	The offset for ARAP
(3)	Factor 3 =	0.973	For eligible classes, the offset for the Construction Classification Premium Adjustment Program
(4)	Factor 4 =	0.0018	The loading from the filing of recoupment of amounts paid to the Insolvency Fund

Notes:

- (1): Exhibit 2.
- (2): Exhibit 3.
- (3): Exhibit 4.
- (4): Section I - E, Exhibit 1.

Section IX - Classification Pricing
Subsection K - Adjustments to Derive Final Manual Rates
1/1/2014

Offset for Experience & Merit Rating

Policy Year (1)	Age (2)	Rating Category (3)	Number of Policies (4)	% of Policies = (4) / Total (4) (5)	Manual Premium (6)	% of Manual = (6) / Total (6) (7)	Standard Premium (8)	Historical Average Mod = (8) / (6) (9)	Selected Average Mod (10)
2007	66	Non Rated	55,124	31%	14,001,201	1%	13,997,926	1.000	
		Merit Rated	81,862	47%	147,288,044	15%	144,553,933	0.981	
		Intrastate Rated	22,597	13%	518,525,706	52%	529,701,914	1.022	
		Interstate Rated	15,651	9%	319,732,321	32%	301,883,289	0.944	
		Total	175,234	100%	999,547,272	100%	990,137,062	0.991	
2008	54	Non Rated	66,709	37%	16,375,917	2%	16,373,017	1.000	
		Merit Rated	79,340	44%	142,047,755	17%	139,476,217	0.982	
		Intrastate Rated	18,676	10%	404,193,397	48%	412,578,232	1.021	
		Interstate Rated	14,265	8%	271,322,373	33%	257,082,608	0.948	
		Total	178,990	100%	833,939,442	100%	825,510,074	0.990	
2009	42	Non Rated	71,536	40%	17,986,689	2%	17,984,391	1.000	
		Merit Rated	75,359	42%	137,199,214	17%	134,530,952	0.981	
		Intrastate Rated	17,684	10%	378,061,884	47%	381,495,348	1.009	
		Interstate Rated	15,120	8%	271,085,004	34%	257,745,507	0.951	
		Total	179,699	100%	804,332,791	100%	791,756,198	0.984	
2010	30	Non Rated	76,782	41%	19,437,900	2%	19,432,093	1.000	
		Merit Rated	76,109	41%	139,314,925	16%	136,566,189	0.980	
		Intrastate Rated	18,089	10%	404,128,559	46%	409,420,343	1.013	
		Interstate Rated	15,504	8%	311,667,742	36%	296,743,398	0.952	
		Total	186,484	100%	874,549,126	100%	862,162,023	0.986	
2011	18	Non Rated	78,274	41%	18,897,810	2%	18,896,369	1.000	
		Merit Rated	75,745	40%	139,626,172	15%	136,855,739	0.980	
		Intrastate Rated	18,329	10%	406,703,600	44%	423,931,592	1.042	
		Interstate Rated	17,263	9%	354,517,262	39%	340,669,724	0.961	
		Total	189,611	100%	919,744,844	100%	920,353,424	1.001	
Total		Non Rated	348,425	38%	86,699,517	2%	86,683,796	1.000	
		Merit Rated	388,415	43%	705,476,110	16%	691,983,030	0.981	
		Intrastate Rated	95,375	10%	2,111,613,146	48%	2,157,127,429	1.022	
		Interstate Rated	77,803	9%	1,528,324,702	34%	1,454,124,526	0.951	
		Total	910,018	100%	4,432,113,475	100%	4,389,918,781	0.990	

Notes:

Data from Unit Statistical Plan data at most recent report, excluding Large Deductibles and SIGs.
Non Rated, Merit Rated and Intrastate Rated categories are estimated based on manual premium.
(10): Set to 1.000 for Non Rated, Intrastate Rated, and Interstate Rated risks. Total of (10) calculated as weighted average of (10) using (6).

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Section IX - Classification Pricing
 Subsection K - Adjustments to Derive Final Manual Rates
 1/1/2014

Section IX - K
 Exhibit 3

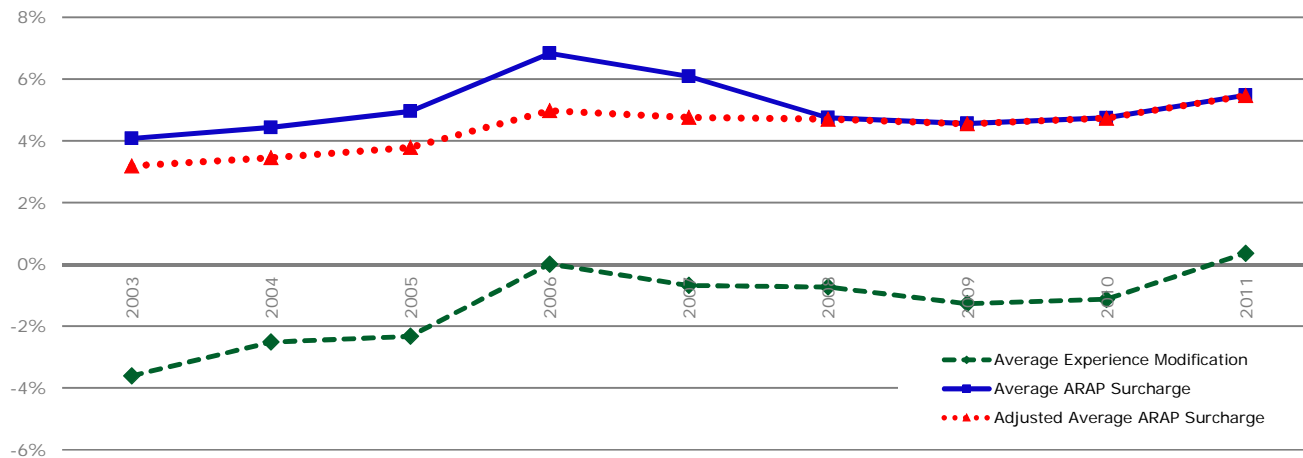
Offset for ARAP Estimate of Average ARAP Surcharge for Prospective Effective Period

Historical Average Experience Modification and ARAP Surcharge

Policy Year (1)	Manual Premium (2)	Standard Premium (3)	ARAP Premium (4)	Adjusted ARAP Premium (5)	Average ARAP Surcharge =(4) / (3) (6)	Average Experience Modification =(3) / (2) - 1.000 (7)	Adjusted Average ARAP Surcharge =(5) / [(3)+(4)-(5)] (8)
2003	1,032,858,897	995,630,456	40,584,664	32,035,544	4.1%	-3.6%	3.2%
2004	992,436,147	967,521,608	42,875,290	33,745,976	4.4%	-2.5%	3.5%
2005	1,026,418,096	1,002,558,996	49,693,877	38,403,037	5.0%	-2.3%	3.8%
2006	1,031,568,002	1,031,689,755	70,455,130	52,268,683	6.8%	0.0%	5.0%
2007	996,880,909	990,137,062	60,275,246	47,747,789	6.1%	-0.7%	4.8%
2008	831,571,016	825,510,074	39,220,601	38,828,142	4.8%	-0.7%	4.7%
2009	801,941,931	791,756,198	36,142,199	36,064,550	4.6%	-1.3%	4.6%
2010	871,986,138	862,162,023	40,906,405	40,822,279	4.7%	-1.1%	4.7%
2011	917,022,878	920,353,424	50,399,400	50,294,866	5.5%	0.4%	5.5%

Regression of Average ARAP Surcharge on Average Experience Modification

(9) R-Squared	0.958
(10) Slope	0.578
(11) Intercept	0.052
(12) Projected Average ARAP Surcharge = (11)	0.052



Notes:

(2)-(4): Unit Statistical Plan data at most recent report, excluding Large Deductibles and SIGs. ARAP adjusted from company level to DSR level.
 (5): (4) adjusted to maximum ARAP surcharge factor of 1.25.

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Section IX - Classification Pricing
Subsection K - Adjustments to Derive Final Manual Rates
1/1/2014

Section IX - K
Exhibit 4

Construction Class Premium Adjustment Program

Policy Year (1)	Manual Premium for Eligible Class Codes (2)	Construction Credit (3)	Percent (4)
2010	257,245,356	15,066,244	2.7%
2011	278,244,853	16,234,770	2.7%
(5) Selected Average Credit for Eligible Class Codes in Prospective Effective Period			2.7%

Note:

(2),(3): Unit Statistical Plan data at most recent report, excluding Large Deductibles and SIGs.

(4): $[(3) / (2)] \times$ ratio of the average proposed structure credit to the existing structure credit.

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Pricing Example for Class 2660 Boot Or Shoe Mfg Noc

Calculation of MA Indicated Relativity:

		(A). Limited Losses (Unit Statistical Plan data, excluding Large Deductibles)							
	Policy Year	Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	26,876	0	2,494	0
	2009	0	0	0	0	0	0	0	0
	2010	0	0	0	0	0	0	62	0
	2011	0	0	0	0	7,119	30,000	0	0
Medical	2007	0	0	0	0	0	0	0	2,136
	2008	0	0	0	0	7,864	0	5,467	2,847
	2009	0	0	0	0	0	0	0	2,183
	2010	0	0	0	0	0	0	2,712	4,851
	2011	0	0	0	0	1,538	21,512	0	2,537

		(B). Primary Conversion Factors (Section IX - B, Exhibit 1, Page 1)							
	Policy Year	Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0.980	0.964	0.988	1.008	0.992	0.975	0.959	0.000
	2008	0.987	0.968	0.993	1.008	0.988	0.984	0.964	0.000
	2009	1.006	0.976	1.011	1.023	0.993	1.002	0.972	0.000
	2010	1.192	1.119	1.198	1.213	1.139	1.188	1.115	0.000
	2011	1.729	1.454	1.735	1.752	1.473	1.725	1.451	0.000
Medical	2007	1.193	1.041	1.193	1.193	1.041	1.193	1.041	0.779
	2008	1.251	1.065	1.251	1.251	1.065	1.251	1.065	0.819
	2009	1.138	0.930	1.138	1.138	0.930	1.138	0.930	0.864
	2010	1.237	0.982	1.237	1.237	0.982	1.237	0.982	0.897
	2011	1.375	1.051	1.375	1.375	1.051	1.375	1.051	0.978

		(C). Converted Limited Losses [(A) x (B)]							
	Policy Year	Fatal		Permanent Total	Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
Indemnity	2007	0	0	0	0	0	0	0	0
	2008	0	0	0	0	26,558	0	2,405	0
	2009	0	0	0	0	0	0	0	0
	2010	0	0	0	0	0	0	69	0
	2011	0	0	0	0	10,486	51,759	0	0
Medical	2007	0	0	0	0	0	0	0	1,664
	2008	0	0	0	0	8,374	0	5,822	2,331
	2009	0	0	0	0	0	0	0	1,887
	2010	0	0	0	0	0	0	2,663	4,350
	2011	0	0	0	0	1,616	29,576	0	2,481

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Section IX - Classification Pricing
 Subsection L - Pricing Example
 1/1/2014

Section IX - L
 Exhibit 1
 Page 2

Pricing Example for Class 2660 Boot Or Shoe Mfg Noc

Calculation of MA Indicated Relativity:

(D). Unadjusted Excess Losses [(Excess Factor -1.0) x (C)]									
	Policy Year	Fatal		Permanent Total	Major Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
		Indemnity	2007	0	0	0	0	0	
2008	0		0	0	0	2,659	0	241	0
2009	0		0	0	0	0	0	0	0
2010	0		0	0	0	0	0	7	0
2011	0		0	0	0	1,050	5,182	0	0
Medical	2007	0	0	0	0	0	0	0	167
	2008	0	0	0	0	838	0	583	233
	2009	0	0	0	0	0	0	0	189
	2010	0	0	0	0	0	0	267	435
	2011	0	0	0	0	162	2,961	0	248

(E). Adjusted Excess Losses									
	Policy Year	Fatal		Permanent Total	Major Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
		Indemnity	2007	0	0	0	0	0	
2008	0		0	0	0	1,861	0	169	0
2009	0		0	0	0	0	0	0	0
2010	0		0	0	0	0	0	5	0
2011	0		0	0	0	735	3,627	0	0
Medical	2007	0	0	0	0	0	0	0	167
	2008	0	0	0	0	1,636	0	655	233
	2009	0	0	0	0	0	0	0	189
	2010	0	0	0	0	0	0	269	435
	2011	0	0	0	0	477	4,515	0	248

(F). Secondary Conversion Factors						
		Fatal	Permanent	Major Permanent Partial	Temporary Total	Medical
Indemnity		1.038	0.997	1.212	1.219	0.000
Medical		1.192	1.001	1.217	1.224	1.192

(G). Converted Unlimited Losses									
	Policy Year	Fatal		Permanent Total	Major Permanent Partial		Temporary Total		Medical Only
		LD	NLD		LD	NLD	LD	NLD	
		Indemnity	2007	0	0	0	0	0	
2008	0		0	0	0	34,452	0	3,138	0
2009	0		0	0	0	0	0	0	0
2010	0		0	0	0	0	0	90	0
2011	0		0	0	0	13,603	67,520	0	0
Medical	2007	0	0	0	0	0	0	0	2,181
	2008	0	0	0	0	12,186	0	7,928	3,056
	2009	0	0	0	0	0	0	0	2,474
	2010	0	0	0	0	0	0	3,589	5,704
	2011	0	0	0	0	2,547	41,733	0	3,254

(H). Total					
Policy Year	Exposure	Indemnity		Medical	
		LD	NLD	LD	NLD
2007	35,000	0	0	0	2,181
2008	34,856	0	37,589	0	23,170
2009	33,512	0	0	0	2,474
2010	38,376	0	90	0	9,294
2011	43,919	67,520	13,603	41,733	5,801
Total	185,663	67,520	51,282	41,733	42,920

	Indemnity	Medical
(I). Indicated Pure Premium	0.640	0.456
(J). Manufacturing Industry Group Pure Premium	1.049	0.723
(K). MA Indicated Relativity	0.610	0.631

Notes:

- (E): Indemnity Adjusted Excess Losses = Indemnity Unadjusted Excess Losses x 0.7
 Medical Adjusted Excess Losses = Medical Unadjusted Excess Losses + 0.3 x Indemnity Unadjusted Excess Losses
- (F): Section IX-B, Exhibit 1, Page 3.
- (G) = [(C) + (E)] x (F)
- (I) = Total Losses / Total Exposure
- (J): Industry Group Pure Premium from Section IX - C, Exhibit 1, Page 2.
- (K) = (I) / (J)

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Pricing Example for Class 2660 Boot Or Shoe Mfg Noc

Calculation of Countrywide Relativity

State (1)	State Code (2)	Losses				Lost-Time Claims		Payroll (9)
		Indemnity		Medical		Likely (7)	Not-Likely (8)	
		Likely (3)	Not-Likely (4)	Likely (5)	Not-Likely (6)			
Alabama	1	0	0	0	0	0	0	0
Arizona	2	0	5,769	0	15,959	0	1	3,707,361
Arkansas	3	8,990	109,334	78,203	296,440	4	16	46,499,974
Colorado	5	0	275	0	13,035	0	1	1,623,022
Connecticut	6	0	0	0	0	0	0	213,290
D.C.	8	0	0	0	0	0	0	0
Florida	9	0	25,965	0	21,980	0	3	4,457,359
Georgia	10	0	0	0	434	0	0	733,766
Idaho	11	0	13,228	0	30,937	0	1	1,633,014
Illinois	12	1,066,874	666,847	978,466	513,686	32	33	24,059,183
Indiana	13	0	0	0	9,944	0	0	2,616,448
Iowa	14	0	0	0	0	0	0	305,993
Kansas	15	0	0	0	0	0	0	0
Kentucky	16	120,283	880	104,257	11,995	1	1	12,900,524
Louisiana	17	0	0	0	0	0	0	0
Maine	18	141,489	456,444	126,758	1,332,816	3	39	101,756,043
Maryland	19	0	0	0	0	0	0	261,259
Minnesota	22	0	0	0	27,384	0	0	3,955,978
Mississippi	23	0	0	0	0	0	0	0
Missouri	24	20,689	155,430	6,278	369,465	2	31	51,059,435
Montana	25	20,105	6,888	85,924	31,975	1	3	587,335
Nebraska	26	0	0	0	414	0	0	1,130,857
Nevada	27	0	0	0	0	0	0	9,459
New Hampshire	28	107,053	555	106,334	13,309	1	2	1,936,107
New Mexico	30	0	0	0	0	0	0	176,093
North Carolina	32	4,465	98,876	18,029	156,915	1	13	13,083,137
Oklahoma	35	0	0	0	0	0	0	0
Oregon	36	4,086	123,563	28,299	311,373	1	18	23,713,805
Rhode Island	38	0	0	0	0	0	0	76,499
South Carolina	39	0	189,788	0	90,695	0	4	21,967,603
South Dakota	40	0	0	0	0	0	0	0
Tennessee	41	0	70,378	0	144,870	0	7	17,927,293
Utah	43	0	0	0	6,847	0	0	293,346
Vermont	44	0	0	0	0	0	0	0
Virginia	45	0	11,147	0	100,649	0	3	9,008,224
West Virginia	47	0	0	0	0	0	0	0
Hawaii	52	0	0	0	0	0	0	1,111,070
Alaska	54	0	0	0	0	0	0	0
Total		1,494,034	1,935,367	1,532,548	3,501,122	46	176	346,803,477

Note:
 Data are total for latest three policy years. See Section IX - D, Exhibit 3 for years used.

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Section IX - Classification Pricing
 Subsection L - Pricing Example
 1/1/2014

Section IX - L
 Exhibit 2
 Page 2

Pricing Example for Class 2660 Boot Or Shoe Mfg Noc

Calculation of Countrywide Relativity

State (1)	State Code (2)	Manufacturing Pitch Factors		Pure Premiums, on MA Level		Total (7)
		Indemnity (3)	Medical (4)	Indemnity (5)	Medical (6)	
Alabama	1	1.470	0.427	0.000	0.000	
Arizona	2	3.088	0.647	0.481	0.278	
Arkansas	3	3.438	0.865	0.875	0.697	
Colorado	5	1.295	0.535	0.022	0.430	
Connecticut	6	0.528	0.273	0.000	0.000	
D.C.	8	0.424	0.626	0.000	0.000	
Florida	9	1.445	0.438	0.842	0.216	
Georgia	10	1.344	0.687	0.000	0.041	
Idaho	11	1.209	0.363	0.979	0.687	
Illinois	12	0.632	0.388	4.557	2.409	
Indiana	13	2.906	0.575	0.000	0.218	
Iowa	14	0.708	0.314	0.000	0.000	
Kansas	15	1.163	0.532	0.000	0.000	
Kentucky	16	1.650	0.663	1.550	0.597	
Louisiana	17	1.053	0.524	0.000	0.000	
Maine	18	0.919	0.442	0.540	0.634	
Maryland	19	1.452	0.709	0.000	0.000	
Minnesota	22	1.409	0.639	0.000	0.442	
Mississippi	23	1.212	0.485	0.000	0.000	
Missouri	24	1.442	0.545	0.498	0.401	
Montana	25	0.757	0.330	3.479	6.627	
Nebraska	26	1.554	0.446	0.000	0.016	
Nevada	27	1.377	0.698	0.000	0.000	
New Hampshire	28	1.311	0.249	7.285	1.538	
New Mexico	30	0.026	0.014	0.000	0.000	
North Carolina	32	1.133	0.761	0.895	1.017	
Oklahoma	35	0.601	0.474	0.000	0.000	
Oregon	36	1.424	0.647	0.767	0.927	
Rhode Island	38	0.569	0.620	0.000	0.000	
South Carolina	39	1.046	0.702	0.904	0.290	
South Dakota	40	2.558	0.467	0.000	0.000	
Tennessee	41	1.042	0.396	0.409	0.320	
Utah	43	2.578	0.675	0.000	1.575	
Vermont	44	0.583	0.369	0.000	0.000	
Virginia	45	2.525	0.813	0.313	0.908	
West Virginia	47	1.359	0.546	0.000	0.000	
Hawaii	52	0.823	0.556	0.000	0.000	
Alaska	54	0.949	0.337	0.000	0.000	
(8)	Average of (5), (6) weighted by Payroll from Page 1, respectively			0.963	0.727	1.690
(9)	CW Manufacturing Pure Premium			0.884	0.604	1.488
(10)	CW Relativity = (8) / (9)			1.089	1.204	1.136
(11)	CW Relativity, balanced to unity			1.070	1.183	

Notes:

(3), (4) = (MA Total Unlimited Losses) / [(State Pure Premium) x (MA Total Exposure)] for Industry Code 1. See Section IX - D, Exhibit 2.

(5) = 100 x [State Indemnity Losses / State Payroll] x (3), where State Indemnity Losses and State Payroll from page 1.

(6) = 100 x [State Medical Losses / State Payroll] x (4), where State Medical Losses and State Payroll from page 1.

(9) = (8) weighted by MA five year Manufacturing Exposure

(11): Relativities balanced to unity (weighted by MA exposure) over Manufacturing Industry Group.

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Section IX - Classification Pricing
 Subsection L - Pricing Example
 1/1/2014

Section IX - L
 Exhibit 3

Pricing Example for Class 2660 Boot Or Shoe Mfg Noc

Calculation of Credibility and Balanced Formula Relativity:

- (1) MA Indicated Relativity
- (2) Countrywide Indicated Relativity
- (3) Relativity to Underlying Present Rate

Injury Type	
Indemnity	Medical
0.610	0.631
1.070	1.183
0.782	1.049

Calculation of MA Credibility:

The MA Credibilities are calculated using the formula $Z=(E / F)^{0.4}$ where E are expected losses for that injury type.

- (4) Adopted Relativity
- (5) Industry Group Pure Premium Underlying Present Rate Factor
- (6) Pure Premium Underlying Present Rate = (4) x (5)
- (7) Expected Losses = (6) x [(Total Exposure from Exhibit 1)]
- (8) Full Credibility Standards
- (9) MA Credibility = Minimum of {100%, [(7) / (8)]^{0.4}}

Injury Type	
Indemnity	Medical
0.760	1.020
0.899	0.849
0.684	0.866
126,924	160,848
22,950,000	6,000,000
13.0%	24.0%

Calculation of Countrywide Credibility

The Countrywide Credibilities are calculated using the formula $Z=(E / F)^{0.4}$ where E are the countrywide claim counts for that injury type. The countrywide credibility is limited to no more than half of the complement of the credibility assigned to the Massachusetts data.

- (10) Countrywide Lost-Time Claims
- (11) Countrywide Claim Count Standard
- (12) Countrywide Credibility = Minimum of {[(10) / (11)]^{0.4}, 0.5 x [100% - (9)]}
- (13) Credibility to Underlying Present Rate = 100% - (9) - (12)
- (14) Formula Relativity = [(1) x (9)] + [(2) x (12)] + [(3) x (13)]
- (15) Off Balance Factor

Injury Type	
Indemnity	Medical
222	222
1,150	1,000
44%	38%
43%	38%
0.886	1.000
1.003	1.000

- (16) Balanced Formula Relativity

Injury Type		
Indemnity	Medical	Total
0.883	0.999	0.931

Notes:

- (1): Exhibit 1, Page 2.
- (2): Exhibit 2, Page 2.
- (3): Relativity of (5) to Industry Group average, using 5 year Schedule Z exposure as weights.
- (4): Section IX - F, Exhibit 4.
- (5): Section IX - E, Exhibit 1.
- (8), (11): Section IX - D, Exhibit 1, Page 1.
- (10): Exhibit 2, Page 1.
- (15): Factor to balance Formula relativities across industry group to unity using 5 year Schedule Z exposure by injury type.
- (16) = (14) / (15) , Total Balanced Formula Relativity is the weighted average of Partial Relativities using the MA Industry Group Pure Premium as weights.

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Section IX - Classification Pricing
Subsection L - Pricing Example
1/1/2014

Section IX - L
Exhibit 4

Pricing Example for Class 2660 Boot Or Shoe Mfg Noc

Calculation of Proposed Average Rate and Proposed Manual Rate:

(1) Total Balanced Formula Relativity	0.931
(2) Capped Rate Level Factor	2.310
(3) Proposed Average Capped Rate = (1) x (2)	2.15
(4) Offset for Merit Rating	0.997
(5) Offset for ARAP	1.052
(6) Offset for Construction Classification Premium Adjustment Program	1.000
(7) Provision for Insolvency Fund Assessment Recoupment	0.0018
(8) Proposed Manual Rate = {(3) / [(4) x (5) x (6)]} x {1.000 / [1.000 - (7)]}	2.05
(9) Minimum Premium	231
(10) Loss Constant	0.00
(11) Expected Loss Rate	0.93
(12) D-Ratio	0.20

Notes:

(1): Exhibit 3.

(2): Section IX - H, Exhibit 1. Proposed average uncapped rates are capped by an iterative process using rate levels to determine if the required change is achieved. Class 2660 is in the Manufacturing Industry Group.

(4), (5), (6), (7): Section IX - K. Class 2660 is not eligible for the Construction Credit program.

(9) = {[(8) x 35.0] + (10) + Expense Constant} subject to a maximum of \$500

Where Expense Constant = 159 if (8) x 35 + (10) < 200

= 250 if (8) x 35 + (10) >= 200 and < 1000.

= 338 if (8) x 35 + (10) >= 1000.

(10): No loss constant for Manufacturing classes, \$50 for Construction classes, \$20 for all other classes.

(11) = (3) x Ratio of Experience Rating ELR to Average Rate, from Section X - A, Exhibit 1. Class 2660 is in Hazard Group B.

(12): Section X. See text of this section for an explanation of the calculation of D-Ratios.

EXPERIENCE RATING

Experience rating is a procedure that uses past insurance experience for individual policyholders to predict their future losses. In this procedure, the manual rate for the risk is adjusted by an experience rating modification that serves to increase or decrease the rate for individual policyholders depending on whether their past experience has been worse or better than expected.

The experience rating modification for an insured is determined by comparing actual past losses to expected losses. This section of the filing develops elements used in the derivation of Expected Loss Rates (ELRs) and D-Ratios, which are needed for the calculation of experience rating modifications.

Section X-A - Expected Loss Rates

Generally, an insured's experience rating modification is based on its exposure and loss experience for the last three completed policies for which the WCRIBMA has received data. For the purpose of experience rating, we must derive expected losses on a comparable basis for each of those three policy periods. These calculations are detailed in Section X-A and Section X-D.

Expected Losses for an insured are derived by multiplying the ELR for each applicable class by the reported exposure (typically payroll in hundreds) for each class. The proposed ELRs are displayed in Section X-D. The ELR for each class is the product of the proposed average capped rate for that class (as shown in Section IX-J) and the

Ratio of Experience Rating ELR to Average Rate (as calculated in Section X-A) for the hazard group containing the classification. We use the Ratio of Experience Rating ELR to Average Rate to remove the allowances for underwriting profit and expenses (including loss adjustment expenses) from the capped rate, and then adjust the remaining pure premiums to a level comparable to that of the losses entering the experience rating calculation itself. The Ratio of Experience Rating ELR to Average Rate is a composite factor that incorporates elements relating to expenses (Exhibit 1), trend (Exhibit 1), loss limitations (Exhibit 2 & 3), benefit level differences (Exhibit 1), loss development (Exhibits 4 & 5) and investment income (Exhibit 6).

Section X-B - Calculation of D-Ratios

The second task of Section X is to determine the portion of the expected loss that is considered primary. Primary losses are defined as the first \$5,000 of loss per claim. The experience rating formula splits losses into primary losses and excess losses (the loss amount above the primary loss subject to a maximum). In calculating the experience rating modification, primary losses are given more weight than excess losses.

The D-Ratio is defined as the portion of expected losses that is expected to be primary. In experience rating, multiplication of a risk's expected losses by the appropriate D-Ratio gives the expected primary losses to which the risk's actual primary losses are compared. The proposed D-Ratios are displayed in Section X-D.

The procedure used here for the calculation of D-Ratios is essentially the same as the methodology used in all of the WCRIBMA's filings since 2001. The general methodology is as follows. First, the WCRIBMA calculates partial D-Ratios for indemnity and medical losses from detailed loss data (Section X-B). The loss data is taken from Unit Statistical Plan Data for the three most recent policy years, and is adjusted for law amendment changes and severity trend to the level corresponding with the losses that will be used in experience rating. We calculate separate indemnity and medical partial D-Ratios, instead of serious, non-serious and medical D-Ratios, in line with the change made in Class Ratemaking's pure premium relativities (Section IX-I).

We calculate final D-Ratios by class as a weighted average of the partial D-Ratios using the formula:

$$\text{"D" Ratio} = \frac{[(P_i)(D_i) + (P_m)(D_m)]}{[P_i + P_m]}$$

where P_i and P_m are the proposed partial pure premiums for indemnity and medical. D_i and D_m represent the associated partial D-Ratios. The resulting D-Ratios by classification are shown in Section X-D.

Section X-C – Expected Loss Rates for F-Class

The calculations for F-Class rates differ from the state classifications because F-Classess are subject to different benefit provisions than the state classifications. Changes in F-Class rates include a separate calculation for the Ratio of Experience

X 000004

Section X – Experience Rating
Subsection A - Summary
1/1/2014

Section X - A
Page 4

Rating ELR to Average Rate, shown in Section-X-C, by excluding the loss based assessment from the federal indemnity losses. Additionally, the law factors and loss development factors are weighted by losses to reflect that F-Class benefits can be paid either under state or federal laws. The remaining calculations mirror the calculations for the state classifications from Section X-A.

Calculation of ELR Factors

Unit Report / Policy Effective Dates (1)	Hazard Group (2)	Permissible Loss Ratio (3)	Exp Rating LER by Hazard Group (4)	Law Factor (5)	Loss Trend / Payroll Trend (6)	Loss Development to 10th Report (7)	Loss Development from 10th Report to Ult (8)	Investment Income Offset (9)	Ratio of Exp Rating ELR to Average Rate (10)
1st Report 1/1/2012 to 12/31/2012	A	0.603	0.039	1.005	0.963	1.438	1.047	1.017	0.391
	B	0.603	0.065	1.005	0.963	1.466	1.054	1.009	0.374
	C	0.603	0.087	1.005	0.963	1.481	1.057	1.010	0.360
	D	0.603	0.068	1.005	0.963	1.487	1.053	1.016	0.365
	E	0.603	0.125	1.005	0.963	1.506	1.059	1.007	0.340
	F	0.603	0.141	1.005	0.963	1.505	1.057	1.004	0.335
	G	0.603	0.173	1.005	0.963	1.537	1.061	1.007	0.314
2nd Report 1/1/2011 to 12/31/2011	A	0.603	0.061	1.011	0.945	1.172	1.047	1.017	0.475
	B	0.603	0.102	1.011	0.945	1.195	1.054	1.009	0.447
	C	0.603	0.135	1.011	0.945	1.207	1.057	1.010	0.424
	D	0.603	0.107	1.011	0.945	1.212	1.053	1.016	0.435
	E	0.603	0.195	1.011	0.945	1.227	1.059	1.007	0.389
	F	0.603	0.221	1.011	0.945	1.227	1.057	1.004	0.378
	G	0.603	0.269	1.011	0.945	1.253	1.061	1.007	0.345
3rd Report 1/1/2010 to 12/31/2010	A	0.603	0.086	1.015	0.927	1.069	1.047	1.017	0.515
	B	0.603	0.142	1.015	0.927	1.090	1.054	1.009	0.474
	C	0.603	0.189	1.015	0.927	1.101	1.057	1.010	0.443
	D	0.603	0.149	1.015	0.927	1.106	1.053	1.016	0.461
	E	0.603	0.273	1.015	0.927	1.120	1.059	1.007	0.391
	F	0.603	0.308	1.015	0.927	1.119	1.057	1.004	0.373
	G	0.603	0.376	1.015	0.927	1.143	1.061	1.007	0.327
1st - 3rd Report Average									0.461 0.432 0.409 0.420 0.373 0.362 0.329

Notes:

- (1): Unit Stat Reports used to experience rate a policy taking effect during the prospective effective period.
- (3): Section VI-A, Exhibit 1, (10).
- (4): Exhibit 2, (10) - (12).
- (5): Section IV-A, Exhibit 1.
- (6): Section V-A, Exhibit 1. Net Trend applied from USR policy effective period to prospective effective period.
- (7): Exhibit 4, Page 1, (6).
- (8): Exhibit 5, Page 1, (7).
- (9): Exhibit 6, (7).
- (10) = $\{ (3) \times [1.0 - (4)] \} / [(5) \times (6) \times (7) \times (8) \times (9)]$

Loss Elimination Ratios for Losses in Excess of Experience Rating Caps
By Hazard Group

Hazard Group (1)	Adjusted Total Losses (2)	Adjusted Excess Losses (3)	Implied Loss Elimination Ratio = (3) / (2) (4)	Expected Losses (5)	Expected Losses Wgtd LER (6)	Balanced LER Differential (7)	Selected LER Differential (8)
A	56,975,922	3,681,343	0.065	67,711,033	0.065	0.39	0.39
B	201,756,903	21,613,523	0.107	249,973,409	0.107	0.64	0.64
C	394,030,809	55,899,767	0.142	502,510,113	0.142	0.85	0.85
D	166,285,086	18,651,784	0.112	212,854,482	0.112	0.67	0.67
E	242,973,287	49,790,067	0.205	315,387,520	0.205	1.23	1.23
F	291,665,611	67,616,928	0.232	390,698,608	0.232	1.39	1.39
G	45,306,324	12,820,822	0.283	69,637,194	0.283	1.70	1.70
Total	1,398,993,943	230,074,233	0.164	1,808,772,359	0.167	1.00	1.00

Loss Elimination Ratio by Hazard Group

Hazard Group (9)	First Report (10)	Second Report (11)	Third Report (12)
A	0.039	0.061	0.086
B	0.065	0.102	0.142
C	0.087	0.135	0.189
D	0.068	0.107	0.149
E	0.125	0.195	0.273
F	0.141	0.221	0.308
G	0.173	0.269	0.376
Total	0.102	0.158	0.221

Notes:

(2): Unit Statistical Plan losses, PYs 2009 - 2011. Adjusted by factors from Section X - B, Exhibit 1, Page 2.

(3): Adjusted losses above per claim limit of \$175,000

(5): PYs 2009 - 2011, exposure times pure premium underlying present rates.

(6): Total = (6) Weighted by (5)

(7) = (6) / [Total for (6)]

(10) - (12) = [Exhibit 3, (5)] x (8)

Loss Elimination Ratio
Factor to Reflect the State Accident Limitation of \$175,000

Report	Injury Type	Adjusted Total Losses	Adjusted Excess Losses	Loss Elimination Ratio = (4) / (3)
(1)	(2)	(3)	(4)	(5)
1st	Fatal	6,722,267	3,378,679	0.503
1st	Permanent Total	8,124,078	7,402,733	0.911
1st	Permanent Partial	150,800,358	18,726,747	0.124
1st	Temporary Total	217,913,384	12,151,041	0.056
1st	Medical Only	26,660,165	0	0.000
1st	Total	410,220,253	41,659,200	0.102
2nd	Fatal	5,151,764	2,157,696	0.419
2nd	Permanent Total	29,825,400	26,382,873	0.885
2nd	Permanent Partial	275,028,851	41,302,709	0.150
2nd	Temporary Total	148,150,465	6,919,407	0.047
2nd	Medical Only	26,453,263	0	0.000
2nd	Total	484,609,743	76,762,685	0.158
3rd	Fatal	10,771,918	7,178,018	0.666
3rd	Permanent Total	27,682,155	19,510,454	0.705
3rd	Permanent Partial	294,374,517	71,959,891	0.244
3rd	Temporary Total	146,633,656	13,003,987	0.089
3rd	Medical Only	24,701,701	0	0.000
3rd	Total	504,163,947	111,652,349	0.221

Notes:
Unit Statistical Plan losses have been adjusted by multiplying by law amendment changes and severity trend factors from Section X - B, Exhibit 1, Page 2.
(4): Adjusted losses above per claim limit of \$175,000

X 000008

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 4
 Page 1

Hazard Group Development Factors to Tenth Report

Development to 10th Report (1)	Hazard Group (2)	Losses at Latest Report (3)	Selected Relativity (4)	Balanced Relativity = (4) / TT(4) (5)	Selected Dev. Factor to 10th Report (6)
1st to 10th	A	18,247,927	0.966	0.966	1.438
1st to 10th	B	54,729,125	0.984	0.985	1.466
1st to 10th	C	111,088,334	0.994	0.995	1.481
1st to 10th	D	52,638,440	0.999	0.999	1.487
1st to 10th	E	73,812,187	1.011	1.012	1.506
1st to 10th	F	73,833,382	1.011	1.011	1.505
1st to 10th	G	11,945,401	1.032	1.033	1.537
1st to 10th	Total	396,294,796	1.000	1.000	1.488
2nd to 10th	A	18,716,140	0.966	0.965	1.172
2nd to 10th	B	63,740,563	0.984	0.984	1.195
2nd to 10th	C	126,740,681	0.994	0.994	1.207
2nd to 10th	D	56,499,842	0.999	0.999	1.212
2nd to 10th	E	83,799,912	1.011	1.011	1.227
2nd to 10th	F	104,281,319	1.011	1.010	1.227
2nd to 10th	G	14,525,823	1.032	1.032	1.253
2nd to 10th	Total	468,304,280	1.000	1.000	1.214
3rd to 10th	A	18,146,298	0.966	0.966	1.069
3rd to 10th	B	76,706,624	0.984	0.985	1.090
3rd to 10th	C	143,409,466	0.994	0.995	1.101
3rd to 10th	D	51,742,441	0.999	0.999	1.106
3rd to 10th	E	77,496,955	1.011	1.011	1.120
3rd to 10th	F	104,142,699	1.011	1.011	1.119
3rd to 10th	G	17,388,693	1.032	1.033	1.143
3rd to 10th	Total	489,033,176	1.000	1.000	1.107

Notes:

(3): See Exhibit 4 Pages 3-5.

(4): See Page 2 for State Classifications for selection. The entry in the "Total" row is the weighted average using incurred losses at latest report in column (3) as the weights.

(6) = (5) x (Total LDF from page (3) - (5))

Hazard Group Reported Loss Development Relativities to Tenth Report

Hazard Group (1)	Relativities for State Classification Rates				Average Relativity (5)	Selected (6)
	Development					
	3rd Report to 10th Report (2)	2nd Report to 10th Report (3)	1st Report to 10th Report (4)	10th Report (4)		
A	0.981	0.977	0.939	0.966	0.966	0.966
B	1.000	0.989	0.964	0.984	0.984	0.984
C	0.999	0.991	0.993	0.994	0.994	0.994
D	0.990	0.994	1.012	0.999	0.999	0.999
E	1.004	1.012	1.018	1.011	1.011	1.011
F	1.004	1.012	1.016	1.011	1.011	1.011
G	1.015	1.023	1.059	1.032	1.032	1.032

Hazard Group (7)	Relativities for F-Class Rates				Average Relativity (11)	Selected (12)
	Development					
	3rd Report to 10th Report (8)	2nd Report to 10th Report (9)	1st Report to 10th Report (10)	10th Report (10)		
C	0.996	0.987	0.984	0.989	0.989	0.989
E	1.002	1.007	1.009	1.006	1.006	1.006
F	1.002	1.007	1.007	1.005	1.005	1.005
G	1.012	1.019	1.049	1.027	1.027	1.027

Notes:
 (2) - (4): Pages 3 through 5. = [(16) for Hazard Group] / [(16) for Hazard Groups A-G Total]
 (5): Average of (2) - (4)
 (8) - (10): Pages 3 through 5. = [(16) for Hazard Group] / [(16) for Hazard Groups C,E,F,G Total]

Loss Development of Schedule Z to Tenth Report by Hazard Group

Policy Year 2011 at 18 Months
 First Report to Tenth Report

Hazard Group	Indemnity Losses Likely To Develop		Indemnity Losses Not Likely To Develop		Medical Losses Likely To Develop		Medical Losses Not Likely To Develop		Total Losses		
	Reported Losses (2)	Developed to 10th Report Losses (4)	Reported Losses (5)	Developed to 10th Report Losses (7)	Reported Losses (8)	Developed to 10th Report Losses (10)	Reported Losses (11)	Developed to 10th Report Losses (13)	Total Reported Losses =(2)+(5)+(8)+(11) (14)	Total Developed Losses =(4)+(7)+(10)+(13) (15)	Develop. Factor = (15) / (14) (16)
A	2,329,560	4,416,252	6,156,503	9,953,967	1,695,405	2,325,502	8,066,459	8,811,999	18,247,927	25,507,720	1,398
B	8,314,412	16,638,164	17,646,170	28,672,358	6,251,898	8,601,210	22,516,645	24,593,999	54,729,125	78,505,731	1,434
C	20,420,061	40,540,652	39,887,203	64,574,809	12,986,198	17,812,282	37,794,872	41,250,324	111,088,334	164,178,068	1,478
D	9,616,488	20,047,767	18,904,860	31,058,332	6,717,779	9,202,389	17,399,313	18,986,735	52,638,440	79,295,223	1,506
E	15,741,560	31,274,003	21,957,045	36,314,760	16,404,206	22,671,093	19,709,376	21,555,095	73,812,187	111,814,951	1,515
F	13,209,284	26,466,966	31,449,559	51,300,219	7,453,898	10,236,075	21,720,641	23,700,024	73,833,382	111,703,284	1,513
G	2,541,638	5,335,386	4,487,066	7,568,948	1,885,684	2,602,045	3,031,013	3,320,736	11,945,401	18,827,116	1,576
A, B, C, D, E, F, G	72,173,003	144,719,190	140,488,406	229,443,393	53,395,068	73,450,597	130,238,319	142,218,913	396,294,796	589,832,093	1,488
C, E, F, G	51,912,543	103,617,007	97,780,873	159,758,736	38,729,986	53,321,496	82,255,902	89,826,180	270,679,304	406,523,418	1,502

Notes:
 (2), (5), (8), (11): Unit Statistical Plan Data.
 (4), (7), (10), (13): Unit Statistical Plan Data x Loss Development Factors to 10th report from Exhibit 5, Pages 5 and 6.

X 000010

X 000011

Loss Development of Schedule Z to Tenth Report by Hazard Group

Policy Year 2010 at 30 Months
 Second Report to Tenth Report

Hazard Group (1)	Indemnity Losses Likely To Develop		Indemnity Losses Not Likely To Develop		Medical Losses Likely To Develop		Medical Losses Not Likely To Develop		Total Losses		
	Reported Losses (2)	Developed to 10th Report Losses (4)	Reported Losses (5)	Developed to 10th Report Losses (7)	Reported Losses (8)	Developed to 10th Report Losses (10)	Reported Losses (11)	Developed to 10th Report Losses (13)	Total Reported Losses =(2)+(5)+(8)+(11) (14)	Total Developed Losses =(4)+(7)+(10)+(13) (15)	Develop. Factor = (15) / (14) (16)
A	3,611,841	4,845,803	6,522,649	8,019,963	2,076,927	2,532,111	6,504,723	6,791,300	18,716,140	22,189,177	1.186
B	13,955,668	18,922,193	21,528,871	26,848,616	7,603,225	9,230,519	20,652,799	21,533,380	63,740,563	76,534,709	1.201
C	28,641,199	38,476,688	42,820,651	53,204,919	18,818,081	22,810,650	36,460,750	38,041,177	126,740,681	152,533,433	1.204
D	12,710,742	17,289,092	21,601,276	26,744,809	5,932,777	7,203,919	16,255,047	16,966,221	56,499,842	68,204,041	1.207
E	18,474,740	25,592,194	34,711,981	43,849,850	8,775,933	10,698,476	21,837,258	22,759,951	83,799,912	102,900,471	1.228
F	23,885,921	32,509,001	37,668,381	47,383,181	21,420,188	25,939,241	21,306,829	22,221,428	104,281,319	128,052,850	1.228
G	3,518,024	4,835,828	6,171,476	7,758,590	2,389,538	2,894,670	2,446,785	2,553,658	14,525,823	18,042,745	1.242
A, B, C, D, E, F, G	104,798,135	142,470,799	171,025,285	213,809,927	67,016,669	81,309,585	125,464,191	130,867,115	468,304,280	568,457,426	1.214
C, E, F, G	74,519,884	101,413,710	121,372,489	152,196,538	51,403,740	62,343,036	82,051,622	85,576,214	329,347,735	401,529,499	1.219

Notes:

(2), (5), (8), (11): Unit Statistical Plan Data.
 (4), (7), (10), (13): Unit Statistical Plan Data x Loss Development Factors to 10th report from Exhibit 5, Pages 5 and 6.

Loss Development of Schedule Z to Tenth Report by Hazard Group

Policy Year 2009 at 42 Months
 Third Report to Tenth Report

Hazard Group	Indemnity Losses Likely To Develop		Indemnity Losses Not Likely To Develop		Medical Losses Likely To Develop		Medical Losses Not Likely To Develop		Total Losses		
	Reported Losses	Developed to 10th Report	Reported Losses	Developed to 10th Report	Reported Losses	Developed to 10th Report	Reported Losses	Developed to 10th Report	Total Reported Losses =(2)+(5)+(8)+(11) (14)	Total Developed Losses =(4)+(7)+(10)+(13) (15)	Develop. Factor = (15) / (14) (16)
(1)	(2)	(4)	(5)	(7)	(8)	(10)	(11)	(13)	(14)	(15)	(16)
A	3,428,468	3,936,684	6,197,448	6,841,660	1,836,064	2,088,805	6,684,318	6,837,053	18,146,298	19,704,201	1.086
B	17,289,170	20,294,675	23,889,829	26,687,132	14,568,956	16,587,518	20,958,669	21,352,250	76,706,624	84,921,576	1.107
C	36,551,103	42,620,321	47,364,775	52,535,890	23,342,464	26,510,222	36,151,124	36,910,460	143,409,466	158,576,893	1.106
D	9,799,995	11,359,420	21,492,725	23,961,882	4,626,389	5,270,176	15,823,332	16,142,651	51,742,441	56,734,130	1.096
E	20,621,089	24,025,771	32,029,865	35,877,336	7,756,954	8,835,663	17,089,047	17,419,976	77,496,955	86,158,746	1.112
F	26,644,017	31,047,988	42,522,433	47,666,346	11,839,328	13,492,497	23,136,921	23,560,879	104,142,699	115,767,710	1.112
G	4,767,971	5,661,347	7,769,397	8,738,620	1,625,977	1,851,509	3,225,348	3,285,151	17,388,693	19,536,628	1.124
A, B, C, D, E, F, G	119,101,813	138,946,207	181,266,472	202,308,866	65,596,132	74,636,392	123,068,759	125,508,419	489,033,176	541,399,884	1.107
C, E, F, G	88,584,180	103,355,427	129,686,470	144,818,192	44,564,723	50,689,892	79,602,440	81,176,466	342,437,813	380,039,977	1.110

Notes:

(2), (5), (8), (11): Unit Statistical Plan Data.
 (4), (7), (10), (13): Unit Statistical Plan Data x Loss Development Factors to 10th report from Exhibit 5, Pages 5 and 6.

Loss Development Factors From 10th to Ultimate

Hazard Group (1)	Losses Developed to 10th Report						Indicated Development Factor to Ultimate (6)	Balanced Selected Factor (7)
	Indemnity		Medical		Likely to Develop (4)	Not Likely to Develop (5)		
	Likely to Develop (2)	Not Likely to Develop (3)	Likely to Develop	Not Likely to Develop				
A	13,198,739	24,815,589	6,946,419	22,440,351	1.047	1.047	1.047	
B	55,855,033	82,208,106	34,419,247	67,479,630	1.054	1.054	1.054	
C	121,637,661	170,315,618	67,133,155	116,201,961	1.057	1.057	1.057	
D	48,696,279	81,765,024	21,676,484	52,095,607	1.053	1.053	1.053	
E	80,891,968	116,041,945	42,205,233	61,735,022	1.059	1.059	1.059	
F	90,023,956	146,349,746	49,667,813	69,482,330	1.057	1.057	1.057	
G	15,832,561	24,066,158	7,348,224	9,159,546	1.061	1.061	1.061	
TOTAL	426,136,195	645,562,186	229,396,573	398,594,448	1.056	1.056	1.056	

Notes:

(2) - (5): Exhibit 4, Pages 3-5.

(6): Weighted Average of Development Factors from Page 2.

(Likely to Dev. Ind. 1.144, Not Likely to Dev. Ind. 1.024, Likely to Dev. Med. 1.066, Not Likely to Dev. Med. 1.009)

(7): Factors are balanced to the total development factor from Page 2.

X 000014

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 5
 Page 2

Calculation of Development Category Development Factors from 10th to Ultimate

Policy Year (1)	Unit Stat Plan Losses Developed to 10th Rept. (2)	Aggregate Financial Develop. Factor 10th to Ult. (3)	Differential in Loss Development (4)	Unit Stat Plan Losses Adjusted to Financial Agg. Ult. Loss Level = (2) x (3) x (4) (5)	Development Factor 10th to Ult. = (5) / (2) (6)
Indemnity					
2011	374,162,583	1.049	1.022	401,032,834	1.072
2010	356,280,725	1.049	1.022	381,866,802	1.072
2009	341,255,073	1.049	1.022	365,762,092	1.072
Total	1,071,698,381			1,148,661,728	1.072
Medical					
2011	215,669,510	1.030	1.000	222,141,342	1.030
2010	212,176,700	1.030	1.000	218,543,720	1.030
2009	200,144,811	1.030	1.000	206,150,777	1.030
Total	627,991,021			646,835,839	1.030
Ind.+ Med.					
2011	589,832,093			623,174,176	1.057
2010	568,457,426			600,410,522	1.056
2009	541,399,884			571,912,868	1.056
Total	1,699,689,402			1,795,497,566	1.056

(7)	Unit Stat Plan Indem. Losses Developed to 10th Report (8)	Development Factor 10th to Ult. (9)	(10)	Unit Stat Plan Med. Losses Developed to 10th Report (11)	Development Factor 10th to Ult. (12)
a. Likely to Develop	426,136,195	1.144	a. Likely to Develop	229,396,573	1.066
b. Not Likely to Develop	645,562,186	1.024	b. Not Likely to Develop	398,594,448	1.009
c. Total	1,071,698,381	1.072	c. Total	627,991,021	1.030

Notes:

(2): Page 4.

(3): Page 3.

(4): Page 11.

(8),(11): Page 4.

(9), (12): Likely to Develop Factor = 1 + (Total Losses/Likely to Develop Losses) x ("Appropriate Column 6 Factor" - 1) x 0.8

(9), (12): Not Likely to Develop Factor = 1 + (Total Losses/Not Likely to Develop Losses) x ("Appropriate Column 6 Factor" - 1) x (1 - 0.8)

X 000015

Section X - Experience Rating
Subsection A - Expected Loss Rates
1/1/2014

Section X - A
Exhibit 5
Page 3

Calculation of Development Factor from USR at 10th report to Aggregate Financial Ultimate Level

	<u>Indemnity</u>	<u>Medical</u>
(1) PY2011 Paid + Case Losses Developed to 10th report		
(a) Remainder of Industry	286,308,328	176,066,271
(b) AIG	87,854,255	39,603,239
(c) Total	374,162,583	215,669,510
(2) Development Factor based on Paid + Case 132 Months to Ult.		
(a) Remainder of Industry	1.029	1.071
(b) AIG	1.003	1.094
(c) Weighted Average	1.023	1.075
(3) Est. Ultimate Losses (Prior to Escalation Adj.) based on Paid + Case Develop. Method		
(a) PY2010	363,104,590	227,822,891
(b) PY2011	373,825,630	228,279,081
(c) Average	368,465,110	228,050,986
(4) Est. Ultimate Losses (Prior to Escalation Adj.) based on Paid Develop. Method		
(a) PY2010	376,718,818	204,718,411
(b) PY2011	397,508,571	212,866,761
(c) Average	387,113,695	208,792,586
(5) Ratio of Est. Ultimate Losses based on average of Paid and Paid + Case indications to Est. Ultimate Losses based on Paid + Case = { [(3c) + (4c)] / 2.000 } / (3c)	1.025	0.958
(6) Development Factor to bring Unit Statistical Plan Data 10th report to Aggregate Financial Ultimate Level = (2c) x (5)	1.049	1.030

Notes:

- (1): Unit Statistical Plan Losses and LDFs from Pages 5 and 6.
- (2): 132 Months to 252 Months LDF from Section II-B, Exhibit 1, Pages 1 and 2.
 x 252 Months to Ult LDF from Section II-C, Exhibit 2, Page 1.
- (3),(4): Section II-A, Exhibit 1.

Losses Developed to 10th Report

Policy Year	Loss Development Category	Paid + Case					
		Reported Schedule Z Losses		Losses Developed to 10th Report			
		Indemnity	Medical	Indemnity	Medical	Medical	Medical
(1)	(2)	(3)	(4)	(7)	(8)		
2011	Likely	72,173,003	53,395,068	144,719,190	73,450,597		
2011	Not Likely	140,488,406	130,238,319	229,443,393	142,218,913		
2011	TOTALS	212,661,409	183,633,387	374,162,583	215,669,510		
2010	Likely	104,798,135	67,016,669	142,470,799	81,309,585		
2010	Not Likely	171,025,285	125,464,191	213,809,927	130,867,115		
2010	TOTALS	275,823,420	192,480,860	356,280,725	212,176,700		
2009	Likely	119,101,813	65,596,132	138,946,207	74,636,392		
2009	Not Likely	181,266,472	123,068,759	202,308,866	125,508,419		
2009	TOTALS	300,368,285	188,664,891	341,255,073	200,144,811		

Notes:

(3),(4): Sum of Unit Statistical Plan Data.

(7),(8): Unit Statistical Plan Data x Loss Development Factors to 10th report from Exhibit 5, Pages 5 and 6.

X 000017

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 5
 Page 5

Summary of Development Factors Remainder of Industry

		Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		(1) Indemnity Paid + Case Losses								
2Yr Weighted Average		1.411	1.141	1.065	1.031	1.003	1.013	1.006	1.007	1.005
Cumulative		1.830	1.297	1.137	1.068	1.035	1.032	1.018	1.012	1.005
		(2) Medical Paid + Case Losses								
2Yr Weighted Average		1.110	1.056	1.054	1.033	1.024	1.008	1.017	0.996	1.004
Cumulative		1.340	1.208	1.143	1.084	1.050	1.025	1.017	1.000	1.004
		Not-Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		(3) Indemnity Paid + Case Losses								
2Yr Weighted Average		1.282	1.096	1.051	1.022	1.009	1.008	1.001	1.003	1.002
Cumulative		1.543	1.204	1.098	1.045	1.023	1.014	1.006	1.005	1.002
		(4) Medical Paid + Case Losses								
2Yr Weighted Average		1.039	1.021	1.010	0.995	1.007	1.001	1.010	0.992	1.009
Cumulative		1.087	1.046	1.024	1.014	1.019	1.012	1.011	1.001	1.009

Notes:

(1),(2): Page 7.
 (3),(4): Page 9.

X 000018

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 5
 Page 6

Summary of Development Factors AIG

		Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		(1) Indemnity Paid + Case Losses								
5Yr Weighted Average		1.698	1.229	1.149	1.071	1.017	1.004	1.010	0.998	1.007
Cumulative		2.662	1.568	1.276	1.111	1.037	1.020	1.016	1.005	1.007
		(2) Medical Paid + Case Losses								
5Yr Weighted Average		1.209	1.117	1.106	1.063	0.984	0.953	1.006	1.007	1.000
Cumulative		1.508	1.247	1.117	1.009	0.949	0.965	1.013	1.007	1.000
		Not-Likely to Develop								
		Development Factors From:								
		18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126
		(3) Indemnity Paid + Case Losses								
5Yr Weighted Average		1.496	1.187	1.101	1.051	1.005	1.008	1.016	0.996	1.000
Cumulative		2.104	1.407	1.185	1.076	1.024	1.019	1.011	0.995	1.000
		(4) Medical Paid + Case Losses								
5Yr Weighted Average		1.085	1.033	1.024	1.001	1.000	0.994	0.993	0.991	0.997
Cumulative		1.121	1.033	1.000	0.976	0.975	0.975	0.981	0.988	0.997

Notes:
 (1),(2): Page 8.
 (3),(4): Page 10.

X 000019

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 5
 Page 7

Calculation of Likely to Develop Development Factors Remainder of Industry

Policy Year	Likely to Develop					
	Unlimited Indemnity Paid + Case Losses			Unlimited Medical Paid + Case Losses		
	Evaluated at month		Link Ratio	Evaluated at month		Link Ratio
	18	30		18	30	
2010	54,094,881	78,245,865	1.446	50,800,855	56,454,080	1.111
2009	55,829,365	76,848,868	1.376	43,904,959	48,626,580	1.108
Weighted Average			1.411			1.110
	30	42		30	42	
2009	79,011,715	91,965,400	1.164	49,356,430	51,911,833	1.052
2008	76,604,450	85,533,006	1.117	38,775,806	41,193,013	1.062
Weighted Average			1.141			1.056
	42	54		42	54	
2008	89,137,850	95,849,841	1.075	43,339,414	46,534,154	1.074
2007	86,921,777	91,692,237	1.055	51,202,732	53,123,719	1.038
Weighted Average			1.065			1.054
	54	66		54	66	
2007	95,543,950	99,040,815	1.037	53,873,735	54,934,494	1.020
2006	96,832,338	99,372,419	1.026	48,529,673	50,833,000	1.047
Weighted Average			1.031			1.033
	66	78		66	78	
2006	101,030,052	101,229,504	1.002	51,535,717	52,768,070	1.024
2005	94,931,370	95,359,743	1.005	50,890,060	52,145,110	1.025
Weighted Average			1.003			1.024
	78	90		78	90	
2005	95,917,761	97,327,501	1.015	52,598,340	52,846,946	1.005
2004	112,876,833	114,241,662	1.012	61,342,704	61,963,470	1.010
Weighted Average			1.013			1.008
	90	102		90	102	
2004	115,307,427	115,969,182	1.006	62,003,827	62,926,685	1.015
2003	112,561,197	113,304,041	1.007	59,560,637	60,707,288	1.019
Weighted Average			1.006			1.017
	102	114		102	114	
2003	113,121,221	113,924,785	1.007	60,424,866	59,145,109	0.979
2002	125,113,904	126,064,025	1.008	64,848,108	65,635,609	1.012
Weighted Average			1.007			0.996
	114	126		114	126	
2002	125,323,823	126,224,498	1.007	65,510,356	65,142,616	0.994
2001	140,349,958	140,699,002	1.002	80,625,577	81,605,857	1.012
Weighted Average			1.005			1.004

Note:
 Unit Statistical Plan Data, Excluding Large Deductible Policies.

X 000020

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 5
 Page 8

Calculation of Likely to Develop Development Factors AIG

Policy Year	Likely to Develop					
	Unlimited Indemnity Paid + Case Losses			Unlimited Medical Paid + Case Losses		
	Evaluated at month		Link Ratio	Evaluated at month		Link Ratio
	18	30		18	30	
2010	14,144,129	23,611,418	1.669	8,023,530	9,585,259	1.195
2009	10,111,312	19,525,333	1.931	8,110,010	12,481,277	1.539
2008	16,671,123	27,950,952	1.677	10,205,950	12,390,776	1.214
2007	22,000,160	37,841,454	1.720	13,828,015	15,988,921	1.156
2006	27,454,365	44,512,639	1.621	24,044,700	27,211,196	1.132
Weighted Average			1.698			1.209
	30	42		30	42	
2009	19,791,549	24,460,845	1.236	12,538,821	12,751,785	1.017
2008	29,043,959	34,005,752	1.171	12,463,932	14,371,905	1.153
2007	38,421,199	45,574,525	1.186	16,171,360	17,328,726	1.072
2006	45,167,202	56,903,663	1.260	27,406,086	30,481,281	1.112
2005	46,670,355	59,100,855	1.266	24,175,885	28,664,615	1.186
Weighted Average			1.229			1.117
	42	54		42	54	
2008	34,311,819	37,335,675	1.088	14,554,870	14,843,987	1.020
2007	47,009,395	52,881,094	1.125	17,506,574	17,563,904	1.003
2006	57,795,691	65,367,610	1.131	31,387,275	33,817,195	1.077
2005	59,590,118	71,713,716	1.203	28,719,791	31,559,786	1.099
2004	53,063,216	61,872,858	1.166	27,855,925	35,007,913	1.257
Weighted Average			1.149			1.106
	54	66		54	66	
2007	53,856,429	55,766,590	1.035	18,045,483	18,113,326	1.004
2006	65,692,394	67,729,734	1.031	33,245,968	33,460,814	1.006
2005	73,784,285	77,783,597	1.054	32,026,241	36,075,308	1.126
2004	63,286,602	70,752,340	1.118	35,191,437	37,888,752	1.077
2003	56,621,670	63,583,642	1.123	26,847,962	28,990,006	1.080
Weighted Average			1.071			1.063
	66	78		66	78	
2006	68,754,876	70,283,109	1.022	33,560,907	33,567,836	1.000
2005	76,641,069	77,254,361	1.008	35,817,425	34,848,885	0.973
2004	71,678,391	74,277,198	1.036	38,031,245	37,775,396	0.993
2003	63,648,479	63,971,677	1.005	29,028,230	28,208,660	0.972
2002	40,596,292	40,956,071	1.009	20,266,163	19,738,207	0.974
Weighted Average			1.017			0.984
	78	90		78	90	
2005	78,668,946	78,529,639	0.998	38,081,571	37,596,611	0.987
2004	74,077,080	74,772,987	1.009	37,803,345	35,804,762	0.947
2003	63,987,549	63,956,233	1.000	28,107,863	26,021,985	0.926
2002	41,022,082	41,995,379	1.024	19,724,175	17,600,151	0.892
2001	29,147,876	28,796,847	0.988	10,063,066	10,425,014	1.036
Weighted Average			1.004			0.953
	90	102		90	102	
2004	74,533,984	76,015,192	1.020	35,783,356	37,581,995	1.050
2003	63,678,489	63,469,046	0.997	25,929,848	23,726,615	0.915
2002	42,597,893	42,910,329	1.007	17,662,290	18,712,680	1.059
2001	29,588,363	30,099,155	1.017	10,634,231	10,519,552	0.989
2000	20,936,950	21,211,674	1.013	7,206,247	7,218,328	1.002
Weighted Average			1.010			1.006
	102	114		102	114	
2003	63,097,655	63,015,394	0.999	23,575,382	23,685,460	1.005
2002	42,746,396	43,050,336	1.007	18,794,965	18,063,086	0.961
2001	29,545,360	29,324,306	0.993	10,473,211	10,678,729	1.020
2000	21,211,674	20,944,340	0.987	7,218,328	7,793,735	1.080
1999	14,284,750	14,278,100	1.000	6,541,402	6,845,921	1.047
Weighted Average			0.998			1.007
	114	126		114	126	
2002	43,682,013	43,794,357	1.003	18,171,177	17,718,213	0.975
2001	27,754,872	27,896,657	1.005	10,276,575	10,887,271	1.059
2000	20,944,340	21,576,460	1.030	7,793,735	7,730,606	0.992
1999	14,447,707	14,297,962	0.990	6,882,790	6,806,930	0.989
Weighted Average			1.007			1.000

Note:
 Unit Statistical Plan Data, Excluding Large Deductible Policies.

X 000021

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 5
 Page 9

Calculation of Not-Likely to Develop Development Factors Remainder of Industry

Not-Likely to Develop						
Policy Year	Unlimited Indemnity Paid + Case Losses			Unlimited Medical Paid + Case Losses		
	Evaluated at month		Link Ratio	Evaluated at month		Link Ratio
	18	30		18	30	
2010	103,468,955	134,453,842	1.299	97,476,661	101,992,172	1.046
2009	105,904,772	133,921,533	1.265	96,871,344	100,014,159	1.032
Weighted Average			1.282			1.039
2009	131,758,686	145,924,092	1.108	99,284,309	101,986,454	1.027
2008	123,943,267	134,381,806	1.084	94,236,453	95,579,466	1.014
Weighted Average			1.096			1.021
2008	130,776,962	138,554,122	1.059	93,433,065	93,657,486	1.002
2007	129,924,672	135,422,545	1.042	95,163,632	96,879,443	1.018
Weighted Average			1.051			1.010
2007	131,570,832	135,307,104	1.028	96,129,427	95,368,161	0.992
2006	120,966,772	122,663,061	1.014	83,871,587	83,656,186	0.997
Weighted Average			1.022			0.995
2006	121,005,428	122,854,672	1.015	82,953,469	83,896,076	1.011
2005	124,193,282	124,488,139	1.002	81,586,595	81,780,549	1.002
Weighted Average			1.009			1.007
2005	123,930,121	125,025,805	1.009	81,327,319	82,009,097	1.008
2004	125,872,528	126,779,748	1.007	83,648,311	83,147,906	0.994
Weighted Average			1.008			1.001
2004	125,713,983	125,664,335	1.000	83,107,549	83,794,690	1.008
2003	126,698,641	127,123,099	1.003	87,150,626	88,094,677	1.011
Weighted Average			1.001			1.010
2003	127,305,919	127,705,243	1.003	88,377,099	87,989,626	0.996
2002	144,329,488	144,711,340	1.003	97,946,874	96,865,758	0.989
Weighted Average			1.003			0.992
2002	145,451,542	145,816,531	1.003	96,991,011	99,021,813	1.021
2001	156,806,407	156,957,767	1.001	96,224,209	96,020,191	0.998
Weighted Average			1.002			1.009

Note:
 Unit Statistical Plan Data, Excluding Large Deductible Policies.

Calculation of Not-Likely to Develop Development Factors
 AIG

Not-Likely to Develop						
Policy Year	Unlimited Indemnity Paid + Case Losses			Unlimited Medical Paid + Case Losses		
	Evaluated at month		Link Ratio	Evaluated at month		Link Ratio
	18	30		18	30	
2010	24,438,755	39,512,295	1.617	22,554,181	24,449,349	1.084
2009	21,356,909	31,266,072	1.464	20,488,545	21,917,046	1.070
2008	29,619,505	43,390,752	1.465	26,593,772	29,459,750	1.108
2007	26,563,903	40,109,656	1.510	27,807,825	30,402,800	1.093
2006	26,332,454	37,635,127	1.429	27,672,594	29,553,359	1.068
Weighted Average			1.496			1.085
	30	42		30	42	
2009	30,999,856	38,017,948	1.226	21,859,502	22,014,819	1.007
2008	42,297,745	49,826,649	1.178	29,386,594	28,793,534	0.980
2007	39,529,911	45,686,738	1.156	30,220,361	31,225,891	1.033
2006	36,980,564	43,700,929	1.182	29,358,469	31,597,226	1.076
2005	41,026,274	49,312,960	1.202	32,753,095	34,694,256	1.059
Weighted Average			1.187			1.033
	42	54		42	54	
2008	49,520,582	53,206,201	1.074	28,610,569	28,118,311	0.983
2007	44,251,868	49,036,130	1.108	31,048,043	30,846,226	0.993
2006	42,808,901	48,599,990	1.135	30,691,232	31,857,467	1.038
2005	48,823,697	53,705,597	1.100	34,639,080	36,697,608	1.059
2004	43,443,272	47,451,437	1.092	28,763,420	29,955,914	1.041
Weighted Average			1.101			1.024
	54	66		54	66	
2007	48,060,795	50,584,531	1.053	30,364,647	30,153,690	0.993
2006	48,275,206	48,790,373	1.011	32,428,694	32,094,390	0.990
2005	51,635,028	55,765,544	1.080	36,231,153	36,176,424	0.998
2004	46,037,693	49,085,789	1.066	29,772,390	30,369,031	1.020
2003	34,213,381	35,546,153	1.039	21,125,810	21,248,685	1.006
Weighted Average			1.051			1.001
	66	78		66	78	
2006	47,765,231	47,884,874	1.003	31,994,297	31,437,991	0.983
2005	56,908,072	56,790,607	0.998	36,434,307	36,015,037	0.988
2004	48,159,738	48,822,898	1.014	30,226,538	30,106,522	0.996
2003	35,481,316	36,068,902	1.017	21,210,461	21,295,995	1.004
2002	31,687,491	31,589,913	0.997	17,119,369	18,178,266	1.062
Weighted Average			1.005			1.000
	78	90		78	90	
2005	55,376,022	54,929,621	0.992	32,782,351	33,044,261	1.008
2004	49,023,016	49,236,614	1.004	30,078,573	29,513,888	0.981
2003	36,053,030	36,801,281	1.021	21,396,792	21,519,865	1.006
2002	31,523,902	32,599,570	1.034	18,192,298	17,905,833	0.984
2001	22,413,935	22,396,172	0.999	11,090,630	10,883,872	0.981
Weighted Average			1.008			0.994
	90	102		90	102	
2004	49,475,617	50,195,788	1.015	29,535,294	29,736,999	1.007
2003	37,079,025	37,948,526	1.023	21,612,002	21,335,724	0.987
2002	31,997,056	32,650,512	1.020	17,843,694	17,437,762	0.977
2001	21,604,656	21,646,975	1.002	10,674,655	10,525,453	0.986
2000	20,689,980	20,927,537	1.011	8,914,288	8,935,768	1.002
Weighted Average			1.016			0.993
	102	114		102	114	
2003	38,319,917	37,747,898	0.985	21,486,957	21,569,230	1.004
2002	32,814,445	33,132,425	1.010	17,355,477	17,083,134	0.984
2001	22,200,770	21,896,411	0.986	10,571,794	10,329,090	0.977
2000	20,927,537	21,188,533	1.012	8,935,768	8,850,666	0.990
1999	19,403,674	19,116,043	0.985	7,142,497	7,077,900	0.991
Weighted Average			0.996			0.991
	114	126		114	126	
2002	32,500,748	32,240,915	0.992	16,975,043	17,069,364	1.006
2001	23,465,845	23,425,437	0.998	10,731,244	10,766,929	1.003
2000	21,188,533	21,450,987	1.012	8,850,666	8,651,071	0.977
1999	18,946,436	18,939,380	1.000	7,041,031	6,961,895	0.989
Weighted Average			1.000			0.997

Note:
 Unit Statistical Plan Data, Excluding Large Deductible Policies.

Escalation Adjustment for Indemnity Losses Only

Loss Development Method (1)	Policy Year (2)	Differential in Loss Development (3)
Paid Plus Case	2011	1.007
	2010	1.007
	2009	1.007
Paid	2011	1.037
	2010	1.037
	2009	1.037
Average of Paid and Paid Plus Case	2011	1.022
	2010	1.022
	2009	1.022

Notes:

(3): Section II-D, Exhibit 1, Page 1 and Exhibit 2, Page 1.

X 000024

Section X - Experience Rating
 Subsection A - Expected Loss Rates
 1/1/2014

Section X - A
 Exhibit 6

Investment Income Offset

Hazard Code (1)	Injury Type (2)	Indemnity		Medical		Total Investment Income Offset (7)
		Developed Losses at Ultimate (3)	Investment Income Offset (4)	Developed Losses at Ultimate (5)	Investment Income Offset (6)	
A	Fatal	939,577	0.870	90,758	1.000	
A	Permanent Total	471,647	0.836	32,423	0.840	
A	Permanent Partial	18,653,518	1.017	10,268,731	1.021	
A	Temporary Total	20,445,778	1.023	13,704,923	1.027	
A	Medical Only	0		5,950,361	1.000	
A	TOTAL	40,510,521	1.014	30,047,197	1.019	1.017
B	Fatal	3,023,576	0.870	174,024	1.000	
B	Permanent Total	2,884,040	0.836	9,271,168	0.840	
B	Permanent Partial	79,645,311	1.017	34,833,444	1.021	
B	Temporary Total	62,526,332	1.023	41,655,151	1.027	
B	Medical Only	0		18,844,077	1.000	
B	TOTAL	148,079,258	1.013	104,777,864	1.004	1.009
C	Fatal	7,068,604	0.870	435,747	1.000	
C	Permanent Total	9,287,735	0.836	12,709,453	0.840	
C	Permanent Partial	175,703,547	1.017	75,378,454	1.021	
C	Temporary Total	121,496,790	1.023	72,835,692	1.027	
C	Medical Only	0		27,452,375	1.000	
C	TOTAL	313,556,676	1.011	188,811,721	1.008	1.010
D	Fatal	3,146,593	0.870	70,151	1.000	
D	Permanent Total	2,237,038	0.836	506,905	0.840	
D	Permanent Partial	75,784,299	1.017	33,769,953	1.021	
D	Temporary Total	58,267,997	1.023	32,438,827	1.027	
D	Medical Only	0		8,885,764	1.000	
D	TOTAL	139,435,927	1.013	75,671,599	1.020	1.016
E	Fatal	3,397,190	0.870	144,223	1.000	
E	Permanent Total	8,827,047	0.836	11,524,570	0.840	
E	Permanent Partial	127,146,791	1.017	48,159,836	1.021	
E	Temporary Total	71,996,336	1.023	37,119,999	1.027	
E	Medical Only	0		10,332,788	1.000	
E	TOTAL	211,367,363	1.009	107,281,415	1.002	1.007
F	Fatal	7,677,992	0.870	416,405	1.000	
F	Permanent Total	9,229,898	0.836	16,683,987	0.840	
F	Permanent Partial	153,376,167	1.017	57,447,227	1.021	
F	Temporary Total	82,565,488	1.023	41,045,677	1.027	
F	Medical Only	0		7,460,264	1.000	
F	TOTAL	252,849,545	1.008	123,053,560	0.997	1.004
G	Fatal	3,088,439	0.870	22,276	1.000	
G	Permanent Total	1,271,781	0.836	290,396	0.840	
G	Permanent Partial	27,848,554	1.017	10,703,597	1.021	
G	Temporary Total	10,547,422	1.023	5,287,113	1.027	
G	Medical Only	0		771,806	1.000	
G	TOTAL	42,756,196	1.002	17,075,189	1.019	1.007

Notes:

(3),(5): From Exhibit 4, Pages 3-5, Developed to Ultimate.

(4),(6): Section IX-B, Exhibit 4.

(7) = Average of (4) and (6) weighted by (3) and (5).

Calculation of Statewide Partial "D" Ratios by Benefit Type

Benefit Type (1)	Adjusted Primary Losses (2)	Adjusted Total Losses (3)	Partial D-Ratio = (2) / (3) (4)
Indemnity	82,187,172	685,077,622	0.120
Medical	143,243,309	483,842,087	0.296

Notes:

Data at the individual claim level for PYs 2009 - 2011 have been adjusted by the factors shown on Page 2. The Adjusted Primary Losses are capped at \$5,000 per claim. The Adjusted Total Losses are capped at \$175,000 per claim. If losses are capped, the proportions for capped indemnity and capped medical losses are consistent with the proportions for unlimited indemnity and unlimited medical.

Severity Trend and State Benefit Level Adjustment Factors

Policy Year	Indemnity By Injury Type			Medical by Injury Type			
	Fatal	Permanent Total	Temporary Total	Fatal	Permanent Total	Temporary Total	Medical Only
(1) Severity Trend Factors							
2009	1.027	1.027	1.027	1.036	1.036	1.036	1.036
2010	1.027	1.027	1.027	1.036	1.036	1.036	1.036
2011	1.027	1.027	1.027	1.036	1.036	1.036	1.036
(2) State Benefit Level Adjustment Factors							
2009	1.000	1.000	0.999	1.002	1.002	1.002	1.002
2010	1.004	1.005	1.008	1.000	1.000	1.000	1.000
2011	1.005	1.006	1.011	1.000	1.000	1.000	1.000
(3) Combined Severity Trend and State Benefit Level Adjustment Factors							
2009	1.027	1.027	1.026	1.038	1.038	1.038	1.038
2010	1.031	1.032	1.036	1.036	1.036	1.036	1.036
2011	1.032	1.034	1.039	1.036	1.036	1.036	1.036

Notes:

- (1): Exhibit 2.
- (2): Section IV-A, Exhibit 1, PY 2009 to PY 2010, PY 2010 to PY 2011, PY 2011 to PY 2012.
- (3) = (1) x (2)

Severity Trend Factors

Schedule Z Policy Year (1)	Policy Effective Period (2)
01/01/2011 - 12/31/2011	01/01/2012 - 12/31/2012
01/01/2010 - 12/31/2010	01/01/2011 - 12/31/2011
01/01/2009 - 12/31/2009	01/01/2010 - 12/31/2010
Avg Acc Date	
12/31/2010	Avg Acc Date 12/31/2011

(3) Indemnity Severity Trend 2.7%

(4) Medical Severity Trend 3.6%

(5) Trend Period Length 1.000
= Years between (1) and (2)

(6) Indemnity Trend Factor 1.027
= [1.000 + (3)] ^ (5)

(7) Medical Trend Factor 1.036
= [1.000 + (4)] ^ (5)

Notes:

(3),(4): Section V-A Exhibit 1.
Medical Severity Trend is a weighted average using Injury Type Weights at Ultimate from Section IV.

Calculation of ELR Factors

Unit Report / Policy Effective Dates (1)	Hazard Group (2)	Permissible Loss and LBA Ratio (3)	Weighted LBA (4)	Exp Rating LER by Hazard Group (5)	Law Factor (6)	Loss Trend/ Payroll Trend (7)	Loss Development to Ultimate Report (8)	Investment Income Offset (9)	Ratio of Exp Rating ELR to Average Rate (10)
1st Report 1/1/2012 to 12/31/2012	C E F G	0.603 0.603 0.603 0.603	0.068 0.068 0.068 0.068	0.087 0.125 0.141 0.173	1.004 1.004 1.004 1.004	0.963 0.963 0.963 0.963	1.761 1.774 1.774 1.790	1.010 1.007 1.004 1.007	0.300 0.286 0.282 0.268
2nd Report 1/1/2011 to 12/31/2011	C E F G	0.603 0.603 0.603 0.603	0.068 0.068 0.068 0.068	0.135 0.195 0.221 0.269	1.006 1.006 1.006 1.006	0.945 0.945 0.945 0.945	1.327 1.332 1.332 1.339	1.010 1.007 1.004 1.007	0.384 0.357 0.346 0.322
3rd Report 1/1/2010 to 12/31/2010	C E F G	0.603 0.603 0.603 0.603	0.068 0.068 0.068 0.068	0.189 0.273 0.308 0.376	1.007 1.007 1.007 1.007	0.927 0.927 0.927 0.927	1.193 1.196 1.196 1.200	1.010 1.007 1.004 1.007	0.408 0.366 0.348 0.312
1st - 3rd Report Average	C E F G								0.364 0.336 0.325 0.301

Notes:

- (1): Unit Stat Reports used to experience rate a policy taking effect during the prospective effective period.
- (3), (5), (7), (9): Section X-A, Exhibit 1.
- (4): Loss Based Assessment weighted by federal indemnity losses as a % of losses.
- (6): State Factors from Section IV-A, Exhibit 1 and Federal Factors from Section IV-F, Exhibit 1 weighted by Adjusted Reported Losses from Section VIII-C, Exhibit 1, Pages 2 and 4.
- (8): Exhibit 2.
- (10) = $[(3) / \{ 1.0 + (4) \}] \times [1.0 - (5)] / [(6) \times (7) \times (8) \times (9)]$

X 000029

Section X - Experience Rating
 Subsection C - Expected Loss Rates for F-Class
 1/1/2014

Section X - C
 Exhibit 2

Hazard Group Development Factors to Ultimate

Development to Ultimate (1)	Hazard Group (2)	Losses at Latest Report (3)	Selected Relativity (4)	Balanced Relativity = (4) / TT(4) (5)	Selected Dev. Factor to Ultimate (6)
1st	C	111,088,334	0.989	0.989	1.761
1st	E	73,812,187	1.006	1.006	1.774
1st	F	73,833,382	1.005	1.006	1.774
1st	G	11,945,401	1.027	1.027	1.790
1st	Total	270,679,304	1.000	1.000	1.769
2nd	C	126,740,681	0.989	0.989	1.327
2nd	E	83,799,912	1.006	1.006	1.332
2nd	F	104,281,319	1.005	1.005	1.332
2nd	G	14,525,823	1.027	1.027	1.339
2nd	Total	329,347,735	1.000	1.000	1.330
3rd	C	143,409,466	0.989	0.989	1.193
3rd	E	77,496,955	1.006	1.006	1.196
3rd	F	104,142,699	1.005	1.006	1.196
3rd	G	17,388,693	1.027	1.027	1.200
3rd	Total	342,437,813	1.000	1.000	1.195

Notes:

(3): See Section X-A, Exhibit 4, Page 1.

(4): See Section X-A, Exhibit 4, Page 2 for F-Classes for selection. The entry in the "Total" row is the weighted average using incurred losses at latest report in column (3) as the weights.

(6) = 1.00 + (5) x (Total LDF from Exhibit 3 - 1.00)

Loss Development Factors For Use in Calculation of Reciprocals

Report	Benefit Type	Injury Type	State Loss Development Factor to Ultimate (4)	Federal Loss Development Factor to Ultimate (5)	Average Loss Development Factor to Ultimate (6)	Distribution of Ultimate Losses (7)	Adjusted Distribution = (7) / (6) (8)	LDF to Ultimate to Derive ELR = TT(7) / TT(8) (9)
(1)	(2)	(3)						
1st	Indemnity	Likely to Develop	2.095	2.952	2.881	31.8%	11.0%	
1st	Indemnity	Not Likely to Develop	1.580	1.731	1.718	30.2%	17.6%	
1st	Medical	Likely to Develop	1.428	1.777	1.768	17.8%	10.1%	
1st	Medical	Not Likely to Develop	1.097	1.134	1.133	20.2%	17.8%	
1st	Total					100.0%	56.5%	1.769
2nd	Indemnity	Likely to Develop	1.485	1.577	1.569	31.8%	20.2%	
2nd	Indemnity	Not Likely to Develop	1.233	1.267	1.264	30.2%	23.9%	
2nd	Medical	Likely to Develop	1.287	1.483	1.478	17.8%	12.1%	
2nd	Medical	Not Likely to Develop	1.055	1.065	1.065	20.2%	19.0%	
2nd	Total					100.0%	75.2%	1.330
3rd	Indemnity	Likely to Develop	1.302	1.309	1.308	31.8%	24.3%	
3rd	Indemnity	Not Likely to Develop	1.124	1.115	1.116	30.2%	27.1%	
3rd	Medical	Likely to Develop	1.218	1.387	1.383	17.8%	12.9%	
3rd	Medical	Not Likely to Develop	1.034	1.040	1.040	20.2%	19.4%	
3rd	Total					100.0%	83.7%	1.195

Notes:

- (4): Section X-A, Exhibit 5, Page 5 and Section X-A, Exhibit 5, Page 2.
- (5): Section VIII-E, Exhibit 1, Page 1.
- (6): Average of (4) and (5) weighted by % of Total Reported Losses from Section VIII-C, Exhibit 1 Page 2 and Page 4. Federal losses are 91.7% of total reported indemnity losses and 97.5% of total reported medical losses.
- (7): Section IV-E, Exhibit 2, Pages 1 and 2.

EXPERIENCE RATING PLAN MANUAL

MASSACHUSETTS

Proposed Effective January 1, 2014

TABLE OF EXPECTED LOSS RATES AND DISCOUNT RATIOS

CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO
0005	1.19	.20	2014	1.53	.19	2702	5.53	.18	3257	1.24	.18	4112	0.31	.19
0008	1.15	.20	2021	1.53	.19	2710	2.93	.20	3270	1.01	.19	4113	0.86	.19
0016	1.62	.20	2039	1.10	.19	2731	1.64	.19	3300	2.45	.19	4114	1.08	.18
0034	1.76	.21	2041	1.22	.19	2741	2.64	.18	3305	(a)	(a)	4130	1.95	.19
0035	1.00	.20	2070	1.91	.19	2747	3.22	.19	3315	1.50	.19	4133	0.85	.19
0036	1.76	.21	2081	1.64	.21	2790	0.82	.20	3336	1.48	.18	4150	0.40	.18
0037	1.15	.20	2089	1.12	.19	2802	2.03	.19	3365	3.00	.18	4239	1.24	.19
0042	1.93	.20	2095	1.74	.19	2835	0.99	.19	3372	1.16	.20	4243	1.58	.19
0046	1.04	.20	2101	1.19	.19	2836	1.31	.18	3373	1.91	.19	4244	1.51	.20
0050	2.88	.17	2105	(a)	(a)	2841	1.87	.18	3381	1.32	.19	4250	0.97	.19
0059D	.	.	2111	1.13	.19	2883	1.50	.19	3383	0.55	.19	4251	0.89	.19
0065D	.	.	2114	1.19	.19	2923	0.78	.19	3385	0.41	.19	4273	1.08	.19
0066D	.	.	2115	1.55	.20	2942	1.03	.20	3400	1.53	.19	4279	1.27	.19
0067D	.	.	2121	0.75	.19	3018	1.34	.18	3507	1.39	.20	4282	0.39	.19
0079	1.08	.20	2130	1.01	.19	3022	1.75	.20	3515	1.10	.20	4283	1.14	.19
0083	2.33	.22	2131	0.99	.19	3027	1.50	.19	3548	0.70	.19	4299	0.84	.18
0106	6.05	.21	2143	1.12	.20	3028	1.49	.19	3558	0.31	.21	4301	2.23	.19
0113	1.76	.21	2150	2.68	.19	3030	3.06	.20	3559	0.70	.19	4304	1.56	.19
0170	1.76	.21	2156	2.96	.18	3040	3.31	.19	3571	0.51	.19	4307	0.82	.19
0251	1.72	.19	2157	2.25	.19	3041	2.19	.19	3574	0.74	.19	4308	0.51	.15
0770	.	.	2172	0.86	.17	3042	2.40	.17	3612	0.82	.19	4350	0.27	.18
0773	.	.	2174	1.65	.18	3064	1.29	.19	3620	2.34	.21	4351	0.50	.17
0774	.	.	2211	2.59	.20	3066	1.29	.19	3629	0.74	.19	4352	0.44	.20
0775	.	.	2220	1.31	.20	3076	1.26	.20	3632	0.72	.19	4360	0.63	.19
0776	.	.	2260	2.75	.18	3081D	2.59	.19	3634	0.86	.19	4361	0.28	.20
0779	.	.	2286	1.38	.20	3082D	2.59	.19	3635	1.56	.21	4362	0.29	.19
0799	.	.	2288	1.17	.19	3085D	1.68	.19	3638	0.74	.19	4410	1.77	.19
0908	38.63	.19	2302	1.31	.20	3110	3.10	.19	3642	0.53	.18	4417	2.33	.19
0909	73.42	.23	2305	1.03	.18	3111	1.15	.20	3643	0.58	.18	4432	0.59	.19
0912	146.84	.23	2362	0.92	.20	3113	0.82	.18	3647	1.08	.19	4439	1.14	.20
0913	77.26	.19	2380	1.06	.19	3114	1.25	.19	3648	0.70	.20	4452	1.57	.19
0917	1.44	.20	2402	0.96	.19	3118	0.86	.18	3681	0.35	.19	4459	1.38	.20
0918	0.29	.16	2413	1.49	.19	3119	0.46	.20	3685	0.35	.19	4470	1.02	.18
1430	3.69	.17	2416	1.15	.19	3120	0.85	.17	3724	1.65	.18	4484	1.01	.19
1438	1.37	.19	2417	1.59	.18	3122	0.95	.19	3726	4.22	.17	4493	1.38	.20
1463	3.37	.18	2501	0.94	.19	3127	0.40	.20	3807	1.58	.19	4511	0.14	.19
1624D	2.04	.18	2503	0.52	.20	3131	0.75	.19	3808	1.51	.18	4512	0.06	.20
1655	2.14	.19	2534	0.99	.19	3132	1.36	.20	3821	2.19	.20	4557	0.83	.19
1701	1.57	.18	2570	2.33	.19	3145	0.84	.19	3826	1.23	.19	4558	0.70	.19
1710D	2.11	.18	2576	1.18	.18	3146	0.85	.19	3830	0.72	.19	4561	1.25	.20
1747	1.28	.19	2578	1.11	.18	3169	1.49	.19	3841	0.77	.20	4583	1.31	.18
1748	1.34	.19	2585	1.54	.20	3179	0.62	.18	4000	1.69	.18	4611	0.59	.19
1852	2.42	.16	2586	0.76	.19	3180	1.31	.19	4021	1.79	.19	4635	1.39	.20
1853	0.72	.17	2587	1.41	.20	3188	1.24	.19	4024	1.21	.19	4653	1.16	.18
1860	1.07	.19	2623	1.83	.19	3200	1.17	.20	4034	2.42	.20	4665	3.07	.19
1924	0.96	.19	2640	0.92	.19	3220	1.01	.19	4036	1.18	.17	4692	0.32	.17
1925	1.55	.19	2651	0.94	.19	3223	(a)	(a)	4038	1.24	.19	4693	0.44	.19
2001	1.76	.20	2660	0.93	.20	3227	1.58	.19	4053	0.86	.19	4720	0.79	.19
2002	1.65	.20	2683	0.98	.19	3241	0.90	.19	4061	1.10	.20	4740	0.40	.18
2003	1.67	.20	2688	1.32	.19	3255	1.49	.19	4062	1.05	.20	4741	1.17	.18

(a) Expected Loss Rates and Discount Ratios for each individual risk must be obtained by Home Office from the WCRIBMA
D Supplement Disease Loading

Proposed Effective January 1, 2014

TABLE OF EXPECTED LOSS RATES AND DISCOUNT RATIOS

CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO	CLASS CODE	EXP LOSS RATE	DISC RATIO
4770	4.19	.14	5538	2.04	.18	7420	2.58	.15	8233	2.94	.19	9061	0.50	.20
4773	8.46	.14	5545	12.51	.19	7421	0.79	.17	8235	1.92	.19	9063	0.34	.21
4774	7.02	.14	5547	5.63	.19	7422	0.72	.17	8263	2.94	.19	9077F	1.98	.22
4775	7.13	.19	5606	0.72	.18	7425	1.23	.16	8264	2.29	.18	9079	0.59	.20
4776	6.07	.13	5610	2.72	.17	7431	0.72	.17	8265	2.85	.19	9089	0.59	.20
4777	1.19	.18	5645	3.12	.19	7445	.	.	8279	2.08	.21	9093	0.57	.21
4779	4.99	.15	5651	3.12	.19	7453	.	.	8291	2.09	.19	9101	1.61	.20
4799	15.43	.14	5701	8.07	.20	7502	1.31	.19	8292	1.41	.19	9102	1.23	.20
4825	0.29	.20	5703	8.28	.17	7515	0.82	.21	8293	4.06	.20	9154	0.66	.19
4828	0.52	.18	5705	4.05	.19	7520	1.72	.19	8350	2.37	.18	9156	0.61	.20
4829	0.45	.18	6003	4.24	.17	7538	2.04	.18	8380	1.35	.19	9178	7.51	.24
4902	0.97	.20	6005	2.63	.17	7539	0.57	.18	8381	0.92	.21	9179	11.67	.18
4923	0.60	.19	6204	3.60	.17	7580	1.22	.19	8385	1.19	.18	9180	1.74	.21
5020	2.33	.17	6217	1.87	.18	7590	2.45	.18	8392	0.66	.19	9182	1.85	.23
5022	3.40	.18	6229	1.87	.18	7600	1.61	.18	8393	0.87	.18	9186	1.69	.21
5037	7.47	.17	6233	1.70	.17	7601	2.25	.18	8500	2.94	.19	9220	1.54	.19
5040	21.84	.17	6251D	2.41	.16	7610	0.10	.18	8601	0.14	.19	9402	2.15	.18
5057	9.04	.19	6252D	3.16	.18	7704	0.87	.20	8709F	2.04	.21	9403	3.76	.19
5059	9.04	.19	6306	3.38	.18	7720	0.79	.19	8710	1.07	.19	9410	1.04	.21
5069	9.04	.19	6319	1.86	.19	7855	2.18	.17	8719	0.94	.19	9501	1.27	.21
5102	2.29	.17	6325	1.95	.19	8001	0.83	.20	8720	0.36	.19	9505	1.27	.21
5146	2.44	.19	6400	3.02	.18	8002	0.83	.20	8721	0.08	.24	9519	1.24	.19
5160	1.37	.18	6504	1.19	.19	8006	0.72	.20	8726F	2.20	.22	9521	1.39	.18
5183	1.34	.18	6801F	3.97	.21	8008	0.36	.19	8742	0.07	.19	9522	0.83	.18
5188	1.89	.18	6811	3.36	.21	8010	0.72	.20	8745	1.81	.19	9533	6.30	.17
5190	1.13	.18	6824F	3.33	.21	8013	0.20	.20	8747	0.47	.20	9534	2.49	.18
5191	0.47	.19	6826F	3.68	.21	8017	0.54	.20	8748	0.25	.19	9545	1.74	.18
5192	1.48	.19	6834	1.21	.18	8018	1.41	.19	8800	0.46	.20	9549	1.87	.19
5213	5.67	.18	6836	1.21	.19	8021	1.29	.19	8803	0.02	.19	9552	3.32	.17
5215	2.18	.18	6843F	4.91	.18	8031	1.12	.19	8810	0.03	.20	9553	3.22	.17
5221	2.76	.18	6854	4.15	.18	8032	0.73	.19	8820	0.05	.19	9586	0.22	.19
5222	3.84	.18	6872F	8.66	.20	8033	0.88	.20	8824	0.76	.20	9620	0.33	.19
5223	1.94	.18	6874F	7.57	.19	8034	1.71	.19	8826	0.76	.20			
5348	2.45	.17	6882	7.32	.20	8039	0.63	.20	8829	0.95	.19			
5402	4.57	.19	6884	6.40	.19	8044	1.77	.21	8831	0.50	.22			
5403	4.27	.18	7133	(a)	(a)	8046	1.08	.20	8832	0.12	.19			
5437	1.99	.18	7219	3.95	.18	8048	1.33	.19	8833	0.58	.19			
5443	1.91	.18	7230	3.50	.18	8050	0.76	.20	8835	0.89	.18			
5445	2.98	.17	7231	3.56	.18	8058	1.18	.20	8837	(a)	(a)			
5462	2.97	.17	7309F	8.21	.20	8103	1.39	.19	8868	0.35	.20			
5472	3.53	.17	7313F	5.26	.15	8105	2.15	.19	8901	0.04	.20			
5473	3.62	.19	7317F	5.02	.18	8106	2.91	.20	9014	1.18	.19			
5474	2.26	.19	7327F	11.50	.20	8107	1.33	.19	9015	1.44	.19			
5478	2.14	.17	7350F	6.42	.20	8111	1.22	.20	9016	0.85	.21			
5479	3.79	.20	7360	2.69	.18	8116	1.46	.19	9019	1.24	.17			
5480	2.06	.17	7370	2.03	.19	8203	2.57	.20	9033	1.71	.18			
5506	2.58	.18	7380	2.74	.19	8204	2.04	.18	9040	1.25	.19			
5507	2.95	.18	7382	1.73	.19	8215	1.35	.19	9052	0.76	.20			
5508D	2.63	.17	7403	1.94	.20	8227	1.59	.19	9058	0.81	.20			
5509	1.27	.18	7405	0.62	.19	8232	1.98	.19	9060	0.48	.20			

(a) Expected Loss Rates and Discount Ratios for each individual risk must be obtained by Home Office from the WCRIBMA
 F Expected Loss Rates and Discount Ratios for risks covered under the United States Longshore and Harbor Workers' Compensation Act.
 D Supplement Disease Loading

EXPERIENCE RATING PLAN MANUAL

MASSACHUSETTS

Proposed Effective September 1, 2003

TABLE OF WEIGHTING VALUES

Expected Losses	Weighting Values	Expected Losses	Weighting Values	Expected Losses	Weighting Values
0 - 1,465	0.04	414,704 - 447,441	0.24	1,709,498 - 1,848,219	0.44
1,466 - 5,925	0.05	447,442 - 481,918	0.25	1,848,220 - 2,002,922	0.45
5,926 - 10,481	0.06	481,919 - 518,279	0.26	2,002,923 - 2,176,537	0.46
10,482 - 43,009	0.07	518,280 - 556,688	0.27	2,176,538 - 2,372,758	0.47
43,010 - 62,608	0.08	556,689 - 597,323	0.28	2,372,759 - 2,596,312	0.48
62,609 - 81,298	0.09	597,323 - 640,385	0.29	2,596,312 - 2,853,332	0.49
81,299 - 100,030	0.10	640,386 - 686,102	0.30	2,853,333 - 3,151,950	0.50
100,031 - 119,130	0.11	686,102 - 734,725	0.31	3,151,950 - 3,503,149	0.51
119,131 - 138,766	0.12	734,726 - 786,547	0.32	3,503,150 - 3,922,163	0.52
138,767 - 159,046	0.13	786,548 - 841,894	0.33	3,922,164 - 4,430,734	0.53
159,047 - 180,058	0.14	841,894 - 901,137	0.34	4,430,734 - 5,061,009	0.54
180,059 - 201,878	0.15	901,137 - 964,706	0.35	5,061,009 - 5,862,616	0.55
201,879 - 224,578	0.16	964,706 - 1,033,093	0.36	5,862,616 - 6,916,409	0.56
224,579 - 248,231	0.17	1,033,093 - 1,106,870	0.37	6,916,409 - 8,363,613	0.57
248,232 - 272,912	0.18	1,106,870 - 1,186,700	0.38	8,363,613 - 10,475,101	0.58
272,912 - 298,699	0.19	1,186,700 - 1,273,361	0.39	10,475,101 - 13,844,489	0.59
298,699 - 325,676	0.20	1,273,361 - 1,367,770	0.40	13,844,489 - 20,072,741	0.60
325,676 - 353,934	0.21	1,367,770 - 1,471,016	0.41	20,072,741 - 35,479,450	0.61
353,935 - 383,574	0.22	1,471,016 - 1,584,401	0.42	35,479,450 - 999,999,999	0.62
383,575 - 414,703	0.23	1,584,401 - 1,709,497	0.43		0.63

- (a) State Per Claim Accident Limitation \$175,000
- (b) State Multiple Claim Accident Limitation \$350,000
- (c) U.S. Longshore and Harbor Workers' Act Per Claim Accident Limitation \$130,000
- (d) U.S. Longshore and Harbor Workers' Act Multiple Claim Accident Limitation \$260,000
- (e) Employers Liability Accident Limitation \$55,000
- (f) USL&HW Act-Expected Loss Factor-Non-F Classes 18.3%
- (g) Cap on Modifications = $1 + (0.00005) [(Expected Losses) + (2) (Expected Losses) / (7.00)]$

The USL&HW Act - Expected Loss Factor - Non-F Classes updated to reflect January 1, 2014 rate revision

XI 000001

Miscellaneous Rating Values

In this section, we discuss recommended modifications to various miscellaneous rating values, including the following:

- Massachusetts Benefits Deductible Program Credits
- Massachusetts Benefits Claim and Aggregate Deductible Program Credits
- Massachusetts Construction Classification Premium Adjustment Program Credits

Section XI-B – Massachusetts Benefits Deductible Program Credits

The Massachusetts Benefits Deductible Program allows insureds to elect a per claim deductible applicable to the sum of medical and indemnity losses. Deductible levels of \$500, \$1,000, \$2,000, \$2,500 and \$5,000 are offered to every employer. Insureds that elect a deductible obtain a premium reduction reflective of the percentage of losses retained below the deductible. Higher deductibles should be associated with larger premium credits because an insured's expected retained losses increase as the deductible level increases.

Section XI-B, Exhibit 1 displays Loss Elimination Ratios and Premium Credits for the available deductible levels. The premium credits have been calculated with the following considerations:

- The deductible will apply to the sum of indemnity and medical losses.
- The database used is Unit Statistical Report data from policy years 2007, 2006, 2005, 2004, and 2003 at fifth report. Each loss is multiplied by appropriate trend, law amendment and development factors. Claim costs are trended to 1/1/2015, the average accident date (assuming the proposed small deductible credits will be in effect for one year starting 1/1/2014). These factors are shown in Section XI-D, Exhibit 1 and they are taken directly from other sections of the filing.
- Each claim is then layered by size of loss to calculate loss elimination ratios (LER).
- The WCRIBMA used the same formula as in the last Massachusetts Benefits Deductible Program filing to calculate the premium credit. This is formula (8) in "Fundamentals of Individual Risk Rating", 1992, Part III by William R. Gillam and Richard H. Snader:

XI 000003

$$\text{Premium Credit} = \frac{\text{LER} \times \text{SF} \times \text{ELR}}{1.0 - \text{VEL}}$$

LER - Loss Elimination Ratio (Section XI-B, Exhibit 1)

ELR - Expected Loss Ratio (Section VI-A, Exhibit 1)

VEL - Variable Expense Load (sum of the variable expense ratio from Section VI-A, Exhibit 1 and the IRR Profit Provision from Section VII-A, Exhibit 1)

SF - Safety Factor (from the 2007 Stipulation)

The safety factor is warranted for a number of reasons. First, insureds that elect a small deductible are more likely to benefit from having the deductible than an insured chosen at random. This is referred to as adverse selection and this problem is exacerbated by the requirement in Massachusetts (211 CMR 113.00) mandating that all risks be offered a policy with a deductible. Second, unlike personal auto or health insurance where the insurance company pays claims net of any applicable deductible, workers' compensation insurers must pay the entire amount of the claim and then seek reimbursement of the deductible from the insured. This creates credit risk and, unfortunately, some insureds default on their obligation to reimburse their insurance carrier. Additionally, the exposure insured by the insurance carrier is more risky if the policyholder has opted for a deductible because the policyholder is retaining the less risky portion of the total losses.

XI 000004

Section XI - Miscellaneous Rating Values
Subsection B - Massachusetts Benefits Deductible Program Credits
1/1/2014

Section XI-B
Exhibit 1

Massachusetts Benefits Deductible Program Premium Credits

Deductible Level (1)	Loss Elimination Ratio (2)	Expected Loss Ratio (3)	Safety Factor (4)	Variable Expense Ratio (5)	Underwriting Profit Provision (6)	Premium Credit (7)
500	3.0%	0.603	0.90	0.195	0.038	2.2%
1,000	5.0%	0.603	0.90	0.195	0.038	3.5%
2,000	7.5%	0.603	0.90	0.195	0.038	5.3%
2,500	8.5%	0.603	0.90	0.195	0.038	6.0%
5,000	12.5%	0.603	0.90	0.195	0.038	8.8%

Notes:

(2): Based on Unit Statistical Data

(3): Section VI-A, Exhibit 1.

(4) = 0.9 from 9/1/2007 Stipulation.

(5): Section VI-A, Exhibit 1.

(6): Section VII-B, Exhibit 1.

(7) = [(2) x (3) x (4)] / [1.0 - (5) - (6)]

XI 000005

Section XI-C – Massachusetts Benefits Claim and Aggregate Deductible Program

Credits

The Massachusetts Benefits Claim and Aggregate Deductible Program allows insureds to elect a per claim deductible applicable to the sum of medical and indemnity losses. However, unlike the Massachusetts Benefits Deductible Program, the losses retained by the insured are subject to a maximum, the aggregate limit. Only one deductible option is available with the Massachusetts Benefits Claim and Aggregate Deductible Program. Insureds may elect a \$2,500 deductible with an aggregate limit equal to the greater of \$10,000 or 5% of the “Basis for the Aggregate Limit at Policy Inception” which is defined in the Massachusetts Workers Compensation and Employers Liability Insurance Manual (“Massachusetts Manual”) as manual premium subject to any applicable merit or experience rating.

Section XI-C, Exhibit 1 shows the pricing of the \$2,500 per claim deductible subject to an aggregate limit. In the exhibit, the WCRIBMA estimates how much less of a credit is appropriate given the limitation on the insured's retained losses. For the Massachusetts Benefits Deductible Program, a credit of 6.0% is estimated for a \$2,500 per claim deductible (not subject to an aggregate limit). The 6.0% will serve as the basis for the calculation of the credit factors applicable to the Massachusetts Benefits Claim and Aggregate Deductible Program.

The impact of the aggregate limit on retained losses will vary with the premium size for an insured. Consistent with the law of large numbers, the loss experience for smaller policies is more volatile than for larger policies. Hence, proportionately “smaller insureds”

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have either very low or very high loss ratios when compared to “larger insureds.” Consequently, smaller insureds are less apt to benefit from an aggregate limit. In this section, factors are derived to modify the credit proposed for a \$2,500 deductible without an applicable aggregate limit. These vary by premium size to reflect the differential benefits of the aggregate limit for different size insureds. As in the prior Massachusetts Benefits Claim and Aggregate Deductible Program filing, the selection of the adjustment factor is based on the results of a simulation model shown in Section XI-C, Exhibit 2.

The simulation model does the following for each simulated insured:

- Assumes the insured has an expected claim frequency of N.
- Simulates the number of claims for the insured by generating a random number from a Poisson distribution with mean N.
- For each simulated claim, selects at random an actual loss amount from those reported in policy years 2007, 2006, 2005, 2004, and 2003 at 5th report. Loss amounts are adjusted for trend, development and law changes.
- Applies the per claim deductible to each claim to estimate the retained losses prior to application of the aggregate limit.
- Summarizes the simulated retained losses.
- Applies the aggregate limit to the sum of the simulated retained losses.

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Section XI - Miscellaneous Rating Values
 Subsection C - Massachusetts Benefits Claim and Aggregate Deductible Program Credits
 1/1/2014

Section XI-C
 Exhibit 1

Massachusetts Benefits Claim and Aggregate Deductible Program Premium Credit for \$2,500 Per Claim Deductible with Aggregate Limit

Estimated Annual Standard Premium (1)	Expected Number of Claims Per Year = Midpoint of (1) / \$21,751 (2)	Aggregate Limit (3)	Selected Adjustment Factor for Aggregate Limit (4)	Premium Credit = (4) x 6.0% (5)
0 - 75,000	1.7	\$10,000	0.98	5.9%
75,000 - 100,000	4.0	\$10,000	0.96	5.8%
100,000 - 125,000	5.2	\$10,000	0.94	5.7%
125,000 - 150,000	6.3	\$10,000	0.92	5.5%
150,000 - 200,000	8.0	\$10,000	0.89	5.4%
Over 200,000	9 or more	5% of the 'Basis for the Aggregate Limit at Policy Inception'	0.84	5.1%

Notes:

- (2): Based on \$21,751 in standard premium (no ARAP) per expected claim.
- (4): Selected based on the simulation results shown in Exhibit 2.
- (5): The 6.0% is based on the \$2,500 per claim deductible without any aggregate limit, from Section XI-B, Exhibit 1.

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Section XI - Miscellaneous Rating Values
 Subsection C - Massachusetts Benefits Claim and Aggregate Deductible Program Credits
 1/1/2014

Section XI-C
 Exhibit 2

Results of Simulation Model

Expected Number of Claims Per Year (1)	Number of Simulated Risks (2)	LER with No Aggregate Limit (3)	LER with \$10,000 Aggregate Limit (4)	LER with 5% of the Basis for Aggregate Limit (5)	Ratio of LERs (\$10,000 limit) = (4) / (3) (6)	Ratio of LERs (5% limit) = (5) / (3) (7)
1	1,000,000	8.48%	8.48%	3.88%	1.00	0.46
2	1,000,000	8.47%	8.46%	5.13%	1.00	0.61
3	1,000,000	8.51%	8.45%	5.74%	0.99	0.67
4	1,000,000	8.51%	8.32%	6.04%	0.98	0.71
5	1,000,000	8.52%	8.15%	6.28%	0.96	0.74
6	1,000,000	8.53%	7.91%	6.45%	0.93	0.76
7	1,000,000	8.49%	7.56%	6.55%	0.89	0.77
8	1,000,000	8.50%	7.22%	6.66%	0.85	0.78
9	1,000,000	8.48%	6.82%	6.72%	0.80	0.79
10	1,000,000	8.50%	6.46%	6.81%	0.76	0.80
12	1,000,000	8.49%	5.71%	6.92%	0.67	0.82
14	1,000,000	8.54%	5.07%	7.05%	0.59	0.83
16	1,000,000	8.51%	4.48%	7.10%	0.53	0.83
18	1,000,000	8.50%	4.01%	7.15%	0.47	0.84
20	1,000,000	8.48%	3.61%	7.18%	0.43	0.85
25	1,000,000	8.49%	2.89%	7.29%	0.34	0.86
30	1,000,000	8.50%	2.42%	7.37%	0.28	0.87
40	1,000,000	8.50%	1.81%	7.46%	0.21	0.88
50	1,000,000	8.50%	1.45%	7.53%	0.17	0.89
75	1,000,000	8.50%	0.97%	7.63%	0.11	0.90
100	1,000,000	8.50%	0.72%	7.68%	0.08	0.90
150	1,000,000	8.50%	0.48%	7.74%	0.06	0.91
200	1,000,000	8.50%	0.36%	7.78%	0.04	0.92
300	1,000,000	8.50%	0.24%	7.81%	0.03	0.92
400	1,000,000	8.50%	0.18%	7.83%	0.02	0.92
500	1,000,000	8.50%	0.14%	7.84%	0.02	0.92

Notes:

(5): The Aggregate Limit is based on the average claim severity of the simulated losses, \$13,802 and the permissible loss ratio of 0.603. One claim is assumed to be expected for each \$21,751 of standard premium.

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Section XI - Miscellaneous Rating Values
 Subsection D - Law Amendment , Loss Development, and Trend Summary
 1/1/2014

Section XI-D
 Exhibit 1

Law Amendments, Loss Development Factors, and Severity Trend

(1) Law Amendment Factors to Prospective Effective Period

Policy Year	Indemnity Losses				Medical Losses
	Death	Permanent Total	Permanent Partial	Temporary Total	All Injury Types
PY 2003	1.039	1.057	1.105	1.031	1.046
PY 2004	1.036	1.052	1.096	1.028	1.036
PY 2005	1.031	1.044	1.080	1.024	1.032
PY 2006	1.026	1.036	1.065	1.020	1.032
PY 2007	1.020	1.028	1.050	1.015	1.032

(2) Loss Development Factors - Fifth Report to Ultimate

Loss Development Category	Indemnity	Medical
Likely to Develop	1.087	1.239
Not Likely to Develop	1.022	1.044

(3) Severity Trend Factors

We apply three distinct trend factors.

Trend to PY 2007 is based on empirical USR data at 5th report.

Trend from PY 2007 to PY 2011 is based on severities from Section V-A.

Trend from PY 2011 to the Prospective Effective Period is based on the projected severity trends from Section V-A.

Trend Period		Indemnity	Lost Time Medical	Medical Only
From	To			
PY 2003	PY 2007	1.196	1.196	1.248
PY 2004	PY 2007	1.047	1.024	1.207
PY 2005	PY 2007	1.032	1.050	1.110
PY 2006	PY 2007	1.005	0.991	1.045
PY 2007	PY 2011	1.111	1.140	1.029
PY 2011	Prosp. Eff. Period	1.084	1.118	1.084

Notes:

(1): Section IV-A, Exhibit 1.

(2): Section IV-E, Exhibit 1, Pages 1 and 2.

(3): Section V-A, Exhibit 1.

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MASSACHUSETTS WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE MANUAL	RATES
<i>Proposed Effective January 1, 2014</i>	Page RA-5

MISCELLANEOUS VALUES

Basis of Premium applicable in accordance with the footnote instructions for Code 7370 - "Taxicab Co.":

Employee operated vehicles.....	\$92,100.00
Leased or rented vehicles.....	\$61,400.00

Basis of Premium for Sole Proprietors, Partners of Legal Partnerships, Members of Limited Liability Companies or Partners of Limited Liability Partnerships in accordance with Rule IX-B-3-a.....

Companies or Partners of Limited Liability Partnerships in accordance with Rule IX-B-3-a.....	\$41,300.00
Minimum individual payroll for an executive officer per week.....	\$200.00
Maximum individual payroll for an executive officer per week.....	\$1,000.00

Terrorism Insurance Program—Certified Loss: 0.03

BENEFITS DEDUCTIBLE COVERAGE PROGRAM

Medical and Indemnity Deductible Amount	Premium Reduction Percentage
\$500	2.2%
\$1,000	3.5%
\$2,000	5.3%
\$2,500	6.0%
\$5,000	8.8%

BENEFITS CLAIM AND AGGREGATE DEDUCTIBLE PROGRAM

Basis for the Aggregate Limit	Claim/Deductible Amount	Aggregate Deductible Amount	Premium Reduction Percentage
\$ 0 to \$75,000	\$2,500	\$10,000	5.9%
\$75,001 to \$100,000	\$2,500	\$10,000	5.8%
\$100,001 to \$125,000	\$2,500	\$10,000	5.7%
\$125,001 to \$150,000	\$2,500	\$10,000	5.5%
\$150,001 to \$200,000	\$2,500	\$10,000	5.4%
over \$200,000	\$2,500	5% of Basis for the Aggregate Limit	5.1%

Expense Constant applicable in accordance with Basic Manual Rule VI-E-2:

Policies which develop earned Standard Premium of less than \$200.....	\$159
Policies which develop earned Standard Premium of at least \$200 and less than \$1,000.....	\$250
Policies which develop earned Standard Premium of \$1,000 or more.....	\$338

The expense constant for private residence per capita classifications is \$64, up to a maximum of 4.

Premium Discount Percentages—(See Basic Manual Rule VII). The following premium discounts are applicable to Standard Premiums. Note: Premium Discount is not applicable to Assigned Risk policies.

	Type A Discount	Type B Discount
First \$ 10,000.....	0.0%	0.0%
Next 190,000.....	9.1%	5.1%
Next 1,550,000.....	11.3%	6.5%
Over 1,750,000.....	12.3%	7.5%

United States Longshore and Harbor Workers' Compensation Coverage Percentage applicable only in connection with Rule XII-D-3. "U.S. Longshore and Harbor Workers' Compensation Act" of the Basic Manual..... 25.4%
 (Multiply a Non-F classification rate by a factor of 1.254)

EXPERIENCE RATING ELIGIBILITY

A risk is eligible for intrastate experience rating when the payrolls or other exposures developed in the last year or last two years of the experience period produced a subject premium of at least \$11,000. If more than two years, an average annual premium of at least \$5,500 is required. The Experience Rating Plan Manual should be referenced for the latest eligibility amounts by state.

Notes:

- Benefit Deductible Coverage Program - Section XI-B, Exhibit 1.
- Benefit Claim and Aggregate Deductible Program - Section XI-C, Exhibit 1.
- Expense Constant - Section VI-D, Exhibit 1.
- Expense Constant for private residences - Section I-A, Exhibit 1.
- USL&H factor - Section VIII-J, Exhibit 1.

Section XI-F – Massachusetts Construction Classification Premium Adjustment

Program Credits

The Massachusetts Construction Classification Premium Adjustment Program (“MCCPAP”) was introduced in 1991. Experience rated insureds who paid wages in excess of \$18/hour for employees classified in eligible construction class codes could apply for a premium credit calculated by the WCRIBMA. In 1991, \$18/hour was approximately 150% of the then-current statewide average hourly wage of \$12/hour. The MCCPAP was intended to benefit employers that paid higher than average wages. Currently, the statewide average hourly wage is about \$30/hour. The WCRIBMA acknowledges that concerns were raised in the last hearing about the potential desirability of phasing-in the modification of the construction credit over a number of years. But with each passing year, the current structure has become increasingly obsolete and unreasonable. Accordingly, the WCRIBMA has renewed its proposal to bring the construction credit more in line with current wage levels now by revising the table of discounts used by the WCRIBMA to calculate MCCPAP credits. To make this change revenue neutral, the MCCPAP offset loaded into manual rates for construction classes will reflect the lower expected average MCCPAP credit. This will result in manual rates for construction classes that are lower than they would be if the MCCPAP remains unchanged.

The WCRIBMA is also recommending a change in the derivation of the experience rating offset used in the calculation of MCCPAP credits. The experience rating offset is needed to eliminate an overlap that would otherwise exist between the MCCPAP

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calculation and the experience modification calculation. The current formula for calculating the experience rating offset (Z) is:

$$Z = [E_p + (W \times E_x)] / (E + B)$$

E	=	Total Expected Losses
E _p	=	Expected Primary Losses
E _x	=	Expected Excess Losses
W	=	Weighting Value
B	=	Ballast Value

The values E, E_p, E_x, W, and B are taken from an insured's experience modification worksheet. The WCRIBMA recommends the following formula for the experience rating offset (Z):

$$Z = 1.0 - [E_x \times (1 - W) + B] / [M \times (E + B)]$$

M	=	Experience Modification
---	---	-------------------------

The derivation of the new formula begins with the formula for the experience modification.

$$M = \frac{A_p + (A_x \times W) + [E_x \times (1 - W)] + B}{(E + B)}$$

A _p	=	Actual Primary Losses
A _x	=	Actual Excess Losses

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By adjusting the terms in the formula for the experience modification, we can isolate the impact of actual loss experience from the impact of expected loss experience on the experience modification.

$$M = \frac{A_p + (A_x \times W)}{(E + B)} + \frac{[E_x \times (1 - W)] + B}{(E + B)}$$

Next, divide both sides of the equation by the experience modification.

$$1.00 = \frac{A_p + (A_x \times W)}{[M \times (E + B)]} + \frac{[E_x \times (1 - W)] + B}{[M \times (E + B)]}$$

Now we rearrange terms to isolate the proportion of the experience modification attributable to actual loss experience which equals the offset needed in the MCCPAP credit calculation.

$$Z = \frac{A_p + (A_x \times W)}{M \times (E + B)} = 1.00 - \frac{[E_x \times (1 - W)] + B}{M \times (E + B)}$$

Note that if the experience modification is 1.00, the terms of the recommended new formula can be rearranged to arrive at the current formula for the experience rating offset (Z).

The pages that follow outline the changes required in the Massachusetts Manual. The WCRIBMA is requesting that this change become effective for all MCCPAP credits effective on or after January 1, 2014. Both clean and redlined versions of the revised manual pages are included.

MASSACHUSETTS CONSTRUCTION CLASSIFICATION PREMIUM ADJUSTMENT PROGRAM

The Massachusetts Construction Classification Premium Adjustment Program allows for a premium credit to be applied to any experience rated insured with an average hourly wage of at least \$30.00 for one or more of the following construction classifications.

Eligible Construction Classifications

3365	5160	5437	5508	6003	7538
3724	5183	5443	5509	6005	7601
3726	5188	5445	5538	6204	7855
5020	5190	5462	5545	6217	8227
5022	5213	5472	5547	6229	9014
5037	5215	5473	5606	6233	9533
5040	5221	5474	5610	6251	9534
5057	5222	5478	5645	6252	
5059	5223	5479	5651	6306	
5069	5348	5480	5701	6319	
5102	5402	5506	5703	6325	
5146	5403	5507	5705	6400	

Carriers are required to provide notice, at policy inception or during the policy term, to any insured that has a policy with one or more of the eligible construction classifications by sending them a "Workers' Compensation Premium Credit Application" form. *Refer to Exhibit 1 which illustrates a sample Application.* Side One of the form on Page S-11 instructs the insured to complete and sign the application shown on the reverse side of the form, Side Two/Page S-12, and to submit it to the MA Bureau.

For all classifications listed on the policy, the application requests total Massachusetts payroll (excluding overtime premium pay) and hours worked by classification. In the absence of specific records for salaried employees, assume each such individual worked forty (40) hours per week.

Payroll and hours worked should be reported for the third calendar quarter (July, August, September) preceding the policy inception date. However, if the insured did not engage in operations for the reported third quarter, then the last complete quarter prior to the year the policy takes effect shall be used. A credit will be determined for each construction classification by dividing the total payroll, excluding overtime premium pay, by the number of hours worked to arrive at the average hourly wage for the classification.

Upon receipt of an insured's properly completed application, the MA Bureau computes the premium credit factor, if applicable. The credit for average hourly wage is listed below:

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**PART ONE
SPECIAL PROGRAMS**

**MASSACHUSETTS WORKERS COMPENSATION
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Effective January 1, 2014

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Average Hourly Wage	Manual Premium Credit %	Average Hourly Wage	Manual Premium Credit %
\$29.99 or less	0%	\$38.34 - \$39.16	15%
\$30.00 - \$30.83	5%	\$39.17 - \$39.99	16%
\$30.84 - \$31.66	6%	\$40.00 - \$40.83	17%
\$31.67 - \$32.49	7%	\$40.84 - \$41.66	18%
\$32.50 - \$33.33	8%	\$41.67 - \$42.49	19%
\$33.34 - \$34.16	9%	\$42.50 - \$43.33	20%
\$34.17 - \$34.99	10%	\$43.34 - \$44.16	21%
\$35.00 - \$35.83	11%	\$44.17 - \$44.99	22%
\$35.84 - \$36.66	12%	\$45.00 - \$45.83	23%
\$36.67 - \$37.49	13%	\$45.84 - \$46.66	24%
\$37.50 - \$38.33	14%	\$46.67 and over	25%

The total construction classification credit amount in dollars must be calculated and then divided by the total policy manual premium for all (construction and non-construction) classifications. The MA Bureau will obtain additional inputs from the Experience Rating Plan Calculation Worksheet to administer offsets required to calculate the policy credit factor. The result would be the percentage credit, which is to be applied to the qualifying policy. When calculating the total policy credit, the percentage shall be rounded to two decimal places. (As an example, .1547 rounded to .15 and .1551 rounded to .16.)

The carrier shall, upon audit, verify the information that was submitted by the insured and used in the calculation of the credit. If the carrier discovers an error in the original request for policy credit, revised information must be submitted to the MA Bureau for recalculation. If the insured does not furnish records to verify the payrolls and hours worked originally submitted and used in the calculation of the credit, there shall be no credit applied to the policy.

If the insured has not submitted a completed application for credit prior to policy's premium audit, the auditor will request that the insured sign an "Acknowledgment of Receipt of Notice Form" with the understanding that a completed and signed original application must be submitted to the MA Bureau before the completion of the premium audit of the affected policy. *Refer to Exhibit 2 on Page S-13.* In any event, the completed and signed application must be received by the MA Bureau within six months of the expiration date of the affected policy, or within one month of the time the insured received notice of the Massachusetts Construction Classification Premium Adjustment Program, whichever is later.

The credit authorized by the MA Bureau shall appear on Item 4. of the Information Page of the policy. The policy credit factor is to be applied in the premium determination process directly after the application of an experience modification. The premium adjustment is included in Standard Premium. *Refer to Appendix E – Voluntary Market Premium Algorithm and Appendix F – Residual Market Premium Algorithm.* If the credit is not available at the time of policy issuance, the carrier shall endorse the policy by use of Massachusetts Construction Classification Premium Adjustment Endorsement (WC 20 04 03) to provide initial notification of the Massachusetts Construction Classification Premium Adjustment Program.

MASSACHUSETTS CONSTRUCTION CLASSIFICATION PREMIUM ADJUSTMENT PROGRAM

The Massachusetts Construction Classification Premium Adjustment Program ~~allows~~ provides for a premium credit to be applied to any experience rated insured with an average hourly wage of at least \$30.00 for a qualifying policy which contains one or more of the following construction classifications. ~~Only policies subject to experience rating are eligible for the program.~~

~~“Construction classifications” are those classifications subject to the following code numbers:~~

Eligible Construction Classifications

3365	5160	5437	5508	6003	7538
3724	5183	5443	5509	6005	7601
3726	5188	5445	5538	6204	7855
5020	5190	5462	5545	6217	8227
5022	5213	5472	5547	6229	9014
5037	5215	5473	5606	6233	9533
5040	5221	5474	5610	6251	9534
5057	5222	5478	5645	6252	
5059	5223	5479	5651	6306	
5069	5348	5480	5701	6319	
5102	5402	5506	5703	6325	
5146	5403	5507	5705	6400	

Carriers are required to provide ~~initial written~~ notice, at policy inception or during the policy term, to any insured ~~that who~~ has a policy with one or more of the eligible construction classifications, ~~that may be eligible for a premium modification credit~~ by sending them a “Workers’ Compensation Premium Credit Application” form. *Refer to Exhibit 1 which illustrates a sample Application.* Side One of the form on Page S-11 instructs the insured to complete and sign the application shown on the reverse side of the form, Side Two/Page S-12, and to submit return it to the MA Bureau.~~The Workers’ Compensation Rating and Inspection Bureau of Massachusetts.~~ ~~Upon its receipt of an insured’s properly completed application, the Bureau computes the premium credit factor, if applicable.~~

~~Carries are required to use the approval form to notify all of their insureds who have one or more construction classifications on their policy that may be eligible for a premium modification credit.~~

~~For all classifications listed on the policy, the application requests total Massachusetts. The basis for determining the credit is the total payroll (excluding overtime premium pay) and hours worked by for each construction classification, for the third calendar quarter of the year preceding the policy inception date as reported to taxing authorities. If the insured did not engage in operations for the complete quarter, then the last complete quarter prior to the policy year inception shall be used. A credit may be determined for each construction classification by dividing the total payroll, excluding overtime premium pay, by the number of hours worked to arrive at the average hourly wage for the classification. In the absence of specific records for salaried employees, it will be assumed each such individual worked forty (40) hours per week. The credit for average hourly wage is listed below:~~

Payroll and hours worked should be reported for the third calendar quarter (July, August, September) preceding the policy inception date. However, if the insured did not engage in operations for the reported third quarter, then the last complete quarter prior to the year the policy takes effect shall be used. A credit will be determined for each construction classification by dividing the total payroll, excluding overtime premium pay, by the number of hours worked to arrive at the average hourly wage for the classification.

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**PART ONE
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Effective January 1, 201408

1st Reprint~~Original Printing~~

Upon receipt of an insured's properly completed application, the MA Bureau computes the premium credit factor, if applicable. The credit for average hourly wage is listed below:

<u>Average Hourly Wage</u>	<u>Manual Premium Credit %</u>	<u>Average Hourly Wage</u>	<u>Manual Premium Credit %</u>
\$29.99 or less	0%	\$38.34 - \$39.16	15%
\$30.00 - \$30.83	5%	\$39.17 - \$39.99	16%
\$30.84 - \$31.66	6%	\$40.00 - \$40.83	17%
\$31.67 - \$32.49	7%	\$40.84 - \$41.66	18%
\$32.50 - \$33.33	8%	\$41.67 - \$42.49	19%
\$33.34 - \$34.16	9%	\$42.50 - \$43.33	20%
\$34.17 - \$34.99	10%	\$43.34 - \$44.16	21%
\$35.00 - \$35.83	11%	\$44.17 - \$44.99	22%
\$35.84 - \$36.66	12%	\$45.00 - \$45.83	23%
\$36.67 - \$37.49	13%	\$45.84 - \$46.66	24%
\$37.50 -	14%	\$46.67 and over	25%

<u>Average Hourly Wage</u>	<u>Credit From Manual Premium</u>	<u>Average Hourly Wage</u>	<u>Credit From Manual Premium</u>
17.99 or less	0%	\$23.01 - \$23.50	15%
18.00 - \$18.50	5%	\$23.51 - \$24.00	16%
\$18.51 - \$19.00	6%	\$24.01 - \$24.50	17%
\$19.01 - \$19.50	7%	\$24.51 - \$25.00	18%
\$19.51 - \$20.00	8%	\$25.01 - \$25.50	19%
\$20.01 - \$20.50	9%	\$25.51 - \$26.00	20%
\$20.51 - \$21.00	10%	\$26.01 - \$26.50	21%
\$21.01 - \$21.50	11%	\$26.51 - \$27.00	22%
\$21.51 - \$22.00	12%	\$27.01 - \$27.50	23%
\$22.01 - \$22.50	13%	\$27.51 - \$28.00	24%
\$22.51 -	14%	\$28.01 and over	25%

The total construction classification credit amount in dollars must be calculated and then divided by the total policy manual premium for all (construction and non-construction) classifications, at manual rates—including construction and non-construction classifications. The MA Bureau will obtain additional inputs from the Experience Rating Plan Calculation Worksheet to administer offsets required to calculate the policy credit factor. The result would be the percentage credit, which is to

be applied to the qualifying policy. When calculating the total policy credit, the percentage shall be rounded to two decimal places. (As an example, .1547 rounded to .15 and .1551 rounded to .16.)

The carrier shall, upon audit, verify the information that was submitted by the insured and used in the calculation of the credit. If the carrier discovers an error in the original request for policy credit, ~~the~~ revised information must be submitted to the MA Bureau Workers' Compensation Rating and Inspection Bureau of Massachusetts for recalculation. If the insured does not furnish records to verify the payrolls and hours worked originally submitted and used in the calculation of the credit, there shall be no credit applied to the policy.

If the insured has not submitted a completed application for credit prior to policy's premium audit, the auditor will request that the insured ~~to~~ sign an "Acknowledgment of Receipt of Notice Form" with the understanding that a completed and signed original application must be submitted to the MA Bureau before the completion of the premium audit of the affected policy. *Refer to Exhibit 2 on Page S-13.* In any event, the completed and signed application must be received by the MA Bureau within six months of the expiration date of the affected policy, or within one month of the time the insured received ~~written~~ notice of the Massachusetts Construction Classification Premium Adjustment Program, whichever is later.

~~The Bureau will obtain additional inputs from the Experience Rating Plan Calculation Worksheet to administer offsets required to calculate the policy credit factor.~~

The credit authorized by ~~the MA The Workers' Compensation Rating and Inspection~~ Bureau of ~~Massachusetts~~ shall appear on Item 4. of the Information Page of the policy. The policy credit factor is to be applied in the premium determination process directly after the application of an experience modification. The premium adjustment is included in Standard Premium. *Refer to Appendix E – Voluntary Market Premium Algorithm and Appendix F – Residual Market Premium Algorithm.* If the credit is not available at the time of policy issuance, the carrier shall endorse the policy by use of Massachusetts Construction Classification Premium Adjustment Endorsement (WC 20 04 03) to provide initial notification of the Massachusetts Construction Classification Premium Adjustment Program. ~~this credit information.~~

(Name of Insured)
(Address)
(Town/City, State, Zip Code)

PART ONE
SPECIAL PROGRAMS
EXHIBIT 1
Side One
Page S-11

**MASSACHUSETTS CONSTRUCTION CLASSIFICATION
PREMIUM ADJUSTMENT PROGRAM
WORKERS' COMPENSATION PREMIUM CREDIT APPLICATION**

The Massachusetts Construction Classification Premium Adjustment Program ("MCCPAP") is only applicable to policies subject to experience rating. It may result in a premium credit based on average hourly wages for each eligible construction classification. To determine if a credit is in order, please submit the completed premium credit application, as shown on the reverse side of this letter to: **The Workers' Compensation Rating and Inspection Bureau of Massachusetts, 101 Arch Street 5th Floor, Boston, Massachusetts 02110, Attention: Customer Services.**

The MA Bureau will provide notification to the policyholder and insurer of any applicable MCCPAP credit.

IMPORTANT: Initial notice of possible credit under the MCCPAP is given to you at policy inception or during the policy term. If you have not already submitted an application for credit prior to policy audit, you will be requested to sign a form acknowledging receipt of notice and, at the same time, requested to indicate whether you will apply for a credit. If you apply for a credit, you must submit a completed and signed application to the MA Bureau before the completion of the audit of the affected policy. In any event, the completed and signed application must be received by the MA Bureau within six months of the expiration date of the affected policy, or within one month of the time you receive notice of the Program, whichever is later.

For all classifications (both construction and non-construction) listed on the policy, the application requests total Massachusetts payroll (excluding overtime premium pay) and the corresponding total number of hours worked for the third calendar quarter (July, August, September) preceding the policy inception date .

Note #1: If you did not engage in construction operations for the reported third calendar quarter, then the last complete calendar quarter prior to the year the policy takes effect should be used.

Note #2: If you are either a new business (no prior operations), or an existing business engaged in construction operations for the first time, with a policy subject to experience rating, submit the requested information for the first complete calendar quarter following the inception date of your workers' compensation policy when available.

Note #3: In the absence of specific records for salaried employers, you should assume that each individual worked forty (40) hours per week.

Please preserve your payroll records which formed the basis for this declaration as we will be required to verify the reported information in order for any premium credit to be applied.

Thank you for your cooperation.

Sincerely,

Turn Page Over for Premium Credit Application

XI 000020

**PART ONE
SPECIAL PROGRAMS
EXHIBIT 1**
Side Two
Page S-12

**WORKERS' COMPENSATION
MASSACHUSETTS CONSTRUCTION CLASSIFICATION PREMIUM ADJUSTMENT
PROGRAM APPLICATION**

Insured: Sample Construction Co, Inc.

Federal Employers ID No.: 04-123456

123 Main Street

Address

City MA 02000
City State Zip

Policy # WC123456789 Effective Date 01/01/06

Carrier Abacus Insurance Company Issuing Office Boston, MA

Notice: Unless code(s), total wages paid, total hours worked, and calendar quarter reported are indicated and application is signed, it cannot be processed. Contact your agent if assistance is desired.

CLASSIFICATION(S)	CODE	TOTAL MASSACHUSETTS WAGES PAID ¹	TOTAL HOURS WORKED
Concrete Construction	5213	\$46,176	2,080
Carpentry	5403	32,339	1,560
Excavation	6217	23,639	1,040
Contractors Yard	8227	16,640	1,040
Executive Supervisor	5606	13,000	520
Salesmen	8742	45,000	1,560
Clerical	8810	19,500	2,600

The foregoing is based on actual wages and hours worked, as reflected in our payroll records, for the complete calendar quarter ending 09/30/05.

Signature _____ Position _____ Date _____

¹ Excluding overtime premium pay.

(Name of Insured)
(Address)
(Town/City, State, Zip Code)

PART ONE
SPECIAL PROGRAMS
EXHIBIT 1
Side One
Page S-11

MASSACHUSETTS CONSTRUCTION CLASSIFICATION PREMIUM ADJUSTMENT PROGRAM WORKERS' COMPENSATION PREMIUM CREDIT APPLICATION

The Massachusetts Construction Classification Premium Adjustment Program ("MCCPAP") is only applicable to policies subject to experience rating. It may result in a premium credit based on average hourly wages for each eligible construction classification. To determine if a credit is in order, please submit the completed premium credit application, as shown on the reverse side of this letter to: **The Workers' Compensation Rating and Inspection Bureau of Massachusetts, 101 Arch Street 5th Floor, Boston, Massachusetts 02110, Attention: Customer Services.** ~~has been proposed for employers engaged in construction operations and is applicable to policies eligible for experience rating.~~

~~A special premium calculation, which may result in a premium credit for you, will be based on average hourly pay rates for each classification of construction operations. In order that your premium may be correctly established, please return the completed premium credit application, as shown on the reverse side of this letter to: **The Workers' Compensation Rating and Inspection Bureau of Massachusetts, 101 Arch Street 5th Floor, Boston, Massachusetts 02110, Attention: Customer Services.**~~

The MA Bureau ~~y~~ will provide notification to the policyholder and insurer advise us of any applicable MCCPAP premium credit applicable.

IMPORTANT: ~~Initial written~~ notice of possible credit under the MCCPAP this Program is given to you at policy inception or during the policy term. If you have not already submitted an application for credit prior to policy audit, you will be requested to sign a form acknowledging receipt of notice and, at the same time, requested to indicate whether you will apply for a credit. If you apply for a credit, you must submit a completed and signed application to the MA Bureau before the completion of the audit of the affected policy. In any event, the completed and signed application must be received by the MA Bureau within six months of the expiration date of the affected policy, or within one month of the time you receive ~~written~~ notice of the Program, whichever is later.

For all classifications each applicable classification (both construction and non-construction) listed on the policy, the application requests total covering your company's operations in the State of Massachusetts, report the total Massachusetts payroll (excluding overtime premium pay) and the corresponding total number of hours worked for the third calendar quarter (July, August, September) preceding the policy inception date as reported to taxing authorities.

Note #1: If you did not engage in construction operations for the reported during the most recent third calendar quarter, the n the last requested information to be provided should then be for the last complete calendar quarter prior to the year effective date of your workers' compensation the policy takes effect should be used.

Note #2: If you are either a new business (no prior operations), or an existing business engaged in construction operations for the first time, with a policy subject to experience rating, submit the requested information for the first complete calendar quarter following the inception effective date of your workers' compensation policy when available.

Note #3: In the absence of specific records for salaried employers, you should assume that each individual worked forty (40) hours per week.

Please preserve your payroll records which formed the basis for this declaration as we will be required to verify the reported information in order for any premium credit to be applied.

Thank you for your cooperation.

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PART ONE
SPECIAL PROGRAMS
EXHIBIT 1
Side Two
Page S-12

Sincerely,

Turn Page Over for Premium Credit Application

PART ONE
SPECIAL PROGRAMS
EXHIBIT 1
Side Two
Page S-12

WORKERS' COMPENSATION
MASSACHUSETTS CONSTRUCTION CLASSIFICATION PREMIUM ADJUSTMENT
PROGRAM APPLICATION

Insured: Sample Construction Co, Inc.

Federal Employers ID No.: 04-123456

123 Main Street
Address

City MA 02000
City State Zip

Policy # WC123456789 Effective Date 01/01/06

Carrier Abacus Insurance Company Issuing Office Boston, MA

Notice: Unless code(s), total wages paid, total hours worked, and calendar quarter reported are indicated and application is signed, it cannot be processed. Contact your agent if assistance is desired.

CLASSIFICATION(S)	CODE	TOTAL MASSACHUSETTS WAGES PAID ¹	TOTAL HOURS WORKED
Concrete Construction	5213	\$46,176	2,080
Carpentry	5403	32,339	1,560
Excavation	6217	23,639	1,040
Contractors Yard	8227	16,640	1,040
Executive Supervisor	5606	13,000	520
Salesmen	8742	45,000	1,560
Clerical	8810	19,500	2,600

The foregoing is based on actual wages and hours worked, as reflected in our payroll records, for the complete calendar quarter ending 09/30/05.

Signature _____ Position _____ Date _____

¹ Excluding overtime premium pay.

RETROSPECTIVE RATING PLANS

The NCCI's Retrospective Rating Plan has been adopted for use in Massachusetts. Retrospective rating plans adjust the premium of a policy to reflect an insured's loss experience during the effective period of the policy. At the simplest level, an insured's retrospective premium is determined by the formula $R = [B + (c \times L)] \times t$, where:

R = Retrospective Premium, subject to minimum and maximum amounts

B = Basic Premium

c = Loss Conversion Factor, generally reflecting loss adjustment expense

L = Actual Incurred Loss during the effective policy period

t = Tax Multiplier

The basic premium provides for the expenses of carriers. It also includes a net insurance charge, which is intended to compensate for the possibility that the otherwise-indicated retrospective premium will exceed the maximum permissible premium amount. Similarly, there is a savings resulting from the possibility that the otherwise-indicated retrospective premium will be less than the permissible minimum premium amount. The net insurance charge is the difference between the charge for the maximum and the savings from the minimum.

XII 000002

The calculations in this section are similar to those used by the Commissioner in her 2003 decision. The calculations appear in Sections XII-A, XII-B and XII-C. This year, consistent with the 2011 and 2012 filing, the WCRIBMA includes miscellaneous taxes in the Tax Multiplier.

Section XII-A displays the calculation of the parameters needed for retrospective rating. Insureds electing to purchase a retrospectively rated policy may choose one of two options that differ as to their treatment of allocated loss adjustment expenses (“ALAE”). Option one, the traditional approach, is designed so that expected ALAE is primarily recovered through the application of the loss conversion factor to losses (Exhibit 3). Option two uses the sum of losses and ALAE, as opposed to only losses, in its calculation of retrospective premium and therefore, the loss conversion factor is smaller (Exhibit 4).

Section XII-B calculates the revised provision for the residual market subsidy.

Section XII-C displays the tables of expense ratios corresponding to the parameters calculated in Section XII-A.

Section XII-D displays the recommended Table of Expected Loss Ranges and

Section XII-E presents the calculation of hazard group differentials.

Section XII-F presents an update of the Excess Loss Factors.

Expected Loss Ranges and State and Hazard Groups

Retrospective premiums are calculated subject to a maximum and minimum premium. If an insured incurs losses high enough to cap its premium at the maximum, the insurer collects insufficient premium for that account. If an insured has unusually

XII 000003

low losses, it pays the minimum premium. The net insurance charge is the difference between the charge for the maximum and the savings from the minimum.

The Table of Insurance Charges contains the excess ratios needed to quantify the insurance charge and savings described above. The ratio of actual losses to expected losses, the entry ratio, is used to look up the values in the Table of Insurance Charges. The charges depend not only on the maximum and minimum subject losses, but also on the size of the insured. The variation in the loss ratios, hence the charges, of the larger employers that expect many losses should be much lower than the variation for smaller employers. Insurance Charges are inversely proportional to risk size. Retrospectively rated risks are categorized into expected loss ranges which dictate which column to use from the Table of Insurance Charges when calculating a retrospectively rated risk's insurance charge.

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**RETROSPECTIVE RATING PLAN MANUAL
 STATE SPECIAL RATING VALUES**

**MASSACHUSETTS
 RR1**

Proposed Effective January 1, 2014

1. Hazard Group Differentials

A	B	C	D	E	F	G
2.02	1.59	1.36	1.21	1.01	0.82	0.63

2. Tax Multipliers

a. State (non-F Classes)	1.004*
b. Federal Classes, or non-F classes where rate is increased by the USL&HW Act Percentage	1.051*

* Includes -2.55% residual market subsidy provision and 0.2% insolvency fund assessment provision

3. Expected Loss Ratio

0.625

Expected Loss and Allocated Loss Adjustment Expense Ratio (ALAE Option)

0.688

4. Loss Conversion Factor

1.192

Loss Conversion Factor for Allocated Loss Adjustment Expense Option (ALAE Option)

1.083

5. Table of Expense Ratios Excluding Taxes and Including Profit

Type A Company

Massachusetts
 Effective January 1, 2014

Type B Company

Massachusetts
 Effective January 1, 2014

Table of Expense Ratios Excluding Allocated Loss Adjustment Expense and Taxes and Including Profit (ALAE Option)

Type A Company

Massachusetts
 Effective January 1, 2014

Type B Company

Massachusetts
 Effective January 1, 2014

6. 2013—Table of Expected Loss Ranges

January 1, 2014

7a.

Excess Loss Factors

(Applicable to New and Renewal Policies)

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$25,000	0.379	0.405	0.429	0.452	0.472	0.502	0.537
30,000	0.360	0.387	0.412	0.436	0.457	0.488	0.527
35,000	0.343	0.370	0.397	0.423	0.444	0.476	0.517
40,000	0.328	0.356	0.383	0.410	0.432	0.464	0.509
50,000	0.302	0.330	0.358	0.388	0.410	0.443	0.493
75,000	0.251	0.279	0.309	0.343	0.366	0.399	0.457
100,000	0.214	0.240	0.270	0.306	0.329	0.362	0.427
125,000	0.186	0.209	0.239	0.276	0.298	0.330	0.400
150,000	0.164	0.184	0.213	0.250	0.271	0.301	0.375
175,000	0.145	0.164	0.191	0.228	0.247	0.275	0.354
200,000	0.129	0.146	0.173	0.209	0.226	0.253	0.334
250,000	0.105	0.120	0.144	0.178	0.192	0.216	0.299
300,000	0.088	0.100	0.122	0.153	0.166	0.188	0.269
500,000	0.050	0.058	0.072	0.095	0.103	0.118	0.189
1,000,000	0.023	0.026	0.034	0.046	0.050	0.057	0.101
2,000,000	0.010	0.011	0.015	0.021	0.023	0.026	0.050
3,000,000	0.006	0.007	0.009	0.013	0.014	0.016	0.032
4,000,000	0.004	0.005	0.006	0.009	0.010	0.011	0.023
5,000,000	0.003	0.004	0.005	0.007	0.007	0.009	0.017

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**MASSACHUSETTS
 RR2**

**RETROSPECTIVE RATING PLAN MANUAL
 STATE SPECIAL RATING VALUES**

Proposed Effective January 1, 2014

**7b. ALAE Option Excess Loss and Allocated Loss Adjustment Expense Factors
 (Applicable to New and Renewal Policies)**

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$25,000	0.427	0.455	0.482	0.506	0.528	0.560	0.596
30,000	0.407	0.436	0.464	0.489	0.512	0.546	0.586
35,000	0.389	0.419	0.447	0.475	0.498	0.533	0.576
40,000	0.373	0.403	0.433	0.462	0.485	0.520	0.567
50,000	0.345	0.376	0.406	0.438	0.462	0.498	0.550
75,000	0.290	0.321	0.353	0.390	0.415	0.452	0.513
100,000	0.249	0.279	0.312	0.351	0.376	0.413	0.482
125,000	0.218	0.245	0.278	0.318	0.343	0.379	0.453
150,000	0.193	0.217	0.250	0.291	0.314	0.348	0.427
175,000	0.172	0.194	0.226	0.267	0.288	0.320	0.405
200,000	0.155	0.175	0.205	0.246	0.265	0.296	0.383
250,000	0.127	0.144	0.172	0.211	0.228	0.255	0.346
300,000	0.107	0.121	0.146	0.183	0.198	0.223	0.314
500,000	0.062	0.071	0.088	0.116	0.125	0.143	0.224
1,000,000	0.028	0.032	0.041	0.056	0.061	0.070	0.123
2,000,000	0.012	0.014	0.018	0.026	0.028	0.032	0.061
3,000,000	0.007	0.009	0.011	0.016	0.017	0.020	0.039
4,000,000	0.005	0.006	0.008	0.011	0.012	0.014	0.028
5,000,000	0.004	0.005	0.006	0.008	0.009	0.011	0.021

8. Retrospective Development Factors

With Loss Limit				Without Loss Limit			
1st	2nd	3rd	4th & Subsequent	1st	2nd	3rd	4th & Subsequent
<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>	<u>Adj.</u>
0.11	0.07	0.05	0.00	0.14	0.09	0.06	0.00

9. State Special Classifications by Hazard Group

All Massachusetts Hazard Group assignments can be found in Appendix G of the 2008 Edition of the Massachusetts Workers' Compensation & Employers Liability Insurance Manual.

XII 000006

Section XII - Retrospective Rating
 Subsection A - Expenses
 1/1/2014

Section XII - A
 Exhibit 3

Expense Provisions Underlying the Proposed Retrospective Rating Plans

Total Expenses:

(1)	Commission and Other Acquisition Expenses	12.4%
(2)	Fixed Expenses	4.2%
(3)	Premium Discount	4.7%
(4)	Underwriting Profit Provision	3.8%
(5)	Total Expenses Excluding Taxes and Assessments (= (1) + (2) + (3) + (4))	25.1%
(6)	Current Premium Tax Rate	2.17%
(7)	Miscellaneous Taxes	0.58%
(8)	Retro Provision for the Residual Market Subsidy	-2.55%
(9)	Insolvency Fund Assessment	0.20%
(10)	Tax Multiplier (= 1.0 / { 1.0 - [(6) + (7) + (8) + (9)] })	1.004
(11)	Expected Loss and LAE Ratio (adjusted for Residual Market Subsidy) (= [1.0 / (10)] - (5))	74.5%
(12)	Loss Adjustment Expense (as percentage of losses)	19.2%
(13)	Loss Conversion Factor (= 1.0 + (12))	1.192
(14)	Expected Loss without LAE (= (11) / (13))	62.5%
(15)	Expenses excluding Premium Taxes but including LAE (= (5) + [(12) x (14)])	37.1%

Notes:

- (1): Section VI-A, Exhibit 1, line (1).
- (2): Section VI-A, Exhibit 1, line (7), less the provision for miscellaneous taxes, see line (7) below.
- (3): Average Voluntary Premium Discount as a Percent of Standard Premium / (1.0 + Average ARAP Surcharge)
 $4.7\% = 5.0\% / (1.0 + 5.2\%)$
 $= [\text{Section VI-A, Exhibit 1, line (2)}] / \{ 1.0 + [\text{Section VI-E, Exhibit 1, line (6)}] \}$
- (4): Section VII-A, Exhibit 1.
- (6): Section VI-B, Exhibit 3, line (2).
- (7): Section VI-B, Exhibit 1, the average of the results of columns (13) x (15) / (17).
- (8): Section XII-B, Exhibit 1.
- (9): Section I-E, Exhibit 1, page 1.
- (12): Section VI-A, Exhibit 1, line (9).

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Section XII - Retrospective Rating
Subsection A - Expenses
1/1/2014

Section XII - A
Exhibit 4

Expense Provisions Underlying the ALAE Option of the Recommended Retrospective Rating Plans

(1) Expected Loss without Defense and Cost Containment Expense (as percentage of Standard Premium plus ARAP)	62.5%
(2) Provision for ALAE Expenses (as percentage of losses)	10.0%
(3) Expected Loss plus ALAE Ratio (= (1) x [1.0 + (2)])	68.8%
(4) Loss Adjustment Expense (as percentage of losses)	19.2%
(5) Loss Conversion Factor (= [1.0 + (4)] / [1.0 + (2)])	1.083
(6) Tax Multiplier	1.004
(7) Expenses excluding Premium Taxes but including LAE (as percentage of Standard Premium plus ARAP)	37.1%
(8) Expenses including all AO Expenses but excluding ALAE Expenses and Premium Taxes (= (7) - [(1) x (2)])	30.8%

Notes:

(1): Exhibit 3,

(2): Section VI-K, Exhibit 1, line (4), DCC assumed a proxy for ALAE.

XII 000008

Section XII - Retrospective Rating
Subsection B - Residual Market Subsidy
1/1/2014

Section XII - B
Exhibit 1

Calculation of the Provision for the Residual Market Subsidy

(1) Voluntary Market Implied Rate Factor Equivalent	1.032
(2) Factor to Take into Account Basic Premium	0.800
(3) Retro Provision for the Residual Market Subsidy	-0.025

Notes:

(1): Section I-D, Exhibit 1, page 1.

(2): From the filing for the provision for the Residual Market Subsidy effective 1/1/89.

(3) = $[1.0 - (1)] \times (2)$

RETROSPECTIVE RATING PLAN MANUAL **MASSACHUSETTS**
STATE SPECIAL RATING VALUES **RR5**

Proposed Effective January 1, 2014

TABLE OF EXPENSE RATIOS—EXCLUDING TAXES AND INCLUDING PROFIT

TYPE A COMPANY—MASSACHUSETTS

Standard Premium		Expense Ratio	Standard Premium		Expense Ratio	Standard Premium		Expense Ratio
From	To		From	To		From	To	
0	10,055	0.371	17,725	18,078	0.331	81,382	89,409	0.291
10,056	10,168	0.370	18,079	18,446	0.330	89,410	99,193	0.290
10,169	10,284	0.369	18,447	18,829	0.329	99,194	111,383	0.289
10,285	10,402	0.368	18,830	19,228	0.328	111,384	126,989	0.288
10,403	10,522	0.367	19,229	19,645	0.327	126,990	147,679	0.287
10,523	10,646	0.366	19,646	20,080	0.326	147,680	176,425	0.286
10,647	10,773	0.365	20,081	20,535	0.325	176,426	203,028	0.285
10,774	10,902	0.364	20,536	21,011	0.324	203,029	211,133	0.284
10,903	11,035	0.363	21,012	21,510	0.323	211,134	219,912	0.283
11,036	11,171	0.362	21,511	22,033	0.322	219,913	229,453	0.282
11,172	11,310	0.361	22,034	22,582	0.321	229,454	239,859	0.281
11,311	11,453	0.360	22,583	23,159	0.320	239,860	251,254	0.280
11,454	11,600	0.359	23,160	23,766	0.319	251,255	263,785	0.279
11,601	11,750	0.358	23,767	24,406	0.318	263,786	277,633	0.278
11,751	11,904	0.357	24,407	25,081	0.317	277,634	293,014	0.277
11,905	12,063	0.356	25,082	25,795	0.316	293,015	310,200	0.276
12,064	12,226	0.355	25,796	26,551	0.315	310,201	329,527	0.275
12,227	12,393	0.354	26,552	27,352	0.314	329,528	351,423	0.274
12,394	12,565	0.353	27,353	28,203	0.313	351,424	376,436	0.273
12,566	12,741	0.352	28,204	29,109	0.312	376,437	405,282	0.272
12,742	12,923	0.351	29,110	30,075	0.311	405,283	438,916	0.271
12,924	13,110	0.350	30,076	31,107	0.310	438,917	478,637	0.270
13,111	13,302	0.349	31,108	32,212	0.309	478,638	526,264	0.269
13,303	13,500	0.348	32,213	33,399	0.308	526,265	584,416	0.268
13,501	13,704	0.347	33,400	34,677	0.307	584,417	657,016	0.267
13,705	13,915	0.346	34,678	36,057	0.306	657,017	750,212	0.266
13,916	14,132	0.345	36,058	37,551	0.305	750,213	874,218	0.265
14,133	14,356	0.344	37,552	39,173	0.304	874,219	1,047,337	0.264
14,357	14,587	0.343	39,174	40,943	0.303	1,047,338	1,305,952	0.263
14,588	14,825	0.342	40,944	42,880	0.302	1,305,953	1,734,161	0.262
14,826	15,072	0.341	42,881	45,009	0.301	1,734,162	1,891,690	0.261
15,073	15,327	0.340	45,010	47,361	0.300	1,891,691	2,063,506	0.260
15,328	15,590	0.339	47,362	49,973	0.299	2,063,507	2,269,652	0.259
15,591	15,863	0.338	49,974	52,889	0.298	2,269,653	2,521,556	0.258
15,864	16,146	0.337	52,890	56,166	0.297	2,521,557	2,836,359	0.257
16,147	16,438	0.336	56,167	59,876	0.296	2,836,360	3,240,978	0.256
16,439	16,742	0.335	59,877	64,112	0.295	3,240,979	3,780,245	0.255
16,743	17,057	0.334	64,113	68,992	0.294	3,780,246	4,534,791	0.254
17,058	17,384	0.333	68,993	74,676	0.293	4,534,792	5,665,673	0.253
17,385	17,724	0.332	74,677	81,381	0.292	5,665,674	OVER	0.252

Table based on the following discounts:

Standard Premium	Discount	
First	10,000	0.0%
Next	190,000	9.1%
Next	1,550,000	11.3%
Over	1,750,000	12.3%

Expected Loss Ratio

0.625

Tax Multiplier

1.004

MASSACHUSETTS RR6 **RETROSPECTIVE RATING PLAN MANUAL**
STATE SPECIAL RATING VALUES

Proposed Effective January 1, 2014

TABLE OF EXPENSE RATIOS—EXCLUDING TAXES AND INCLUDING PROFIT

TYPE B COMPANY—MASSACHUSETTS

Standard Premium		Expense Ratio	Standard Premium		Expense Ratio	Standard Premium		Expense Ratio
From	To		From	To		From	To	
0	- 10,099	0.371	19,318	- 20,080	0.346	216,313	- 231,501	0.321
10,100	- 10,304	0.370	20,081	- 20,907	0.345	231,502	- 248,985	0.320
10,305	- 10,518	0.369	20,908	- 21,804	0.344	248,986	- 269,325	0.319
10,519	- 10,740	0.368	21,805	- 22,782	0.343	269,326	- 293,284	0.318
10,741	- 10,972	0.367	22,783	- 23,852	0.342	293,285	- 321,922	0.317
10,973	- 11,214	0.366	23,853	- 25,027	0.341	321,923	- 356,758	0.316
11,215	- 11,467	0.365	25,028	- 26,324	0.340	356,759	- 400,048	0.315
11,468	- 11,732	0.364	26,325	- 27,763	0.339	400,049	- 455,296	0.314
11,733	- 12,010	0.363	27,764	- 29,368	0.338	455,297	- 528,248	0.313
12,011	- 12,300	0.362	29,369	- 31,170	0.337	528,249	- 629,038	0.312
12,301	- 12,606	0.361	31,171	- 33,207	0.336	629,039	- 777,360	0.311
12,607	- 12,926	0.360	33,208	- 35,530	0.335	777,361	- 1,017,210	0.310
12,927	- 13,264	0.359	35,531	- 38,202	0.334	1,017,211	- 1,471,111	0.309
13,265	- 13,620	0.358	38,203	- 41,309	0.333	1,471,112	- 1,850,436	0.308
13,621	- 13,995	0.357	41,310	- 44,966	0.332	1,850,437	- 2,031,830	0.307
13,996	- 14,391	0.356	44,967	- 49,333	0.331	2,031,831	- 2,252,652	0.306
14,392	- 14,811	0.355	49,334	- 54,639	0.330	2,252,653	- 2,527,326	0.305
14,812	- 15,256	0.354	54,640	- 61,224	0.329	2,527,327	- 2,878,285	0.304
15,257	- 15,728	0.353	61,225	- 69,615	0.328	2,878,286	- 3,342,435	0.303
15,729	- 16,231	0.352	69,616	- 80,671	0.327	3,342,436	- 3,985,063	0.302
16,232	- 16,766	0.351	80,672	- 95,901	0.326	3,985,064	- 4,933,618	0.301
16,767	- 17,339	0.350	95,902	- 118,220	0.325	4,933,619	- 6,474,798	0.300
17,340	- 17,951	0.349	118,221	- 154,079	0.324	6,474,799	- OVER	0.299
17,952	- 18,609	0.348	154,080	- 202,993	0.323			
18,610	- 19,317	0.347	202,994	- 216,312	0.322			

Table based on the following discounts:

Standard Premium	Discount
First	10,000 0.0%
Next	190,000 5.1%
Next	1,550,000 6.5%
Over	1,750,000 7.5%

Expected Loss Ratio

0.625

Tax Multiplier

1.004

RETROSPECTIVE RATING PLAN MANUAL MASSACHUSETTS
STATE SPECIAL RATING VALUES RR7

Proposed Effective January 1, 2014

**TABLE OF EXPENSE RATIOS—EXCLUDING ALLOCATED LOSS ADJUSTMENT EXPENSE
 AND TAXES AND INCLUDING PROFIT**

TYPE A COMPANY—MASSACHUSETTS

Standard Premium		Expense Ratio	Standard Premium		Expense Ratio	Standard Premium		Expense Ratio
From	To		From	To		From	To	
0	- 10,055	0.308	17,725	- 18,078	0.268	81,382	- 89,409	0.228
10,056	- 10,168	0.307	18,079	- 18,446	0.267	89,410	- 99,193	0.227
10,169	- 10,284	0.306	18,447	- 18,829	0.266	99,194	- 111,383	0.226
10,285	- 10,402	0.305	18,830	- 19,228	0.265	111,384	- 126,989	0.225
10,403	- 10,522	0.304	19,229	- 19,645	0.264	126,990	- 147,679	0.224
10,523	- 10,646	0.303	19,646	- 20,080	0.263	147,680	- 176,425	0.223
10,647	- 10,773	0.302	20,081	- 20,535	0.262	176,426	- 203,028	0.222
10,774	- 10,902	0.301	20,536	- 21,011	0.261	203,029	- 211,133	0.221
10,903	- 11,035	0.300	21,012	- 21,510	0.260	211,134	- 219,912	0.220
11,036	- 11,171	0.299	21,511	- 22,033	0.259	219,913	- 229,453	0.219
11,172	- 11,310	0.298	22,034	- 22,582	0.258	229,454	- 239,859	0.218
11,311	- 11,453	0.297	22,583	- 23,159	0.257	239,860	- 251,254	0.217
11,454	- 11,600	0.296	23,160	- 23,766	0.256	251,255	- 263,785	0.216
11,601	- 11,750	0.295	23,767	- 24,406	0.255	263,786	- 277,633	0.215
11,751	- 11,904	0.294	24,407	- 25,081	0.254	277,634	- 293,014	0.214
11,905	- 12,063	0.293	25,082	- 25,795	0.253	293,015	- 310,200	0.213
12,064	- 12,226	0.292	25,796	- 26,551	0.252	310,201	- 329,527	0.212
12,227	- 12,393	0.291	26,552	- 27,352	0.251	329,528	- 351,423	0.211
12,394	- 12,565	0.290	27,353	- 28,203	0.250	351,424	- 376,436	0.210
12,566	- 12,741	0.289	28,204	- 29,109	0.249	376,437	- 405,282	0.209
12,742	- 12,923	0.288	29,110	- 30,075	0.248	405,283	- 438,916	0.208
12,924	- 13,110	0.287	30,076	- 31,107	0.247	438,917	- 478,637	0.207
13,111	- 13,302	0.286	31,108	- 32,212	0.246	478,638	- 526,264	0.206
13,303	- 13,500	0.285	32,213	- 33,399	0.245	526,265	- 584,416	0.205
13,501	- 13,704	0.284	33,400	- 34,677	0.244	584,417	- 657,016	0.204
13,705	- 13,915	0.283	34,678	- 36,057	0.243	657,017	- 750,212	0.203
13,916	- 14,132	0.282	36,058	- 37,551	0.242	750,213	- 874,218	0.202
14,133	- 14,356	0.281	37,552	- 39,173	0.241	874,219	- 1,047,337	0.201
14,357	- 14,587	0.280	39,174	- 40,943	0.240	1,047,338	- 1,305,952	0.200
14,588	- 14,825	0.279	40,944	- 42,880	0.239	1,305,953	- 1,734,161	0.199
14,826	- 15,072	0.278	42,881	- 45,009	0.238	1,734,162	- 1,891,690	0.198
15,073	- 15,327	0.277	45,010	- 47,361	0.237	1,891,691	- 2,063,506	0.197
15,328	- 15,590	0.276	47,362	- 49,973	0.236	2,063,507	- 2,269,652	0.196
15,591	- 15,863	0.275	49,974	- 52,889	0.235	2,269,653	- 2,521,556	0.195
15,864	- 16,146	0.274	52,890	- 56,166	0.234	2,521,557	- 2,836,359	0.194
16,147	- 16,438	0.273	56,167	- 59,876	0.233	2,836,360	- 3,240,978	0.193
16,439	- 16,742	0.272	59,877	- 64,112	0.232	3,240,979	- 3,780,245	0.192
16,743	- 17,057	0.271	64,113	- 68,992	0.231	3,780,246	- 4,534,791	0.191
17,058	- 17,384	0.270	68,993	- 74,676	0.230	4,534,792	- 5,665,673	0.190
17,385	- 17,724	0.269	74,677	- 81,381	0.229	5,665,674	- OVER	0.189

Table based on the following discounts:

Standard Premium	Discount
First	10,000 0.0%
Next	190,000 9.1%
Next	1,550,000 11.3%
Over	1,750,000 12.3%

Expected Loss and Allocated Loss Adjustment
 Expense Ratio (ALAE Option)

0.688

Tax Multiplier

1.004

XII 000012

MASSACHUSETTS	RETROSPECTIVE RATING PLAN MANUAL
RR8	STATE SPECIAL RATING VALUES
<i>Proposed Effective January 1, 2014</i>	

**TABLE OF EXPENSE RATIOS—EXCLUDING ALLOCATED LOSS ADJUSTMENT EXPENSE
 AND TAXES AND INCLUDING PROFIT**

TYPE B COMPANY—MASSACHUSETTS

Standard Premium		Expense Ratio	Standard Premium		Expense Ratio	Standard Premium		Expense Ratio
From	To		From	To		From	To	
0	10,099	0.308	19,318	20,080	0.283	216,313	231,501	0.258
10,100	10,304	0.307	20,081	20,907	0.282	231,502	248,985	0.257
10,305	10,518	0.306	20,908	21,804	0.281	248,986	269,325	0.256
10,519	10,740	0.305	21,805	22,782	0.280	269,326	293,284	0.255
10,741	10,972	0.304	22,783	23,852	0.279	293,285	321,922	0.254
10,973	11,214	0.303	23,853	25,027	0.278	321,923	356,758	0.253
11,215	11,467	0.302	25,028	26,324	0.277	356,759	400,048	0.252
11,468	11,732	0.301	26,325	27,763	0.276	400,049	455,296	0.251
11,733	12,010	0.300	27,764	29,368	0.275	455,297	528,248	0.250
12,011	12,300	0.299	29,369	31,170	0.274	528,249	629,038	0.249
12,301	12,606	0.298	31,171	33,207	0.273	629,039	777,360	0.248
12,607	12,926	0.297	33,208	35,530	0.272	777,361	1,017,210	0.247
12,927	13,264	0.296	35,531	38,202	0.271	1,017,211	1,471,111	0.246
13,265	13,620	0.295	38,203	41,309	0.270	1,471,112	1,850,436	0.245
13,621	13,995	0.294	41,310	44,966	0.269	1,850,437	2,031,830	0.244
13,996	14,391	0.293	44,967	49,333	0.268	2,031,831	2,252,652	0.243
14,392	14,811	0.292	49,334	54,639	0.267	2,252,653	2,527,326	0.242
14,812	15,256	0.291	54,640	61,224	0.266	2,527,327	2,878,285	0.241
15,257	15,728	0.290	61,225	69,615	0.265	2,878,286	3,342,435	0.240
15,729	16,231	0.289	69,616	80,671	0.264	3,342,436	3,985,063	0.239
16,232	16,766	0.288	80,672	95,901	0.263	3,985,064	4,933,618	0.238
16,767	17,339	0.287	95,902	118,220	0.262	4,933,619	6,474,798	0.237
17,340	17,951	0.286	118,221	154,079	0.261	6,474,799	OVER	0.236
17,952	18,609	0.285	154,080	202,993	0.260			
18,610	19,317	0.284	202,994	216,312	0.259			

Table based on the following discounts:

Standard Premium	Discount
First 10,000	0.0%
Next 190,000	5.1%
Next 1,550,000	6.5%
Over 1,750,000	7.5%

Expected Loss and Allocated Loss Adjustment
 Expense Ratio (ALAE Option)

0.688

Tax Multiplier

1.004

XII 000013

Section XII - Retrospective Rating
 Subsection D - NCCI's Item R-1405
 1/1/2014

Section XII - D
 Exhibit 1
 Page 1

NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

**R-1405
 PAGE 4**

**ITEM R-1405—2012 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS
 — EXPECTED LOSS RANGES AND STATE HAZARD GROUP RELATIVITIES**

EXHIBIT 1

RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION

APPENDIX A

2013—TABLE OF EXPECTED LOSS RANGES

(Applies in: AK, AL, AR, AZ, CO, CT, DC, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI,
 MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VT, WI, WV)

Expected Loss Group	Range Rounded Values	Expected Loss Group	Range Rounded Values	Expected Loss Group	Range Rounded Values
95	1,153 — 1,800	65	96,674 — 104,413	35	1,205,738 — 1,353,767
94	1,801 — 2,664	64	104,414 — 112,772	34	1,353,768 — 1,519,973
93	2,665 — 3,520	63	112,773 — 121,799	33	1,519,974 — 1,733,229
92	3,521 — 4,653	62	121,800 — 131,548	32	1,733,230 — 1,992,236
91	4,654 — 6,051	61	131,549 — 142,079	31	1,992,237 — 2,289,951
90	6,052 — 7,309	60	142,080 — 153,483	30	2,289,952 — 2,632,157
89	7,310 — 8,821	59	153,484 — 165,953	29	2,632,158 — 3,128,882
88	8,822 — 10,240	58	165,954 — 179,182	28	3,128,883 — 3,741,462
87	10,241 — 11,886	57	179,183 — 193,057	27	3,741,463 — 4,473,981
86	11,887 — 13,787	56	193,058 — 208,012	26	4,473,982 — 5,515,490
85	13,788 — 15,593	55	208,013 — 224,126	25	5,515,491 — 7,018,621
84	15,594 — 17,628	54	224,127 — 242,337	24	7,018,622 — 8,931,401
83	17,629 — 19,908	53	242,338 — 262,103	23	8,931,402 — 11,412,761
82	19,909 — 22,151	52	262,104 — 283,489	22	11,412,762 — 14,603,708
81	22,152 — 24,645	51	283,490 — 306,608	21	14,603,709 — 18,686,828
80	24,646 — 27,417	50	306,609 — 330,862	20	18,686,829 — 23,911,565
79	27,418 — 30,504	49	330,863 — 356,977	19	23,911,566 — 30,597,107
78	30,505 — 33,660	48	356,978 — 385,341	18	30,597,108 — 41,970,253
77	33,661 — 37,058	47	385,342 — 419,230	17	41,970,254 — 62,073,665
76	37,059 — 40,803	46	419,231 — 456,098	16	62,073,666 — 91,806,463
75	40,804 — 44,839	45	456,099 — 496,209	15	91,806,464 — 135,781,024
74	44,840 — 49,089	44	496,210 — 542,249	14	135,781,025 — 200,819,054
73	49,090 — 53,743	43	542,250 — 593,337	13	200,819,055 — 297,009,777
72	53,744 — 58,844	42	593,338 — 649,243	12	297,009,778 — 464,933,744
71	58,845 — 64,233	41	649,244 — 715,710	11	464,933,745 — 735,711,389
70	64,234 — 70,065	40	715,711 — 790,930	10	735,711,390 — 1,164,190,072
69	70,066 — 76,421	39	790,931 — 874,056	9	1,164,190,073 — & over
68	76,422 — 82,857	38	874,057 — 965,918		
67	82,858 — 89,499	37	965,919 — 1,073,888		
66	89,500 — 96,673	36	1,073,889 — 1,205,737		

NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

R-1407
 PAGE 4

**ITEM R-1407—2013 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS
 —STATE HAZARD GROUP DIFFERENTIALS**

EXHIBIT 2

**DEVELOPMENT OF RHODE ISLAND HAZARD GROUP RELATIVITIES
 FOR HAZARD GROUPS A TO G**

- Step 1.** Historical experience is trended, on-leveled, and developed to estimate the severities for each hazard group.
- Step 2.** The severities are weighted with the countrywide severities by hazard group using a credibility that varies by state. For this purpose, 155,000 claims are regarded as fully credible and the square root rule is used to compute partial credibilities.
- Step 3.** Credibility weighted severities for each state hazard group are produced. A new countrywide average severity is calculated by taking the weighted average of the formula for state severities using claim counts as weights.
- Step 4.** The relativities are calculated by dividing the countrywide severity by the individual state hazard group severities. The final relativities are derived by capping the indicated relativities at a 15.0% increase or decrease from the prior update.

<u>Step 1</u>	<u>Hazard Group</u>	<u>Rhode Island</u>	<u>Countrywide</u>
Severities	A	23,267	33,165
	B	31,499	43,451
	C	34,893	49,480
	D	38,594	54,759
	E	44,443	63,626
	F	53,936	78,636
	G	68,868	99,716
 <u>Step 2</u>	Claim Count	=	17,876
	Credibility	=	$(17,876 / 155,000)^{0.5} = 0.340$
 <u>Step 3</u>	<u>Hazard Group</u>	<u>Rhode Island</u>	
Credibility	A	29,803	= $(0.340)(23,267) + (0.660)(33,165)$
Weighted	B	39,392	
Severities	C	44,526	
	D	49,289	
	E	57,111	
	F	70,247	
	G	89,240	
	Countrywide Overall:	55,954	
 <u>Step 4</u>	<u>Hazard Group</u>	<u>Relativities</u>	
Relativities	A	1.88	= $55,954 / 29,803$
	B	1.42	
	C	1.26	
	D	1.14	
	E	0.98	
	F	0.80	
	G	0.63	

Note: The underlying data source for the above calculations is NCCI's *Statistical Plan for Workers Compensation and Employers Liability Insurance (Statistical Plan)*, excluding medical-only claims. The *Statistical Plan* data for each state is adjusted accordingly, as reflected in the data underlying the Excess Loss Factor (ELF) calculation.

XII 000015

Development of State Hazard Group Differentials

Step 1, Severities:

Hazard Group (1)	Massachusetts Severities (2)	Countrywide Severities (3)	Massachusetts Overall Severity Split Using CW Severity Relativities = Overall (2) x (3) / Overall (3) (4)
A	25,724	33,165	26,322
B	29,437	43,451	34,486
C	37,727	49,480	39,271
D	44,024	54,759	43,461
E	58,447	63,626	50,498
F	73,048	78,636	62,411
G	103,354	99,716	79,142
Overall	44,409	55,954	44,409

Step 2, Credibility:

(5) Massachusetts Claim Count =	42,401
(6) Requirement for Full Credibility =	155,000
(7) Massachusetts Credibility = = [(5) / (6)] ^{0.5}	0.52

Step 3, Credibility Weighted Severities:

Hazard Group (8)	Massachusetts Credibility Weighted Severities (9)
A	29,273
B	36,121
C	43,333
D	49,144
E	60,917
F	75,713
G	101,619

Step 4, Relativities:

Hazard Group (10)	Indicated Relativities = Overall (3) / (9) (11)	Indicated Relativities Based on MA Severity Split Using CW Relativities = Overall (3) / (4) (12)	Average of the Two Indicated Relativities = [(11) + (12)] / 2.0 (13)	Selected Hazard Group Differential (14)
A	1.91	2.13	2.02	2.02
B	1.55	1.62	1.59	1.59
C	1.29	1.42	1.36	1.36
D	1.14	1.29	1.21	1.21
E	0.92	1.11	1.01	1.01
F	0.74	0.90	0.82	0.82
G	0.55	0.71	0.63	0.63

Notes:

(2), (5): Lost Time Claim Data for Policy Years 2011 at 1st report, 2010
 at 2nd report, 2009 at 3rd report, adjusted for trend, law amendments and development factors.
 Factors are shown on Section XI-A, Exhibit 2.

(3), (6): Section XII - D, Exhibit 1 (NCCI's Item R-1407, Page 4.)

(9) = [(2) x (7)] + { (3) x [1.0 - (7)] }

EXCESS LOSS FACTORS

This Section proposes new Excess Loss Factors (ELFs) to be effective January 1, 2014. The proposed ELFs for the seven hazard groups¹ are shown in Exhibit 1, page 1. Exhibit 1, page 2 shows the Excess Loss and ALAE Expense Factors for the seven hazard groups.

The proposed ELFs in Exhibit 1, page 1 are the selected Excess Ratios in Exhibit 3, page 1 times 62.5%, the proposed Expected Loss Ratio (without LAE) underlying the Retrospective Rating Plans from Section XII-A, Exhibit 3. Generally, the excess loss factor for a limit is the product of an excess ratio and a permissible loss ratio.

Exhibit 3, page 3 shows the Excess Ratios based on the data used in the September 1, 2008 filing adjusted for trend. Exhibit 3, page 2 shows the Excess Ratios for higher limits estimated by curve fitting. Exhibit 4 displays the parameters of the mixed Pareto-Exponential distribution and a calculation of excess factors for different entry ratios.

Analysis from September 1, 2008 Filing

The Excess Ratios calculated in this filing use the same data set and fitted curves used in September 1, 2008 filing, with an adjustment for trend. On-level adjusted Schedule Z data for composite policy years 00/01, 99/00, 98/97, 96/97, and 95/96 at fifth report are used, and the Pareto-Exponential parameters from the September 1, 2008 filing are also used. An adjustment factor for trend and benefit changes from September 1, 2008 to the January 1, 2014 proposed effective date is shown on Exhibit

¹ The seven hazard groups are denoted using the letters A, B, C, D, E, F, and G. Hazard group A has the lowest expected claim severity while hazard group G has the highest expected claim severity.

5. Rather than applying the factor to the data itself, the trend and benefit adjustment is made by dividing the limits, including the truncation point, by the trend and adjustment factor. Using the adjusted limits and truncation point and the on-level adjusted data from September 1, 2008, the excess ratios are estimated using the same methodology underlying the September 1, 2010 filing.

Estimation of Excess Ratios

For each hazard group this fitted curve, scaled to the observed mean, is used in Exhibit 3 to estimate the excess ratios for the data truncated and shifted at \$150,000.

The excess ratios for accident limits less than or equal to \$150,000 are determined directly from the data, as has been done in the past. For accident limits L above \$150,000 the excess ratio is estimated from the product of (Empirical Excess Ratio at \$150,000, $R(150,000)$) \times (Excess Ratio estimated from mixed Pareto-Exponential curve for $L - \$150,000$). (See the Appendix). The former is shown in Exhibit 3, page 3, the latter in Exhibit 3, page 2, while the product is in Exhibit 3, page 1. For accident limits of \$150,000 or less, the estimated excess ratio is equal to the observed excess ratio.

This method thus provides a smooth transition from relying on data for lower accident limits to relying on a fitted curve to provide some of the information at higher accident limits. It is important to note that even at higher accident limits an important contribution to the excess ratio is $R(150,000)$, which is calculated directly from the data.

XII 000018

Calculation of Excess Loss Factors with ALAE Expenses

The calculation of the Excess Loss Factors including ALAE expenses follows the same general methodology outlined above. The assumption is made that ALAE expenses are proportional to the underlying losses. Let x be the factor to load losses for ALAE expenses. For an accident limit of L , the excess ratio is computed at a limit of L / x . The Excess Loss Factors are derived by multiplying this excess ratio by 68.8%, the expected loss and defense and cost containment ratio (from Section XII-A, Exhibit 4), which is a proxy for the expected loss and ALAE ratio.

APPENDIX – EXCESS LOSS FACTORS

Excess Ratios, Truncated and Shifted Data

Let $f(x)$ be the size of loss probability density function. Then the excess ratio for limit L is given by:

$$R(x) = \frac{\int_L^\infty (x - L) f(x) dx}{\int_0^\infty x f(x) dx}$$

$$= \frac{\text{average dollars of loss excess of } L}{\text{average size of loss}}$$

$$= \frac{\text{total dollars of loss excess of } L}{\text{total dollars of loss}}$$

Assume we have a truncation point of T. Assume we look at the size of loss distribution for the data truncated and shifted at T. So for a loss $x > T$, we instead look at $x - T$. Then the excess ratio for the truncated and shifted data for ground up limit $L > T$ can be written as

$$\hat{R}(L - T)$$

Assume we were computing the (observed) excess ratio for a \$500,000 accident limit, for hazard group 3 data

$$R(\$500,000) = \frac{HG3 \text{ Losses Excess of } \$500,000}{\text{Total } HG3 \text{ Losses}}$$

We can also express this in terms of the data truncated and shifted at \$150,000 as follows:

$$R(\$500,000) = \frac{HG3 \text{ Losses Excess of } \$500,000}{HG3 \text{ Losses Excess of } \$150,000} \times \frac{HG3 \text{ Losses Excess of } \$150,000}{\text{Total } HG3 \text{ Losses}}$$

The second term is the excess ratio at \$150,000, $R(\$150,000)$, while the first term is $\hat{R}(\$350,000)$ = excess ratio at \$350,000 for the data truncated and shifted at \$150,000.

Thus

$$R(\$500,000) = \hat{R}(\$350,000) \times R(\$150,000).$$

In general, for limits $L > \$150,000$

$$R(L) = \hat{R}(L - \$150,000) \times R(\$150,000).$$

In the methodology we used, $\hat{R}(L - \$150,000)$ is estimated via a curve fit to the data truncated and shifted at \$150,000, while $R(\$150,000)$ is estimated from the data.

Excess Ratios, Mixed Distributions

Let a (mixed) distribution be a weighted average of two other distributions:

$$f(x) = pg(x) + (1-p)h(x).$$

Then the mean is a weighted average of the two means:

$$\begin{aligned} m_f &= \int_0^\infty x f(x) d(x) = \int_0^\infty x \{pg(x) + (1-p) h(x)\} dx \\ &= p \int_0^\infty xg(x) dx + (1-p) \int_0^\infty x h(x) dx \\ &= pm_g + (1-p) m_h. \end{aligned}$$

The excess ratio for limit L is given by:

$$\begin{aligned} R_f(L) &= \frac{\int_L^\infty (x - L) f(x) dx}{\int_0^\infty x f(x) dx} \\ &= \frac{p \int_L^\infty (x - L)g(x)dx + (1-p) \int_L^\infty (x - L)h(x)dx}{pm_g + (1-p)m_h} \end{aligned}$$

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$$= \frac{pm_g R_g(L) + (1-p)m_h R_h(L)}{pm_g + (1-p)m_h}$$

So the excess ratio for a mixed distribution is a weighted average of the excess ratios for the individual distributions, with weights equal to the product of the mean of each distribution times the weight in the mixture of each distribution.

For example, for the mixed Pareto-Exponential distribution with parameters:

$p = 0.7344$, $s = 2.3285$, $b = 1.4950$, $\theta = 0.6270$ (weight to Pareto, Pareto Shape, Pareto Scale, Exponential scale), at an entry ratio of 2, the excess ratio is computed as follows:

$$\text{Excess Ratio for Pareto} = \left(1 + \frac{x}{b}\right)^{1-s} = \left(1 + \frac{2}{1.4950}\right)^{1-2.3285} = 0.3236$$

$$\text{Excess Ratio for Exponential} = e^{-x/\theta} = e^{-2/0.6270} = 0.0412$$

$$\text{Mean for Pareto} = \frac{b}{s-1} = \frac{1.4950}{2.3285-1} = 1.1253$$

$$\text{Mean for Exponential} = \theta = 0.6270$$

Excess Ratio for Pareto-Exponential distribution at entry ratio 2

$$= \frac{(0.7344)(1.1253)(0.3236) + (1-0.7344)(0.6270)(0.0412)}{(0.7344)(1.1253) + (1-0.7344)(0.6270)} = 0.2763$$

This matches the value shown on Exhibit 4.

PARETO DISTRIBUTION

$$F(x;s,b) = 1 - \left(1 + \frac{x}{b}\right)^{-s}$$

$$f(x;s,b) = \frac{s}{b} \left(1 + \frac{x}{b}\right)^{-(s+1)}$$

$$E(X^y) = \frac{b^y \Gamma(y+1) \Gamma(s-y)}{\Gamma(s)}, \quad -1 < y < s$$

If y is an integer N ,

$$E(X^N) = \frac{b^N N!}{\prod_{i=1}^N (s-i)}, \quad N < s$$

$$\text{Mean} = \frac{b}{s-1}$$

$$\text{Variance} = \frac{b^2 s}{(s-1)^2 (s-2)}$$

$$\text{Coefficient of Variation} = \sqrt{\frac{s}{s-2}}, \quad s > 2$$

$$\text{Skewness} = \frac{2(s+1)}{s-3} \sqrt{\frac{s-2}{s}}, \quad s > 3$$

$$\text{Excess Ratio} = R(x) = \left(1 + \frac{x}{b}\right)^{1-s}$$

$$\text{Mean Residual Life} = e(x) = \frac{b+x}{s-1}$$

Note: s is the shape parameter, b is the scale parameter.

EXPONENTIAL DISTRIBUTION

$$F(x; \theta) = 1 - e^{-x/\theta}$$

$$f(x; \theta) = \frac{1}{\theta} e^{-x/\theta}$$

$$E(X^y) = \theta^y \Gamma(1 + y), \quad y > -1$$

If y is an integer N ,

$$E(X^N) = \theta^N N!, \quad N > -1$$

$$\text{Mean} = \theta$$

$$\text{Variance} = \theta^2$$

$$\text{Coefficient of Variation} = 1$$

$$\text{Skewness} = 2$$

$$\text{Excess ratio} = R(x) = e^{-x/\theta}$$

$$\text{Mean Residual Life} = e(x) = \theta$$

Note: θ is the scale parameter.

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Section XII - Retrospective Rating
 Subsection F - Excess Loss Factors
 1/1/2014

Section XII - F
 Exhibit 1
 Page 1

Excess Loss Factors Proposed to be Effective 01/01/2014

Accident Limit	Hazard Group						
	A	B	C	D	E	F	G
\$25,000	0.379	0.405	0.429	0.452	0.472	0.502	0.537
\$30,000	0.360	0.387	0.412	0.436	0.457	0.488	0.527
\$35,000	0.343	0.370	0.397	0.423	0.444	0.476	0.517
\$40,000	0.328	0.356	0.383	0.410	0.432	0.464	0.509
\$50,000	0.302	0.330	0.358	0.388	0.410	0.443	0.493
\$75,000	0.251	0.279	0.309	0.343	0.366	0.399	0.457
\$100,000	0.214	0.240	0.270	0.306	0.329	0.362	0.427
\$125,000	0.186	0.209	0.239	0.276	0.298	0.330	0.400
\$150,000	0.164	0.184	0.213	0.250	0.271	0.301	0.375
\$175,000	0.145	0.164	0.191	0.228	0.247	0.275	0.354
\$200,000	0.129	0.146	0.173	0.209	0.226	0.253	0.334
\$250,000	0.105	0.120	0.144	0.178	0.192	0.216	0.299
\$300,000	0.088	0.100	0.122	0.153	0.166	0.188	0.269
\$500,000	0.050	0.058	0.072	0.095	0.103	0.118	0.189
\$1,000,000	0.023	0.026	0.034	0.046	0.050	0.057	0.101
\$2,000,000	0.010	0.011	0.015	0.021	0.023	0.026	0.050
\$3,000,000	0.006	0.007	0.009	0.013	0.014	0.016	0.032
\$4,000,000	0.004	0.005	0.006	0.009	0.010	0.011	0.023
\$5,000,000	0.003	0.004	0.005	0.007	0.007	0.009	0.017

Notes:

Exhibit 3, page 1 times the Expected Loss Ratio without LAE of 62.5% from Section XII-A, Exhibit 3.

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Section XII - Retrospective Rating
 Subsection F - Excess Loss Factors
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Section XII - F
 Exhibit 1
 Page 2

Excess Loss and ALAE Factors Proposed to be Effective 01/01/2014

Accident Limit	Hazard Group						
	A	B	C	D	E	F	G
\$25,000	0.427	0.455	0.482	0.506	0.528	0.560	0.596
\$30,000	0.407	0.436	0.464	0.489	0.512	0.546	0.586
\$35,000	0.389	0.419	0.447	0.475	0.498	0.533	0.576
\$40,000	0.373	0.403	0.433	0.462	0.485	0.520	0.567
\$50,000	0.345	0.376	0.406	0.438	0.462	0.498	0.550
\$75,000	0.290	0.321	0.353	0.390	0.415	0.452	0.513
\$100,000	0.249	0.279	0.312	0.351	0.376	0.413	0.482
\$125,000	0.218	0.245	0.278	0.318	0.343	0.379	0.453
\$150,000	0.193	0.217	0.250	0.291	0.314	0.348	0.427
\$175,000	0.172	0.194	0.226	0.267	0.288	0.320	0.405
\$200,000	0.155	0.175	0.205	0.246	0.265	0.296	0.383
\$250,000	0.127	0.144	0.172	0.211	0.228	0.255	0.346
\$300,000	0.107	0.121	0.146	0.183	0.198	0.223	0.314
\$500,000	0.062	0.071	0.088	0.116	0.125	0.143	0.224
\$1,000,000	0.028	0.032	0.041	0.056	0.061	0.070	0.123
\$2,000,000	0.012	0.014	0.018	0.026	0.028	0.032	0.061
\$3,000,000	0.007	0.009	0.011	0.016	0.017	0.020	0.039
\$4,000,000	0.005	0.006	0.008	0.011	0.012	0.014	0.028
\$5,000,000	0.004	0.005	0.006	0.008	0.009	0.011	0.021

Excess Loss Factors Effective 9/1/2008

Accident Limit	Hazard Group						
	A	B	C	D	E	F	G
\$25,000	0.382	0.409	0.436	0.460	0.482	0.514	0.552
\$30,000	0.362	0.390	0.417	0.444	0.466	0.499	0.541
\$35,000	0.344	0.373	0.401	0.429	0.451	0.485	0.531
\$40,000	0.328	0.357	0.386	0.415	0.438	0.472	0.521
\$50,000	0.299	0.329	0.359	0.391	0.414	0.449	0.503
\$75,000	0.246	0.275	0.306	0.342	0.366	0.401	0.464
\$100,000	0.208	0.233	0.265	0.303	0.326	0.360	0.430
\$125,000	0.179	0.201	0.232	0.271	0.292	0.325	0.400
\$150,000	0.156	0.176	0.205	0.244	0.264	0.294	0.374
\$175,000	0.137	0.155	0.183	0.221	0.239	0.266	0.350
\$200,000	0.122	0.138	0.164	0.201	0.217	0.243	0.329
\$250,000	0.098	0.112	0.135	0.169	0.183	0.205	0.291
\$300,000	0.081	0.092	0.113	0.144	0.156	0.176	0.260
\$500,000	0.046	0.053	0.066	0.088	0.095	0.108	0.177
\$1,000,000	0.020	0.024	0.030	0.042	0.045	0.051	0.093
\$2,000,000	0.009	0.010	0.013	0.019	0.020	0.023	0.045
\$3,000,000	0.005	0.006	0.008	0.011	0.012	0.014	0.028
\$4,000,000	0.004	0.004	0.006	0.008	0.009	0.010	0.020
\$5,000,000	0.003	0.003	0.004	0.006	0.006	0.007	0.015

Note:
9/1/2008 Stipulation. Section XII-F, Exhibit 1, Page 1.

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Section XII - Retrospective Rating
 Subsection F - Excess Loss Factors
 1/1/2014

Section XII - F
 Exhibit 3
 Page 1

Estimated Excess Ratios Based on Adjusted Data and Curves Fit to Data Truncated and Shifted at \$150,000

Accident Limit	Hazard Group						
	A	B	C	D	E	F	G
\$25,000	0.606	0.647	0.687	0.723	0.755	0.803	0.859
\$30,000	0.576	0.619	0.659	0.698	0.732	0.781	0.842
\$35,000	0.549	0.593	0.635	0.676	0.710	0.761	0.828
\$40,000	0.525	0.569	0.613	0.656	0.691	0.743	0.814
\$50,000	0.483	0.528	0.573	0.621	0.656	0.709	0.788
\$75,000	0.401	0.446	0.494	0.548	0.585	0.639	0.732
\$100,000	0.343	0.384	0.433	0.490	0.527	0.579	0.683
\$125,000	0.297	0.335	0.382	0.442	0.476	0.527	0.639
\$150,000	0.262	0.295	0.341	0.401	0.433	0.481	0.601
\$175,000	0.232	0.262	0.306	0.365	0.395	0.441	0.566
\$200,000	0.207	0.234	0.277	0.335	0.362	0.405	0.534
\$250,000	0.168	0.191	0.230	0.285	0.307	0.346	0.478
\$300,000	0.140	0.160	0.194	0.245	0.265	0.300	0.431
\$500,000	0.081	0.092	0.116	0.153	0.165	0.189	0.302
\$1,000,000	0.037	0.042	0.054	0.073	0.079	0.092	0.162
\$2,000,000	0.016	0.018	0.024	0.033	0.036	0.042	0.080
\$3,000,000	0.010	0.011	0.014	0.021	0.022	0.026	0.051
\$4,000,000	0.007	0.008	0.010	0.014	0.015	0.018	0.036
\$5,000,000	0.005	0.006	0.008	0.011	0.012	0.014	0.028

Note:

For Accident Limit $L \leq \$150,000$ excess ratios are from Page 3. For Accident Limit $L > \$150,000$ excess ratios are from Page 2 times the estimated excess ratio at $L = \$150,000$ (See Appendix).

Fitted Excess Ratios Based on Losses Truncated and Shifted to \$150,000

Accident Limit	Hazard Group															
	A		B		C		D		E		F		G			
	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio		
\$175,000	0.125	0.886	0.122	0.888	0.110	0.898	0.094	0.912	0.094	0.912	0.094	0.912	0.090	0.915	0.060	0.942
\$200,000	0.249	0.791	0.244	0.795	0.220	0.812	0.188	0.836	0.188	0.836	0.188	0.836	0.180	0.842	0.121	0.889
\$250,000	0.498	0.644	0.488	0.649	0.440	0.674	0.376	0.710	0.375	0.710	0.375	0.710	0.360	0.720	0.242	0.796
\$300,000	0.748	0.537	0.731	0.543	0.660	0.570	0.563	0.613	0.563	0.613	0.563	0.613	0.540	0.624	0.363	0.718
\$500,000	1.744	0.308	1.706	0.314	1.541	0.339	1.314	0.381	1.314	0.381	1.314	0.381	1.259	0.392	0.846	0.502
\$1,000,000	4.237	0.140	4.144	0.143	3.742	0.158	3.192	0.183	3.191	0.183	3.191	0.183	3.057	0.191	2.055	0.270
\$2,000,000	9.221	0.061	9.019	0.062	8.145	0.070	6.946	0.083	6.945	0.084	6.945	0.084	6.654	0.088	4.472	0.132
\$3,000,000	14.205	0.037	13.893	0.038	12.548	0.042	10.701	0.051	10.700	0.051	10.700	0.051	10.250	0.054	6.890	0.084
\$4,000,000	19.189	0.025	18.768	0.026	16.951	0.030	14.456	0.036	14.454	0.036	14.454	0.036	13.847	0.038	9.307	0.060
\$5,000,000	24.173	0.019	23.643	0.020	21.353	0.022	18.211	0.027	18.208	0.027	18.208	0.027	17.444	0.029	11.724	0.046

Notes:

Entry Ratio = $([\text{Limit}] - [\$150,000 \text{ Truncation Point}]) / [\text{Average Size of Data Truncated and Shifted to } \$150,000]$

For the seven Hazard Groups, the detrended average sizes are \$179,350 for HGA, \$183,368 for HGB, \$203,030 for HGC, \$238,066 for HGD, \$238,103 for HGE, \$248,535 for HGF and \$369,772 for HGG.

Excess Ratio is computed for a Mixed Pareto - Exponential distribution with parameters: 0.7344, 2.3285, 1.4950, 0.6270 (weight to Pareto, Pareto Shape, Pareto Scale, Exponential Scale).

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Section XII - Retrospective Rating
 Subsection F - Excess Loss Factors
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Section XII - F
 Exhibit 3
 Page 3

Excess Ratios Based on Adjusted Data

Accident Limit	Hazard Group						
	A	B	C	D	E	F	G
\$25,000	0.606	0.647	0.687	0.723	0.755	0.803	0.859
\$30,000	0.576	0.619	0.659	0.698	0.732	0.781	0.842
\$35,000	0.549	0.593	0.635	0.676	0.710	0.761	0.828
\$40,000	0.525	0.569	0.613	0.656	0.691	0.743	0.814
\$50,000	0.483	0.528	0.573	0.621	0.656	0.709	0.788
\$75,000	0.401	0.446	0.494	0.548	0.585	0.639	0.732
\$100,000	0.343	0.384	0.433	0.490	0.527	0.579	0.683
\$125,000	0.297	0.335	0.382	0.442	0.476	0.527	0.639
\$150,000	0.262	0.295	0.341	0.401	0.433	0.481	0.601
\$175,000	0.232	0.262	0.307	0.366	0.395	0.440	0.566
\$200,000	0.207	0.235	0.278	0.336	0.362	0.404	0.535
\$250,000	0.169	0.194	0.232	0.289	0.306	0.343	0.481
\$300,000	0.142	0.164	0.198	0.252	0.262	0.294	0.437
\$500,000	0.083	0.095	0.123	0.171	0.159	0.177	0.317
\$1,000,000	0.038	0.039	0.066	0.110	0.076	0.085	0.202
\$2,000,000	0.012	0.017	0.038	0.082	0.035	0.039	0.102
\$3,000,000	0.002	0.013	0.029	0.074	0.025	0.023	0.064
\$4,000,000	0.000	0.012	0.024	0.069	0.020	0.015	0.039
\$5,000,000	0.000	0.011	0.020	0.065	0.018	0.010	0.023

Notes:

Unit Statistical Plan Data for Composite Policy Years 00/01, 99/00, 98/99, 97/98, 96/97, 95/96 at fifth report, adjusted for trend, law amendments and development factors using factors from Section XI-C, Exhibit 1.

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Section XII - Retrospective Rating
 Subsection F - Excess Loss Factors
 1/1/2014

Section XII - F
 Exhibit 4

Mixed Pareto-Exponential Distribution

Parameters:

Pareto shape = s	2.3285
Pareto scale = b	1.4950
Exponential scale = θ	0.6270
Weight to Pareto = p	0.7344
Mean =	1.0000
Variance =	5.5243
Coefficient of Variation =	2.3504
Skewness =	18.0452
Pareto Mean = $b / (s - 1.0)$	1.1253
Exponential Mean = θ	0.6270

Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio
0.1	0.9067	11	0.0496
0.2	0.8263	12	0.0448
0.3	0.7567	13	0.0407
0.4	0.6960	14	0.0372
0.5	0.6428	15	0.0343
0.6	0.5960	20	0.0241
0.7	0.5546	25	0.0183
0.8	0.5178	30	0.0145
0.9	0.4849	35	0.0119
1.0	0.4555	40	0.0101
1.25	0.3941	45	0.0087
1.5	0.3460	50	0.0076
1.75	0.3075	55	0.0067
2.0	0.2763	60	0.0060
2.50	0.2286	65	0.0054
3.0	0.1942	70	0.0049
3.5	0.1682	75	0.0045
4.0	0.1479	80	0.0041
4.5	0.1316	85	0.0038
5.0	0.1183	90	0.0035
6.0	0.0978	95	0.0033
7.0	0.0828	100	0.0031
8.0	0.0714		
9.0	0.0625		
10.0	0.0554		

Notes:
 See the Appendix for a sample calculation of an excess ratio.

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Section XII - Retrospective Rating
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Section XII - F
Exhibit 5

Total Severity Trend & Benefit Change Adjustment

	Indemnity	Lost Time Medical	Medical Only	Total
(1) PY 9/1/2008 Average Severity	25,752	12,714	798	
(2) PY 2011 Average Severity	25,701	12,883	823	
(3) Annual Severity Trend - From PY 2011 to Prospective Effective Period	2.7%	3.8%	2.7%	
(4) Trend Factor from PY 9/1/2008 to Prospective Effective Period = $[(2)/(1)] \times [1.000 + (3)]^3$	1.082	1.133	1.118	
(5) Injury Type Weight at Ultimate	61.98%	33.07%	4.94%	
(6) Total Severity Trend Factor from PY 9/1/2008 to Prospective Effective Period = (4) Weighted by (5)				1.100
(7) Total Benefit Level Change Factor from PY 9/1/2008 to Prospective Effective Period				1.017
(8) Combined Trend and Benefit Factor from PY 9/1/2008 to Prospective Effective Period = (6) x (7)				1.119

Notes:

(1),(2) : From Section V-A, Exhibit 2. PY9/1/2008 is a weighted average of PY2008 and PY2009. = $(1/3) \times \text{PY2008} + (2/3) \times \text{PY2009}$

(3): From Section V-A, Exhibit 1.

(5): From Section IV-E, Exhibit 2.