

# MASSACHUSETTS WORKERS' COMPENSATION

## VOLUME I: INDEX 9/1/07

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## **Introduction**

On behalf of all member carriers writing workers' compensation insurance in Massachusetts, the Workers' Compensation Rating and Inspection Bureau of Massachusetts ("WCRIB") recommends that average rates for workers' compensation insurance be decreased by 14.6% for the policies effective September 1, 2007 and after. The rates for workers' compensation insurance were last revised two years ago, effective September 1, 2005, when the Commissioner of Insurance ordered a 3.0% decrease in the rates. If the WCRIB's filing is approved, the cumulative rate decrease since 1991 – when the most recent reform legislation was enacted – would be more than 64%.

There are two principal reasons why the WCRIB is proposing a rate reduction this year. First, as a result of the combined efforts of insurers, employers, regulators and workers, the frequency of workplace injuries has continued to decline in Massachusetts. Consequently, total loss costs for both indemnity and medical claims in Massachusetts have decreased despite continuing increases in the severity of claims when injuries do occur. Second, loss development has shown much improvement since the filing of September 1, 2005 rates was made. Loss development factors are down for both medical and indemnity losses.

The WCRIB has given very careful attention and scrutiny to the premium and loss experience reported by the insurance industry in Massachusetts. Over the past several years, on its own initiative and in response to concerns raised at the Division of Insurance, the WCRIB has intensified its efforts to ensure that the data collected from

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its members are sufficiently reliable for use in ratemaking. The WCRIB uses two major types of data reported by its member insurers to compile the industry's actual loss experience in the Massachusetts market: "aggregate financial" data and "Schedule Z" (or "Unit Statistical") data. An enormous number of insurance transactions are captured in these two databases. The WCRIB uses a comprehensive set of editing techniques as it compiles these data to verify their reliability.

These editing techniques have been improved since the WCRIB's last rate filing. The WCRIB now follows protocols that were proposed by the WCRIB and approved by the Commissioner of Insurance after questions arose about the reliability of the aggregate financial data reported by American International Group ("AIG") in anticipation of the WCRIB's 2005 rate filing. (The AIG aggregate financial data were excluded from the WCRIB's filing in 2005 when the questions about their reliability could not be resolved.) The WCRIB tests the reported data to make sure that it satisfies certain mandated reconciliations and can now call for an independent auditing firm to conduct a "targeted" Agreed Upon Procedures Engagement ("AUP") of the data reported by selected insurers when questions arise about the reliability of their submissions. The WCRIB takes into account the findings made by the independent auditing firms selected by insurers to perform on-site triennial AUPs to test aggregate financial data reported by the companies. These AUPs are prescribed by the WCRIB and the Division of Insurance.

The WCRIB and its members are distressed by the fact that the aggregate financial data submitted by AIG are once again this year not suitable for ratemaking.

These data have been the subject of mandated reconciliations and both a targeted AUP and a triennial AUP in accordance with Massachusetts Workers Compensation Statistical Plan. Despite its persistent efforts to resolve the data quality issues raised by AIG's aggregate financial data, the WCRIB is presently unable to include AIG's experience in the aggregate financial data that are used throughout the WCRIB's rate filing.<sup>1</sup>

AIG has become the largest writer of workers' compensation insurance in Massachusetts and currently accounts for about 30% of the workers' compensation premiums written in the Commonwealth. It is, to put it mildly, disappointing to the WCRIB and its member companies that AIG's aggregate financial data are not yet sufficiently reliable to be used in the present rate filing. The WCRIB is proposing new rates for the entire industry; it is obviously not desirable, when making an industry-wide rate filing, to exclude the experience of a company that accounts for such a large share of the market.<sup>2</sup> It appears that if the WCRIB could have included AIG's most recently reported data in this filing, the indicated decrease in rate level would have been less than the WCRIB is currently proposing, producing tens of millions of dollars in additional premiums.

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<sup>1</sup> The Unit Statistical data reported by AIG have not exhibited the kinds of unexplained anomalies that have caused the WCRIB (and the Division of Insurance) to question AIG's aggregate financial data. AIG's Unit Statistical data appear to be suitable for use in ratemaking and therefore have been used in this filing.

<sup>2</sup> For different kinds of reasons – but consistent with its strong desire to ensure that the data used for ratemaking are reliable – the WCRIB has also excluded all of the aggregate financial data reported by a handful of small insurers that together account for only about 2% of the market. The exclusion of their data from the rate filing has little, if any, impact on the rate indication. The WCRIB has also excluded some of the aggregate financial data reported by one other insurer when calculating certain rate factors.

While we are continuing to work with AIG to resolve data issues, law requires a rate filing to be made by March 1, 2007. With this filing made, the WCRIB intends to continue its diligent efforts to resolve the data quality issues presented by AIG's aggregate financial data. If AIG's aggregate financial data are ultimately deemed suitable for ratemaking, the WCRIB may seek to amend this filing to include AIG's reported experience. The WCRIB reserves its right to do so.

Although the WCRIB is proposing a 14.6% decrease in average rates, the Commissioner should be mindful that the Massachusetts Residual Market remains one of the largest in the country, with approximately 15% of the market, making it the second largest provider of workers' compensation coverage in the state.

The Commissioner should also take note of the continued growth in the severity of claims for both lost wages and medical expenses arising out of accidents in the workplace. While improving claim frequency has tended to offset much of the growth in claim severity in recent years, at some point claim frequencies will stabilize or possibly begin to rise. When that happens, the loss costs borne by Massachusetts workers' compensation carriers are likely to grow quickly.

The WCRIB's filing also recognizes that in the current economic climate, insurers continue to have much less opportunity than they had in the past to make up for underwriting losses with investment income. Interest rates remain low. Expected yields on insurance company investment portfolios are less than they were several years ago. As a result, the WCRIB has proposed an underwriting profit provision that is very close to zero.

The carriers writing workers' compensation coverage in Massachusetts have, in recent years, had to face another economic reality. Especially since the events of 9/11, carriers purchasing reinsurance are faced with increased costs for less comprehensive reinsurance coverage. In the past, the rate-setting methods used in Massachusetts have ignored the costs of reinsurance, even though without reinsurance many carriers would not have the capacity to continue to write workers' compensation in this state. Recognizing this undeniable economic reality, this year, as in its last filing, the WCRIB proposes to include a modest provision in the rates for the "frictional costs" of reinsurance based on the long term average costs of reinsurance.

The WCRIB urges the Commissioner to approve its rate filing, which calls for a 14.6% rate reduction in average rates, to ensure that the rates remain adequate and to encourage a robust voluntary market for workers' compensation insurance in Massachusetts.

### **Filing Summary**

This filing is divided into three parts. The first is the main rate level filing, with the explanatory text and actuarial exhibits underlying the rate calculations. The second part contains the revised experience and retrospective rating plan parameters, and the industry group and classification rate displays. The third part deals with cost containment. The pre-filed testimony of the three WCRIB actuaries supporting this filing (Robert McCarthy, Claudia Cunniff and Jessica Stanton) and of the WCRIB's outside

expert witnesses, David Appel of Milliman, Inc. and Robert Conger of Tillinghast – Towers Perrin, follows this introduction.

This filing presents the required testimony, data and calculations supporting the WCRIB's proposed rate revisions. The rates the WCRIB proposes are neither excessive nor inadequate, nor unfairly discriminatory, and they fall within a range of reasonableness. The Commissioner should, therefore, approve the WCRIB's filing.

In this introduction the WCRIB presents a summary of the principal ratemaking issues and methods considered in the filing. In preparing this filing, the WCRIB has continued the efforts it began several years ago to simplify its filings and the methods it uses to make rates. The WCRIB has heeded the Commissioner's repeated admonitions to avoid unnecessary complexity and needless change. The WCRIB has not introduced any new methods on the core rate-setting issues that drive the indication.

Consistent with past practice, the WCRIB uses a loss ratio methodology to derive two separate rate indications that are then averaged to produce the final recommendation. This year the WCRIB derived one indication from policy year 2003 data and the other from policy year 2004 data. Policy year 2003 data consist of premium and loss experience generated by policies written during 2003. Policy year 2004 data consist of premium and loss experience generated by policies written during 2004. The WCRIB averages these two years of experience to get its filed indication.

In the loss ratio method, the WCRIB calculated a permissible loss, Loss Adjustment Expense ("LAE") and fixed expense ratio ("Target Cost Ratio") and compared it to an adjusted loss, LAE and fixed expense ratio reflecting the past



experience that supports this filing (“Actual Cost Ratio”). The WCRIB 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 will be in effect (here 9/1/07-8/31/08). The proposed rate change is designed to bring the Actual Cost Ratio into alignment with the Target Cost Ratio.

It is important to look at the ratemaking methodology not as a series of unrelated calculations, but as 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 2003 and policy year 2004 losses have not yet all been settled, the WCRIB 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 WCRIB 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 WCRIB calculates the experience period loss ratios. In this filing the WCRIB again uses aggregate industry losses as the source of loss development factors.

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 for recent changes in the Statewide Average Weekly Wage only since there have not been recent changes in the medical fee schedule. The WCRIB estimates the wage-based benefit effects with a version of the evaluation model used by the National Council on Compensation Insurance (“NCCI”).

Finally, losses are adjusted for trend to account for expected changes in loss costs from the experience period to the time the proposed rates will be in effect. In this filing regression techniques were used to analyze separately the distinct underlying components of observed loss trends: changes in claim frequency, claim severity, and wages.<sup>3</sup> Details of the loss trend calculations are found in Section V.

### **Premiums**

For many 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 and the WCRIB also adjusts reported premiums to current rate level. These adjustments are found in Section III.

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<sup>3</sup> Wages are used as a proxy for exposure since the predominant exposure base is payroll.

**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 WCRIB uses a composite external index to estimate expense trends. The WCRIB also continues to include a provision to reflect the estimated net cost to insurers for the purchase of reinsurance.

**Underwriting Profit**

The underwriting profit provision is calculated in Section VIII of the filing using an internal rate of return (“IRR”) model. The IRR model is widely used in insurance ratemaking and was approved by the Commissioner in setting 9/1/2003 rates. To implement the IRR model, the WCRIB first determines the cost of capital (or target rate of return) for workers’ compensation insurers. The cost of capital represents the rate of return required by investors who assume the risk of investment in the insurance industry. The WCRIB then uses the internal rate of return model to derive the premium level required to achieve the target return on capital.

**Small Deductible Credits**

Section VII details the derivation of factors used to calculate premium credits for insureds electing to retain a portion of their losses via a small deductible. Factors are derived for both the Massachusetts Benefits Deductible Program and the Massachusetts Benefits Claim and Aggregate Deductible Program.

**Classifications and Rating Plan Parameters**

Section IX includes the calculation of various retrospective rating parameters, including updated expected loss groups and a revision of state and hazard group relativities. Section X describes how the overall rate change is distributed among the more than four hundred classifications for which workers' compensation is written in Massachusetts. Section XI presents D-Ratio and expected loss rate calculations for use in experience rating. There is no proposal to revise the Experience Rating Plan at this time.

**Cost Containment**

The WCRIB's cost containment filing once again includes the responses of ten representative carriers to a survey of cost containment practices. The WCRIB recommends that, as in the past, the Commissioner accept this filing as evidence of the industry's compliance with its statutory cost containment obligations.

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Section I - Rate Recommendation  
Subsection A - Introduction  
9/1/2007

Section I - A  
Exhibit 1

## RATE INDICATION SUMMARY

<b>Statewide Rate Change Summary</b>		
<i>Indication Effective Date: 9/01/07</i>		
(1)	Indicated Rate Change Based on Policy Year 2003 Data (Section I-B, Exhibit 1)	-16.5%
(2)	Indicated Rate Change Based on Policy Year 2004 Data (Section I-B, Exhibit 1)	-12.7%
(3)	Average Indicated Rate Change [(1) + (2)] / 2.0	-14.6%

<b>Expense Constants</b>		
	Current	Proposed
For Risks developing at least \$200 in Standard Premium (Section VI-E, Exhibit 1)	\$284	\$318
For Risks developing less than \$200 in Standard Premium (Section VI-E, Exhibit 1)	\$142	\$159
Per Capita Risks (for each exposure, up to a maximum of 4)	\$57	\$64

**Calculation of Indicated Rate Change**

	Policy Year <u>2003</u>	Policy Year <u>2004</u>
(1) Standard Earned Premium + ARAP	784,248,502	735,097,133
(2) Adjustment Factor (Section III - A)	1.049	1.056
(3) Adjusted Standard Earned Premium plus ARAP [(1) x (2)]	822,553,162	776,063,914
(4) Development Factor to Ultimate	1.001	1.003
(5) Factor to Adjust Premium to Current Rate Level	0.908	0.930
(6) Adjusted On-Level Standard Earned Premium at Ultimate = (3) x (4) x (5)	747,103,069	724,076,445
(7) Wage Trend Factor to 09/01/08 (Section V-A)	1.167	1.129
(8) Standard Earned Premium Projected to Policy Effective Period = (6) x (7)	872,004,373	817,542,810
(9) Incurred Losses Projected to Policy Effective Period I-C Exhibit I, Page 1 Item (26), Page 2 Item (26)	469,222,589	461,171,945
(10) Loss Ratio Projected to Policy Effective Period [(9) / (8)]	0.538	0.564
(11) Factor to Reflect Impact of Large Deductible Policies	0.997	0.997
(12) Loss Adjustment Expense Factor (Section VI-D)	1.182	1.182
(13) Fixed Expense Ratio (Section VI-B)	0.065	0.066
(14) Indicated Policy Year Loss, LAE, and Fixed Expense Ratio [((10) x (12)) + (13)] x (11)	0.699	0.731
(15) Commission and Other Acquisition Expense (Section VI-K)	0.114	0.114
(16) Premium Tax Ratio (Section VI-A)	0.022	0.022
(17) Premium Discount (Section VI-I)	0.038	0.038
(18) Variable Expense Ratio [(15) + (16) + (17)]	0.174	0.174
(19) Underwriting Profit Provision (Section VIII)	-0.010	-0.010
(20) Permissible Loss, LAE, and Fixed Expense Ratio [1.0 - (18) - (19)]	0.837	0.837
(21) Indicated Rate Change (14) / (20) - 1.0	<b>-16.5%</b>	<b>-12.7%</b>
(22) Overall Indicated Rate Change [(21) PY2003 + (21) PY2004] / 2.0		<b>-14.6%</b>

**Policy Year 2003**

	<u>Paid Method</u>	<u>Paid + Case Method</u>
<b>Indemnity Losses</b>		
(1) Indemnity Losses at Latest Month - Industry Total (Section II-A)	134,498,229	195,891,554
(2) Indemnity Loss Development Factor to 252 months	1.732	1.158
(3) Tail Factor 252 to ultimate	1.046	1.033
(4) Factor to Adjust for Escalated Benefits	1.032	1.011
(5) Estimated Ultimate Indemnity Loss = [(1) x (2) x (3) x (4)]	251,400,101	236,775,057
(6) Annual Indemnity Loss Trend (Section V-A)	0.007	0.007
(7) Indemnity Loss Trend Factor to 09/01/08	1.035	1.035
(8) Estimated Indemnity Losses Trended = [(5) x (7)]	260,272,661	245,131,461
(9) Estimated Benefit Change Factor Prior to 1/1/2006 (Section IV-A)	1.032	1.032
(10) On Level Losses = [(8) x (9)]	268,687,192	253,056,482
(11) Estimated Benefit Change Factor Subsequent to 1/1/2006	1.012	1.012
(12) Incurred Losses Projected to Policy Effective Period [(10) x (11)]	271,925,458	256,106,364
<b>Medical Losses</b>		
(13) Medical Losses at Latest Month - Industry Total (Section II-A)	101,812,995	129,566,125
(14) Medical Loss Development Factor to 252 months	1.379	1.291
(15) Tail Factor 252 months to ultimate	1.080	1.043
(16) Factor to Adjust for Escalated Benefits	1.000	1.000
(17) Estimated Ultimate Medical Loss = [(13) x (14) x (15) x (16)]	151,668,275	174,431,466
(18) Annual Medical Loss Trend (Section V-A)	0.047	0.047
(19) Medical Loss Trend Factor to 09/01/08	1.241	1.241
(20) Estimated Medical Losses Trended = [(17) x (19)]	188,286,429	216,545,470
(21) Estimated Benefit Change Factor Prior to 1/1/2006 (Section IV-A)	1.014	1.014
(22) On Level Losses = [(20) x (21)]	190,882,353	219,531,004
(23) Estimated Benefit Change Factor Subsequent to 1/1/2006	1.000	1.000
(24) Incurred Losses Projected to Policy Effective Period = [(22) x (23)]	190,882,353	219,531,004
<b>Total Combined Medical and Indemnity Losses</b>		
(25) Total Estimated Ultimate Losses Trended and On Level = [(12) + (24)]	462,807,810	475,637,368
(26) Average Incurred Losses Projected to Policy Effective Period	469,222,589	

**Policy Year 2004**

	<u>Paid Method</u>	<u>Paid + Case Method</u>
<b>Indemnity Losses</b>		
(1) Indemnity Losses at Latest Month - Industry Total (Section II-A)	78,091,841	155,576,666
(2) Indemnity Loss Development Factor to 252 months	3.073	1.418
(3) Tail Factors 252 months to ultimate	1.046	1.033
(4) Factor to Adjust for Escalated Benefits	1.032	1.011
(5) Estimated Ultimate Indemnity Loss = [(1) x (2) x (3) x (4)]	258,956,399	230,285,953
(6) Annual Indemnity Loss Trend (Section V-A)	0.007	0.007
(7) Indemnity Loss Trend Factor to 09/01/08	1.028	1.028
(8) Estimated Indemnity Losses Trended = [(5) x (7)]	266,106,978	236,644,853
(9) Estimated Benefit Change Factor Prior to 1/1/2006 (Section IV-A)	1.026	1.026
(10) On Level Losses (8) x (9)	273,001,524	242,776,068
(11) Estimated Benefit Change Factor Subsequent to 1/1/2005	1.012	1.012
(12) Incurred Losses Projected to Policy Effective Period = [(10) x (11)]	276,291,787	245,702,048
<b>Medical Losses</b>		
(13) Medical Losses at Latest Month - Industry Total (Section II-A)	78,490,723	128,513,006
(14) Medical Loss Development Factor to 252 months	1.814	1.363
(15) Tail Factors 252 months to ultimate	1.080	1.043
(16) Factor to Adjust for Escalated Benefits	1.000	1.000
(17) Estimated Ultimate Medical Loss = [(13) x (14) x (15) x (16)]	153,813,545	182,571,714
(18) Annual Medical Loss Trend (Section V-A)	0.047	0.047
(19) Medical Loss Trend Factor to 09/01/08	1.185	1.185
(20) Estimated Medical Losses Trended = [(17) x (19)]	182,287,467	216,369,340
(21) Estimated Benefit Change Factor Prior to 1/1/2006 (Section IV-A)	1.004	1.004
(22) On Level Losses = [(20) x (21)]	183,061,711	217,288,343
(23) Estimated Benefit Change Factor Subsequent to 1/1/2005	1.000	1.000
(24) Incurred Losses Projected to Policy Effective Period = [(22) x (23)]	183,061,711	217,288,343
<b>Total Combined Medical and Indemnity Losses</b>		
(25) Total Estimated Ultimate Losses Trended and On Level = [(12) + (24)]	459,353,499	462,990,391
(26) Average Incurred Losses Projected to Policy Effective Period	461,171,945	



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

The WCRIB makes rates based on the experience of voluntary market risks excluding large deductibles and residual markets risks. However, large deductibles are subject to the assigned risk assessment. Consequently, when the WCRIB makes rates using the current methodology (9/1/2005), an estimate should be made of the residual market subsidy that is being paid by large deductibles and this estimate is treated as an offset in the rates.

The WCRIB does this by applying a factor to the indicated Rate Change.

### Derivation of Factor:

#### *Assumptions*

$w_1$	- Proportion of Voluntary Non-Large Deductible Exposure to the sum of Voluntary Non-Large Deductible Exposure plus Residual Market Exposure
$w_2$	- $1 - w_1$
$Q_v$	- Average Voluntary Market Rate equivalent
$Q_r$	- Average Residual Market Rate equivalent
$Q_{oa-0}$	- Average Rate equivalent for Voluntary and Residual Market in total assuming <b>no</b> 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
$d$	- $Q_r / Q_v$

Assuming no residual market subsidy paid by anyone other than  $w_1$ .

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$$(1) \quad w_1 Q_v + w_2 Q_r = Q_{oa-0}$$

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

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

$$(2) \quad w_2 (Q_r - Q_{oa-0}) = \text{Residual Market Subsidy}$$

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

$$(3) \quad (1 - u) w_2 (Q_r - Q_{oa-1})$$

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

$$(4) \quad w_1 Q_v + w_2 Q_r - (1 - u) w_2 (Q_r - Q_{oa-1}) = Q_{oa-1}$$

Therefore for  $Q_{oa-1}$  :

$$(5) \quad Q_{oa-1} = w_1 Q_v - (1 - u) w_2 (Q_r - Q_{oa-1}) + w_2 Q_r$$

$$(6) \quad Q_{oa-1} / Q_{oa-0} = [w_1 Q_v - (1 - u) w_2 (Q_r - Q_{oa-1}) + w_2 Q_r] / [w_1 Q_v + w_2 Q_r]$$

**If we assume that:**

$$(7) \quad w_1 Q_v + w_2 Q_r = Q_{oa-0} = 1.00,$$

the average rate equivalent for the total market.

Then the factor we are looking for  $Q_{oa-1} / Q_{oa-0}$  reduces to  $Q_{oa-1}$ . Also solving (7)

for  $Q_v$  and  $Q_r$  and introducing the variable  $d$ , results in the following:

$$(8) \quad w_1 Q_v + w_2 Q_r = Q_{oa-0} = 1.00$$

$$(9) \quad Q_v (w_1 + w_2 d) = 1.00, \text{ where } d = Q_r / Q_v$$

$$(10) \quad Q_v = 1 / (w_1 + w_2 d)$$

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Section I-D  
Page 3

Similarly:

$$(11) Q_r = d / (w_1 + w_2 d)$$

Replacing  $Q_v$  and  $Q_r$  from (5) with (10) and (11) results in:

$$(12) Q_{oa-1} = 1.00 - (1 - u) w_2 (Q_r - Q_{oa-1})$$

$$(13) \text{ Adjustment Factor} = Q_{oa-1} = [1.0 - w_2 Q_r (1 - u)] / [1.0 - w_2 (1 - u)]$$

## Calculation of the “d”

“d” is defined as:  $d = Q_r / Q_v$

Let's define  $Q_v$  and  $Q_r$  as follows, based on the WCRIB's formula for a rate:

$$(14) Q_v = (L_v + F) / (1 - V_v)$$

$$(15) Q_r = (L_r + F) / (1 - V_r)$$

$$(16) w_1 L_v + w_2 L_r = L_f$$

- where
- $L_v$  - Voluntary Loss & LAE Ratio to the sum of Standard Premium plus ARAP
  - $L_r$  - 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
  - $V_v$  - Voluntary Variable Expenses Ratio
  - $V_r$  - Residual Market Variable Expenses Ratio
  - $w_1, w_2$  - Weights for Voluntary and Residual Market Standard Premium plus ARAP
  - $r$  -  $L_r / L_v$

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$$(17) w_1L_v + w_2rL_v = L_f$$

$$(18) L_v = L_f / (w_1 + w_2r)$$

$$(19) w_1L_r / r + w_2L_r = L_f$$

$$(20) L_r = L_f r / (w_1 + w_2r)$$

Consequently, if a loss ratio differential,  $r$ , is selected, the values of  $L_v$  and  $L_r$  can be derived.

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

$$(21) d = Q_r / Q_v = [ (L_r + F) / (1 - V_r) ] / [ (L_v + F) / (1 - V_v) ]$$

$$(22) d = Q_r / Q_v = [ (L_r + F) / (L_v + F) ] \times [ (1 - V_v) / (1 - V_r) ]$$

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

The  $V_v$  and  $V_r$  can be thought of as the following:

$$(23) V_v = C_v + A + T + P + D_v$$

$$(24) V_r = C_r + A + T + P$$

- where
- $C_v, C_r$  - Commission Ratio relative to the sum of Standard Premium plus ARAP for the Voluntary and Residual Market, respectively
  - $A$  - 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
  - $P$  - Profit provision relative to the sum of Standard Premium plus ARAP
  - $D$  - Premium Discount relative to the sum of Standard Premium plus ARAP

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If you assume that  $D_v = (D / \text{Voluntary Market Share})$ , then the second term in

(22) becomes:

$$(25) [ 1 - (C_v + A + T + P + D_v) ] / [ 1 - (C_r + A + T + P) ]$$

and the remaining unknowns are  $C_v$  and  $C_r$ .

$$(26) w_1 C_v + w_2 C_r = C_f$$

Introducing a new variable  $k$  such that :

$$(27) k = C_r / C_v,$$

the commission ratio differential between the Residual Market and the Voluntary Market.

Then equations can be derived for  $C_v$  and  $C_r$  as follows.

$$(28) C_v = C_f / (w_1 + w_2 k)$$

$$(29) C_r = C_f k / (w_1 + w_2 k)$$

“ $k$ ” is the estimated commission differential.

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## Massachusetts Workers' Compensation Calculation of Adjustment Factor

	Total Market	Residual Market	Voluntary Market	Differential
(1) Permissible Loss, LAE, and Fixed Expense Ratio	83.7%			
(2) Fixed Expense Ratio (Section VI-B)	6.5%			
(3) Permissible Loss and LAE Ratio [(1) - (2)]	77.1%			
(4) Loss Ratio Differential	1.156			
(5) Market Weight - $w_1, w_2$		24%	76%	
(6) Implied Loss and LAE Ratio		0.860	0.744	
(7) Implied Loss, LAE, and Fixed Expense Ratio		0.925	0.809	1.143
(8) Variable Expense Ratio	17.4%	11.9%	19.1%	
(9) <b>Implied Rate Differential "d"</b>		1.050	1.000	<b>1.050</b>
(10) Residual Market Rate equivalent, $Q_r$	1.038			
(11) Proportion of Total Voluntary Assessable Premium not from Large Deductibles, $u$	0.736			
(12) <b>Adjustment Factor</b>	<b>0.997</b>			

- (1) Consistent with Section VI-A
- (4) Loss Ratio Differential from Section I-D, Exhibit 1, Page 2
- (5) Residual Market weight,  $w_2$ , from Section I-D, Exhibit 2, Voluntary Market weight,  $w_1 = 1.0 - (5)_{\text{Residual Market}}$
- (6) Voluntary Market Implied Loss and LAE Ratio =  $(3) / \{(5) \times (4) + [1.0 - (5)]\}$
- (7) = (2) + (6), Differential =  $(7)_{\text{Residual Market}} / (7)_{\text{Voluntary Market}}$
- (8) Section VI-A, Exhibit 1, Total Market
- (9) = (7) / [1.0 - (8)]
- (10)  $Q_r = d / [w_1 + (w_2 \times d)]$
- (11)  $u$  is from Section I-D, Exhibit 3
- (12) =  $[1.0 - w_2 \times Q_r \times (1.0 - u)] / [1.0 - w_2 \times (1.0 - u)]$

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## Calculation of Loss Ratio Differential

(1)	(2) Total Market	(3) Residual Market	(4) Voluntary Market	(5) Differential
Policy Year 1998:				
Standard Earned Premium plus ARAP	717.8	41.7	676.1	
Paid Losses and Case Reserves	347.0	32.3	314.7	
Loss Ratio	48.3%	77.5%	46.5%	1.666
Policy Year 1999:				
Standard Earned Premium plus ARAP	710.8	39.6	671.2	
Paid Losses and Case Reserves	378.0	19.5	358.6	
Loss Ratio	53.2%	49.1%	53.4%	0.920
Policy Year 2000:				
Standard Earned Premium plus ARAP	688.2	55.0	633.2	
Paid Losses and Case Reserves	408.3	30.2	378.1	
Loss Ratio	59.3%	54.9%	59.7%	0.920
Policy Year 2001:				
Standard Earned Premium plus ARAP	722.6	102.7	619.8	
Paid Losses and Case Reserves	383.9	57.9	325.9	
Loss Ratio	53.1%	56.4%	52.6%	1.072
Policy Year 2002				
Standard Earned Premium plus ARAP	786.6	164.5	622.1	
Paid Losses and Case Reserves	365.7	77.4	288.3	
Loss Ratio	46.5%	47.0%	46.3%	1.016
Policy Year 2003				
Standard Earned Premium plus ARAP	784.2	182.2	602.0	
Paid Losses and Case Reserves	325.5	79.4	246.1	
Loss Ratio	41.5%	43.5%	40.9%	1.065
Policy Year 2004				
Standard Earned Premium plus ARAP	735.1	183.4	551.7	
Paid Losses and Case Reserves	284.1	87.1	197.0	
Loss Ratio	38.6%	47.5%	35.7%	1.331
Two Year Average Loss Ratio		45.5%	38.3%	1.189
All Year Average Loss Ratio		53.7%	47.9%	1.122
<b>Loss Ratio Differential</b>				<b>1.156</b>

Notes:

Data as of 12/31/05, in millions.

ARAP was effective 1/1/90. Premium discounts were discontinued in the Residual Market effective 1/1/91

(2) From Financial Aggregate Database, excludes large deductible policies

(3) From Financial Aggregate Data, excludes large deductible policies

(4) = (2) - (3) for Premium and Losses, Loss Ratio is calculated

(5) = (3) / (4)

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Residual Market Weight "w<sub>2</sub>"

(1) Calendar Year	(2) Residual Market Written Premium (\$millions)	(3) Take-Out Program Written Premium (\$millions)	(4) Voluntary Full Coverage Not in Take-Out Program Written Premium (\$millions)	(5) Residual Market Weight "w <sub>2</sub> " (2) / [(2) + (3) + (4)]
1999	59	23	698	0.076
2000	66	10	735	0.081
2001	99	3	699	0.124
2002	184	12	785	0.188
2003	203	33	785	0.199
2004	241	60	658	0.252
2005	238	46	783	0.223
Proposed Effective Policy Period	240	53	720	0.237

Refers to the Proposed Policy Effective Period of 9/01/07 through 9/01/08.



Proportion of Voluntary Assessable Premium Not from Large Deductibles, " u "

(1) Calendar Year	(2) Voluntary Net Assessable Premium (\$millions)	(3) Large Deductible Standard + ARAP Written Premium (\$millions)	(4) " u " -- Proportion of Assessable Premium Not from Large Deductibles [(2) - (3)] / (2)
1998	934	226	0.758
1999	889	188	0.789
2000	913	177	0.806
2001	969	270	0.721
2002	1083	299	0.724
2003	1013	227	0.775
2004	910	252	0.724
2005	1049	267	0.746
Proposed Effective Policy Period	979	259	0.736

Refers to the Proposed Policy Effective Period of 9/01/07 through 9/01/08.

**INSOLVENCY FUND IMPACT ON MANUAL RATES****Background**

We calculate a loading for the recoupment of the Massachusetts Insolvency Fund (“Fund”) assessments in this section (I-E). The insolvency fund loading is being shown here to highlight its significance in the determination of final manual rates. It is not considered part of the indicated change in average rates. The calculation of the insolvency fund loading is done as in previous years and the result flows through to Section X-L as in past filings.

Section X-L 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 Fund assessments. We continue to calculate these offsets in Section X-L.

**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 premiums for a line of business covered by the Fund, including workers' compensation, 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 recoupment prior year assessments consistent with the Fund Statute.

## I 000025 R

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 a non-workers' compensation carrier. 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 determine 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 2007 expected written premium to arrive at the factor to load the assessment.

The Fund assessed carriers on 12/7/05 and 12/28/06. The loading provides for the recoupment of the portion of these assessments that are attributable to the workers' compensation line and that have not yet been recouped. Because the currently effective rates have been in effect for two years and contain a provision for Insolvency Fund assessments that assumed those rates would only be in effect for one year, we need to reduce what would otherwise be the load for Insolvency Fund assessments in the 2007 rates. The net effect of these adjustments is -3.02%.

# I 000026 R

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## Insolvency Fund Recoupments

(1) Net Assessments	197,644
(2) Expected Written Premium in 09/01/06 to 08/31/07 Absent Insolvency Assessments	1,240,666,467
(3) Assessment rate as a % of Premium absent Insolvency Fund 09/01/06 to 08/31/07	2.3%
(4) Assessment Collected 09/01/06 to 08/31/07	28,944,749
(5) Factor for Interest to the Prospective Period	1.048
(6) Assessment Collected Adjusted to Prospective Period	30,339,272
(7) Projected Written Premium in the Prospective Period	1,027,600,623
(8) Net Assessment to be Recouped	-30,141,628
(9) Truing-up Loading	<b>-3.02%</b>

- (1) Exhibit 2 Page 2
- (2) Exhibit 2 Page 1
- (3) On 9/01/05 the truing up loading approved was 2.3%.
- (4) = (2) x (3)
- (5) Section VIII-F, Exhibit 1, 4.82%
- (6) = (4) x (5)
- (7) Exhibit 2 Page 1
- (8) = (1) - (6)
- (9) = (8) / [ (8) + (7) ]

# I 000027 R

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## 2007 Recoupment of Insolvency Fund Assessments

(1) 2005 Calendar Year Written Premium Absent Insolvency Assessments	1,332,496,563
(2) Expected Exposure Growth to 08/31/2007	0.950
(3) Rate Change from Calendar Year 2005 Written to 08/31/2007	-2.0%
(4) Expected Written Premium in 09/01/06 to 08/31/07	1,240,666,467
(5) Expected Exposure Growth from 09/01/2007 to 08/31/2008	0.970
(6) Average Indicated Rate Change	-14.6%
(7) Expected Written Premium in Prospective Period (4) x (5) x [1.0 + (6)]	1,027,600,623

### Notes:

- (1) The adjustment factor for the insolvency fund loading of -0.9% in the 9/1/2003 rates is 1.009 and the loading of -2.3% in the 9/1/2005 rates is .977.
- (2) Assumes a -3.01% annual change.
- (3) The 09/01/05 Rate Change was -3.0%.
- (4) = (1) x (2) x [1.0 + (3)]
- (5) Assumes a -3.01% annual change.
- (6) Section I-A, Exhibit 1
- (7) = (4) x (5) x [1.0 + (6)]

2007 Recoupment of Insolvency Fund Assessments

Assessment Base Year	Workers' Compensation Calendar Year Written Premium	Assessment Base	Percentage Charged to Workers' Compensation (2) / (3)	12/7/2005		12/28/2006	
				Assessment (5)	Assessment Charged to Workers' Compensation (4) x (5) (6)	Assessment (7)	Assessment Charged to Workers' Compensation (4) x (7) (8)
1988	1,192,120,104	6,766,445,953	17.62%	-294,000	-51,797	0	0
1989	1,303,051,741	6,692,131,638	19.47%				
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%	-400,000	-76,030	0	0
1993	1,395,560,326	7,233,247,733	19.29%	-50,590	-9,761	0	0
1994	1,175,326,757	7,224,575,261	16.27%	-1,247,000	-202,868	-1,587,126	-258,201
1995	1,043,750,298	7,139,153,644	14.62%	-1,435,000	-209,798	0	0
1996	981,758,872	6,855,906,608	14.32%				
1997	914,971,260	6,781,202,666	13.49%	-591,297	-79,782	0	0
1998	896,280,476	6,877,677,561	13.03%				
1999	852,073,429	6,979,043,413	12.21%	-6,000,000	-732,542	-9,000,000	-1,098,813
2000	873,456,717	7,642,598,776	11.43%	-10,000,000	-1,142,879	0	0
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	1,278,067,386	10,622,095,884	12.03%	17,000,000	2,045,467	0	0
2005	1,334,785,281	10,811,968,111	12.35%	0	0	16,250,000	2,006,134
Total				-459,990	-459,990	649,121	649,121

- (9) Interest to Average Date 1.056
- (10) Interest-Adjusted Assessment = (9) x (10) 685,752
- (11) Adjusted Total Assessments = sum (11) 176,391
- (12) Premium Tax Rate 2.2%
- (13) Commission Rate 8.6%
- (14) Net Assessment = (12) / [(1.0 - (13) - (14))] 197,644

(1) Assessment Base Years 2002 and beyond from the Guaranty Fund Management Systems. Remaining years bases on a compilation of Statutory Page 14s. 1998 was the first year that Workers' Compensation was included in the assessment.

(2),(5),(7) Information from Guaranty Fund Management Services; see Page 3.

(9) Sum (6), Sum (8)

(10) 4.82% is the risk-free rate of interest, shown in Sec. VIII-H.

(13) From Sec. VI-A, Exhibit 1.

(14) The average commission is 8.24%, consistent with Section VI-K. Since the average premium discount is 3.77% (Sec VI-I, Exhibit 1), the average commission as a percent of net premium is 7.67%/(1.0-3.77%) = 8.6%. 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. 175D.



**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<sup>1</sup>” losses and historical patterns of development, ie. 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 time of the final settlement. The assumption is that losses develop in a consistent pattern over the years so that historical experience can be used to predict future development.

Reported losses are developed to their estimated “ultimate” level based on these historical loss development, or settlement, 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 the 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.

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<sup>1</sup> In this filing, reported losses refers to either of paid loss or paid loss plus case reserves.



## II 000002 R

In this section of the filing, reported losses for policy years 2003 and 2004 are developed to their estimated ultimate levels using the same basic method employed by the Commissioner in the 2003 Rate Decision and by the WCRIB in the 2005 Rate Filing. Consistent with the Statement of Actuarial Principles of the Casualty Actuarial Society, the WCRIB 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 amounts held as reserves for anticipated future claims payments.

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 so as to avoid any large or random fluctuations that are not truly 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 truly represent current conditions. This would weigh in favor of using only the most recent data. As in prior filings, our selected age-to-age development factors are the unweighted averages of the latest two indicated age-to-age link ratios.

The 2003 policy year and 2004 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

## II 000003 R

(including the tail factor discussed below) from a given month (“age”) development forward to the point at which we expect no further development.

As in the two previous rate filings, the WCRIB has again calculated ultimate losses based on aggregate industry-wide loss development data. This method is easy to understand and consistent with customary ratemaking practices. Medical and indemnity losses are developed separately because of their differing development patterns. In doing so, we also avoid potential distortions that may arise because of 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.

The experience for prior years of companies that have stopped writing new business in Massachusetts and that did not report policy experience valued as of the latest calendar year’s end has been excluded from our financial aggregate database in order to avoid any distortions to the rate indication.

In this filing, the WCRIB uses historical data and the resultant loss development factors to develop the policy year paid and the paid plus case losses to 252 months. 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 experience period do not reflect the change in the law that introduced inflation-based increases in indemnity benefits or lost wages. See St. 1986, c. 572. Therefore the development

## II 000004 R

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pattern of indemnity losses that are subject to escalation differs from that of indemnity losses not subject to escalation. See Section II-D for the details of the calculation.

**TAIL FACTOR**

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Workers' compensation carriers in Massachusetts report aggregated financial policy year loss experience to the WCRIB at year-end valuation points for twenty-one consecutive years (252 months). Hence the WCRIB 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).

The WCRIB's calculation 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 exposure (typically payroll dollars) 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 1985 had the same level of exposure as policy year 1985 – a fact known to be false. Stated mathematically, if the ratios used to calculate the tail factor reflect losses in the numerator that are not at the same exposure level as 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 caused by increases or decreases in market size, thereby creating a more appropriate expectation of development in the tail (see Section II-C, Exhibit 1, Page 2 and Exhibit 2, Page 2). The growth factor decomposes the numerator of each tail factor ratio, calendar year development for years prior to 1985, into individual policy year components, and then adjusts each year individually based on its contribution to aggregate development.

## II 000007 R

In this filing, 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 (see 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. Moreover, separate tail factors were 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 maintain stability and 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 R

Section II - Loss Development  
 Subsection A - Summary  
 9/1/2007

Section II - A  
 Exhibit 1

### Summary of Estimated Ultimate Losses

#### Paid Loss Development Method

Policy Year (1)	Benefit Type (2)	Paid Losses at 12/31/2005 (3)	Cumulative Factors from Latest Month to 252 Months (4)	Tail Factor from 252 Months to Ultimate (5)	Factor to Adjust for Escalated Benefits (6)	Estimated Ultimate Losses (7)
2003	Indemnity	134,498,229	1.732	1.046	1.032	251,400,101
2003	Medical	101,812,995	1.379	1.080	1.000	151,668,275
2003	Total	236,311,224				403,068,376
2004	Indemnity	78,091,841	3.073	1.046	1.032	258,956,399
2004	Medical	78,490,723	1.814	1.080	1.000	153,813,545
2004	Total	156,582,564				412,769,944

#### Paid Plus Case Loss Development Method

Policy Year (8)	Benefit Type (9)	Paid Plus Case Losses at 12/31/2005 (10)	Cumulative Factors from Latest Month to 252 Months (11)	Tail Factor from 252 Months to Ultimate (12)	Factor to Adjust for Escalated Benefits (13)	Estimated Ultimate Losses (14)
2003	Indemnity	195,891,554	1.158	1.033	1.011	236,775,057
2003	Medical	129,566,125	1.291	1.043	1.000	174,431,466
2003	Total	325,457,679				411,206,523
2004	Indemnity	155,576,666	1.418	1.033	1.011	230,285,953
2004	Medical	128,513,006	1.363	1.043	1.000	182,571,714
2004	Total	284,089,672				412,857,667

Notes:

- (4),(11): Section II - B, Exhibit 1.
- (5): Section II - C, Exhibit 1, Page 1.
- (6): Section II - D, Exhibit 1, Page 1.
- (7): (3) x (4) x (5) x (6)
- (12): Section II - C, Exhibit 2, Page 1.
- (13): Section II - D, Exhibit 2, Page 1.
- (14): (10) x (11) x (12) x (13)

Policy Year Financial Aggregate Data  
 Summary of Loss Development Factors  
 Industrywide

Months of Development	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
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(1) Indemnity Paid Losses

2 Year Average	1.774	1.294	1.125	1.064	1.029	1.020	1.014	1.011	1.005	1.008	1.005	1.002	1.004	1.003	1.002	1.003	1.004	1.004	1.003	1.001
Cumulative Factor to 252	3.073	1.732	1.339	1.190	1.119	1.088	1.066	1.052	1.041	1.035	1.028	1.023	1.020	1.017	1.014	1.012	1.008	1.004	1.004	1.001

(2) Medical Paid Losses

2 Year Average	1.315	1.103	1.056	1.030	1.020	1.014	1.013	1.011	1.013	1.012	1.009	1.008	1.007	1.007	1.005	1.007	1.006	1.006	1.004	1.004
Cumulative Factor to 252	1.814	1.379	1.250	1.184	1.150	1.127	1.111	1.097	1.085	1.071	1.059	1.049	1.041	1.033	1.026	1.021	1.013	1.013	1.008	1.004

(3) Indemnity Paid Plus Case Losses

2 Year Average	1.225	1.071	1.031	1.013	1.006	1.001	1.002	1.006	0.999	0.999	1.002	1.002	0.999	1.003	1.004	1.001	1.003	1.006	1.006	1.000
Cumulative Factor to 252	1.418	1.158	1.081	1.048	1.035	1.029	1.028	1.026	1.020	1.021	1.022	1.019	1.017	1.017	1.014	1.011	1.010	1.010	1.007	1.000

(4) Medical Paid Plus Case Losses

2 Year Average	1.055	1.035	1.052	1.036	1.029	1.023	1.021	1.001	1.003	1.017	1.005	0.999	1.006	1.010	1.007	1.002	1.008	1.004	1.004	1.001
Cumulative Factor to 252	1.363	1.291	1.248	1.186	1.145	1.112	1.087	1.065	1.063	1.061	1.043	1.038	1.039	1.033	1.023	1.016	1.013	1.005	1.005	1.001

Notes:

- (1): From Section II-B, Exhibit 2, Page 1.
- (2): From Section II-B, Exhibit 2, Page 2.
- (3): From Section II-B, Exhibit 3, Page 1.
- (4): From Section II-B, Exhibit 3, Page 2.



## II 000010 R

Section II - Loss Development  
 Subsection B - Policy Year Data  
 9/1/2007

Section II - B  
 Exhibit 2  
 Page 1

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

Policy Year	Losses Evaluated at Month		Loss Development Factor	Policy Year	Losses Evaluated at Month		Loss Development Factor
	24	36			144	156	
2002	81,282,233	146,432,849	1.802	1992	287,856,413	289,717,473	1.006
2003	77,005,068	134,498,229	1.747	1993	235,737,663	236,511,286	1.003
Average			1.774	Average			1.005
	36	48			156	168	
2001	146,267,892	191,392,493	1.309	1991	470,915,753	471,771,651	1.002
2002	146,432,849	187,357,937	1.279	1992	289,717,473	290,429,301	1.002
Average			1.294	Average			1.002
	48	60			168	180	
2000	200,214,010	225,267,798	1.125	1990	706,851,261	708,920,391	1.003
2001	191,392,493	215,256,182	1.125	1991	471,771,651	473,923,845	1.005
Average			1.125	Average			1.004
	60	72			180	192	
1999	205,456,169	218,496,449	1.063	1989	781,858,493	783,835,134	1.003
2000	225,267,798	239,603,571	1.064	1990	708,920,391	711,031,107	1.003
Average			1.064	Average			1.003
	72	84			192	204	
1998	197,886,351	203,317,283	1.027	1988	746,939,820	748,790,380	1.002
1999	218,496,449	224,989,127	1.030	1989	783,835,134	785,419,650	1.002
Average			1.029	Average			1.002
	84	96			204	216	
1997	169,799,640	174,007,031	1.025	1987	658,970,899	660,294,663	1.002
1998	203,317,283	206,412,161	1.015	1988	748,790,380	751,980,778	1.004
Average			1.020	Average			1.003
	96	108			216	228	
1996	173,078,022	175,182,555	1.012	1986	529,621,264	532,097,289	1.005
1997	174,007,031	176,643,147	1.015	1987	660,294,663	662,882,425	1.004
Average			1.014	Average			1.004
	108	120			228	240	
1995	186,866,674	188,561,449	1.009	1985	417,147,721	418,513,380	1.003
1996	175,182,555	177,447,769	1.013	1986	532,097,289	533,502,870	1.003
Average			1.011	Average			1.003
	120	132			240	252	
1994	187,601,253	188,350,101	1.004	1985	418,513,380	418,987,871	1.001
1995	188,561,449	189,725,951	1.006	Average			1.001
Average			1.005				
	132	144					
1993	234,318,777	235,737,663	1.006				
1994	188,350,101	190,047,340	1.009				
Average			1.008				

## II 000011 R

Section II - Loss Development  
 Subsection B - Policy Year Data  
 9/1/2007

Section II - B  
 Exhibit 2  
 Page 2

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

Policy Year	Losses Evaluated at Month		Loss Development Factor	Policy Year	Losses Evaluated at Month		Loss Development Factor
	24	36			144	156	
2002	76,821,658	101,491,783	1.321	1992	129,988,895	131,325,793	1.010
2003	77,730,060	101,812,995	1.310	1993	105,250,044	105,994,492	1.007
Average			1.315	Average			1.009
	36	48			156	168	
2001	95,053,601	104,411,663	1.098	1991	167,066,537	168,527,945	1.009
2002	101,491,783	112,478,961	1.108	1992	131,325,793	132,328,514	1.008
Average			1.103	Average			1.008
	48	60			168	180	
2000	106,315,198	111,462,736	1.048	1990	199,551,185	200,973,009	1.007
2001	104,411,663	111,039,104	1.063	1991	168,527,945	169,803,322	1.008
Average			1.056	Average			1.007
	60	72			180	192	
1999	106,653,575	110,271,046	1.034	1989	213,539,806	214,928,253	1.007
2000	111,462,736	114,264,712	1.025	1990	200,973,009	202,496,029	1.008
Average			1.030	Average			1.007
	72	84			192	204	
1998	98,984,963	100,674,043	1.017	1988	196,817,564	198,068,447	1.006
1999	110,271,046	112,772,826	1.023	1989	214,928,253	215,869,017	1.004
Average			1.020	Average			1.005
	84	96			204	216	
1997	83,961,470	85,345,980	1.016	1987	167,332,820	168,505,800	1.007
1998	100,674,043	101,909,449	1.012	1988	198,068,447	199,493,819	1.007
Average			1.014	Average			1.007
	96	108			216	228	
1996	82,494,510	83,748,508	1.015	1986	141,344,319	141,903,358	1.004
1997	85,345,980	86,329,491	1.012	1987	168,505,800	169,769,841	1.008
Average			1.013	Average			1.006
	108	120			228	240	
1995	85,851,442	86,671,801	1.010	1985	121,400,114	121,841,831	1.004
1996	83,748,508	84,793,508	1.012	1986	141,903,358	142,438,219	1.004
Average			1.011	Average			1.004
	120	132			240	252	
1994	89,852,313	91,177,116	1.015	1985	121,841,831	122,326,693	1.004
1995	86,671,801	87,570,711	1.010	Average			1.004
Average			1.013				
	132	144					
1993	104,178,460	105,250,044	1.010				
1994	91,177,116	92,405,162	1.013				
Average			1.012				

## II 000012 R

Section II - Loss Development  
 Subsection B - Policy Year Data  
 9/1/2007

Section II - B  
 Exhibit 3  
 Page 1

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

Policy Year	Losses Evaluated at Month		Loss Development Factor	Policy Year	Losses Evaluated at Month		Loss Development Factor
	24	36			144	156	
2002	178,314,205	218,181,826	1.224	1992	298,100,845	299,361,281	1.004
2003	159,824,428	195,891,554	1.226	1993	245,485,021	245,655,984	1.001
Average			1.225	Average			1.002
	36	48			156	168	
2001	219,978,201	237,893,478	1.081	1991	487,305,316	489,329,151	1.004
2002	218,181,826	231,427,928	1.061	1992	299,361,281	299,589,996	1.001
Average			1.071	Average			1.002
	48	60			168	180	
2000	247,710,838	253,765,966	1.024	1990	730,715,878	730,875,329	1.000
2001	237,893,478	246,779,402	1.037	1991	489,329,151	488,662,252	0.999
Average			1.031	Average			0.999
	60	72			180	192	
1999	237,299,741	239,089,795	1.008	1989	809,628,975	811,356,084	1.002
2000	253,765,966	258,286,957	1.018	1990	730,875,329	733,314,795	1.003
Average			1.013	Average			1.003
	72	84			192	204	
1998	214,424,991	215,843,291	1.007	1988	770,630,157	775,275,373	1.006
1999	239,089,795	240,566,320	1.006	1989	811,356,084	812,832,966	1.002
Average			1.006	Average			1.004
	84	96			204	216	
1997	185,035,907	184,497,687	0.997	1987	680,078,221	681,708,011	1.002
1998	215,843,291	216,690,020	1.004	1988	775,275,373	774,557,819	0.999
Average			1.001	Average			1.001
	96	108			216	228	
1996	183,030,771	182,840,806	0.999	1986	544,000,867	547,762,060	1.007
1997	184,497,687	185,383,723	1.005	1987	681,708,011	681,237,421	0.999
Average			1.002	Average			1.003
	108	120			228	240	
1995	199,232,375	199,304,595	1.000	1985	423,458,672	425,989,811	1.006
1996	182,840,806	185,047,445	1.012	1986	547,762,060	551,567,881	1.007
Average			1.006	Average			1.006
	120	132			240	252	
1994	201,885,488	201,461,088	0.998	1985	425,989,811	426,066,189	1.000
1995	199,304,595	199,377,098	1.000	Average			1.000
Average			0.999				
	132	144					
1993	244,875,265	245,485,021	1.002				
1994	201,461,088	200,637,477	0.996				
Average			0.999				

## II 000013 R

Section II - Loss Development  
 Subsection B - Policy Year Data  
 9/1/2007

Section II - B  
 Exhibit 3  
 Page 2

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

Policy Year	Losses Evaluated at Month		Loss Development Factor	Policy Year	Losses Evaluated at Month		Loss Development Factor
	24	36			144	156	
2002	123,557,608	129,677,654	1.050	1992	145,942,696	149,591,485	1.025
2003	122,121,956	129,566,125	1.061	1993	119,971,707	118,097,014	0.984
Average			1.055	Average			1.005
	36	48			156	168	
2001	122,995,328	127,235,085	1.034	1991	186,357,924	186,319,892	1.000
2002	129,677,654	134,261,371	1.035	1992	149,591,485	149,307,189	0.998
Average			1.035	Average			0.999
	48	60			168	180	
2000	141,233,347	145,002,513	1.027	1990	218,941,802	220,380,452	1.007
2001	127,235,085	137,114,010	1.078	1991	186,319,892	187,305,307	1.005
Average			1.052	Average			1.006
	60	72			180	192	
1999	129,730,039	134,525,470	1.037	1989	234,197,658	235,924,901	1.007
2000	145,002,513	150,006,611	1.035	1990	220,380,452	223,352,252	1.013
Average			1.036	Average			1.010
	72	84			192	204	
1998	121,504,094	125,956,493	1.037	1988	219,806,353	221,409,822	1.007
1999	134,525,470	137,464,024	1.022	1989	235,924,901	237,339,171	1.006
Average			1.029	Average			1.007
	84	96			204	216	
1997	95,624,225	96,781,722	1.012	1987	181,793,768	182,927,977	1.006
1998	125,956,493	130,291,904	1.034	1988	221,409,822	221,078,664	0.999
Average			1.023	Average			1.002
	96	108			216	228	
1996	95,663,506	97,175,983	1.016	1986	149,193,902	150,018,350	1.006
1997	96,781,722	99,344,928	1.026	1987	182,927,977	184,823,749	1.010
Average			1.021	Average			1.008
	108	120			228	240	
1995	98,038,658	98,027,881	1.000	1985	130,656,881	131,157,786	1.004
1996	97,175,983	97,405,274	1.002	1986	150,018,350	150,649,992	1.004
Average			1.001	Average			1.004
	120	132			240	252	
1994	107,101,410	106,953,054	0.999	1985	131,157,786	131,345,992	1.001
1995	98,027,881	98,655,718	1.006	Average			1.001
Average			1.003				
	132	144					
1993	118,483,718	119,971,707	1.013				
1994	106,953,054	109,222,369	1.021				
Average			1.017				

Paid Loss Tail Factors

Indemnity 252nd Month to Ultimate Loss Tail Development Factor

(1)	Valuation Date [Y]	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05
(2)	Prior to Policy Year 1985 at [Y]	3,219,929,473	3,228,739,772	3,239,081,484	3,251,963,014	3,253,067,592
(3)	Prior to Policy Year 1985 at [Y]-1	3,210,363,849	3,219,929,473	3,228,739,772	3,239,081,484	3,251,963,014
(4)	Difference = (2) - (3)	9,565,624	8,810,299	10,341,712	12,881,530	1,104,578
(5)	Policy Year 1985 at [Y]	415,295,020	416,707,360	417,147,721	418,513,380	418,987,871
(6)	Ratio = (4) / (5)	0.023	0.021	0.025	0.031	0.003
(7)	Growth Factor	2.500	2.500	2.500	2.500	2.500
(8)	Product = (6) x (7)	0.058	0.053	0.062	0.077	0.007
(9)	Factor to Ultimate = 1.000 + (8)	1.058	1.053	1.062	1.077	1.007
(10)	Month [M]	204	216	228	240	252
(11)	Factor to Ultimate = (9)	1.058	1.053	1.062	1.077	1.007
(12)	Factor from [252] to [M]	0.989	0.992	0.996	0.999	1.000
(13)	Indicated [252] to Ultimate Tail Factor = (11) x (12)	1.045	1.044	1.058	1.076	1.007
(14)	Five Year Average					1.046

Medical 252nd Month to Ultimate Loss Tail Development Factor

(15)	Valuation Date [Y]	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05
(16)	Prior to Policy Year 1985 at [Y]	996,172,058	1,000,383,059	1,005,615,705	1,009,634,930	1,013,532,028
(17)	Prior to Policy Year 1985 at [Y]-1	991,644,176	996,172,058	1,000,383,059	1,005,615,705	1,009,634,930
(18)	Difference = (16) - (17)	4,527,882	4,211,001	5,232,646	4,019,225	3,897,098
(19)	Policy Year 1985 at [Y]	120,374,533	121,033,047	121,400,114	121,841,831	122,326,693
(20)	Ratio = (18) / (19)	0.038	0.035	0.043	0.033	0.032
(21)	Growth Factor	2.500	2.500	2.500	2.500	2.500
(22)	Product = (20) x (21)	0.094	0.087	0.108	0.082	0.080
(23)	Factor to Ultimate = 1.000 + (22)	1.094	1.087	1.108	1.082	1.080
(24)	Month [M]	204	216	228	240	252
(25)	Factor to Ultimate = (23)	1.094	1.087	1.108	1.082	1.080
(26)	Factor from [252] to [M]	0.980	0.987	0.992	0.996	1.000
(27)	Indicated [252] to Ultimate Tail Factor = (25) x (26)	1.072	1.073	1.099	1.078	1.080
(28)	Five Year Average					1.080

Notes:

(7), (21): Section II - C, Exhibit 1, Page 2.  
 (12), (26): 1.0 / LDF from Section II - B, Exhibit 1.

## II 000015 R

Section II - Loss Development  
 Subsection C - Tail Factor Calculation  
 9/1/2007

Section II - C  
 Exhibit 1  
 Page 2

### 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 1985 Dollar Development (7)	On-Level Prior to 1985 Dollar Development (8)
<b>1985</b>			<b>1,000,000</b>				
1984	1.157	1.157	864,348	85 - 88	0.350%	3,025	3,499
1983	1.153	1.334	749,537	89 - 92	0.336%	2,518	3,359
1982	1.149	1.533	652,105	93 - 96	0.322%	2,099	3,220
1981	1.146	1.757	569,204	97 - 100	0.308%	1,753	3,080
1980	1.142	2.006	498,481	101 - 104	0.294%	1,465	2,940
1979	1.138	2.283	437,989	105 - 108	0.280%	1,226	2,800
1978	1.134	2.590	386,116	109 - 112	0.266%	1,027	2,660
1977	1.131	2.928	341,520	113 - 116	0.252%	860	2,520
1976	1.127	3.299	303,084	117 - 120	0.238%	721	2,380
1975	1.123	3.705	269,876	121 - 124	0.224%	604	2,240
1974	1.119	4.147	241,115	125 - 128	0.210%	506	2,100
1973	1.116	4.626	216,147	129 - 132	0.196%	424	1,960
1972	1.112	5.143	194,420	133 - 136	0.182%	354	1,820
1971	1.108	5.699	175,472	137 - 140	0.168%	295	1,680
1970	1.104	6.293	158,910	141 - 144	0.154%	245	1,540
1969	1.100	6.925	144,405	145 - 148	0.140%	202	1,400
1968	1.097	7.595	131,673	149 - 152	0.126%	166	1,260
1967	1.093	8.300	120,478	153 - 156	0.112%	135	1,120
1966	1.089	9.040	110,616	157 - 160	0.098%	108	980
1965	1.085	9.812	101,914	161 - 164	0.084%	86	840
1964	1.082	10.613	94,223	165 - 168	0.070%	66	700
1963	1.078	11.439	87,417	169 - 172	0.056%	49	560
1962	1.074	12.287	81,387	173 - 176	0.042%	34	420
1961	1.070	13.151	76,040	177 - 180	0.028%	21	280
1960	1.067	14.026	71,294	181 - 184	0.014%	10	140
						<b>18,000</b>	<b>45,493</b>
<b>(9) Indicated Growth Factor:</b>							<b>2.527</b>
<b>(10) Selected Growth Factor:</b>							<b>2.500</b>

**Notes:**

Assume 1985 losses of \$1,000,000. This produces a tail of 1.80% = 18,000 / \$1,000,000 (with no growth). However, putting Prior to 1985 Losses on-level produces a tail of 4.55% = 2.527 x 1.80%. Therefore, a growth factor of 2.500 has been selected.

- (2): These are fitted growth factors based on a linear regression of actual Calendar Year growth factors.  
 Source: Massachusetts Calendar Year Incurred Losses from Policy Year Calls
- (3): Cumulative product of Column (2), beginning at top of column.
- (4): Column (4) represents the equivalent of what \$1,000,000 of paid losses in 1985 would be in each prior policy year (1960-1984) given the on-level cumulative growth factors in Column (3).  
 In other words, Column (4) = \$1,000,000 / Column (3)
- (5): Column (5) displays the quarters that correspond to the prior policy years.
- (6): Column (6) displays the change in paid losses during the quarters displayed in Column (5).  
 These values are selected based on judgment.
- (7): Column (4) x Column (6).
- (8): Column (3) x Column (7).
- (9): Sum of Column (8) divided by Sum of Column (7).

Paid Plus Case Loss Tail Factors

Indemnity 252nd Month to Ultimate Loss Tail Development Factor

(1)	Valuation Date [Y]	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05
(2)	Prior to Policy Year 1985 at [Y]	3,265,709,627	3,272,605,462	3,280,033,913	3,291,263,112	3,294,823,679
(3)	Prior to Policy Year 1985 at [Y]-1	3,257,996,471	3,265,709,627	3,272,605,462	3,280,033,913	3,291,263,112
(4)	Difference = (2) - (3)	7,713,156	6,895,835	7,428,451	11,229,199	3,560,567
(5)	Policy Year 1985 at [Y]	423,061,207	423,744,299	423,458,672	425,989,811	426,066,189
(6)	Ratio = (4) / (5)	0.018	0.016	0.018	0.026	0.008
(7)	Growth Factor	2.200	2.200	2.200	2.200	2.200
(8)	Product = (6) x (7)	0.040	0.036	0.039	0.058	0.018
(9)	Factor to Ultimate = 1.000 + (8)	1.040	1.036	1.039	1.058	1.018

(10)	Month [M]	204	216	228	240	252
(11)	Factor to Ultimate = (9)	1.040	1.036	1.039	1.058	1.018
(12)	Factor from [252] to [M]	0.990	0.990	0.993	1.000	1.000
(13)	Indicated [252] to Ultimate Tail Factor = (11) x (12)	1.029	1.026	1.032	1.058	1.018
(14)	Five Year Average					1.033

Medical 252nd Month to Ultimate Loss Tail Development Factor

(15)	Valuation Date [Y]	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05
(16)	Prior to Policy Year 1985 at [Y]	1,031,721,465	1,036,108,068	1,040,750,583	1,041,430,697	1,042,080,163
(17)	Prior to Policy Year 1985 at [Y]-1	1,027,170,561	1,031,721,465	1,036,108,068	1,040,750,583	1,041,430,697
(18)	Difference = (16) - (17)	4,550,904	4,386,603	4,642,515	680,114	649,466
(19)	Policy Year 1985 at [Y]	130,149,911	130,857,350	130,656,881	131,157,786	131,345,992
(20)	Ratio = (18) / (19)	0.035	0.034	0.036	0.005	0.005
(21)	Growth Factor	2.200	2.200	2.200	2.200	2.200
(22)	Product = (20) x (21)	0.077	0.074	0.078	0.011	0.011
(23)	Factor to Ultimate = 1.000 + (22)	1.077	1.074	1.078	1.011	1.011

(24)	Month [M]	204	216	228	240	252
(25)	Factor to Ultimate = (23)	1.077	1.074	1.078	1.011	1.011
(26)	Factor from [252] to [M]	0.984	0.987	0.995	0.999	1.000
(27)	Indicated [252] to Ultimate Tail Factor = (25) x (26)	1.060	1.059	1.072	1.010	1.011
(28)	Five Year Average					1.043

Notes:  
 (7), (21): Section II - C, Exhibit 2, Page 2.  
 (12), (26): 1.0 / LDF from Section II - B, Exhibit 1.

## II 000017 R

Section II - Loss Development  
 Subsection C - Tail Factor Calculation  
 9/1/2007

Section II - C  
 Exhibit 2  
 Page 2

### 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 1985 Dollar Development (7)	On-Level Prior to 1985 Dollar Development (8)
<b>1985</b>			<b>1,000,000</b>				
1984	1.157	1.157	864,348	85 - 88	0.277%	2,392	2,767
1983	1.153	1.334	749,537	89 - 92	0.263%	1,970	2,629
1982	1.149	1.533	652,105	93 - 96	0.249%	1,624	2,490
1981	1.146	1.757	569,204	97 - 100	0.235%	1,339	2,352
1980	1.142	2.006	498,481	101 - 104	0.221%	1,103	2,214
1979	1.138	2.283	437,989	105 - 108	0.208%	909	2,075
1978	1.134	2.590	386,116	109 - 112	0.194%	748	1,937
1977	1.131	2.928	341,520	113 - 116	0.180%	614	1,799
1976	1.127	3.299	303,084	117 - 120	0.166%	503	1,660
1975	1.123	3.705	269,876	121 - 124	0.152%	411	1,522
1974	1.119	4.147	241,115	125 - 128	0.138%	334	1,383
1973	1.116	4.626	216,147	129 - 132	0.125%	269	1,245
1972	1.112	5.143	194,420	133 - 136	0.111%	215	1,107
1971	1.108	5.699	175,472	137 - 140	0.097%	170	968
1970	1.104	6.293	158,910	141 - 144	0.083%	132	830
1969	1.100	6.925	144,405	145 - 148	0.069%	100	692
1968	1.097	7.595	131,673	149 - 152	0.055%	73	553
1967	1.093	8.300	120,478	153 - 156	0.042%	50	415
1966	1.089	9.040	110,616	157 - 160	0.028%	31	277
1965	1.085	9.812	101,914	161 - 164	0.014%	14	138
						<b>13,000</b>	<b>29,053</b>
<b>(9) Indicated Growth Factor:</b>							<b>2.235</b>
<b>(10) Selected Growth Factor:</b>							<b>2.200</b>

**Notes:**

Assume 1985 losses of \$1,000,000. This produces a tail of 1.30% = 13,000 / \$1,000,000 (with no growth). However, putting Prior to 1985 Losses on-level produces a tail of 2.91% = 2.235 x 1.30%. Therefore, a growth factor of 2.200 has been selected.

- (2): These are fitted growth factors based on a linear regression of actual Calendar Year growth factors.  
 Source: Massachusetts Calendar Year Incurred Losses from Policy Year Calls
- (3): Cumulative product of Column (2), beginning at top of column.
- (4): Column (4) represents the equivalent of what \$1,000,000 of paid plus case losses in 1985 would be in each prior policy year (1965-1984) given the on-level cumulative growth factors in Column (3).  
 In other words, Column (4) = \$1,000,000 / Column (3)
- (5): Column (5) displays the quarters that correspond to the prior policy years.
- (6): Column (6) displays the change in paid plus case losses during the quarters displayed in Column (5).  
 These values are selected based on judgment.
- (7): Column (4) x Column (6).
- (8): Column (3) x Column (7).
- (9): Sum of Column (8) divided by Sum of Column (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 predates 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 loss subject to escalation.

Policy years 1987 and subsequent reflect the impact of escalation of indemnity benefits which became law on 10/1/86, following the passage of chapter 572 of the Acts of 1986. Age-to-age link ratios derived from experience for policy years 1987 and subsequent only allow us to develop losses to 228 months, through policy year 2005. Beyond 228 months of development, loss development factors, including age-to-age link ratios and tail factors, are derived from experience for policy years 1986 and prior. Reported losses for these years do not reflect the impact of escalation and therefore an adjustment factor is warranted.

We have used the same simulation model to quantify the adjustment for escalated benefits the WCRIB used in both its 9/1/03 filing and 9/1/05 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. In Section II-A, the resulting factors are used to derive estimates of ultimate losses.

## II 000019 R

Section II - Loss Development  
 Subsection D - Adjustment for Escalation of Benefits  
 9/1/2007

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	1.059	1.057	1.055	1.053	1.051
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	1.023	1.022	1.021	1.020	1.019

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	<b>1.035</b>	<b>1.034</b>	<b>1.034</b>	<b>1.033</b>	<b>1.032</b>

**Notes:**

(3): [(8) from Section II-D, Exhibit 1, Page 2] / [(9) from Section II-D, Exhibit 1, Page 2]

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

## II 000020 R

Section II - Loss Development  
 Subsection D - Adjustment for Escalation of Benefits  
 9/1/2007

Section II - D  
 Exhibit 1  
 Page 2

### 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	1.66%
Escalated	Permanent Total	1,668,738	409,709	448,697	488,350	528,641	569,759	3.15%
Escalated	Other Indemnity							58.04%
Escalated	Total Indemnity							62.84%
Unescalated	Fatal	465,615	239,708	250,218	260,195	269,862	279,221	0.88%
Unescalated	Permanent Total	824,906	336,400	359,427	381,858	403,713	424,987	1.56%
Unescalated	Other Indemnity							58.04%
Unescalated	Total Indemnity							60.47%

Escalated or Unescalated (6)	Injury Type (7)	Estimated Losses at Month					
		Ultimate (8)	168	180	192 (9)	204	216
Escalated	Fatal	1,657	546	580	613	647	681
Escalated	Permanent Total	3,149	773	847	922	998	1,075
Escalated	Other Indemnity	58,036	58,036	58,036	58,036	58,036	58,036
Escalated	Total Indemnity	62,842	59,355	59,462	59,570	59,680	59,792
Unescalated	Fatal	882	454	474	493	511	529
Unescalated	Permanent Total	1,557	635	678	721	762	802
Unescalated	Other Indemnity	58,036	58,036	58,036	58,036	58,036	58,036
Unescalated	Total Indemnity	60,474	59,125	59,188	59,249	59,309	59,367

Notes:

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

(5): Escalated: From Section IV-I, Exhibit 1. 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 000021 R

Section II - Loss Development  
 Subsection D - Adjustment for Escalation of Benefits  
 9/1/2007

Section II - D  
 Exhibit 2  
 Page 1

### 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	1.022	1.021	1.019	1.018	1.017
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	1.008	1.007	1.007	1.006	1.006

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	<b>1.014</b>	<b>1.013</b>	<b>1.012</b>	<b>1.012</b>	<b>1.011</b>

**Notes:**

(3): [(8) from Section II-D, Exhibit 2, Page 2] / [(9) from Section II-D, Exhibit 2, Page 2]

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

## II 000022 R

Section II - Loss Development  
 Subsection D - Adjustment for Escalation of Benefits  
 9/1/2007

Section II - D  
 Exhibit 2  
 Page 2

### 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	1.66%
Escalated	Permanent Total	1,668,738	1,193,905	1,219,988	1,245,595	1,270,688	1,295,221	3.15%
Escalated	Other Indemnity							58.04%
Escalated	Total Indemnity							62.84%
Unescalated	Fatal	465,615	384,035	388,719	393,217	397,535	401,676	0.88%
Unescalated	Permanent Total	824,906	658,201	668,658	678,696	688,321	697,538	1.56%
Unescalated	Other Indemnity							58.04%
Unescalated	Total Indemnity							60.47%

Escalated or Unescalated (6)	Injury Type (7)	Estimated Losses at Month					
		Ultimate (8)	168	180	192 (9)	204	216
Escalated	Fatal	1,657	1,214	1,237	1,259	1,280	1,301
Escalated	Permanent Total	3,149	2,253	2,302	2,351	2,398	2,444
Escalated	Other Indemnity	58,036	58,036	58,036	58,036	58,036	58,036
Escalated	Total Indemnity	62,842	61,503	61,575	61,645	61,714	61,781
Unescalated	Fatal	882	727	736	745	753	761
Unescalated	Permanent Total	1,557	1,242	1,262	1,281	1,299	1,316
Unescalated	Other Indemnity	58,036	58,036	58,036	58,036	58,036	58,036
Unescalated	Total Indemnity	60,474	60,005	60,034	60,061	60,088	60,113

**Notes:**

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

(5): Escalated: From Section IV-I, Exhibit 1.

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

(8): (5) x 100,000

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

**PREMIUMS****Background**

The rate indication 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. Earned premiums are the premiums related to the portion of the policy period that has already expired. Standard premium is defined as the accumulated premium resulting from standard rating procedures after the application of experience rating adjustments, Merit Rating Plan adjustments, Construction Class Premium Adjustment Program ("CCPAP") Credits, expense constants, and loss constants.

Policy years 2003 and 2004 earned standard and ARAP premiums are used in the indication and are brought to the current rate level in Section III.

**Summary**

Initial workers' compensation insurance premiums are by necessity estimates. Workers' compensation premiums 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

### III 000002 R

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 upward until such time as all audits have been finalized and no further premiums 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 WCRIB applies factors to premiums to adjust the "actual values" of the experience modification, merit rating credit, ARAP surcharge, and Construction Class Premium Adjustment Program credit to the "estimated values" loaded in the current rates. These offsets are necessary to insure that the change in the current manual rates (which contain the same "estimated values") is consistent with the overall indicated change. Additionally, the loading for prior Insolvency Fund assessments is removed.

**Premium Development**

Premium development factors are estimated in this filing using the same methodology as was employed in the 9/1/05 filing. The WCRIB utilized premium development factors based on the average of the latest two 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 earned ARAP premium.

**Impact of Experience and Merit Rating**

The currently-effective rates contain an assumed load to reflect an estimated average experience modification and merit rating impact. The actual experience modifications and merit rating debits or credits for the policy years under review differ from the estimated values used in deriving the current rates. A factor is applied to premiums to reflect the impact of experience and merit rating to the level anticipated in the current rates.

In the 2003 filing, the WCRIB selected a projected average experience modification for the prospective period in the derivation of the adjustment factor. In the 2005 filing as well as in this filing the WCRIB used the historical experience modification anticipated in the rates. This is appropriate as the intention of the adjustment factor is to bring premium to the current rate level. The experience modification in the rates for non-merit-rated risks is 1.00 and the average merit rating for merit-rated risks is minus 2.7%. The selected



average modifications and corresponding premium adjustment factors are displayed in Subsection B.

**ARAP**

The All Risk Adjustment Program (“ARAP”) was introduced in Massachusetts for policies effective 1/1/90 and after. The premium used to develop the rate indication is standard premium plus premium collected under ARAP.

An adjustment for the ARAP offset is included to reflect the fact that the ARAP surcharges during policy year 2003 and policy year 2004 were not precisely balanced by the offset in the rates. These adjustments are derived in Subsection C.

**Construction Credit**

An adjustment for the Construction Credit offset is included because the revenue generated from the rates effective during policy year 2003 and policy year 2004 due to the offsets for this program is different than the credits paid out during these periods of time. These adjustments are calculated in Subsection D.

**Insolvency Fund**

In Subsection E, factors are calculated to adjust the policy year 2003 and policy year 2004 premiums so that one-time Insolvency Fund recoupment amounts are excluded.

**On-Level Adjustment**

The rate indication is a review of the adequacy of the current rate level. Therefore, the reported premium should be brought to the current rate level. Since the beginning of the historical period, there has been a 4.0% rate decrease (effective 9/1/03) and a 3.0% rate decrease (effective 9/1/05). 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 calculation in this filing uses a Schedule Z monthly premium distribution. Premium on-level factors are calculated in Subsection F.

**Premium Adjustment Factor**

The premium adjustment factor is intended to bring the experience period policy year standard premium data to the level of the policy effective period. It is used to determine the percentage of premium eligible for experience rating, adjust the layers of standard premium for premium discount and expense constant, and determine weightings in the premium flow of the profit provision. This factor incorporates average wage trend, current premium level, the estimated proposed rate level change, impacts of changes in rating programs, and exposure growth. These adjustments are calculated in Subsection G.

# III 000006 R

Section III - Premiums  
Subsection A - Summary  
9/1/2007

Section III-A  
Exhibit 1

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

Policy Year	Premiums evaluated at Month:		Premium Development Factor
	24	36	
2002	657,793	657,147	0.999
2003	638,871	642,220	1.005
Average			1.002
<hr/>			
	36	48	
2001	597,358	598,664	1.002
2002	657,147	655,866	0.998
Average			1.000
<hr/>			
	48	60	
2000	564,902	565,662	1.001
2001	598,664	598,548	1.000
Average			1.001
Summary of Premium Development Factors			
Premium Development Factors From:			
	24-36	36-48	48-60
2 Yr average	1.002	1.000	1.001
Cumulative	1.003	1.001	1.001

Summary Exhibit

	Policy Year	
	2003	2004
(1) Standard Earned Premium plus ARAP Premium	784,248,502	735,097,133
(2) Adjustment for Experience and Merit Rating Offbalance <i>(Section III-B)</i>	1.036	1.030
(3) Adjustment for ARAP Offbalance <i>(Section III-C)</i>	1.015	1.012
(4) Adjustment for Construction Credit Offbalance <i>(Section III-D)</i>	1.004	1.004
(5) Adjustment for Insolvency Fund Recoupment Loading <i>(Section III-E)</i>	0.994	1.009
(6) Development Factor to Ultimate <i>(Development Factors above)</i>	1.001	1.003
(7) Premium On-Level Factor <i>(Section III-F)</i>	0.908	0.930
(8) Adjustment Factors = (2) x (3) x (4) x (5) x (6) x (7)	0.953	0.985
(9) Adjusted On-Level Earned Premium at Ultimate = (1) x (8)	747,103,069	724,076,445

Note:

(1) From 2005 Policy Year Call Data

Adjustment for Experience Rating and Merit Rating Offbalance

Rate Level Effective Date (1)	Experience Mod for non-Merit Rated Risks		Merit Rating Impact		Average Experience Mod and Merit Rating Impact		Policy Year Weights	
	Anticipated in Rates (2)	Percentage of Premium (3)	Anticipated in Rates (4)	Percentage of Premium (5)	(6)	(6)	2003 (7)	2004 (8)
07/01/2001	1.000	0.904	(0.042)	0.096	0.996	74.5%		0.0%
09/01/2003	1.000	0.895	(0.042)	0.105	0.996	25.5%		100.0%
09/01/2005	1.000	0.880	(0.027)	0.120	0.997	0.0%		0.0%

Policy Year	
2003	2004
0.996	0.996

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(9) Weighted Average Experience and Merit Rating impact anticipated in current rates

(10) Standard Premium

(11) Manual Premium

(12) Average Impact of Experience Modification and Merit Rating

= (10) / (11)

(13) Adjustment Factor

= (9) / (12)

777,878,079

721,094,921

809,039,211

745,821,878

0.961

0.967

1.036

1.030

Notes:

(3) = 1.0 - (5)

(4), (5): From old filings

(6) = (2) x (3) + [1.0 + (4)] x (5)

(7), (8) Policy Year weights are from Section III-F, Exhibit 1.

(9) = Sumproduct ( (6) and (7) or (6) and (8) )

(10), (11): From Schedule Z, Excluding Large Deductible Policies and SIGs

### III 000008 R

Section III - Premiums  
 Subsection C - Adjustment for ARAP Offbalance  
 9/1/2007

Section III - C  
 Exhibit 1

#### Adjustment for ARAP Offbalance

Rate Level Effective Date (1)	ARAP Charge in Rates (2)	Policy Year Weights	
		2003 (3)	2004 (4)
07/01/2001	5.20%	74.5%	0.0%
09/01/2003	5.10%	25.5%	100.0%
09/01/2005	6.10%	0.0%	0.0%

Policy Year	
2003	2004

(5) Weighted ARAP Charge in Rates	0.052	0.051
(6) Standard Premium	777,878,079	721,094,921
(7) ARAP Premium	28,391,974	27,496,059
(8) Average ARAP Surcharge = (7) / (6)	0.036	0.038
(9) Adjustment Factor = [ 1.0 + (5) ] / [ 1.0 + (8) ]	<b>1.015</b>	<b>1.012</b>

Notes:

- (2) From old filings
- (3), (4) Policy Year weights are from Section III-F, Exhibit 1
- (5) = Sumproduct ( (2)and(3) or (2)and(4) )
- (6), (7): From Schedule Z, Excluding Large Deductible Policies and Group Self Insurance (SIGs)

### III 000009 R

Section III - Premiums  
 Subsection D - Adjustment for Construction Credit Offbalance  
 9/1/2007

Section III-D  
 Exhibit 1

#### Adjustment for Construction Credit Offbalance

Rate Level Effective Date (1)	Construction Credit in Rates (2)	Policy Year Weights	
		2003 (3)	2004 (4)
07/01/2001	-1.90%	74.5%	0.0%
09/01/2003	-2.30%	25.5%	100.0%
09/01/2005	-2.50%	0.0%	0.0%

Policy Year	
2003	2004

(5) Weighted Average Construction Credit in Rates (For Construction Credit eligible risks)	(0.020)	(0.023)
(6) Actual Average Construction Credit	(0.032)	(0.035)
(7) Percentage of Premium for Eligible Classes	0.307	0.301
(8) Adjustment Factor	<b>1.004</b>	<b>1.004</b>
$= \frac{\{ (7) \times [ 1.0 + (5) ] + [ 1.0 - (7) ] \times 1.0 \}}{\{ (7) \times [ 1.0 + (6) ] + [ 1.0 - (7) ] \times 1.0 \}}$		

**Notes:**

(3), (4) Policy Year weights are from Section III-F, Exhibit 1.

### III 000010 R

Section III - Premiums  
 Subsection E - Adjustment for Insolvency Fund Recoupment Loading  
 9/1/2007

Section III-E  
 Exhibit 1

#### Adjustment for Insolvency Fund Recoupment Loading

Rate Level Effective Date (1)	Insolvency Fund Recoupment Load (2)	Policy Year Weights	
		2003 (3)	2004 (4)
07/01/2001	1.10%	74.5%	0.0%
09/01/2003	-0.90%	25.5%	100.0%
09/01/2005	2.33%	0.0%	0.0%

Policy Year	
2003	2004

(5) Weighted Average Insolvency Load in Rates	0.006	-0.009
(6) Adjustment Factor to be Applied to Premiums = 1.0 / [ 1.0 + (1) ]	<b>0.994</b>	<b>1.009</b>

Notes:

(3), (4) Policy Year weights are from Section III-F, Exhibit 1.

### III 000011 R

Section III - Premiums  
 Subsection F - Premium On-Level Factors  
 9/1/2007

Section III-F  
 Exhibit 1

#### Premium On-Level Factors

Policy Year (1)	Policy Month (2)	Written Premiums (3)	Percent of Policy Year Written Premium (4)	Percent Written at Rate Level Effective:	
				07/01/2001 (5)	09/01/2003 (6)
2003	1	146,871,770	18.9%	18.9%	0.0%
2003	2	52,514,487	6.8%	6.8%	0.0%
2003	3	51,267,686	6.6%	6.6%	0.0%
2003	4	78,412,904	10.1%	10.1%	0.0%
2003	5	61,543,915	7.9%	7.9%	0.0%
2003	6	63,434,497	8.2%	8.2%	0.0%
2003	7	69,630,424	9.0%	9.0%	0.0%
2003	8	55,608,263	7.1%	7.1%	0.0%
2003	9	48,780,088	6.3%	0.0%	6.3%
2003	10	51,358,621	6.6%	0.0%	6.6%
2003	11	38,654,711	5.0%	0.0%	5.0%
2003	12	59,800,713	7.7%	0.0%	7.7%
2003	Total	777,878,079	100.0%	74.5%	25.5%
2004	1	131,630,679	18.3%	0.0%	18.3%
2004	2	48,139,770	6.7%	0.0%	6.7%
2004	3	49,621,530	6.9%	0.0%	6.9%
2004	4	70,328,563	9.8%	0.0%	9.8%
2004	5	52,892,710	7.3%	0.0%	7.3%
2004	6	58,996,472	8.2%	0.0%	8.2%
2004	7	63,518,426	8.8%	0.0%	8.8%
2004	8	47,280,695	6.6%	0.0%	6.6%
2004	9	47,513,314	6.6%	0.0%	6.6%
2004	10	50,764,651	7.0%	0.0%	7.0%
2004	11	39,930,879	5.5%	0.0%	5.5%
2004	12	60,477,232	8.4%	0.0%	8.4%
2004	Total	721,094,921	100.0%	0.0%	100.0%

Rate Level Effective Date (7)	Rate Change (8)	Cumulative Rate Level Change (9)	Factor to Current Rate Level (10)	Policy Year Weights	
				2003 (11)	2004 (12)
07/01/2001		1.000	0.931	74.5%	0.0%
09/01/2003	0.960	0.960	0.970	25.5%	100.0%
09/01/2005	0.970	0.931	1.000		

		Policy Year	
		2003	2004
(13)	Weighted Average Factor	0.941	0.970
(14)	Factor to Remove Expense Constant	0.964	0.959
(15)	Premium On-Level Factors = (13) x (14)	<b>0.908</b>	<b>0.930</b>

Note:  
 (14) from Section VI-J, Exhibit 1



### III 000012 R

Section III - Premiums  
 Subsection G - Premium Adjustment Factors  
 9/1/2007

Section III-G  
 Exhibit 1

#### Calculation of Premium Adjustment Factor CPY 03/04 to PY9/1/07-08/30/09

(1) Average Wage Trend from 03/04 to Policy Effective Period	1.124
(2) Exposure Growth	0.880
(3) Rate Level Changes	0.963
(4) Estimated Rate Changes for policies eff. 9/1/2007	0.854
(5) Balance Experience Rating	1.027
(6) Balance Construction Credit Program	1.003
(7) Balance ARAP	1.012
(8) Impact of Change in Insolvency Fund Loading	0.979
(9) Adjustment Factor =product of all	0.831
<b>(10) Selected Factor</b>	<b>0.85</b>

Notes:

(1) Average Wage & Salary for CPY 03/04 (from Section V-G, Exhibit 2)	49,329
Average Wage & Salary for 10/01/06 (from Section V-G, Exhibit 2)	52,022
Average Wage & Salary at 9/1/08 (using wage trend of 3.37% from Section V-A, Exhibit 3)	55,431
(2) Exposure growth from CPY 03/04 to Policy Effective Period (from Section VI-H, exhibit 1)	0.880
(3) Rate change effective 7/1/01	1.0%
Rate change effective 9/1/03	-4.0%
Rate change effective 9/1/05	-3.0%
(5) CPY03/04 Avg. MOD, excluding large deductible (std prem/manual prem = 735,442,544 / 757,483,668)	0.971
Est. Pol. Eff. Period Avg. MOD, excluding large deductibles	0.997
(6) Construction Credit offset in rates for CPY 03/04	0.993
Average Construction Credit for CPY 03/04	0.990
Adjustment to balance CPY03/04 Construction Credit = 0.993 / 0.99	1.003
Balanced Construction Credit for Policy Effective Period	1.000
(7) ARAP offset in rates for CPY 03/04	1.051
Average ARAP for CPY 03/04 (ARAP Premium/Std Premium= 28,359,003 / 735,442,544 )	1.039
Adjustment to balance CPY 03/04 ARAP = 1.051 / 1.039	1.012
Balanced ARAP for Policy Effective Period	1.000
(8) CPY03/04 Insolvency Fund Factor	0.991
Est. Policy Effective Insolvency Fund Factor	0.971

### III 000013 R

Section III - Premiums  
Subsection G - Premium Adjustment Factors  
9/1/2007

Section III-G  
Exhibit 2

#### Calculation of Premium Adjustment Factor CPY 03/04 to PY03

(1) Average Wage Trend from 03/04 to 1/1/04	1.022
(2) Exposure Growth	1.015
(3) Rate Level Changes	1.021
(4) Balance Experience Rating	0.990
(5) Balance Construction Credit Program	0.999
(6) Balance ARAP	0.997
(7) Impact of the Change in Insolvency Fund Loading	1.015
(8) Adjustment Factor =product of all	1.061
<b>(9) Selected Factor</b>	<b>1.05</b>

#### Notes:

(1) Average Wage & Salary for CPY 03/04 (from Section V-G, Exhibit 2)	49,329
Average Wage & Salary at 1/1/04 (from Section V-G, Exhibit 2)	50,404
(2) Exposure growth from CPY 03/04 to PY03 (from Section VI-H, Exhibit 1)	1.015
(3) Rate change effective 7/1/01	1.0%
Rate change effective 9/1/03	-4.0%
Rate change effective 9/1/05	-3.0%
(4) CPY03/04 Avg. MOD, excluding large deductible (from Exhibit 1)	0.971
PY03 Avg. MOD, excluding large deductibles (from Section III-B, Exhibit 1)	0.961
(5) CPY03/04 Construction Credit offset (from Exhibit 1)	1.003
PY03 Construction Credit offset (from Section III-D, Exhibit 1)	1.004
(6) CPY03/04 ARAP offset, excluding large deductible (from Exhibit 1)	1.012
PY03 ARAP offset (from Section III-C, Exhibit 1)	1.015
(7) CPY03/04 Insolvency Fund Factor (from Exhibit 1)	0.991
PY03 Insolvency Fund Factor (from Section III-E, Exhibit 1)	1.006

### III 000014 R

Section III - Premiums  
Subsection G - Premium Adjustment Factors  
9/1/2007

Section III-G  
Exhibit 3

#### Calculation of Premium Adjustment Factor CPY 03/04 to PY04

(1) Average Wage Trend from 03/04 to 1/1/05	1.022
(2) Exposure Growth	0.985
(3) Rate Level Changes	0.993
(4) Balance Experience Rating	0.996
(5) Balance Construction Credit Program	1.000
(6) Balance ARAP	1.000
(7) Impact of the Change in Insolvency Fund Loading	1.000
(8) Adjustment Factor =product of all	0.994
<b>(9) Selected Factor</b>	<b>1.00</b>

#### Notes:

(1) Average Wage & Salary for 03/04 (from Section V-G, Exhibit 2)	49,329
Average Wage & Salary at 1/1/05 (from Section V-G, Exhibit 2)	50,404
(2) Exposure growth from CPY 03/04 to PY04 (from Section VI-H, Exhibit 1)	0.985
(3) Rate change effective 7/1/01	1.0%
Rate change effective 9/1/03	-4.0%
Rate change effective 9/1/05	-3.0%
(4) CPY03/04 Avg. MOD, excluding large deductible (from Exhibit 1)	0.971
PY04 Avg. MOD, excluding large deductibles (from Section III-B, Exhibit 1)	0.967
(5) CPY03/04 Construction Credit offset (from Exhibit 1)	1.003
PY04 Construction Credit offset (from Section III-D, Exhibit 1)	1.004
(6) CPY03/04 ARAP offset, excluding large deductibles (from Exhibit 1)	1.012
PY04 ARAP offset, excluding large deductibles (from Section III-C, Exhibit 1)	1.012
(7) CPY03/04 Insolvency Fund Factor (from Exhibit 1)	0.991
PY04 Insolvency Fund Factor (from Section III-E, Exhibit 1)	0.991

## IV 00001 R

### **BENEFIT CHANGE ADJUSTMENTS**

In Section IV we calculate the estimated effect on indemnity losses of both prior and projected changes in the Statewide Average Weekly Wage (“SAWW”). There has been no change in the medical fee schedule since September 1, 2004.

#### **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 2003 and 2004 to the 1/1/07 benefit level, and additional adjustments to bring losses from the 1/1/07 benefit level to the projected benefit level for the period the rates will be in effect.

Benefit changes considered in this section are the consequence of the reevaluations of the SAWW, performed every October 1 by the Commonwealth’s Department of Unemployment Assistance.

In Sections IV-B to IV-E, we display in detail the derivation of our estimates of the effects of the changes in the SAWW announced in 2005 and 2006 and projected for 2007 and 2008. Section IV-F summarizes the provisions of Chapter 398, showing benefits that are tied to the SAWW. Section IV-G contains backup data used in the evaluations. The model underlying the estimates is described below.

**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. It is used by the NCCI in thirty-seven states and the District of Columbia.

**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.

Sections IV-B through IV-E detail the estimation of changes in the costs of benefits arising from changes in the SAWW effective October 1, 2005 and October 1, 2006, and the projected SAWW changes of October 1, 2007 and October 1, 2008. Exhibit 1, pages 1 to 4, in each of Sections IV-B, C, D, and E estimate the effect on fatal benefits. Exhibit 2, pages 1 and 2 in each of Sections IV-B, C, D, and E evaluate the effect on permanent total benefits. Exhibit 3, pages 1 and 2 in each of Sections IV-B, C, D, and E evaluate the effect

## IV 000003 R

on permanent partial benefits. Exhibit 4, page 1 in each of Sections IV-B, C, D, and E looks at temporary total benefits.

### **Benefits for Fatal Claims, Section IV-B**

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 (Exhibit 1, page 1). Expected dependent survivor payments are valued on Exhibit 1, page 2. 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," where an annuity certain was used to approximate joint survivorship.

Average weekly benefits before and after the SAWW revision are evaluated on the remaining pages of Exhibit 1. The estimated average weekly benefit depends on the proportions of workers whose wages result in either the application of the statutory

## IV 00004 R

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-G Exhibit 1, the Wage Table is based on Massachusetts workers’ compensation data from accident years 1987 to 1994. For wage levels twice the statewide average and higher, the data were smoothed using a lognormal distribution.

### **Benefits for Permanent Total Cases, Section IV-C**

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 in Exhibit 2, page 1. Most permanent total payments relate to 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 (Exhibit 2, page 2). 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.

### **Benefits for Permanent Partial Cases, Section IV-D**

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

## IV 000005 R

Section IV – Benefit Change Adjustments  
Subsection A - Summary  
9/1/2007

Section IV - A  
Page 5

injury payments are made for the loss of use of various body parts. In Exhibit 3, page 1, we weight together the effect of the SAWW on wage loss, specific injury payments, and healing period payments, using weights provided by the NCCI.

### **Benefits for Temporary Total Cases, Section IV-E**

We evaluate the effect on temporary total benefits on Exhibit 4, page 1. Temporary total wage loss benefits under Section 34 of M.G.L. Chapter 152 provide an injured worker sixty percent of their average weekly wage before the injury 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.



Indemnity Benefit Level Factors

(1)	Date of Change	12/1/2002	10/1/2003	10/1/2004	10/1/2005	10/1/2006	10/1/2007	10/1/2008	Weighted Average Benefit Level
(2)	Benefit Level Change	1.000	1.001	1.009	1.011	1.011	1.009	1.009	
(3)	Cumulative Benefit Level Change	1.000	1.001	1.010	1.021	1.033	1.042	1.051	
(4)	PY 2003 Weights	0.375	0.608	0.017					1.000
(5)	PY 2004 Weights		0.367	0.615	0.019				1.007
(6)	1/1/2007 Weight					1.000			1.033
(7)	Prospective Period Weights					0.005	0.613	0.382	1.045

- (8) Average Policy Effective Period Benefit Level Factor = (7) / (6)
- (9) PY 2003 Indemnity Benefit Level Factor = (6) / (4)
- (10) PY 2004 Indemnity Benefit Level Factor = (6) / (5)

1.012  
 1.032  
 1.026

Medical Benefit Level Factors

(11)	Date of Change	12/1/2002	9/1/2004	Weighted Average Benefit Level
(12)	Benefit Level Change	1.000	1.014	
(13)	Cumulative Benefit Level Change	1.000	1.014	
(14)	PY 2003 Weights	0.967	0.033	1.000
(15)	PY 2004 Weights	0.301	0.699	1.010
(16)	1/1/2007 Weight		1.000	1.014
(17)	Prospective Period Weights		1.000	1.014

- (18) Average Policy Effective Period Benefit Level Factor = (17) / (16)
- (19) PY 2003 Indemnity Benefit Level Factor = (16) / (14)
- (20) PY 2004 Indemnity Benefit Level Factor = (16) / (15)

1.000  
 1.014  
 1.004

(2): The Benefit Level Changes were estimated using an adaptation of the NCCI's Automatics Model.  
 10/1/2003 - 10/1/2004 from Section IV-A of 9/1/2005 filing.  
 10/1/2005 - 10/1/2008 from Section IV - A, Exhibit 3.  
 (4), (5), (14), (15), (16): From Exhibit 2.  
 (12): Estimated Impact of Medical Fee Schedule change. 9/1/2004 from the 9/1/2005 filing.

# IV 00007 R

Section IV - Benefit Change Adjustments  
 Subsection A - Summary  
 9/1/2007

Section IV - A  
 Exhibit 2

## Calculation of Weights for Benefit Periods

Policy Year 2003						
Effective Month (1)	% of PY Written Premium (2)	Indemnity Benefit Level			Medical Benefit Level	
		Months Policy in Force for			Months Policy in Force for	
		1/1/2003 (3)	10/1/2003 (4)	10/1/2004 (5)	1/1/2003 (6)	9/1/2004 (7)
Jan	18.9%	9	3		12	
Feb	6.8%	8	4		12	
Mar	6.6%	7	5		12	
Apr	10.1%	6	6		12	
May	7.9%	5	7		12	
Jun	8.2%	4	8		12	
Jul	9.0%	3	9		12	
Aug	7.1%	2	10		12	
Sep	6.3%	1	11		12	
Oct	6.6%		12		11	1
Nov	5.0%		11	1	10	2
Dec	7.7%		10	2	9	3
(8) Proportion of PY 2003 that was in effect		37.5%	60.8%	1.7%	96.7%	3.3%

Policy Year 2004						
Effective Month (9)	% of PY Written Premium (10)	Indemnity Benefit Level			Medical Benefit Level	
		Months Policy in Force for			Months Policy in Force for	
		1/1/2004 (11)	10/1/2004 (12)	10/1/2005 (13)	1/1/2004 (14)	9/1/2004 (15)
Jan	18.3%	9	3		8	4
Feb	6.7%	8	4		7	5
Mar	6.9%	7	5		6	6
Apr	9.8%	6	6		5	7
May	7.3%	5	7		4	8
Jun	8.2%	4	8		3	9
Jul	8.8%	3	9		2	10
Aug	6.6%	2	10		1	11
Sep	6.6%	1	11			12
Oct	7.0%		12			12
Nov	5.5%		11	1		12
Dec	8.4%		10	2		12
(16) Proportion of PY 2004 that was in effect		36.7%	61.5%	1.9%	30.1%	69.9%

Policy Effective Period					
Effective Month (17)	% of PY Written Premium (18)	Indemnity Benefit Level			Medical Benefit Level
		Months Policy in Force for			Months Policy in Force for
		10/1/2006 (19)	10/1/2007 (20)	10/1/2008 (21)	1/1/2007 (22)
Sep	6.6%	1	11		12
Oct	7.0%		12		12
Nov	5.5%		11	1	12
Dec	8.4%		10	2	12
Jan	18.3%		9	3	12
Feb	6.7%		8	4	12
Mar	6.9%		7	5	12
Apr	9.8%		6	6	12
May	7.3%		5	7	12
Jun	8.2%		4	8	12
Jul	8.8%		3	9	12
Aug	6.6%		2	10	12
(24) Proportion of Period that was in effect		0.5%	61.3%	38.2%	100.0%

**Notes:**

- (2), (10): Monthly Distribution of Policy Year Premium from Section III - F.
- (18): Policy Effective Period uses Policy Year 2004 Monthly Premium Distribution.

Summary of October 1 Benefit Change by Lost Time Injury Type and for Total Indemnity and Total Losses

(1)	Indemnity Injury Type						Total Indemnity (7)	Total Losses (8)
	Fatal (2)	Permanent Total (3)	Major Permanent Partial (4)	Minor Permanent Partial (5)	Temporary Total (6)			
Weights	0.0166	0.0315	0.3512	0.0470	0.1822	0.6284	1.0000	
Date of benefit change								
10/1/2005	0.5%	0.8%	1.5%	1.5%	0.4%	1.1%	0.7%	
10/1/2006	0.5%	0.7%	1.5%	1.5%	0.4%	1.1%	0.7%	
10/1/2007	0.4%	0.6%	1.2%	1.2%	0.3%	0.9%	0.5%	
10/1/2008	0.4%	0.6%	1.2%	1.2%	0.3%	0.9%	0.5%	

## IV 00009 R

Section IV - Benefit Change Adjustments  
 Subsection A - Summary  
 9/1/2007

Section IV - A  
 Exhibit 4

### Historical Benefit Level Changes

Effective Date (1)	Indemnity							Medical	Total
	Injury Type 1 (2)	Injury Type 2 (3)	Injury Type 3 (4)	Injury Type 4 (5)	Injury Types 3&4 (6)	Injury Type 5 (7)	All Injury Types (8)	All Injury Types (9)	All Injury Types (10)
10/1/1990	1.3%	0.8%	1.0%	1.2%	1.0%	1.0%	1.0%	0.0%	0.8%
10/1/1991	1.9%	1.1%	1.5%	2.9%	1.5%	1.2%	1.5%	0.0%	1.2%
12/1/1991	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	0.6%
12/23/1991	-33.6%	-44.2%	-20.0%	-10.5%	-19.7%	-29.8%	-24.0%	-2.9%	-20.0%
10/1/1992	2.0%	1.2%	1.7%	3.0%	1.7%	0.8%	1.5%	0.0%	1.1%
7/1/1993	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.2%
10/1/1993	1.5%	0.9%	1.3%	2.3%	1.3%	0.6%	1.2%	0.0%	0.9%
10/1/1994	1.2%	0.6%	1.1%	1.9%	1.1%	0.3%	0.8%	0.0%	0.6%
2/1/1995	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.6%
10/1/1995	1.0%	0.5%	1.0%	1.8%	1.0%	0.3%	0.8%	0.0%	0.5%
7/1/1996	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.6%
10/1/1996	1.6%	0.9%	1.4%	2.5%	1.4%	0.5%	1.1%	0.0%	0.8%
10/1/1997	1.9%	1.1%	1.8%	3.0%	1.9%	0.7%	1.4%	0.0%	1.0%
10/1/1998	1.9%	1.1%	1.6%	2.8%	1.7%	0.6%	1.3%	0.0%	0.9%
10/1/1999	2.7%	1.5%	2.2%	3.9%	2.4%	0.8%	1.8%	0.0%	1.2%
9/1/2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	1.0%
10/1/2000	4.2%	2.5%	3.4%	5.9%	3.7%	1.5%	3.0%	0.0%	2.1%
10/1/2001	0.8%	1.2%	2.2%	2.2%	2.2%	0.6%	1.5%	0.0%	0.9%
10/1/2002	-0.1%	-0.1%	-0.3%	-0.3%	-0.3%	-0.1%	-0.2%	0.0%	-0.1%
12/1/2002	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	2.0%
10/1/2003	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%
9/1/2004	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.5%
10/1/2004	0.5%	0.7%	1.2%	1.2%	1.2%	0.4%	0.9%	0.0%	0.6%
10/1/2005	0.5%	0.8%	1.5%	1.5%	1.5%	0.4%	1.1%	0.0%	0.7%
10/1/2006	0.5%	0.7%	1.5%	1.5%	1.5%	0.4%	1.1%	0.0%	0.7%
10/1/2007	0.4%	0.6%	1.2%	1.2%	1.2%	0.3%	0.9%	0.0%	0.5%
10/1/2008	0.4%	0.6%	1.2%	1.2%	1.2%	0.3%	0.9%	0.0%	0.5%

**Notes:**

Historical changes are from Section IV - A, Exhibit 4 of the 9/1/2005 filing.

Changes for 10/1/2007 - 10/1/2008 are estimated.

(6): Benefit level changes for Injury Types 3 & 4 are an average of the benefit level changes for Injury Type 3 and Injury Type 4, weighted by the Injury Type weights at the time of benefit change.

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Composite Policy Year Benefit On-Level Factors to 10/1/2006 Law Level

Composite Policy Year (1)	Indemnity Losses							Medical Losses	
	Injury Type 1 (2)	Injury Type 2 (3)	Injury Type 3 (4)	Injury Type 4 (5)	Injury Types 3&4 (6)	Injury Type 5 (7)	All Injury Types (8)	All Injury Types (9)	
1984/1985	2.579	1.962			0.983	0.800		1.678	
1985/1986	1.684	1.278			1.003	0.803		1.578	
1986/1987	0.911	0.688			1.054	0.816		1.376	
1987/1988	0.869	0.662			1.035	0.799		1.261	
1988/1989	0.845	0.650			1.012	0.782		1.165	
1989/1990	0.827	0.641			0.995	0.768		1.157	
1990/1991	0.854	0.676			1.011	0.792		1.155	
1991/1992	1.150	1.047	1.200	1.360	1.209	1.029	1.143	1.152	
1992/1993	1.194	1.130	1.215	1.340	1.224	1.071	1.168	1.147	
1993/1994	1.177	1.120	1.200	1.311	1.209	1.066	1.155	1.139	
1994/1995	1.164	1.114	1.188	1.287	1.196	1.062	1.146	1.124	
1995/1996	1.151	1.107	1.174	1.262	1.182	1.059	1.136	1.110	
1996/1997	1.132	1.097	1.157	1.230	1.165	1.053	1.123	1.100	
1997/1998	1.111	1.085	1.137	1.195	1.144	1.046	1.108	1.100	
1998/1999	1.087	1.072	1.117	1.158	1.122	1.039	1.092	1.100	
1999/2000	1.055	1.053	1.090	1.109	1.092	1.029	1.069	1.088	
2000/2001	1.022	1.032	1.058	1.059	1.058	1.016	1.043	1.067	
2001/2002	1.016	1.023	1.042	1.042	1.042	1.012	1.032	1.058	
2002/2003	1.016	1.023	1.043	1.043	1.043	1.012	1.033	1.019	
2003/2004	1.014	1.021	1.039	1.039	1.039	1.011	1.030	1.009	

Notes:  
 On-Level Factors are calculated using parallelogram method using the benefit level changes from Exhibit 4.

Composite Policy Year Benefit On-Level Factors to Policy Effective Period

Benefit On-Level Factors

Policy Period	Fatal	Permanent Total	Major Permanent Disability	Minor Permanent Disability	Temporary Total	Medical
(1) CPY 1999/2000	1.063	1.065	1.116	1.136	1.035	1.088
(2) CPY 2000/2001	1.030	1.043	1.083	1.084	1.022	1.067
(3) CPY 2001/2002	1.024	1.034	1.067	1.067	1.018	1.058
(4) CPY 2002/2003	1.024	1.035	1.068	1.068	1.018	1.019
(5) CPY 2003/2004	1.022	1.032	1.064	1.064	1.017	1.009
(6) PY 9/1/2007 to 8/31/2008	1.002	1.003	1.007	1.007	1.002	1.000

Benefit Level Adjustment Factors

Policy Period	Fatal	Permanent Total	Major Permanent Disability	Minor Permanent Disability	Temporary Total	Medical
(7) CPY 1999/2000 = (1) / (6)	1.061	1.062	1.108	1.128	1.033	1.088
(8) CPY 2000/2001 = (2) / (6)	1.028	1.040	1.076	1.077	1.021	1.067
(9) CPY 2001/2002 = (3) / (6)	1.021	1.031	1.060	1.060	1.016	1.058
(10) CPY 2002/2003 = (4) / (6)	1.022	1.031	1.061	1.061	1.017	1.019
(11) CPY 2003/2004 = (5) / (6)	1.020	1.029	1.057	1.057	1.015	1.009

Notes:

Effects of Benefit Changes from Exhibit 4. Benefit On-Level Factors are calculated using parallelogram method.  
 Benefit Level Adjustment Factors adjust the experience policy to the proposed effective policy year period.

Prior Policy Effective Period Benefit On-Level Factors to Proposed Policy Effective Period

Benefit On-Level Factors

Policy Period	Fatal	Permanent Total	Major Permanent Disability	Minor Permanent Disability	Temporary Total	Medical
(1) PY 9/1/2005 to 8/31/2006	1.011	1.016	1.033	1.033	1.008	1.000
(2) PY 9/1/2007 to 8/31/2008	1.002	1.003	1.007	1.007	1.002	1.000

Benefit Level Adjustment Factors

Policy Period	Fatal	Permanent Total	Major Permanent Disability	Minor Permanent Disability	Temporary Total	Medical
(3) PY 9/1/2005 to PY9/1/2007 = (1) / (2)	1.009	1.012	1.026	1.026	1.007	1.000
(4) Injury Type Weights	0.0166	0.0315	0.3512	0.0470	0.1822	0.3716
(5) Effect by Injury Type:	Serious (Injury Types 1-3) 1.024		Non-Serious (Injury Types 4-5) 1.010		Medical (Injury Types 1-6) 1.000	

Notes:  
 Effects of Benefit Changes from Exhibit 4. Benefit On-Level Factors are calculated using parallelogram method.  
 Benefit Level Adjustment Factors adjust the experience policy to the proposed effective policy year period.  
 (4): Post-Chapter 398 weights at ultimate, from Section IV - I, Exhibits 1 and 2.

Benefit Level Change from Prior Projection of Average Benefit Level for Prior Policy Effective Period  
 to Current Projection of Average Benefit Level for Proposed Policy Effective Period

(1) Date of Change	Projected Average Benefit Level for Proposed Effective Policy Period			
	10/1/2004	10/1/2005	10/1/2006	10/1/2007
(2) Benefit Level Change	1.006	1.007	1.007	1.005
(3) Cumulative Benefit Level Change	1.006	1.013	1.020	1.026
(4) Policy Period Weights	0.000	0.000	0.003	0.575
(5) Average Policy Period Benefit Level = Sum of (3) x (4)				1.028

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(6) Date of Change	Average Benefit Level for Current Policy Period, Estimated at 9/1/2005			
	10/1/2004	10/1/2005	10/1/2006	10/1/2007
(7) Benefit Level Change	1.006	1.005	1.005	1.000
(8) Cumulative Benefit Level Change	1.006	1.011	1.016	1.016
(9) Policy Period Weights	0.003	0.575	0.421	0.000
(10) Average Policy Period Benefit Level = Sum of (8) x (9)				1.013
(11) Benefit Level Change = (5) / (10)				1.015
(12) Benefit Level Change on Percentage Basis = [(11) - 1.000] x 100				1.5%

Notes:

- (2): From Exhibit 4.
- (3): Product of (2) at successive benefit dates.
- (4): Policy Year 9/1/2007 to 8/31/2008.
- (7): From Section IV - A, Exhibit 1 of 9/1/2005 filing.
- (8): Product of (7) at successive benefit dates.
- (9): Policy Year 9/1/2005 to 8/31/2006.



Law Adjustment Factors

Effective Date (1)	Law Factors		Cumulative Factor (3)	Fraction of Premium Earned at a Given Benefit Level			
	Law Amendment Factor (2)	Base Level		Policy Effective Date			PY Effective 9/1/2007 (7)
				03/01/2004 (4)	03/01/2005 (5)	03/01/2006 (6)	
03/01/2004			1.000	0.504			
09/01/2004	1.005	1.005	1.005	0.082			
10/01/2004	1.006	1.011	1.011	0.414			
10/01/2005	1.007	1.018	1.018		0.586		
10/01/2006	1.007	1.026	1.026		0.414	0.586	
10/01/2007	1.005	1.031	1.031				0.003
10/01/2008	1.005	1.037	1.037				0.576
							0.421

(8) Average Benefit Level 

1.005	1.014	1.021	1.034
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(9) Adjustment to PY Effective 9/1/2007 Benefit Level 

1.028	1.019	1.012
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Notes:

- (1), (2): From Exhibit 4.
- (4), (5), (6): Unit Stat Reports used to experience rate a policy taking effect 6 months after effective date of the proposed rates

# IV 000015 R

## Calculation of Law Amendment Factors for Use in Calculating D-Ratios

(1) Benefit Changes by Injury Type

	10/01/2000	10/01/2001	10/01/2002	10/01/2003	10/01/2004	10/01/2005	10/01/2006
Fatal	4.2%	0.8%	-0.1%	0.0%	0.5%	0.5%	0.5%
Permanent Total	2.5%	1.2%	-0.1%	0.0%	0.7%	0.8%	0.7%
Major Permanent Partial	3.4%	2.2%	-0.3%	0.1%	1.2%	1.5%	1.5%
Minor Permanent Partial	5.9%	2.2%	-0.3%	0.1%	1.2%	1.5%	1.5%
Temporary Total	1.5%	0.6%	-0.1%	0.0%	0.4%	0.4%	0.4%

(2) Cumulative Index

	Base							
Fatal	1.000	1.042	1.050	1.049	1.050	1.055	1.061	1.066
Permanent Total	1.000	1.025	1.037	1.036	1.037	1.044	1.052	1.060
Major Permanent Partial	1.000	1.034	1.057	1.054	1.054	1.067	1.083	1.100
Minor Permanent Partial	1.000	1.059	1.082	1.079	1.080	1.093	1.109	1.126
Temporary Total	1.000	1.015	1.021	1.020	1.020	1.025	1.029	1.033

(3) Schedule Z Composite Policy Year

Effect by Policy Year:						
07/01/2001 - 06/30/2002	0.032	0.689	0.280			
07/01/2002 - 06/30/2003		0.032	0.688	0.280		
07/01/2003 - 06/30/2004			0.032	0.689	0.280	

(4) Average Policy Period

Effect by Policy Period:						
03/01/2004 - 02/28/2005				0.585	0.415	
03/01/2005 - 02/28/2006					0.586	0.414
03/01/2006 - 02/28/2007						0.586
						0.414

(5) Sum of (2) Weighted by (3)

	Injury Type				
	Fatal	Perm Tot	Maj PP	Min PP	Temp Tot
07/01/2001 - 06/30/2002	1.050	1.037	1.055	1.081	1.021
07/01/2002 - 06/30/2003	1.049	1.036	1.054	1.079	1.020
07/01/2003 - 06/30/2004	1.051	1.039	1.058	1.083	1.021

(6) Sum of (2) Weighted by (4)

03/01/2004 - 02/28/2005	1.052	1.040	1.060	1.085	1.022
03/01/2005 - 02/28/2006	1.057	1.048	1.074	1.100	1.026
03/01/2006 - 02/28/2007	1.063	1.056	1.090	1.116	1.031

(7) Law Amendment Factor = (6) / (5)

2001/2002 to 03/01/2004	1.002	1.003	1.004	1.004	1.001
2002/2003 to 03/01/2005	1.008	1.011	1.019	1.019	1.006
2003/2004 to 03/01/2006	1.011	1.016	1.030	1.030	1.009

Notes:

(1): From Exhibit 4.

## IV 000016 R

Section IV - Benefit Change Adjustments  
 Subsection A - Summary  
 9/1/2007

Section IV-A  
 Exhibit 10  
 Page 2

### Calculation of Law Amendment Factors for Use in Calculating D-Ratios

A. Benefit Changes by Injury Type

	07/01/2001	12/01/2002	09/01/2004
All Medical		5.2%	1.4%

B. Cumulative Index

	Base			
All Medical	1.000	1.000	1.052	1.067

C. Schedule Z Composite Policy Year

Effect by Policy Year:

07/01/2001 - 06/30/2002	0.831	0.169	
07/01/2002 - 06/30/2003	0.088	0.912	
07/01/2003 - 06/30/2004		0.655	0.345

D. Average Policy Period

Effect by Policy Period:

03/01/2004 - 02/28/2005		0.503	0.497
03/01/2005 - 02/28/2006			1.000
03/01/2006 - 02/28/2007			1.000

E. Sum of (B) Weighted by (C)

	All Medical
07/01/2001 - 06/30/2002	1.009
07/01/2002 - 06/30/2003	1.047
07/01/2003 - 06/30/2004	1.057

F. Sum of (B) Weighted by (D)

03/01/2004 - 02/28/2005	1.059
03/01/2005 - 02/28/2006	1.067
03/01/2006 - 02/28/2007	1.067

G. Law Amendment Factor = (F) / (E)

2001/2002 to 03/01/2004	1.050
2002/2003 to 03/01/2005	1.018
2003/2004 to 03/01/2006	1.009

Notes:

A: Section IV - H, Exhibit 1.

## IV 000017 R

Section IV - Benefit Change Adjustments  
Subsection B - Effects of SAWW Change of 10/01/2005  
9/1/2007

Section IV-B  
Exhibit 1  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Fatal Benefits

	10/01/2004	10/01/2005
(1) Cost for 1, 000 Fatal Dependency Cases From Section IV-B, Exhibit 1, Page 2	537,387,632	540,328,207
(2) Cost of Burial (1,000 cases)	4,000,000	4,000,000
(3) Total Monetary Cost (1)+(2)	541,387,632	544,328,207
(4) Effect		1.005

Valuation of Fatal Benefits

Number of Cases (1)	Person(s) Receiving Benefits (2)	Number of Dependents (3)	Average Arithmetic Age (4)	Annuity Symbol (5)	Annuity Value (c) (6)	Average Weekly Benefit Effective 10/01/2004 (7)	Average Weekly Benefit Effective 10/01/2005 (8)	10/01/2004 Cost = (1) x (6) x (7) (9)	10/01/2005 Cost = (1) x (6) x (8) (10)
204	None	0	xx	xxx	xxx	xxx	xxx	xxx	xxx
212	Widow Alone	1	40	a '40 : LIFE	1,572.01	524.37	527.36	174,753,878	175,749,986
407	Widow with Child(ren)	1	38	a '38 : LIFE	1,574.20	524.37	527.36	335,960,577	337,875,572
21	Orphan	2	10	a 416 (b)	405.01				
15	Orphans	1	13	a 13 : 5	252.57	524.37	527.36	2,781,225	2,797,078
141	Other Dependents	3	12	a 312 (b)	303.79	524.37	527.36	2,389,460	2,403,080
		1.7	58	a 58: LIFE	1,122.94	135.80	135.80	21,502,490	21,502,490
								<u>537,387,632</u>	<u>540,328,207</u>

Notes:

- (a): Average number of dependents.
- (b): For two or more dependents, benefits are last-survivor contingent. An annuity certain is used to approximate the joint-survivor annuity.
- (c): From Pension Tables (see text).
- (1), (3), (4): From Section IV - G, Exhibit 2.
- (7), (8): From Pages 3 and 4.

Determination of the Average Weekly Benefit

Effective: 10/01/2004

(1)	Class of Injury	Fatal - Widows and Orphans
(2)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(3)	Min Weekly Compensation	110.00
(4)	Max Weekly Compensation	918.78
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2005	810.05

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	115.42	110.00
164.99 - 1,378.10	Wage times compensation rate	90.6732	82.6131	738.04	492.05
1,378.10 - over	Statutory Maximum	8.4011	17.2550	1,663.76	918.78

(13) Average Weekly Benefit

524.37

Effective: 10/01/2005

(14)	Class of Injury	Fatal - Widows and Orphans
(15)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(16)	Min Weekly Compensation	110.00
(17)	Max Weekly Compensation	958.58
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2005	810.05

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	115.42	110.00
164.99 - 1,437.80	Wage times compensation rate	91.9360	84.7888	747.08	498.08
1,437.80 - over	Statutory Maximum	7.1383	15.0793	1,711.19	958.58

(26) Average Weekly Benefit

527.36

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

Determination of the Average Weekly Benefit

Effective: 10/01/2004

- (1) Class of Injury Fatal - All Other Dependents
- (2) Nominal Rate of Compensation Based on Gross Wages 0.6667
- (3) Min Weekly Compensation 0.00
- (4) Max Weekly Compensation 80.00
- (5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2005 810.05

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 0.00	Statutory Minimum	0.00 - 0.00	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.00 - 0.15	0.4174	0.0405	78.60	52.40
119.99 - over	Statutory Maximum	0.15 - over	99.5826	99.9595	813.12	80.00

(13) Average Weekly Benefit

79.88

Effective: 10/01/2005

- (14) Class of Injury Fatal - All Other Dependents
- (15) Nominal Rate of Compensation Based on Gross Wages 0.6667
- (16) Min Weekly Compensation 0.00
- (17) Max Weekly Compensation 80.00
- (18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2005 810.05

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 0.00	Statutory Minimum	0.00 - 0.00	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.00 - 0.15	0.4174	0.0405	78.60	52.40
119.99 - over	Statutory Maximum	0.15 - over	99.5826	99.9595	813.12	80.00

(26) Average Weekly Benefit

79.88

Notes:

- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000021 R

Section IV - Benefit Change Adjustments  
Subsection B - Effects of SAWW Change of 10/01/2005  
9/1/2007

Section IV-B  
Exhibit 2  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Total Benefits

	10/01/2004	10/01/2005
A. PERMANENT TOTAL WAGE LOSS BENEFITS		
(1) Average Wage Loss Benefit - Exhibit 2, Page 2	526.41	529.81
(2) Effect on "Regular" PT benefits		1.006
B. SPECIFIC INJURY PAYMENTS		
(3) SAWW	918.78	958.58
(4) Effect on Specific Injuries		1.043
C. TOTAL EFFECT		
(5) PT Wage Loss Benefits as a Proportion of PT Cost		96.5%
(6) Specific Injury Payment as a Proportion of PT Cost		3.5%
(7) Permanent Total Effect		
= [(2) x (5)] + [(4) x (6)]		1.008

#### Notes:

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5), (6): From the Filing for 9/1/2005 Rates, Section IV - B, Exhibit 2, Page 1. Estimated Average Schedule Benefit compared to Average Indemnity Cost per Claim.



Determination of the Average Weekly Benefit

Effective: 10/01/2004

(1)	Class of Injury											Permanent Total
(2)	Nominal Rate of Compensation Based on Gross Wages											0.6667
(3)	Min Weekly Compensation											183.76
(4)	Max Weekly Compensation											918.78
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2005											810.05

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 275.63	Statutory Minimum	5.0674	1.2884	205.96	183.76
275.63 - 1,378.10	Wage times compensation rate	86.5315	81.4566	762.54	508.39
1,378.10 - over	Statutory Maximum	8.4011	17.2550	1,663.76	918.78
(13) Average Weekly Benefit					526.41

Effective: 10/01/2005

(14)	Class of Injury											Permanent Total
(15)	Nominal Rate of Compensation Based on Gross Wages											0.6667
(16)	Min Weekly Compensation											191.72
(17)	Max Weekly Compensation											958.58
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2005											810.05

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 287.57	Statutory Minimum	5.0674	1.2884	205.96	191.72
287.57 - 1,437.80	Wage times compensation rate	87.7943	83.6323	771.65	514.46
1,437.80 - over	Statutory Maximum	7.1383	15.0793	1,711.19	958.58
(26) Average Weekly Benefit					529.81

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000023 R

Section IV - Benefit Change Adjustments  
 Subsection B - Effects of SAWW Change of 10/01/2005  
 9/1/2007

Section IV-B  
 Exhibit 3  
 Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Partial Benefits

		Permanent Partial Law Effective	
		10/01/2004	10/01/2005
A.	PERMANENT PARTIAL WAGE LOSS BENEFITS		
(1)	Average Weekly Benefit for PP Wage Loss	297.18	298.99
(2)	Effect on Wage Loss Benefits		1.006
B.	PERMANENT PARTIAL SPECIFIC INJURY PAYMENTS		
(3)	SAWW	918.78	958.58
(4)	Effect on Specific Injuries		1.043
C.	PERMANENT PARTIAL (HEALING PERIOD)		
(5)	Average Weekly Benefit for Temp Total	479.90	481.90
(6)	Effect on Healing Period		1.004
D.	TOTAL EFFECT		
(7)	Wage Loss Benefits as a Proportion of P.P. Cost		27%
(8)	Specific Injury Payment as a Proportion of P.P. Cost		26%
(9)	Healing Period Cost as a Proportion of P.P. Cost		47%
(10)	Permanent Partial Effect		
	= [(2) x (7)] + [(4) x (8)] + [(6) x (9)]		1.015

**Notes:**

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5): From Exhibit 4, Page 1.
- (7), (8), (9): DCI for Permanent Partial Claims in Massachusetts.

Determination of the Average Weekly Benefit

Effective: 10/01/2004

- (1) Class of Injury
- (2) Nominal Rate of Compensation Based on Gross Wages
- (3) Min Weekly Compensation
- (4) Max Weekly Compensation
- (5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2005

Permanent Partial Wage Loss  
 0.3720  
 0.00  
 607.54  
 810.05

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 1,633.17	Wage times compensation rate	0.00 - 2.00	96.9125	92.4774	772.98	287.55
1,633.17 - 4,835.68	Statutory Maximum	2.00 - 5.95	3.0474	7.2755	1,933.95	607.54
4,835.68 - over	Statutory Limitation	5.95 - over	0.0401	0.2471	4,991.74	0.00

(13) Average Weekly Benefit

297.18

Effective: 10/01/2005

- (14) Class of Injury
- (15) Nominal Rate of Compensation Based on Gross Wages
- (16) Min Weekly Compensation
- (17) Max Weekly Compensation
- (18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2005

Permanent Partial Wage Loss  
 0.3720  
 0.00  
 718.94  
 810.05

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 1,932.62	Wage times compensation rate	0.00 - 2.40	99.1195	97.2019	794.38	295.51
1,932.62 - 5,045.16	Statutory Maximum	2.40 - 6.25	0.8455	2.5821	2,473.84	718.94
5,045.16 - over	Statutory Limitation	6.25 - over	0.0350	0.2160	4,999.43	0.00

(26) Average Weekly Benefit

298.99

Notes:

- (7), (20): Statutory Limitation: Insurer may reduce benefit to level at which benefits + earnings = 2 x SAWW.
- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

Determination of the Average Weekly Benefit

Effective: 10/01/2004

(1) Class of Injury	Temporary Total
(2) Nominal Rate of Compensation Based on Gross Wages	0.6000
(3) Min Weekly Compensation	183.76
(4) Max Weekly Compensation	918.78
(5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2005	810.05

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 183.76	Actual Wage	0.00 - 0.25	2.2314	0.4323	156.94	156.94
183.76 - 306.27	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	267.68	183.76
306.27 - 1,531.30	Wage times compensation rate	0.40 - 1.90	88.6344	87.7354	801.83	481.10
1,531.30 - over	Statutory Maximum	1.90 - over	4.5163	10.3063	1,848.55	918.78

(13) Average Weekly Benefit

479.90

Effective: 10/01/2005

(14) Class of Injury	Temporary Total
(15) Nominal Rate of Compensation Based on Gross Wages	0.6000
(16) Min Weekly Compensation	191.72
(17) Max Weekly Compensation	958.58
(18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2005	810.05

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 191.72	Actual Wage	0.00 - 0.25	2.2314	0.4323	156.94	156.94
191.72 - 319.53	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	267.68	191.72
319.53 - 1,597.63	Wage times compensation rate	0.40 - 1.95	89.3889	89.1884	808.23	484.94
1,597.63 - over	Statutory Maximum	1.95 - over	3.7618	8.8533	1,906.43	958.58

(26) Average Weekly Benefit

481.90

(27) Temporary Total Benefit Change Factor = (26) / (13)

1.004

Notes:

- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000026 R

Section IV - Benefit Change Adjustments  
Subsection C - Effects of SAWW Change of 10/01/2006  
9/1/2007

Section IV-C  
Exhibit 1  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Fatal Benefits

	10/01/2005	10/01/2006
(1) Cost for 1, 000 Fatal Dependency Cases From Section IV-C, Exhibit 1, Page 2	555,459,194	558,340,355
(2) Cost of Burial (1,000 cases)	4,000,000	4,000,000
(3) Total Monetary Cost (1)+(2)	559,459,194	562,340,355
(4) Effect		1.005

Valuation of Fatal Benefits

Number of Cases (1)	Person(s) Receiving Benefits (2)	Number of Dependents (3)	Average Arithmetic Age (4)	Annuity Symbol (5)	Annuity Value (c) (6)	Average Weekly Benefit Effective 10/01/2005 (7)	Average Weekly Benefit Effective 10/01/2006 (8)	10/01/2005 Cost = (1) x (6) x (7) (9)	10/01/2006 Cost = (1) x (6) x (8) (10)
204	None	0	xx	xxx	xxx			xxx	xxx
212	Widow Alone	1	40	a '40 : LIFE	1,572.01	542.73	545.66	180,874,871	181,850,852
407	Widow with Child(ren)	1	38	a '38 : LIFE	1,574.20	542.73	545.66	347,728,054	349,604,357
21	Orphan	2	10	a '416 (b)	405.01				
15	Orphans	1	13	a 13 : 5	252.57	542.73	545.66	2,878,641	2,894,174
141	Other Dependents	3	12	a '312 (b)	303.79	542.73	545.66	2,473,155	2,486,499
		1.7	58	a 58 : LIFE	1,122.94	135.82	135.82	21,504,473	21,504,473
								<u>555,459,194</u>	<u>558,340,355</u>

Notes:

- (a): Average number of dependents.
- (b): For two or more dependents, benefits are last-survivor contingent. An annuity certain is used to approximate the joint-survivor annuity.
- (c): From Pension Tables (see text).
- (1), (3), (4): From Section IV - G, Exhibit 2.
- (7), (8): From Pages 3 and 4.

Determination of the Average Weekly Benefit

Effective: 10/01/2005

(1)	Class of Injury	Fatal - Widows and Orphans
(2)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(3)	Min Weekly Compensation	110.00
(4)	Max Weekly Compensation	958.58
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006	837.33

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	119.31	110.00
164.99 - 1,437.80	Wage times compensation rate	90.6732	82.6131	762.89	508.62
1,437.80 - over	Statutory Maximum	8.4011	17.2550	1,719.78	958.58
(13) Average Weekly Benefit					542.73

Effective: 10/01/2006

(14)	Class of Injury	Fatal - Widows and Orphans
(15)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(16)	Min Weekly Compensation	110.00
(17)	Max Weekly Compensation	1000.43
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006	837.33

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	119.31	110.00
164.99 - 1,500.57	Wage times compensation rate	92.9420	86.5738	779.95	520.00
1,500.57 - over	Statutory Maximum	6.1323	13.2943	1,815.25	1000.43
(26) Average Weekly Benefit					545.66

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

Determination of the Average Weekly Benefit

Effective: 10/01/2005

- |     |  |                              |
|-----|--|------------------------------|
| (1) | Class of Injury  | Fatal - All Other Dependents |
| (2) | Nominal Rate of Compensation Based on Gross Wages                    | 0.6667                       |
| (3) | Min Weekly Compensation  | 0.00                         |
| (4) | Max Weekly Compensation  | 80.00                        |
| (5) | Average Injured Worker Weekly Wage for 12 months starting 10/01/2006 | 837.33                       |

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 0.00	Statutory Minimum	0.00 - 0.00	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.00 - 0.15	0.4174	0.0405	81.25	54.17
119.99 - over	Statutory Maximum	0.15 - over	99.5826	99.9595	840.50	80.00

(13) Average Weekly Benefit

79.89

Effective: 10/01/2006

- |      |  |                              |
|------|--|------------------------------|
| (14) | Class of Injury  | Fatal - All Other Dependents |
| (15) | Nominal Rate of Compensation Based on Gross Wages                    | 0.6667                       |
| (16) | Min Weekly Compensation  | 0.00                         |
| (17) | Max Weekly Compensation  | 80.00                        |
| (18) | Average Injured Worker Weekly Wage for 12 months starting 10/01/2006 | 837.33                       |

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 0.00	Statutory Minimum	0.00 - 0.00	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.00 - 0.15	0.4174	0.0405	81.25	54.17
119.99 - over	Statutory Maximum	0.15 - over	99.5826	99.9595	840.50	80.00

(26) Average Weekly Benefit

79.89

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.



## IV 000030 R

Section IV - Benefit Change Adjustments  
Subsection C - Effects of SAWW Change of 10/01/2006  
9/1/2007

Section IV-C  
Exhibit 2  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Total Benefits

	10/01/2005	10/01/2006
A. PERMANENT TOTAL WAGE LOSS BENEFITS		
(1) Average Wage Loss Benefit	544.97	548.33
(2) Effect on "Regular" PT benefits		1.006
B. SPECIFIC INJURY PAYMENTS		
(3) SAWW	958.58	1000.43
(4) Effect on Specific Injuries		1.044
C. TOTAL EFFECT		
(5) PT Wage Loss Benefits as a Proportion of PT Cost		96.5%
(6) Specific Injury Payment as a Proportion of PT Cost		3.5%
(7) Permanent Total Effect		
= [(2) x (5)] + [(4) x (6)]		1.007

#### Notes:

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5), (6): From the Filing for 9/1/2005 Rates, Section IV - C, Exhibit 2, Page 1. Estimated Average Schedule Benefit compared to Average Indemnity Cost per Claim.

Determination of the Average Weekly Benefit

Effective: 10/01/2005

(1)	Class of Injury									Permanent Total
(2)	Nominal Rate of Compensation Based on Gross Wages									0.6667
(3)	Min Weekly Compensation									191.72
(4)	Max Weekly Compensation									958.58
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006									837.33

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 287.57	Statutory Minimum	5.0674	1.2884	212.89	191.72
287.57 - 1,437.80	Wage times compensation rate	86.5315	81,4566	788.22	525.51
1,437.80 - over	Statutory Maximum	8.4011	17,2550	1,719.78	958.58
(13) Average Weekly Benefit					544.97

Effective: 10/01/2006

(14)	Class of Injury									Permanent Total
(15)	Nominal Rate of Compensation Based on Gross Wages									0.6667
(16)	Min Weekly Compensation									200.09
(17)	Max Weekly Compensation									1000.43
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006									837.33

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 300.12	Statutory Minimum	5.0674	1.2884	212.89	200.09
300.12 - 1,500.57	Wage times compensation rate	88.8003	85,4173	805.43	536.98
1,500.57 - over	Statutory Maximum	6.1323	13,2943	1,815.25	1000.43
(26) Average Weekly Benefit					548.33

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000032 R

Section IV - Benefit Change Adjustments  
 Subsection C - Effects of SAWW Change of 10/01/2006  
 9/1/2007

Section IV-C  
 Exhibit 3  
 Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Partial Benefits

		Permanent Partial Law Effective	
		10/01/2005	10/01/2006
A.	PERMANENT PARTIAL WAGE LOSS BENEFITS		
(1)	Average Weekly Benefit for PP Wage Loss	306.53	308.82
(2)	Effect on Wage Loss Benefits		1.007
B.	PERMANENT PARTIAL SPECIFIC INJURY PAYMENTS		
(3)	SAWW	958.58	1000.43
(4)	Effect on Specific Injuries		1.044
C.	PERMANENT PARTIAL (HEALING PERIOD)		
(5)	Average Weekly Benefit for Temp Total	496.54	498.51
(6)	Effect on Healing Period		1.004
D.	TOTAL EFFECT		
(7)	Wage Loss Benefits as a Proportion of P.P. Cost		27%
(8)	Specific Injury Payment as a Proportion of P.P. Cost		26%
(9)	Healing Period Cost as a Proportion of P.P. Cost		47%
(10)	Permanent Partial Effect		
	= [(2) x (7)] + [(4) x (8)] + [(6) x (9)]		1.015

Notes:

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5): From Exhibit 4, Page 1.
- (7), (8), (9): DCI for Permanent Partial Claims in Massachusetts.

Determination of the Average Weekly Benefit

Effective: 10/01/2005

(1)	Class of Injury								Permanent Partial Wage Loss
(2)	Nominal Rate of Compensation Based on Gross Wages								0.3720
(3)	Min Weekly Compensation								0.00
(4)	Max Weekly Compensation								607.54
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006								837.33

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 1,633.17	Wage times compensation rate	0.00 - 1.95	96.2382	91.1467	793.03	295.01
1,633.17 - 5,045.16	Statutory Maximum	1.95 - 6.05	3.7235	8.6170	1,937.76	607.54
5,045.16 - over	Statutory Limitation	6.05 - over	0.0383	0.2363	5,166.11	0.00

(13) Average Weekly Benefit

306.53

Effective: 10/01/2006

(14)	Class of Injury								Permanent Partial Wage Loss
(15)	Nominal Rate of Compensation Based on Gross Wages								0.3720
(16)	Min Weekly Compensation								0.00
(17)	Max Weekly Compensation								718.94
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006								837.33

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 1,932.62	Wage times compensation rate	0.00 - 2.30	98.8893	96.6609	818.46	304.47
1,932.62 - 5,265.42	Statutory Maximum	2.30 - 6.30	1.0765	3.1281	2,433.11	718.94
5,265.42 - over	Statutory Limitation	6.30 - over	0.0342	0.2110	5,165.70	0.00

(26) Average Weekly Benefit

308.82

Notes:

- (7), (20): Statutory Limitation: Insurer may reduce benefit to level at which benefits + earnings = 2 x SAWW.
- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

Determination of the Average Weekly Benefit

Effective: 10/01/2005

(1)	Class of Injury									Temporary Total
(2)	Nominal Rate of Compensation Based on Gross Wages									0.6000
(3)	Min Weekly Compensation									191.72
(4)	Max Weekly Compensation									958.58
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006									837.33

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval Workers		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			(9)	Wages (10)		
0.00 - 191.72	Actual Wage	0.00 - 0.25	2.2314	0.4323	162.22	162.22
191.72 - 319.53	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	276.70	191.72
319.53 - 1,597.63	Wage times compensation rate Statutory Maximum	0.40 - 1.90 1.90 - over	88.6344 4.5163	87.7354 10.3063	828.83 1,910.80	497.30 958.58
(13) Average Weekly Benefit						496.54

Effective: 10/01/2006

(14)	Class of Injury									Temporary Total
(15)	Nominal Rate of Compensation Based on Gross Wages									0.6000
(16)	Min Weekly Compensation									200.09
(17)	Max Weekly Compensation									1000.43
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2006									837.33

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval Workers		Avg. Wage in Interval AIWW(18) (24)	Avg. Benefit in Interval (25)
			(22)	Wages (23)		
0.00 - 200.09	Actual Wage	0.00 - 0.25	2.2314	0.4323	162.22	162.22
200.09 - 333.48	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	276.70	200.09
333.48 - 1,667.38	Wage times compensation rate Statutory Maximum	0.40 - 2.00 2.00 - over	90.0632 3.0875	90.5191 7.5226	841.56 2,040.12	504.94 1000.43
(26) Average Weekly Benefit						498.51
(27) Temporary Total Benefit Change Factor = (26) / (13)						1.004

Notes:

- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000035 R

Section IV - Benefit Change Adjustments  
Subsection D - Effects of SAWW Change of 10/01/2007  
9/1/2007

Section IV-D  
Exhibit 1  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Fatal Benefits

	10/01/2006	10/01/2007
(1) Cost for 1, 000 Fatal Dependency Cases From Section IV-D, Exhibit 1, Page 2	574,120,346	576,384,720
(2) Cost of Burial (1,000 cases)	4,000,000	4,000,000
(3) Total Monetary Cost (1)+(2)	578,120,346	580,384,720
(4) Effect		1.004

Valuation of Fatal Benefits

Number of Cases (1)	Person(s) Receiving Benefits (2)	Number of Dependents (3)	Average Arithmetic Age (4)	Annuity Symbol (5)	Annuity Value (c) (6)	Average Weekly Benefit Effective 10/01/2006 (7)	Average Weekly Benefit Effective 10/01/2007 (8)	10/01/2006 Cost = (1) x (6) x (7) (9)	10/01/2007 Cost = (1) x (6) x (8) (10)
204	None	0	xx	xxx	xxx			xxx	xxx
212	Widow Alone	1	40	a '40 : LIFE	1,572.01	561.70	564.00	187,195,562	187,962,609
407	Widow with Child(ren)	1	38	a '38 : LIFE	1,574.20	561.70	564.00	359,879,447	361,354,079
21	Orphan	2	10	a 416 (b)	405.01				
15	Orphans	1	13	a 13 : 5	252.57	561.70	564.00	2,979,236	2,991,444
141	Other Dependents	3	12	a 312 (b)	303.79	561.70	564.00	2,559,579	2,570,067
		1.7	58	a 58: LIFE	1,122.94	135.83	135.83	21,506,522	21,506,522
								574,120,346	576,384,720

IV 000036 R

Notes:

- (a): Average number of dependents.
- (b): For two or more dependents, benefits are last-survivor contingent. An annuity certain is used to approximate the joint-survivor annuity.
- (c): From Pension Tables (see text).
- (1), (3), (4): From Section IV - G, Exhibit 2.
- (7), (8): From Pages 3 and 4.

Determination of the Average Weekly Benefit

Effective: 10/01/2006

(1)	Class of Injury	Fatal - Widows and Orphans
(2)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(3)	Min Weekly Compensation	110.00
(4)	Max Weekly Compensation	1000.43
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2007	865.52

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	123.33	110.00
164.99 - 1,500.57	Wage times compensation rate	91.9360	84.7888	798.23	532.18
1,500.57 - over	Statutory Maximum	7.1383	15.0793	1,828.37	1000.43

(13) Average Weekly Benefit

561.70

Effective: 10/01/2007

(14)	Class of Injury	Fatal - Widows and Orphans
(15)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(16)	Min Weekly Compensation	110.00
(17)	Max Weekly Compensation	1034.12
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2007	865.52

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	123.33	110.00
164.99 - 1,551.10	Wage times compensation rate	92.9420	86.5738	806.22	537.50
1,551.10 - over	Statutory Maximum	6.1323	13.2943	1,876.37	1034.12

(26) Average Weekly Benefit

564.00

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.



Determination of the Average Weekly Benefit

Effective: 10/01/2006

- (1) Class of Injury Fatal - All Other Dependents
- (2) Nominal Rate of Compensation Based on Gross Wages 0.6667
- (3) Min Weekly Compensation 0.00
- (4) Max Weekly Compensation 80.00
- (5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007 865.52

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 0.00	Statutory Minimum	0.00 - 0.00	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.00 - 0.15	0.4174	0.0405	83.98	55.99
119.99 - over	Statutory Maximum	0.15 - over	99.5826	99.9595	868.80	80.00

(13) Average Weekly Benefit 79.90

Effective: 10/01/2007

- (14) Class of Injury Fatal - All Other Dependents
- (15) Nominal Rate of Compensation Based on Gross Wages 0.6667
- (16) Min Weekly Compensation 0.00
- (17) Max Weekly Compensation 80.00
- (18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007 865.52

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 0.00	Statutory Minimum	0.00 - 0.00	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.00 - 0.15	0.4174	0.0405	83.98	55.99
119.99 - over	Statutory Maximum	0.15 - over	99.5826	99.9595	868.80	80.00

(26) Average Weekly Benefit 79.90

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000039 R

Section IV - Benefit Change Adjustments  
Subsection D - Effects of SAWW Change of 10/01/2007  
9/1/2007

Section IV-D  
Exhibit 2  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Total Benefits

	10/01/2006	10/01/2007
A. PERMANENT TOTAL WAGE LOSS BENEFITS		
(1) Average Wage Loss Benefit	564.15	566.79
(2) Effect on "Regular" PT benefits		1.005
B. SPECIFIC INJURY PAYMENTS		
(3) SAWW	1000.43	1034.12
(4) Effect on Specific Injuries		1.034
C. TOTAL EFFECT		
(5) PT Wage Loss Benefits as a Proportion of PT Cost		96.5%
(6) Specific Injury Payment as a Proportion of PT Cost		3.5%
(7) Permanent Total Effect = [(2) x (5)] + [(4) x (6)]		1.006

Notes:

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5), (6): From the Filing for 9/1/2005 Rates, Section IV - D, Exhibit 2, Page 1. Estimated Average Schedule Benefit compared to Average Indemnity Cost per Claim.

Determination of the Average Weekly Benefit

Effective: 10/01/2006

- (1) Class of Injury
- (2) Nominal Rate of Compensation Based on Gross Wages
- (3) Min Weekly Compensation
- (4) Max Weekly Compensation
- (5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007

Permanent Total  
 0.6667  
 200.09  
 1000.43  
 865.52

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 300.12	Statutory Minimum	0.00 - 0.35	5.0674	1.2884	220.06	200.09
300.12 - 1,500.57	Wage times compensation rate	0.35 - 1.75	87.7943	83.6323	824.49	549.69
1,500.57 - over	Statutory Maximum	1.75 - over	7.1383	15.0793	1,828.37	1000.43

(13) Average Weekly Benefit

564.15

Effective: 10/01/2007

- (14) Class of Injury
- (15) Nominal Rate of Compensation Based on Gross Wages
- (16) Min Weekly Compensation
- (17) Max Weekly Compensation
- (18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007

Permanent Total  
 0.6667  
 206.82  
 1034.12  
 865.52

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 310.21	Statutory Minimum	0.00 - 0.35	5.0674	1.2884	220.06	206.82
310.21 - 1,551.10	Wage times compensation rate	0.35 - 1.80	88.8003	85.4173	832.55	555.06
1,551.10 - over	Statutory Maximum	1.80 - over	6.1323	13.2943	1,876.37	1034.12

(26) Average Weekly Benefit

566.79

Notes:

- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000041 R

Section IV - Benefit Change Adjustments  
 Subsection D - Effects of SAWW Change of 10/01/2007  
 9/1/2007

Section IV-D  
 Exhibit 3  
 Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Partial Benefits

		Permanent Partial Law Effective	
		10/01/2006	10/01/2007
A.	PERMANENT PARTIAL WAGE LOSS BENEFITS		
(1)	Average Weekly Benefit for PP Wage Loss <sup>1</sup>	317.55	319.53
(2)	Effect on Wage Loss Benefits		1.006
B.	PERMANENT PARTIAL SPECIFIC INJURY PAYMENTS		
(3)	SAWW <sup>2</sup>	1000.43	1034.12
(4)	Effect on Specific Injuries		1.034
C.	PERMANENT PARTIAL (HEALING PERIOD)		
(5)	Average Weekly Benefit for Temp Total <sup>3</sup>	513.78	515.30
(6)	Effect on Healing Period		1.003
D.	TOTAL EFFECT		
(7)	Wage Loss Benefits as a Proportion of P.P. Cost <sup>4</sup>		27%
(8)	Specific Injury Payment as a Proportion of P.P. Cost <sup>4</sup>		26%
(9)	Healing Period Cost as a Proportion of P.P. Cost <sup>4</sup>		47%
(10)	Permanent Partial Effect = [(2) x (7)] + [(4) x (8)] + [(6) x (9)]		1.012

**Notes:**

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5): From Exhibit 4, Page 1.
- (7), (8), (9): DCI for Permanent Partial Claims in Massachusetts.

Determination of the Average Weekly Benefit

Effective: 10/01/2006

- (1) Class of Injury
- (2) Nominal Rate of Compensation Based on Gross Wages
- (3) Min Weekly Compensation
- (4) Max Weekly Compensation
- (5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007

Permanent Partial Wage Loss  
0.3720  
0.00  
649.14  
865.52

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 1,745.00	Wage times compensation rate	0.00 - 2.00	96.9125	92.4774	825.91	307.24
1,745.00 - 5,265.42	Statutory Maximum	2.00 - 6.10	3.0501	7.2918	2,069.17	649.14
5,265.42 - over	Statutory Limitation	6.10 - over	0.0374	0.2308	5,341.98	0.00

(13) Average Weekly Benefit

317.55

Effective: 10/01/2007

- (14) Class of Injury
- (15) Nominal Rate of Compensation Based on Gross Wages
- (16) Min Weekly Compensation
- (17) Max Weekly Compensation
- (18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007

Permanent Partial Wage Loss  
0.3720  
0.00  
775.59  
865.52

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 2,084.91	Wage times compensation rate	0.00 - 2.40	99.1195	97.2019	848.78	315.74
2,084.91 - 5,442.72	Statutory Maximum	2.40 - 6.30	0.8463	2.5871	2,645.87	775.59
5,442.72 - over	Statutory Limitation	6.30 - over	0.0342	0.2110	5,339.63	0.00

(26) Average Weekly Benefit

319.53

Notes:

- (7), (20): Statutory Limitation: Insurer may reduce benefit to level at which benefits + earnings = 2 x SAWW.
- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

Determination of the Average Weekly Benefit

Effective: 10/01/2006

- (1) Class of Injury
- (2) Nominal Rate of Compensation Based on Gross Wages
- (3) Min Weekly Compensation
- (4) Max Weekly Compensation
- (5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007

Temporary Total  
0.6000  
200.09  
1000.43  
865.52

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval Workers		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			(9)	Wages (10)		
0.00 - 200.09	Actual Wage	0.00 - 0.25	2.2314	0.4323	167.68	167.68
200.09 - 333.48	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	286.01	200.09
333.48 - 1,667.38	Wage times compensation rate	0.40 - 1.95	89.3889	89.1884	863.58	518.15
1,667.38 - over	Statutory Maximum	1.95 - over	3.7618	8.8533	2,036.98	1000.43

(13) Average Weekly Benefit

513.78

Effective: 10/01/2007

- (14) Class of Injury
- (15) Nominal Rate of Compensation Based on Gross Wages
- (16) Min Weekly Compensation
- (17) Max Weekly Compensation
- (18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2007

Temporary Total  
0.6000  
206.82  
1034.12  
865.52

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval Workers		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			(22)	Wages (23)		
0.00 - 206.82	Actual Wage	0.00 - 0.25	2.2314	0.4323	167.68	167.68
206.82 - 344.70	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	286.01	206.82
344.70 - 1,723.53	Wage times compensation rate	0.40 - 2.00	90.0632	90.5191	869.90	521.94
1,723.53 - over	Statutory Maximum	2.00 - over	3.0875	7.5226	2,108.81	1034.12

(26) Average Weekly Benefit

515.30

(27) Temporary Total Benefit Change Factor = (26) / (13)

1.003

Notes:

- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000044 R

Section IV - Benefit Change Adjustments  
Subsection E - Effects of SAWW Change of 10/01/2008  
9/1/2007

Section IV-E  
Exhibit 1  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Fatal Benefits

	10/01/2007	10/01/2008
(1) Cost for 1, 000 Fatal Dependency Cases From Section IV-E, Exhibit 1, Page 2	592,696,047	595,036,666
(2) Cost of Burial (1,000 cases)	4,000,000	4,000,000
(3) Total Monetary Cost (1)+(2)	596,696,047	599,036,666
(4) Effect		1.004

IV 000045 R

Valuation of Fatal Benefits

Number of Cases (1)	Person(s) Receiving Benefits (2)	Number of Dependents (3)	Average Arithmetic Age (4)	Annuity Symbol (5)	Annuity Value (c) (6)	Average Weekly Benefit Effective 10/01/2007 (7)	Average Weekly Benefit Effective 10/01/2008 (8)	10/01/2007 Cost = (1) x (6) x (7) (9)	10/01/2008 Cost = (1) x (6) x (8) (10)
204	None	0	xx	xxx	xxx	xxx	xxx	xxx	xxx
212	Widow Alone	1	40	a '40 : LIFE	1,572.01	580.58	582.96	193,487,283	194,280,158
407	Widow with Child(ren)	1	38	a '38 : LIFE	1,574.20	580.58	582.96	371,975,146	373,499,431
21	Orphan	2	10	a 416 (b)	405.01				
15	Orphans	1	13	a 13 : 5	252.57	580.58	582.96	3,079,369	3,091,988
141	Other Dependents	3	12	a 312 (b)	303.79	580.58	582.96	2,645,608	2,656,449
		1.7	58	a 58 : LIFE	1,122.94	135.84	135.84	21,508,640	21,508,640
								592,696,047	595,036,666

Notes:

- (a): Average number of dependents.
- (b): For two or more dependents, benefits are last-survivor contingent. An annuity certain is used to approximate the joint-survivor annuity.
- (c): From Pension Tables (see text).
- (1), (3), (4): From Section IV - G, Exhibit 2.
- (7), (8): From Pages 3 and 4.



Determination of the Average Weekly Benefit

Effective: 10/01/2007

(1)	Class of Injury	Fatal - Widows and Orphans
(2)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(3)	Min Weekly Compensation	110.00
(4)	Max Weekly Compensation	1034.12
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008	894.66

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	127.48	110.00
164.99 - 1,551.10	Wage times compensation rate	91.9360	84.7888	825.11	550.10
1,551.10 - over	Statutory Maximum	7.1383	15.0793	1,889.93	1034.12

(13) Average Weekly Benefit

580.58

Effective: 10/01/2008

(14)	Class of Injury	Fatal - Widows and Orphans
(15)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(16)	Min Weekly Compensation	110.00
(17)	Max Weekly Compensation	1068.94
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008	894.66

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 164.99	Statutory Minimum	0.9257	0.1319	127.48	110.00
164.99 - 1,603.32	Wage times compensation rate	92.9420	86.5738	833.36	555.60
1,603.32 - over	Statutory Maximum	6.1323	13.2943	1,939.55	1068.94

(26) Average Weekly Benefit

582.96

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

Determination of the Average Weekly Benefit

Effective: 10/01/2007

(1)	Class of Injury	Fatal - All Other Dependents
(2)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(3)	Min Weekly Compensation	0.00
(4)	Max Weekly Compensation	80.00
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008	894.66

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 0.00	Statutory Minimum	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.4174	0.0405	86.81	57.88
119.99 - over	Statutory Maximum	99.5826	99.9595	898.05	80.00

(13) Average Weekly Benefit

79.91

Effective: 10/01/2008

(14)	Class of Injury	Fatal - All Other Dependents
(15)	Nominal Rate of Compensation Based on Gross Wages	0.6667
(16)	Min Weekly Compensation	0.00
(17)	Max Weekly Compensation	80.00
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008	894.66

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 0.00	Statutory Minimum	0.0000	0.0000	0.00	0.00
0.00 - 119.99	Wage times compensation rate	0.4174	0.0405	86.81	57.88
119.99 - over	Statutory Maximum	99.5826	99.9595	898.05	80.00

(26) Average Weekly Benefit

79.91

Notes

- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000048 R

Section IV - Benefit Change Adjustments  
Subsection E - Effects of SAWW Change of 10/01/2008  
9/1/2007

Section IV-E  
Exhibit 2  
Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Total Benefits

	10/01/2007	10/01/2008
A. PERMANENT TOTAL WAGE LOSS BENEFITS		
(1) Average Wage Loss Benefit	583.14	585.87
(2) Effect on "Regular" PT benefits		1.005
B. SPECIFIC INJURY PAYMENTS		
(3) SAWW	1034.12	1068.94
(4) Effect on Specific Injuries		1.034
C. TOTAL EFFECT		
(5) PT Wage Loss Benefits as a Proportion of PT Cost		96.5%
(6) Specific Injury Payment as a Proportion of PT Cost		3.5%
(7) Permanent Total Effect		
= [(2) x (5)] + [(4) x (6)]		1.006

Notes:

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5), (6): From the Filing for 9/1/2005 Rates, Section IV - E, Exhibit 2, Page 1. Estimated Average Schedule Benefit compared to Average Indemnity Cost per Claim.

Determination of the Average Weekly Benefit

Effective: 10/01/2007

(1)	Class of Injury									Permanent Total
(2)	Nominal Rate of Compensation Based on Gross Wages									0.6667
(3)	Min Weekly Compensation									206.82
(4)	Max Weekly Compensation									1034.12
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008									894.66

Wage Intervals (6)	Benefit (7)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
		Workers (9)	Wages (10)		
0.00 - 310.21	Statutory Minimum	5.0674	1.2884	227.47	206.82
310.21 - 1,551.10	Wage times compensation rate	87.7943	83.6323	852.25	568.20
1,551.10 - over	Statutory Maximum	7.1383	15.0793	1,889.93	1034.12

(13) Average Weekly Benefit

583.14

Effective: 10/01/2008

(14)	Class of Injury									Permanent Total
(15)	Nominal Rate of Compensation Based on Gross Wages									0.6667
(16)	Min Weekly Compensation									213.79
(17)	Max Weekly Compensation									1068.94
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008									894.66

Wage Intervals (19)	Benefit (20)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
		Workers (22)	Wages (23)		
0.00 - 320.67	Statutory Minimum	5.0674	1.2884	227.47	213.79
320.67 - 1,603.32	Wage times compensation rate	88.8003	85.4173	860.58	573.75
1,603.32 - over	Statutory Maximum	6.1323	13.2943	1,939.55	1068.94

(26) Average Weekly Benefit

585.87

Notes:  
 (8), (21): Rounded to nearest 0.05.  
 (9), (22): From (2) in Section IV - G, Exhibit 1.  
 (10), (23): From (3) in Section IV - G, Exhibit 1.  
 (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

## IV 000050 R

Section IV - Benefit Change Adjustments  
 Subsection E - Effects of SAWW Change of 10/01/2008  
 9/1/2007

Section IV-E  
 Exhibit 3  
 Page 1

### Determination of the Monetary Cost and Effect of Amendments on Permanent Partial Benefits

		Permanent Partial Law Effective	
		10/01/2007	10/01/2008
A. PERMANENT PARTIAL WAGE LOSS BENEFITS			
(1)	Average Weekly Benefit for PP Wage Loss	328.24	330.29
(2)	Effect on Wage Loss Benefits		1.006
B. PERMANENT PARTIAL SPECIFIC INJURY PAYMENTS			
(3)	SAWW	1034.12	1068.94
(4)	Effect on Specific Injuries		1.034
C. PERMANENT PARTIAL (HEALING PERIOD)			
(5)	Average Weekly Benefit for Temp Total	531.08	532.65
(6)	Effect on Healing Period		1.003
D. TOTAL EFFECT			
(7)	Wage Loss Benefits as a Proportion of P.P. Cost		27%
(8)	Specific Injury Payment as a Proportion of P.P. Cost		26%
(9)	Healing Period Cost as a Proportion of P.P. Cost		47%
(10)	Permanent Partial Effect		
	= [(2) x (7)] + [(4) x (8)] + [(6) x (9)]		1.012

**Notes:**

- (1): From Page 2.
- (3): The specific injury payment equals the SAWW multiplied by a number, according to the injury, for scheduled injuries, and equals the SAWW x 32, for non-scheduled injuries. The multipliers do not change year by year, so the effect on specific injuries equals the change in the SAWW.
- (5): From Exhibit 4, Page 1.
- (7), (8), (9): DCI for Permanent Partial Claims in Massachusetts.

Determination of the Average Weekly Benefit

Effective: 10/01/2007

- (1) Class of Injury
- (2) Nominal Rate of Compensation Based on Gross Wages
- (3) Min Weekly Compensation
- (4) Max Weekly Compensation
- (5) Average Injured Worker Weekly Wage for 12 months starting 10/01/2008

Permanent Partial Wage Loss  
0.3720  
0.00  
671.00  
894.66

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			Workers (9)	Wages (10)		
0.00 - 1,803.76	Wage times compensation rate	0.00 - 2.00	96.9125	92.4774	853.72	317.58
1,803.76 - 5,442.72	Statutory Maximum	2.00 - 6.10	3.0501	7.2918	2,138.84	671.00
5,442.72 - over	Statutory Limitation	6.10 - over	0.0374	0.2308	5,521.85	0.00

(13) Average Weekly Benefit

328.24

Effective: 10/01/2008

- (14) Class of Injury
- (15) Nominal Rate of Compensation Based on Gross Wages
- (16) Min Weekly Compensation
- (17) Max Weekly Compensation
- (18) Average Injured Worker Weekly Wage for 12 months starting 10/01/2008

Permanent Partial Wage Loss  
0.3720  
0.00  
801.70  
894.66

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			Workers (22)	Wages (23)		
0.00 - 2,155.11	Wage times compensation rate	0.00 - 2.40	99.1195	97.2019	877.36	326.38
2,155.11 - 5,625.98	Statutory Maximum	2.40 - 6.30	0.8463	2.5871	2,734.96	801.70
5,625.98 - over	Statutory Limitation	6.30 - over	0.0342	0.2110	5,519.43	0.00

(26) Average Weekly Benefit

330.29

Notes:

- (7), (20): Statutory Limitation: Insurer may reduce benefit to level at which benefits + earnings = 2 x SAWW.
- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

Determination of the Average Weekly Benefit

Effective: 10/01/2007

(1)	Class of Injury									Temporary Total
(2)	Nominal Rate of Compensation Based on Gross Wages									0.6000
(3)	Min Weekly Compensation									206.82
(4)	Max Weekly Compensation									1034.12
(5)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008									894.66

Wage Intervals (6)	Benefit (7)	= (6) / Average Wage (8)	Percentage in Interval Workers		Avg. Wage in Interval = (10) / (9) x AIWW (11)	Avg. Benefit in Interval (12)
			(9)	Wages (10)		
0.00 - 206.82	Actual Wage	0.00 - 0.25	2.2314	0.4323	173.33	173.33
206.82 - 344.70	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	295.64	206.82
344.70 - 1,723.53	Wage times compensation rate	0.40 - 1.95	89.3889	89.1884	892.66	535.59
1,723.53 - over	Statutory Maximum	1.95 - over	3.7618	8.8533	2,105.57	1034.12

(13) Average Weekly Benefit 531.08

Effective: 10/01/2008

(14)	Class of Injury									Temporary Total
(15)	Nominal Rate of Compensation Based on Gross Wages									0.6000
(16)	Min Weekly Compensation									213.79
(17)	Max Weekly Compensation									1068.94
(18)	Average Injured Worker Weekly Wage for 12 months starting 10/01/2008									894.66

Wage Intervals (19)	Benefit (20)	= (19) / Average Wage (21)	Percentage in Interval Workers		Avg. Wage in Interval = (23) / (22) x AIWW (24)	Avg. Benefit in Interval (25)
			(22)	Wages (23)		
0.00 - 213.79	Actual Wage	0.00 - 0.25	2.2314	0.4323	173.33	173.33
213.79 - 356.32	Statutory Minimum	0.25 - 0.40	4.6179	1.5260	295.64	213.79
356.32 - 1,781.56	Wage times compensation rate	0.40 - 2.00	90.0632	90.5191	899.19	539.52
1,781.56 - over	Statutory Maximum	2.00 - over	3.0875	7.5226	2,179.82	1068.94

(26) Average Weekly Benefit 532.65

(27) Temporary Total Benefit Change Factor = (26) / (13) 1.003

Notes:

- (8), (21): Rounded to nearest 0.05.
- (9), (22): From (2) in Section IV - G, Exhibit 1.
- (10), (23): From (3) in Section IV - G, Exhibit 1.
- (13), (26): Weighted Average of (12) on (9) and (25) on (22), respectively.

# IV 000053 R

Section IV- Benefit Change Adjustments  
 Subsection F - Provisions of the Law  
 9/1/2007

Section IV-F  
 Exhibit 1

## Summary of Principal Benefit Changes Due to the Increase in the Maximum and Minimum Weekly Benefits

	10/01/2004	10/01/2005
<b>(1) Fatal</b>		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit		
Widow/Orphan	\$110.00 / \$918.78	\$110.00 / \$958.58
Others	\$0.00 / \$80.00	\$0.00 / \$80.00
Each Additional Child		\$6.00, if benefit under \$150.00
Maximum Aggregate Payable		250 x SAWW
Burial Allowance		\$4,000
Cost of Living Adjustment - benefits increase annually by:		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
<b>(2) Total Disability</b>		
Permanent Total		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit	\$183.76 / \$918.78	\$191.72 / \$958.58
Duration		Lifetime
Cost of Living Adjustment - benefits increase annually by:		Same as Fatal
Temporary Total		
% Rate of Compensation		60 %
Minimum/Maximum Weekly Benefit	\$183.76 / \$918.78	\$191.72 / \$958.58
Waiting Period/Retroactive After		5 days/21 days
<b>(3) Permanent Partial Disability</b>		
% Rate of Compensation		60 % of lost wage-earning capacity
Minimum Weekly Benefit	\$0.00	\$0.00
Maximum Weekly Benefit		75% of total incapacity benefit
<b>(4) Specific Injury Payments</b>		
Scheduled Injuries		
		According to the injury, a scheduled number multiplied by the SAWW
Non-Scheduled Injuries		
		SAWW multiplied by 32
Disfigurement		
Maximum Benefit		\$15,000
Benefit		As determined by the reviewing board

**Notes:**

- (1), (2): Maximum Weekly Benefit for Fatalities and Total Disabilities is 100% of the State Average Weekly Wage.
- (2): Minimum Weekly Benefit for Total Disability is 20% of the SAWW.



# IV 000054 R

Section IV- Benefit Change Adjustments  
 Subsection F - Provisions of the Law  
 9/1/2007

Section IV-F  
 Exhibit 2

## Summary of Principal Benefit Changes Due to the Increase in the Maximum and Minimum Weekly Benefits

	10/01/2005	10/01/2006
<b>(1) Fatal</b>		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit		
Widow/Orphan	\$110.00 / \$958.58	\$110.00 / \$1000.43
Others	\$0.00 / \$80.00	\$0.00 / \$80.00
Each Additional Child		\$6.00, if benefit under \$150.00
Maximum Aggregate Payable		250 x SAWW
Burial Allowance		\$4,000
Cost of Living Adjustment - benefits increase annually by:		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
<b>(2) Total Disability</b>		
Permanent Total		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit	\$191.72 / \$958.58	\$200.09 / \$1000.43
Duration		Lifetime
Cost of Living Adjustment - benefits increase annually by:		Same as Fatal
Temporary Total		
% Rate of Compensation		60 %
Minimum/Maximum Weekly Benefit	\$191.72 / \$958.58	\$200.09 / \$1000.43
Waiting Period/Retroactive After		5 days/21 days
<b>(3) Permanent Partial Disability</b>		
% Rate of Compensation		60 % of lost wage-earning capacity
Minimum Weekly Benefit	\$0.00	\$0.00
Maximum Weekly Benefit		75% of total incapacity benefit
<b>(4) Specific Injury Payments</b>		
Scheduled Injuries		
		According to the injury, a scheduled number multiplied by the SAWW
Non-Scheduled Injuries		
		SAWW multiplied by 32
Disfigurement		
Maximum Benefit		\$15,000
Benefit		As determined by the reviewing board

**Notes:**

- (1), (2): Maximum Weekly Benefit for Fatalities and Total Disabilities is 100% of the State Average Weekly Wage.
- (2): Minimum Weekly Benefit for Total Disability is 20% of the SAWW.

## IV 00055 R

Section IV- Benefit Change Adjustments  
 Subsection F - Provisions of the Law  
 9/1/2007

Section IV-F  
 Exhibit 3

### Summary of Principal Benefit Changes Due to the Increase in the Maximum and Minimum Weekly Benefits

	10/01/2006	10/01/2007
(1) Fatal		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit		
Widow/Orphan	\$110.00 / \$1000.43	\$110.00 / \$1034.12
Others	\$0.00 / \$80.00	\$0.00 / \$80.00
Each Additional Child		\$6.00, if benefit under \$150.00
Maximum Aggregate Payable		250 x SAWW
Burial Allowance		\$4,000
Cost of Living Adjustment - benefits increase annually by:		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
(2) Total Disability		
Permanent Total		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit	\$200.09 / \$1000.43	\$206.82 / \$1034.12
Duration		Lifetime
Cost of Living Adjustment - benefits increase annually by:		Same as Fatal
Temporary Total		
% Rate of Compensation		60 %
Minimum/Maximum Weekly Benefit	\$200.09 / \$1000.43	\$206.82 / \$1034.12
Waiting Period/Retroactive After		5 days/21 days
(3) Permanent Partial Disability		
% Rate of Compensation		60 % of lost wage-earning capacity
Minimum Weekly Benefit	\$0.00	\$0.00
Maximum Weekly Benefit		75% of total incapacity benefit
(4) Specific Injury Payments		
Scheduled Injuries		According to the injury, a scheduled number multiplied by the SAWW
Non-Scheduled Injuries		SAWW multiplied by 32
Disfigurement		
Maximum Benefit		\$15,000
Benefit		As determined by the reviewing board

**Notes:**

- (1), (2): Maximum Weekly Benefit for Fatalities and Total Disabilities is 100% of the State Average Weekly Wage.  
 (2): Minimum Weekly Benefit for Total Disability is 20% of the SAWW.

# IV 000056 R

Section IV- Benefit Change Adjustments  
 Subsection F - Provisions of the Law  
 9/1/2007

Section IV-F  
 Exhibit 4

## Summary of Principal Benefit Changes Due to the Increase in the Maximum and Minimum Weekly Benefits

	10/01/2007	10/01/2008
<b>(1) Fatal</b>		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit		
Widow/Orphan	\$110.00 / \$1034.12	\$110.00 / \$1068.94
Others	\$0.00 / \$80.00	\$0.00 / \$80.00
Each Additional Child		\$6.00, if benefit under \$150.00
Maximum Aggregate Payable		250 x SAWW
Burial Allowance		\$4,000
Cost of Living Adjustment - benefits increase annually by:		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
<b>(2) Total Disability</b>		
Permanent Total		
% Rate of Compensation		66 2/3 %
Minimum/Maximum Weekly Benefit	\$206.82 / \$1034.12	\$213.79 / \$1068.94
Duration		Lifetime
Cost of Living Adjustment - benefits increase annually by:		Same as Fatal
Temporary Total		
% Rate of Compensation		60 %
Minimum/Maximum Weekly Benefit	\$206.82 / \$1034.12	\$213.79 / \$1068.94
Waiting Period/Retroactive After		5 days/21 days
<b>(3) Permanent Partial Disability</b>		
% Rate of Compensation		60 % of lost wage-earning capacity
Minimum Weekly Benefit	\$0.00	\$0.00
Maximum Weekly Benefit		75% of total incapacity benefit
<b>(4) Specific Injury Payments</b>		
Scheduled Injuries		
		According to the injury, a scheduled number multiplied by the SAWW
Non-Scheduled Injuries		
		SAWW multiplied by 32
Disfigurement		
Maximum Benefit		\$15,000
Benefit		As determined by the reviewing board

**Notes:**

- (1), (2): Maximum Weekly Benefit for Fatalities and Total Disabilities is 100% of the State Average Weekly Wage.
- (2): Minimum Weekly Benefit for Total Disability is 20% of the SAWW.

# IV 00057 R

Section IV - Benefit Change Adjustments  
 Subsection G - Massachusetts Inputs and Backup Data for Oct. 1 Evaluations  
 9/1/2007

Section IV-G  
 Exhibit 1

Massachusetts Standard Wage Distribution Table

- R = 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:  
 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 00058 R

Section IV - Benefit Change Adjustments  
 Subsection G - Massachusetts Inputs and Backup Data for Oct. 1 Evaluations  
 9/1/2007

Section IV-G  
 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	153	1	38
1 Child		1	11
Spouse	166	1	38
2 Children		2	10
Spouse	63	1	37
3 Children		3	10
Spouse	18	1	37
4 Children		4	10
Spouse	5	1	37
5 Children		5	10
Spouse	2	1	38
More than 5 Children		7	10
Spouse	407	1	38
with children		2	10
Orphan	21	1	13
2 Children	10	2	12
3 Children	3	3	12
4 Children	1	4	12
More than 4 Children	1	5	12
Orphans	15	3	12
No spouse			
1 Parent	41	1	62
2 Parents	91	2	58
Sibling	7	1	37
Other	2	2	31
Other Dependents	141	1.7	58

**Notes:**

(2): Dependent count includes working adult household members standardized to a total of 1,000 cases.

Source: NCCI, CPS data, 1989-1993, reweighted using DCI Data for Fatalities, 1984-1993.

## IV 00059 R

Section IV - Benefit Change Adjustments  
 Subsection G - Massachusetts Inputs and Backup Data for Oct. 1 Evaluations  
 9/1/2007

Section IV- G  
 Exhibit 3

### Derivation of AIWW (Average Injured Worker Wage)

SAWW Promulgation Date (1)	AIWW Average Date (2)	Based on Data (3)	AIWW (4)	Calculation (5)
10/1/2005	4/1/2006	10/1/2005 - 10/1/2006	810.05	= .827 x {(958.58 + 1000.43) / 2}
10/1/2006	4/1/2007	10/1/2006 - 10/1/2007	837.33	= 810.05 x 1.034
10/1/2007	4/1/2008	10/1/2007 - 10/1/2008	865.52	= 837.33 x 1.034
10/1/2008	4/1/2009	10/1/2008 - 10/1/2009	894.66	= 865.52 x 1.034

**Notes:**

- (4): Historical Relationship of .827 for the ratio of AIWW to SAWW is selected based on DCI data.  
 4/1/96: SAWW = 648.29, AIWW = 536.40  
 4/1/94: SAWW = 594.85, AIWW = 492.23  
 4/1/93: SAWW = 575.80, AIWW = 479.68
- (5): 3.4% Payroll Trend from Section V - A.

## IV 000060 R

Section IV - Benefit Change Adjustments  
Subsection G - Massachusetts Inputs and Backup Data for Oct. 1 Evaluations  
9/1/2007

Section IV-G  
Exhibit 4

### Derivation of Estimated SAWW (Statewide Average Weekly Wage)

SAWW Promulgated Date (1)	Based on Data (2)	Midpoint of the Data (3)	SAWW (4)	Calculation (5)
10/1/2004	4/1/03 to 4/1/04	10/1/2003	918.78	= as promulgated
10/1/2005	4/1/04 to 4/1/05	10/1/2004	958.58	= as promulgated
10/1/2006	4/1/05 to 4/1/06	10/1/2005	1000.43	= as promulgated
10/1/2007	4/1/06 to 4/1/07	10/1/2006	1034.12	= 1000.43 x 1.034
10/1/2008	4/1/07 to 4/1/08	10/1/2007	1068.94	= 1034.12 x 1.034

Notes:

(5): 3.4% Payroll Trend from Section V - A.

## IV 000061 R

Section IV - Benefit Change Adjustments  
 Subsection G - Massachusetts Inputs and Backup Data for Oct. 1 Evaluations  
 9/1/2007

Section IV-G  
 Exhibit 5  
 Page 1

### Average Wage Loss for Major Permanent Partial Claimants

Report	Accident Year Weekly Benefits/ Pre-Injury Wage					Average
	1979 (1)	1980 (2)	1981 (3)	1982 (4)	1983 (5)	
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 weekly benefit/ pre-injury wage						0.62

**Notes:**

(6): 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.

Source: Detail Claim Call, compiled as of 10/1/85. Report 1 is valued six months after injury date. Report 2 is valued eighteen months after injury date, and includes any claim with activity after report 1. Report 3 is valued thirty months after injury date and includes any claim with activity after report 2. Report 4 is valued forty-two months after injury date and includes any claim with activity after report 3.



**IV 000062 R**

Section IV - Benefit Change Adjustments  
 Subsection G - Massachusetts Inputs and Backup Data for Oct. 1 Evaluations  
 9/1/2007

Section IV- G  
 Exhibit 5  
 Page 2

Average Wage Loss for Minor Permanent Partial Claimants

Report	Accident Year Weekly Benefits/ Pre-Injury Wage					Average
	1979 (1)	1980 (2)	1981 (3)	1982 (4)	1983 (5)	
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
(6) Selected average weekly benefit/ pre-injury wage						0.62

Notes:

(6): 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.

Source: Detail Claim Call, compiled as of 10/1/85. Report 1 is valued six months after injury date. Report 2 is valued eighteen months after injury date, and includes any claim with activity after report 1. Report 3 is valued thirty months after injury date and includes any claim with activity after report 2. Report 4 is valued forty-two months after injury date and includes any claim with activity after report 3.

## IV 00063 R

Section IV - Benefit Change Adjustments  
Subsection H - Medical Fee Schedules  
9/1/2007

Section IV-H  
Exhibit 1

### Impact of Revised Medical Fee Schedule

Date of Change in Medical Fee Schedule (1)	Impact on Medical Losses (2)
9/1/2000	3.1%
12/1/2002	5.2%
9/1/2004	1.4%

Notes:

- (2) 9/1/2000 from the filing for 9/1/01 rates.
- 12/1/2002 from the filing for 9/1/03 rates.
- 9/1/2004 from the filing for 9/1/05 rates.

Post-Chapter 398 Injury Type Weights  
 Indemnity

Injury Type (1)	Composite Policy Year (2)	Losses at Fifth Report (3)	On-Level Factor to 10/1/2004 (4)	On-level Losses at Fifth Report = (3) x (4) (5)	Weights at 5th report (6)	Development Factors 5th to Ultimate (7)	Losses at Ultimate Used in Weights = (5) x (7) (8)	Weights at Ultimate (9)
1	1995/1996	8,577,272	1.151	9,868,160		1.116	11,010,360	
	1996/1997	9,196,824	1.132	10,407,553		1.116	11,612,186	
	1997/1998	7,664,599	1.111	8,512,670		1.116	9,497,978	
	1998/1999	7,923,459	1.087	8,616,421	1.65%	1.116	9,613,738	1.66%
	1999/2000	6,419,123	1.055	6,770,797		1.116	7,554,490	
2	1995/1996	19,285,444	1.107	21,352,530		1.116	23,824,001	
	1996/1997	12,060,688	1.097	13,228,560		1.116	14,759,713	
	1997/1998	18,309,629	1.085	19,865,333		1.116	22,164,666	
	1998/1999	17,791,806	1.072	19,071,618	3.14%	1.116	21,279,082	3.15%
	1999/2000	9,908,772	1.053	10,437,095		1.116	11,645,147	
3	1995/1996	154,565,703	1.174	181,528,743		1.116	202,539,977	
	1996/1997	143,478,238	1.157	166,016,053		1.116	185,231,754	
	1997/1998	157,152,969	1.137	178,745,048		1.116	199,434,080	
	1998/1999	165,619,464	1.117	185,079,216	35.04%	1.116	206,501,402	35.12%
	1999/2000	206,232,895	1.090	224,804,355		1.116	250,824,569	
4	1995/1996	16,460,292	1.262	20,771,213		1.000	20,771,213	
	1996/1997	16,660,283	1.230	20,486,681		1.000	20,486,681	
	1997/1998	29,725,173	1.195	35,512,599		1.000	35,512,599	
	1998/1999	26,189,095	1.158	30,338,923	5.23%	1.000	30,338,923	4.70%
	1999/2000	29,496,367	1.109	32,719,619		1.000	32,719,619	
5	1995/1996	97,812,881	1.059	103,548,335		1.000	103,548,335	
	1996/1997	93,066,961	1.053	97,985,383		1.000	97,985,383	
	1997/1998	107,643,161	1.046	112,582,589		1.000	112,582,589	
	1998/1999	111,692,674	1.039	116,050,831	20.28%	1.000	116,050,831	18.22%
	1999/2000	108,553,026	1.029	111,684,117		1.000	111,684,117	
					(10) Total Indemnity			65.35%
								62.84%

Notes:

- (3): From Schedule Z Data, 2006 Review, Excluding Large Deductibles.
- (4): Calculated using parallelogram method. Factors from Section IV-A, Exhibit 5.
- (6): Total Losses at Fifth Report for Injury Type divided by Total Losses at Fifth Report.
- (7): From Exhibit 3.
- (9): Total Losses at Ultimate for Injury Type divided by Total Losses at Ultimate.

IV 00065 R

Section IV - I  
Exhibit 2

Section IV - Benefit Change Adjustments  
Subsection I - Injury Type Weights  
9/1/2007

Post-Chapter 398 Injury Type Weights  
Medical

Injury Type (1)	Composite Policy Year (2)	Losses at Fifth Report (3)	On-Level Factor to 10/1/2004 (4)	On-level Losses at Fifth Report = (3) x (4) (5)	Weights at 5th (6)	Development Factors 5th to Ultimate (7)	Losses at Ultimate Used in Weights = (5) x (7) (8)	Weights at Ultimate (9)
1	1995/1996	322,968	1.110	358,461		1.000	358,461	
	1996/1997	81,309	1.100	89,447		1.000	89,447	
	1997/1998	121,392	1.100	133,541		1.000	133,541	
	1998/1999	709,478	1.100	780,485		1.000	780,485	
	1999/2000	371,235	1.088	404,073	0.07%	1.000	404,073	0.06%
2	1995/1996	13,530,726	1.110	15,017,695		1.459	21,907,412	
	1996/1997	5,476,977	1.100	6,025,131		1.459	8,789,300	
	1997/1998	13,457,771	1.100	14,804,669		1.459	21,596,655	
	1998/1999	10,735,935	1.100	11,810,423		1.459	17,228,729	
	1999/2000	21,834,059	1.088	23,765,434	2.67%	1.459	34,668,379	3.50%
3	1995/1996	45,884,713	1.110	50,927,247		1.459	74,291,305	
	1996/1997	48,157,614	1.100	52,977,387		1.459	77,281,994	
	1997/1998	52,996,398	1.100	58,300,452		1.459	85,047,139	
	1998/1999	53,963,775	1.100	59,364,647		1.459	86,599,559	
	1999/2000	89,788,326	1.088	97,730,729	11.95%	1.459	142,566,973	15.66%
4	1995/1996	11,981,350	1.110	13,298,049		1.000	13,298,049	
	1996/1997	11,931,594	1.100	13,125,747		1.000	13,125,747	
	1997/1998	18,924,312	1.100	20,818,320		1.000	20,818,320	
	1998/1999	17,736,460	1.100	19,511,583		1.000	19,511,583	
	1999/2000	18,936,845	1.088	20,611,941	3.27%	1.000	20,611,941	2.94%
5	1995/1996	52,522,749	1.110	58,294,775		1.000	58,294,775	
	1996/1997	53,809,936	1.100	59,195,412		1.000	59,195,412	
	1997/1998	57,342,292	1.100	63,081,298		1.000	63,081,298	
	1998/1999	64,683,072	1.100	71,156,767		1.000	71,156,767	
	1999/2000	60,507,679	1.088	65,860,005	11.89%	1.000	65,860,005	10.68%
6	1995/1996	20,372,229	1.110	22,611,050		1.000	22,611,050	
	1996/1997	21,397,388	1.100	23,538,909		1.000	23,538,909	
	1997/1998	23,780,684	1.100	26,160,733		1.000	26,160,733	
	1998/1999	24,616,308	1.100	27,079,989		1.000	27,079,989	
	1999/2000	26,761,590	1.088	29,128,839	4.81%	1.000	29,128,839	4.32%
				(10) Total Medical	34.65%			37.16%
				(11) Medical Only fraction of total medical	13.88%			11.63%

Notes:

- (3): From Schedule Z Data, 2006 Review, Excluding Large Deductibles.
- (4): Calculated using parallelogram method. Factors from Section IV-A, Exhibit 5.
- (6): Total Losses at Fifth Report for Injury Type divided by Total Losses at Fifth Report.
- (7): From Exhibit 3.
- (9): Total Losses at Ultimate for Injury Type divided by Total Losses at Ultimate.

Injury Type Weights  
 Using Paid Losses and Case Reserves at Fifth Report  
 Excluding Large Deductibles  
 Indemnity

Policy Year (1)	Injury Type 1 Fatal (2)	Injury Type 2 Permanent Total (3)	Injury Type 3 Major Partial Disability (4)	Injury Type 4 Minor Partial Disability (5)	Injury Type 5 Temporary Total (6)	Ratio of Serious Losses to Total Losses (7)
1995/1996	8,577,272	19,285,444	154,565,703	16,460,292	97,812,881	61.5%
1996/1997	9,196,824	12,060,688	143,478,238	16,660,283	93,066,961	60.0%
1997/1998	7,664,599	18,309,629	157,152,969	29,725,173	107,643,161	57.1%
1998/1999	7,923,459	17,791,806	165,619,464	26,189,095	111,692,674	58.1%
1999/2000	6,419,123	9,908,772	206,232,895	29,496,367	108,553,026	61.7%

- (8) Serious Losses (Injury Types 1, 2, and 3) divided by Total Losses
- (9) Financial Aggregate Indemnity Policy Year Fifth to Ultimate Development Factor
- (10) Schedule Z Serious Indemnity Fifth to Ultimate Development Factor

Medical

Policy Year (11)	Injury Type 1 Fatal (12)	Injury Type 2 Permanent Total (13)	Injury Type 3 Major Partial Disability (14)	Injury Type 4 Minor Partial Disability (15)	Injury Type 5 Temporary Total (16)	Injury Type 6 Medical Only (17)	Ratio of PTs and Major Permanent Partial Losses to Total Losses (18)
1995/1996	322,968	13,530,726	45,884,713	11,981,350	52,522,749	20,372,229	41.1%
1996/1997	81,309	5,476,977	48,157,614	11,931,594	53,809,936	21,397,388	38.1%
1997/1998	121,392	13,457,771	52,996,398	18,924,312	57,342,292	23,780,684	39.9%
1998/1999	709,478	10,735,935	53,963,775	17,736,460	64,683,072	24,616,308	37.5%
1999/2000	371,235	21,834,059	89,788,326	18,936,845	60,507,679	26,761,590	51.2%

- (19) Injury Type 2 and 3 Losses divided by Total Losses
- (20) Financial Aggregate Medical Policy Year Fifth to Ultimate Development Factor
- (21) Schedule Z Injury Types 2 and 3 Medical Fifth to Ultimate Development Factor

Notes:

- (2) - (6): From Schedule Z Data, 2006 Review, Excluding Large Deductibles.
- (9): From Section II - B, Exhibit 1 and Section II - C, Exhibit 2, Page 1.
- (10):  $1.000 + \frac{[(9) - 1.000]}{(8)}$
- (12) - (17): From Schedule Z Data, 2004 Review, Excluding Large Deductibles.
- (20): From Section II - B, Exhibit 2, Page 2 and Section II - C, Exhibit 2, Page 1.
- (21):  $1.000 + \frac{[(20) - 1.000]}{(19)}$

**NET TREND****The Role of Trend**

The rate level indication in this filing is based on recent historical Massachusetts premium and loss data. Because the filing develops rates for a future period, beginning with policies issued 9/1/07, 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 2003 and 2004) to September 1, 2008, the midpoint of the policy period for which we are setting rates. The trend factors reflect movements in the frequency of claims, the average cost of claims (often called “severity”) and payroll levels (which in turn drive the amount of premium collected). Trend factors exclude certain otherwise-quantifiable changes over time such as benefit changes and on-level factors for historical rate changes, which are quantified and included elsewhere in the filing.

**WCRIB 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 WCRIB has uses net trend

factors of -2.5% per year for indemnity losses, and +1.3% per year for medical losses. The indicated trend factors and their key components are summarized on Section V-A Exhibit 1.

Indemnity Net Trend	-2.5%
Medical Net Trend	1.3%

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 ranging from 6% to 10% for indemnity and medical benefits. We are projecting downward movement in claim frequency per worker week, at a pace of 5% annually for lost time claims and approximately 4% for medical only claims. Finally, we are projecting an increase of 3.4% annually in average wages.

Trend	Indemnity	Medical
Severity	6.2%	9.6%
Frequency	-5.1%	-4.8%
AWW	3.4%	
Net	-2.5%	1.3%

The annual net trends we use in this filing reflect our expectations about the extent to which growth in the cost of claims will be offset by declining claim frequencies and the natural growth of premium due to wage inflation.

**General Methodology**

The WCRIB 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.

We have used the same method that we introduced in the 2005 filing. This method was developed in response to the criticisms of the trend method used in the WCRIB's 2003 filing. The WCRIB has not used econometric models to calculate the net trend. We continue to believe that such models may, one day, be the preferred basis for projecting future Massachusetts workers' compensation trends, and we intend to continue our research in this area. In the meantime, we have continued to rely on a model that – although not capable of projecting turning points in claim frequency, claim severity or wage trends – will be well-behaved, unbiased and effective in estimating overall trends, from one year to the next. Accordingly, we believe that our proposed methodology both produces a result that should be accepted for rate-setting this year and provides a precedent that should be accepted by the Commissioner for use in the future.

For each component (claim severity, frequency and wage trend), our primary method of measuring historical trends is an exponential least squares regression fit to the most recent five years of Massachusetts Unit Statistical Plan data. The results of these regressions indicate an annual rate of change for the component data analyzed in the regression. Second, we tested the credibility or reliability of these indicated trends based on the degree of consistency between the historical data and the fitted exponential curve. Using a methodology from the actuarial literature,<sup>1</sup> we 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

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<sup>1</sup> Venter, Gary, "Classical Partial Credibility with Application to Trend," *PCAS LXXIII*, 1986, pp. 27-51.



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the extent that this credibility test suggested that the indicated trend from the five year data should be given less than 100% weight, we complemented the five year indication with an indicated trend from a longer or broader data base. 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 indication. The five year trend indications, the credibilities assigned to those indications, and the complementary trend indications are summarized in Exhibits 1 through 3 of Section V-A for claim cost and claim frequency, and in Exhibit 4 of Section V-A for average weekly wage.

	Empirical Trend	Credibility	Complement of Credibility	Selected Trend
<b>SEVERITY</b>				
Indemnity	0.3%	29%	8.6%	6.2%
Medical on Lost Time	3.4%	25%	13.0%	10.6%
Medical Only	7.6%	100%	11.8%	7.6%
<b>FREQUENCY</b>				
Lost Time Claims	-6.2%	21%	-4.9%	-5.1%
Medical Only	-7.0%	30%	-3.0%	-4.2%
Average Weekly Wage	3.4%	100%	4.8%	3.4%

The WCRIB 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 directions, rates and stability of movement of the various components, it is our view that

analyzing them separately provides better insights into the drivers of net trend, and gives us better ability to evaluate the credibility of the indicated trend factors.

Any trending method that relies on fitting linear or exponential curves to the historical data as a basis for quantifying and projecting trend rates – whether that method is applied to cost components or to final loss ratios – will, by its nature, not only fail to predict turning points, but also respond relatively slowly to turning points as they first emerge in the experience. The ideal trending method would be able to forecast the timing and degree of turning points. However, discussions in prior hearings, and in other venues, reveal the difficulty of forecasting the timing and degree of turning points for any economic or social phenomenon. The methodology used by the WCRIB will not actually predict turning points, and the WCRIB is not using final trend factors that anticipate turning points for claim frequency or any of the other components. By blending indications from short term and long term movements, as in the case of frequency and wages, or state-specific and nationwide trends, as in severity, however, the WCRIB has introduced a method that we believe provides a reasonable balance between stability and responsiveness. Further, if used consistently over time, we believe this methodology would avoid some of the wide swings in trend and rate indications that could result from the application of significantly different judgments (about turning points, for example) from one year to the next. In short, the WCRIB believes that the trend methodology presented in this filing not only provides an appropriate and reasonable basis for selecting trend factors in the current context, but

also represents a methodology that we anticipate will produce reasonable results in future years.

We recommend that the Commissioner accept the WCRIB's net trend factors in this filing, and that the Commissioner endorse the WCRIB's methodology so that the parties can narrow the range of issues addressed in subsequent hearings.

**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 five years of Massachusetts data (row 1), applying the credibility parameter that is based on how well the trend fits the data (row 2), and applying the complement of the credibility to the trend indications that are based on broader or longer data series (row 3). The claim severity trend and the claim frequency trend are then combined to produce loss trends (row 8). The medical trends for lost time claims and medical only claims are weighted together, based on relative volume of claim dollars, 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, respectively, 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 an exponential fit to the most recent five years of Massachusetts data that are displayed; this exponential fit produces fitted values for

each year, 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, using a procedure documented in the Venter paper, these exhibits document the calculation of the credibility associated with the fitted annual trend rate. This procedure requires defining the parameters of a confidence interval. The WCRIB judgmentally selected parameters such that we seek to achieve at least a 90% probability that the trend observed in the future 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 latest five year trend indications, while a lower required degree of confidence (probability) or higher tolerance for error would increase the credibility assigned to the latest five year trend indications. Based on our review of Venter's paper, judgment, and sensitivity testing, we selected 90% and 6% as reasonable parameters to use in the credibility calculation.

The specific steps and calculations that implement Venter's procedure to calculate the credibility assigned to the five year Massachusetts trend (row (1)) are detailed in Exhibits 2 and 3 of Section V-A, in the formula rows numbered (3) through (11). 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 five years ( $n=5$ ) of Massachusetts data, and  $n-2$  is an adjustment for degrees of freedom. Row (4), denoted "t," is the 95<sup>th</sup> percentile of the t-distribution with  $n-2=3$  degrees of freedom. We use the 95<sup>th</sup> 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 five-year fitted value; therefore, the credibility procedure assigns 100% to the indicated five-year trend. If the ratio in (9) is greater than the selected error tolerance, then the credibility assigned to the five-year trend must be less than 100%. Specifically, it is calculated in line (10) as the ratio of the selected error tolerance, divided by the calculated confidence interval.

To the extent that the credibility assigned to the fitted trend based on five years of Massachusetts data is less than 100%, the balance of the credibility is assigned to a longer term Massachusetts trend (frequency; average weekly wage) or countrywide trend (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 five-year 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 WCRIB 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 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 wage, 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 Massachusetts five-year frequency and average weekly wage trends. We judgmentally selected fifteen years of data to calculate the long-term Massachusetts trends primarily because we were concerned that data older than fifteen years could not easily be placed on a consistent level with the more recent data.

Finally, Section V-A Exhibits 2 and 3 lines (11) calculate the credibility-weighted annual trend, which is:

Credibility-weighted annual trend =

$$\begin{aligned} & [\text{credibility, } Z] \times [\text{indicated annual trend based on 5-year Mass data}] \\ & + [1.0 \text{ minus } Z] \times [\text{indicated annual trend based on complementary data}] \end{aligned}$$

These various components of the final net trend calculation are shown graphically on Exhibits 4 through 9 of Section V-A, and are brought forward to Exhibit 1.

### **Data Used in the WCRIB Trend Analysis**

For the trend analysis in this year's filing, the WCRIB has used Unit Statistical data, as we did in our last filing. The WCRIB 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 data are reported on a policy-by-policy basis and in individual claim detail (except for the smallest claims, which may be reported in a batch for an individual employer and policy period).

The Unit Statistical data used in the trend analysis has been compiled on a "composite policy year" basis. Composite policy year 1999/2000, for example, includes all policies with inception dates between July 1, 1999 and June 30, 2000. The average policy of this composite policy has an inception date of January 1, 2000 and the average accident date is June 30, 2000.

Unit Statistical data include coding that designates the "injury kind" 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 data also report medical loss dollars separately from indemnity loss dollars, and we have preserved this separation in the data entering our analysis.

The Unit Statistical data for a particular policy are first reported to the Bureau eighteen months after policy inception (i.e., six months after a twelve month policy expires), and then each policy is reported again at successive twelve month intervals, 30, 42, 54, and 66 months after policy inception. (The Unit Statistical 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 the composite policy years at various maturities, which in turn enables us to compile loss development histories that allow us to select and apply development patterns to develop the most recent, least mature composite policy years to the same fifth report maturity as the older, more mature composite policy years.

Unit Statistical data are collected and compiled systematically out to fifth report. For purposes of the trend analysis, we have used all composite policy years developed to fifth report. While we could have used other data sources to derive development factors from fifth report to ultimate, we expect that we would have applied the same fifth-to-ultimate development factor to all composite 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 leave all the composite policy years at fifth 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 fifth 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 fifth 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 fifth report basis. We have developed indemnity losses separately from medical, and medical only losses separately from lost time medical. In all cases we have used the two most recent years of data to calculate the development factors.

For purposes of the trend calculations, we have only developed the claim counts and loss dollars to fifth report, not to ultimate, because the unit statistical plan data for some of the years included in our analysis do not provide information to estimate tail factors beyond fifth report. If we were to estimate a loss development factor from fifth report to ultimate, it would be the same (or similar) for all policy years, and would not affect the calculated annual trends in claim frequency or claim severity.

After the losses and claim counts are developed to fifth report, as described above, Sections V-B, C and 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.

**Section V-B – Massachusetts Claim Frequency**

The historical claim frequencies derived in Section V-B for each year are derived as the ratio of:

- (a) the reported claim counts as of the most recent unit statistical plan compilation, developed to fifth 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. We have only developed the claim counts to fifth report, not to ultimate, because the unit statistical plan data does not provide information to estimate tail factors beyond fifth report. If we were to estimate a loss development factor from fifth report to ultimate, it would be similar for all policy years, and not significantly affect the calculated annual trends in claim frequency.

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 employments in Massachusetts, since our objective is to estimate the level of premiums that would be adequate for the current mixture of classes (any future shifts in the mix of employments would be adjusted for automatically in the premium base because these shifts would move payroll to lower-rated or higher-

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 the 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 compilation, developed to fifth report, and adjusted to current benefit levels, divided by
- (b) reported claim counts as of the most recent unit statistical plan compilation, developed to fifth report.

The Unit Statistical data, as reported, reflects the statutory benefit provisions that applied to each individual claim. Thus, claims from the 1999/2000 composite policy year were handled and are reported based on the benefits in effect at that time. Similarly, claims from the 2003/2004 composite policy year were handled and reported based on the benefits in effect at that time. The changes in benefit statutes over time would contribute to a trend in the average claim cost data; 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 data are used in our trend analysis, the losses all are adjusted to a common current 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 five year fitted Massachusetts trends.

**Section V-E – Payroll Development and Worker-Weeks**

Section V-E documents the estimation of worker weeks that underlie the unit statistical plan data for each year. 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 state 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 compilation, developed to fifth report, divided by
- (b) the state average weekly wage corresponding to the same period.

For purposes of this analysis, we have only developed the payrolls to fifth report, not to ultimate, because the unit statistical plan data for all the years included in our analysis does not provide information to estimate tail factors beyond fifth report. If we were to estimate a payroll development factor from fifth report to ultimate, it would be

similar for all policy years, and would not significantly affect the calculated annual trends in claim frequency.

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, we believe that the overall movement over time in this series should be 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; On-Level Factors**

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* manual rates, weighted by each year's payrolls by classification. For example, using the 2003/2004 distribution of payrolls by classification, the weighted average of the current rates is \$1.37, while using the 1989/1990 distribution of payrolls by classification against the same current rates produces an average rate of \$1.45. Since the manual rate in

each classification is based on the workers' compensation claims experience within that classification, this movement in average rates indicates 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, and 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.

**Net Trend**

	Indemnity			Medical			SAWW
	Severity	Frequency	Lost Time Medical		Medical Only		
			Severity	Frequency	Severity	Frequency	
(1) Trend	0.3%	-6.2%	3.4%	-6.2%	7.6%	-7.0%	3.4%
(2) Credibility	29%	21%	25%	21%	100%	30%	100%
(3) Complement of Credibility	8.6%	-4.9%	13.0%	-4.9%	11.8%	-3.0%	4.8%
(4) Credibility weighted trend	6.2%	-5.1%	10.7%	-5.1%	7.6%	-4.2%	3.4%
(5) Medical Loss Trend	<u>Lost Time Medical</u>			<u>Medical Only</u>			
(6) Fraction of Total	5.0%			3.0%			
(7) Total Medical Trend	88.4%			11.6%			
				4.7%			
(8) Total Loss Trend	<u>Indemnity</u>			<u>Medical</u>			
(9) SAWW Trend	0.7%	3.4%		4.7%	3.4%		
(10) Total Net Trend	<b>-2.5%</b>			<b>1.3%</b>			

- Notes:
- (1),(2),(3) From Section V-A, Exhibits 2,3
  - (4) = (1) x (2) + [ 1.0 - (2) ] x (3)
  - (5) = (1.0 + Credibility Weighted Severity Trend) x (1.0 + Credibility Weighted Frequency Trend) - 1.0
  - (6) = Fraction of Total Medical Losses (for Medical Only). From Section IV-I, Exhibit 2
  - (7) = Weighted Average of (5) using (6) as weights
  - (8) Indemnity = (1.0 + Credibility Weighted Severity Trend) x (1.0 + Credibility Weighted Frequency Trend) - 1.0, Medical from Row (7)
  - (9) From Section V-A, Exhibit 3
  - (10) = [ 1.0 + (8) ] / [ 1.0 + (9) ] - 1.0

Section V - Trend		Severity Trend Calculation										Section V - A Exhibit 2		
Subsection A - Net Trend 9/1/2007		Massachusetts Severity		Indemnity		Difference squared		Lost Time Medical		Massachusetts Severity		Medical Only		
Composite Policy Year	Massachusetts Severity	Indemnity	5 Year Exponential Fit	Difference squared	Massachusetts Severity	Lost Time Medical	5 Year Exponential Fit	Difference squared	Massachusetts Severity	Medical Only	5 Year Exponential Fit	Difference Squared	Medical Only	
1999/2000	15,251	15,928	15,928	459,541	8,242	7,867	7,867	140,492	475	472	9			
2000/2001	16,803	15,980	15,980	677,261	7,867	8,130	8,130	69,383	504	508	15			
2001/2002	16,259	16,032	16,032	51,729	8,252	8,403	8,403	22,695	545	546	0			
2002/2003	16,006	16,084	16,084	6,082	8,251	8,685	8,685	187,900	587	587	0			
2003/2004	15,881	16,136	16,136	65,211	9,490	8,976	8,976	264,140	634	632	4			
(1)	Trend based on Five Year Exponential Fit		Indemnity		Lost Time Medical		Medical Only		Medical Only		Medical Only		Medical Only	
				0.3%				3.4%						7.6%
(2)	s	648.03						477.71						3.10
(3)	t	2.35						2.35						2.35
(4)	m	6.17						6.17						6.17
(5)	$[1+(n+12*m^2/(n^3*n))]^{.5}$	2.24						2.24						2.24
(6)	Confidence Interval	3,414						2,516						16.33
(7)	Projected Severity	16,356						10,300						856
(8)	C/I/Projected Severity	0.21						0.24						0.02
(9)	Z	29%						25%						100%
NCCI Annual Statistical Bulletin Year	Indemnity Severity	CW Indemnity On-Level Factors	Indemnity Severity	On-Level Indemnity Severity	Medical Severity	CW Medical On-Level Factors	Medical Severity	On-Level Medical Severity	Medical Only Severity	CW Medical On-Level Factors	Medical Only Severity	On-Level Medical Severity	Medical Only Severity	
2002	11,950	1,060	12,661	12,707	12,707	1,008	12,809	12,809	478	1,008	482	482	482	
2003	13,824	1,038	14,345	15,334	15,334	1,007	15,441	15,441	533	1,007	537	537	537	
2004	15,433	1,015	15,664	16,251	16,251	1,007	16,357	16,357	572	1,007	576	576	576	
2005	16,893	0.996	16,829	19,113	19,113	1,001	19,124	19,124	696	1,001	696	696	696	
2006	18,217	0.984	17,926	21,843	21,843	0.997	21,782	21,782	759	0.997	757	757	757	
(10)	Complement of Credibility (Annual Countrywide Severity Trend)		8.6%				13.0%				11.8%			
(11)	Credibility weighted percentage change		6.2%				10.7%				7.6%			

Notes

Massachusetts Severity data from Sections V-C and V-D; Countrywide severity data from NCCI.

(1) Trend from five-year exponential fit to Massachusetts severities

(2)  $\sqrt{SSR/(n-2)}$  where SSR is the sum of squared residuals and n is the number of years in the regression.

(3) Value from two-tailed t distribution p of 90% (confidence interval) and 3 degrees of freedom

(4) Number of years between midpoint of data and projected point

(5) n = number of years of data used (five)

(6) Confidence Interval, =  $(2) \times (3) \times (5)$

(7) Severity projected to policy effective period using exponential fit to data

(8) =  $(6) / (7)$

(9) The credibility is the ratio of the target value k to the confidence interval divided by the projected severity, capped at 100%. Numerically,  $(9) = \text{the minimum of } k / (8) \text{ and } 100\%$ .

(10) Trend from five-year exponential fit to on-level countrywide severity

(11) =  $(9) \times (1) + [1.0 - (9)] \times (10)$



Calculation of Frequency and SAWW Trend

Composite Policy Year	Lost Time			Medical Only			Statewide Average Weekly Wage			
	Frequency (claims per million worker-weeks)	5 Year Exponential Fit		Frequency (claims per million worker-weeks)	5 Year Exponential Fit		SAWW	5 year Exponential Fit		
		Difference squared	Difference squared		Difference squared	Difference squared				
1999/2000	337.50	326.25	126.57	825.79	810.07	247.09	882.57	868.41	200	
2000/2001	299.02	306.13	50.57	740.09	753.48	179.36	884.46	897.65	174	
2001/2002	276.59	287.25	113.62	701.14	700.85	0.08	918.78	927.88	83	
2002/2003	272.39	269.54	8.14	636.50	651.89	236.93	958.58	959.12	0	
2003/2004	257.22	252.91	18.55	619.97	606.36	185.27	1,000.43	991.42	81	
(1)	<b>Trend based on Five Year Exponential Fit</b>			<b>-6.2%</b>			<b>-7.0%</b>			<b>3.4%</b>
(2)	s		10.29			16.82			13.40	
(3)	t		2.35			2.35			2.35	
(4)	m		6.17			6.17			4.92	
(5)	$[1+(1/n)+12*m^2/(n^3-n)]^{.5}$		2.24			2.24			1.90	
(6)	Confidence Interval		54.19			88.60			59.99	
(7)	Projected Frequency		193.92			448.24			1,091.95	
(8)	CI/Projected Frequency		0.28			0.20			0.05	
(9)	Z		21%			30%			100%	
(10)	<b>Complement of credibility</b>			<b>-4.9%</b>			<b>-3.0%</b>			<b>4.8%</b>
(11)	<b>Credibility weighted trend</b>			<b>-5.1%</b>			<b>-4.2%</b>			<b>3.4%</b>

Notes

Frequencies are from section V-B, Exhibits 1 and 2, SAWW from Section V-G, Exhibit 2

(1) Trend from five-year exponential fit to Massachusetts claim frequencies, SAWW

(2)  $\sqrt{SSR/(n-2)}$  where SSR is the sum of squared residuals and n is the number of years in the regression.

(3) Value from two-tailed t distribution p of 90% (confidence interval) and 3 degrees of freedom

(4) Number of years between midpoint of data and projected point

(5) n = number of years of data used (five)

(6) Confidence interval, = (2) x (3) x (5)

(7) Frequency, SAWW projected to policy effective period using exponential fit to data

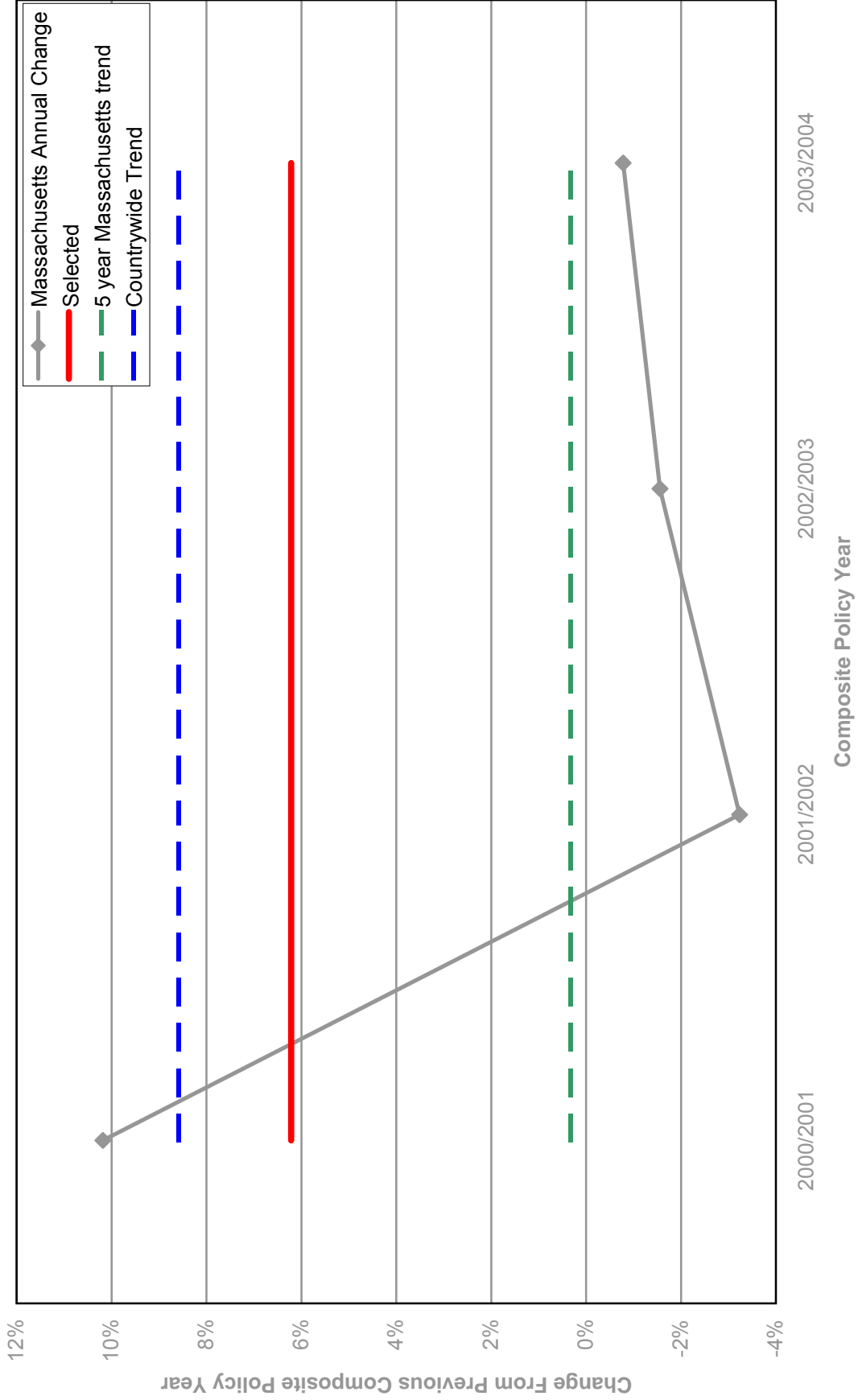
(8) = (6) / (7)

(9) The credibility is the ratio of the target value k to the confidence interval divided by the projected frequency, capped at 100%. Numerically, (9) = the minimum of k / (8) and 100%.

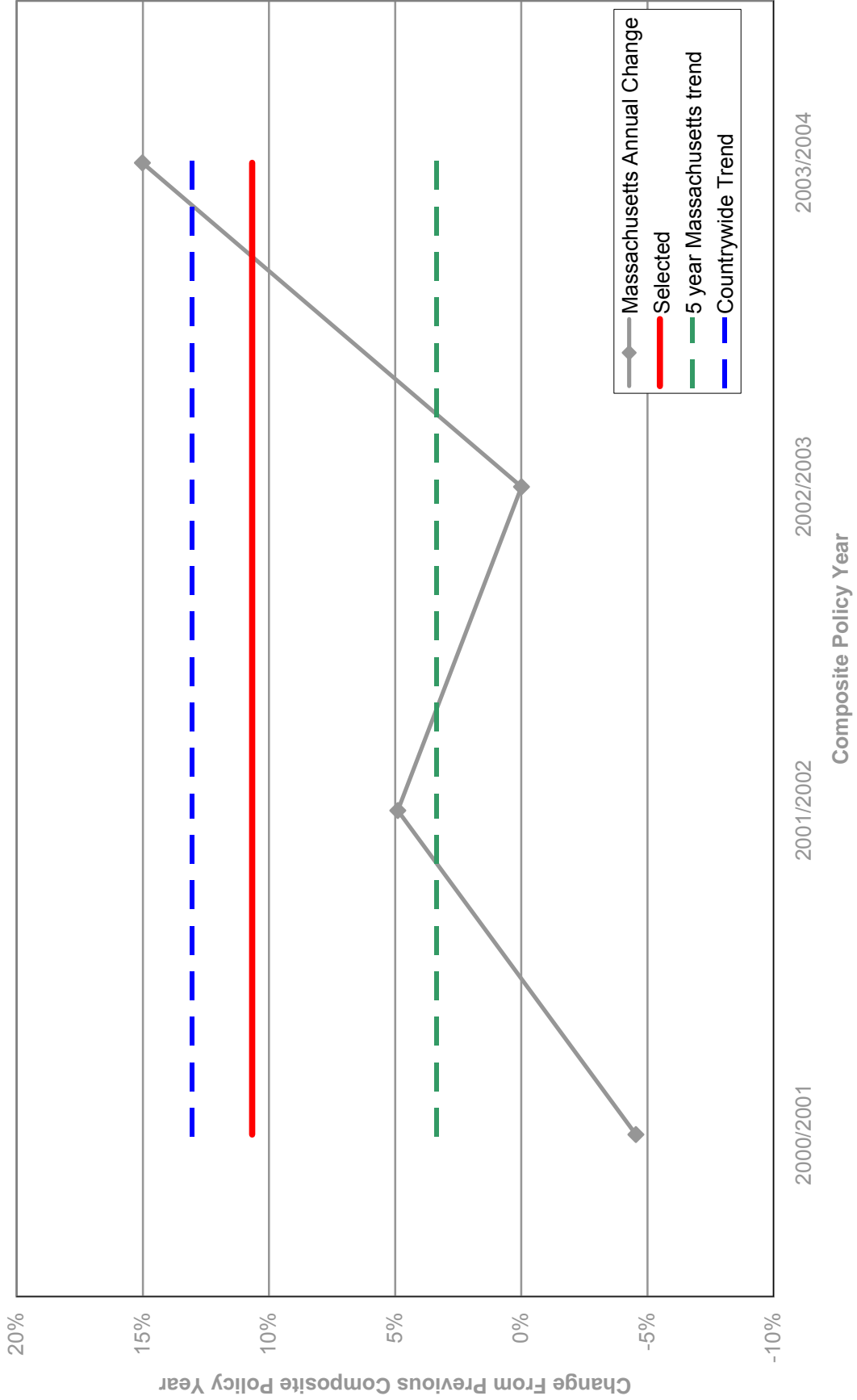
(10) Trend from fifteen-year exponential fit to on-level Massachusetts claim frequency (industrywide), SAWW from Section V-G, Exhibit 2

(11) = (9) x (1) + [ 1.0 - (9) ] x (10)

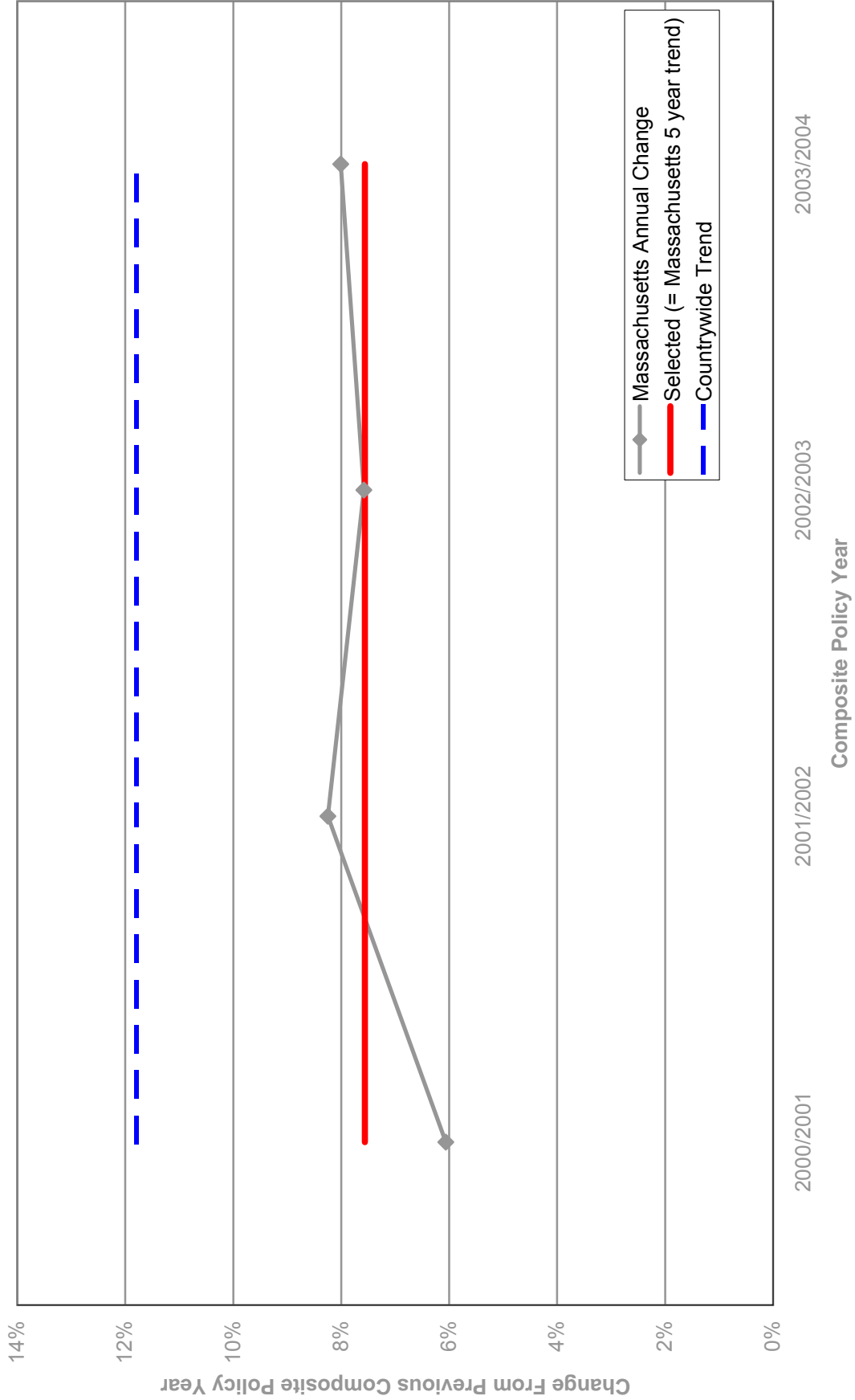
### Indemnity Severity Trend



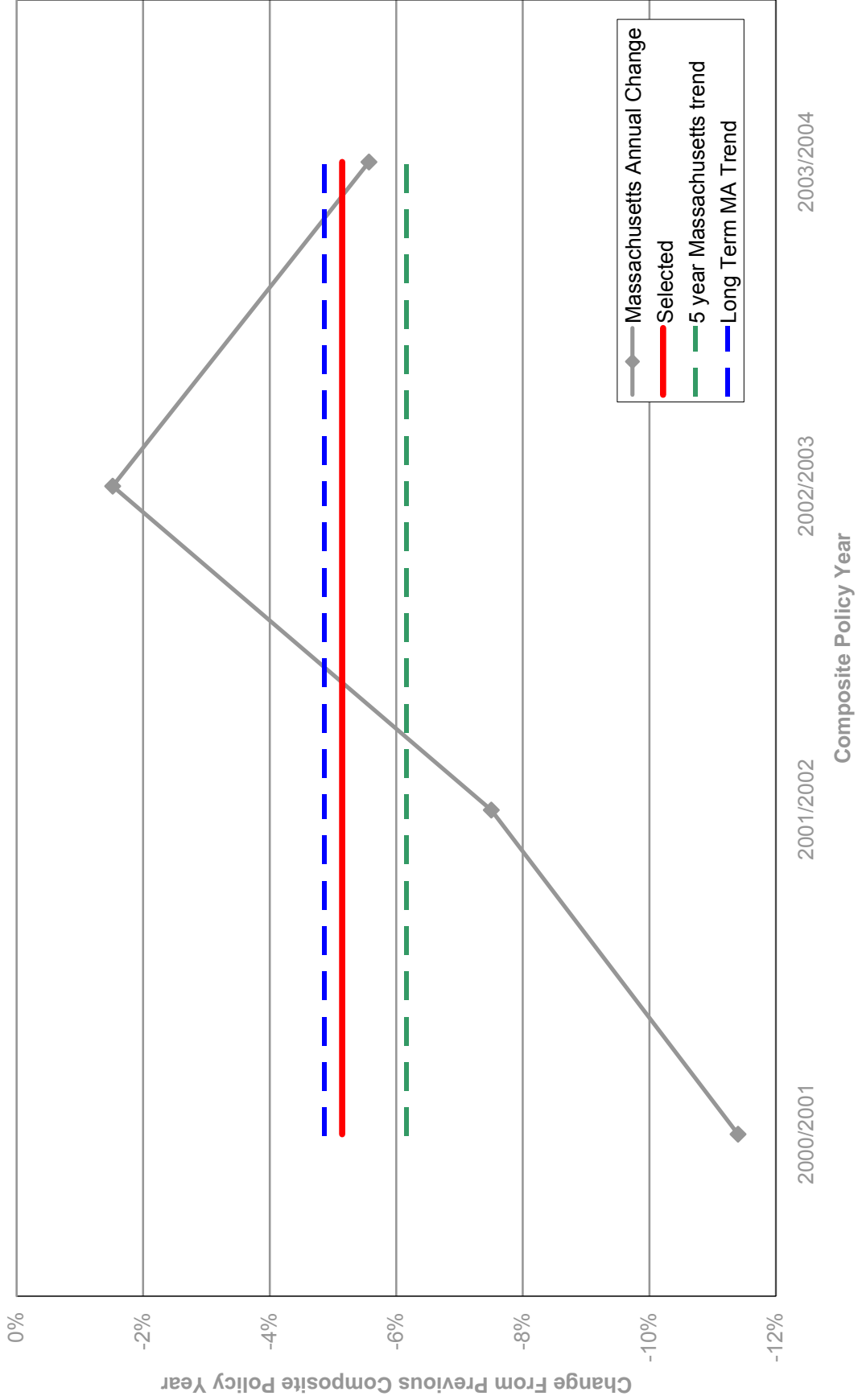
### Medical Lost Time Severity Trend



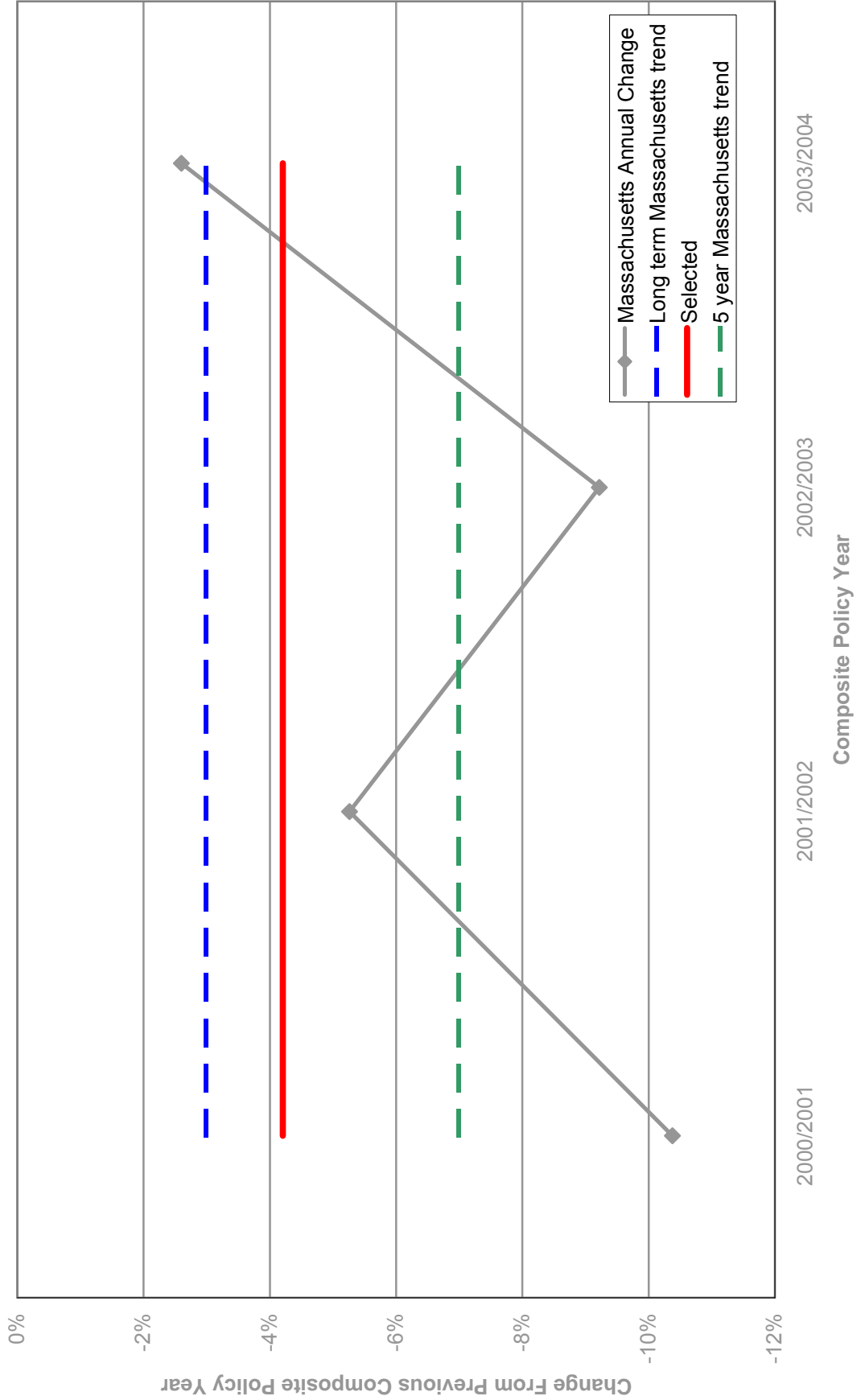
### Medical Only Severity Trend



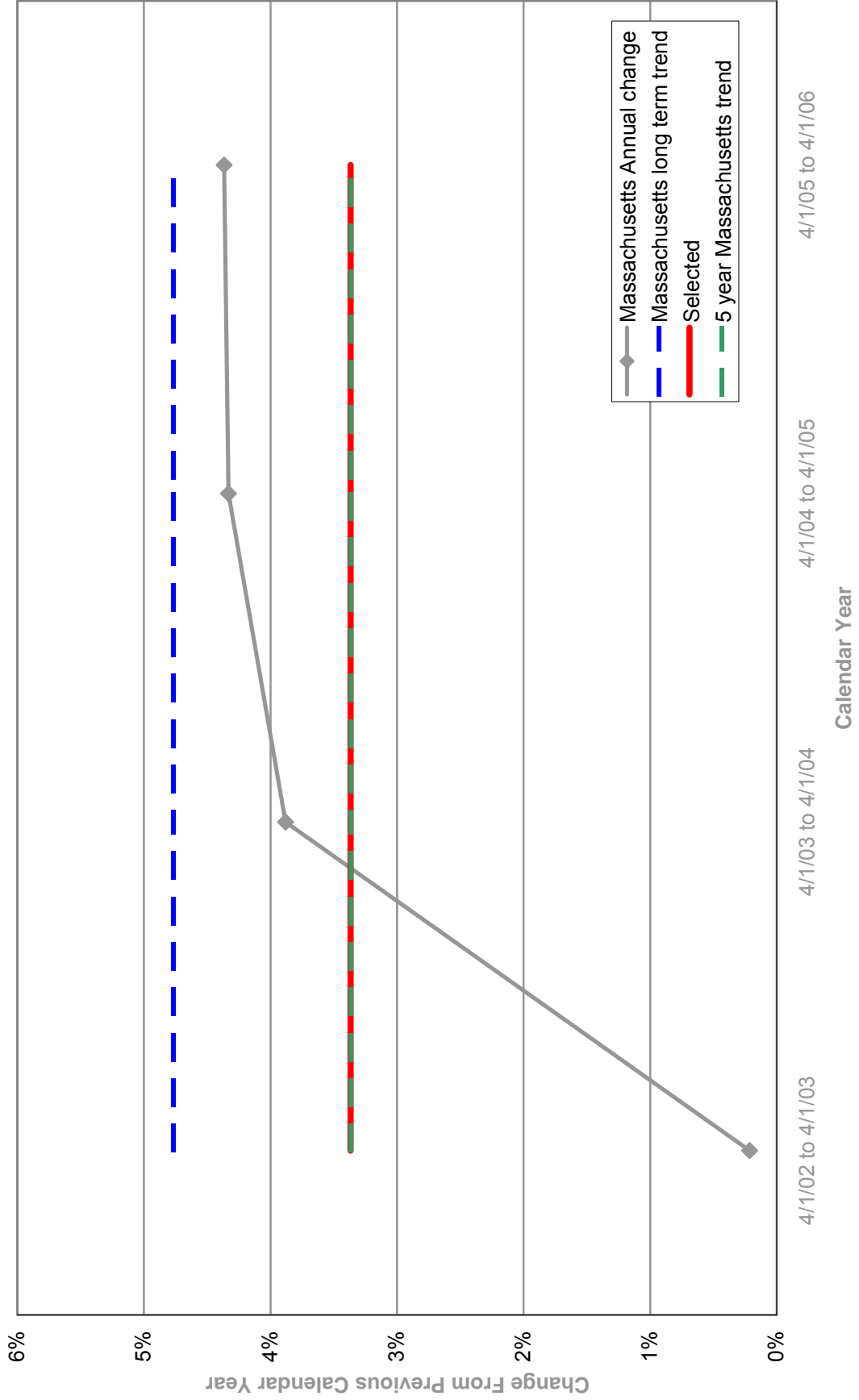
### Lost Time Frequency Trend



### Medical Only Frequency Trend



### SAWW Trend



Section V - Trend  
Subsection B - Lost Time Claim Count Development  
9/1/2007

Lost Time Claim Counts

Composite Policy Year (1)	Report (2)					Claims Counts Developed to Fifth Report (3)	Estimated Million Worker-Weeks (4)	Unadjusted Claim Frequency (5)	Class Mix Adjustment (6)	Adjusted Claim Frequency (7)
	1	2	3	4	5					
1989/1990						58,393	100.74	579.62	0.946	548.08
1990/1991						48,299	92.11	524.38	1.026	538.11
1991/1992						33,695	76.89	438.23	1.039	455.12
1992/1993						27,007	64.47	418.90	1.016	425.59
1993/1994						24,621	64.36	382.53	1.033	395.02
1994/1995					24,793	24,793	66.81	371.08	1.016	376.84
1995/1996				24,693	25,210	25,210	72.02	350.03	1.044	365.42
1996/1997			24,779	24,908	24,953	24,953	74.02	337.11	1.063	358.46
1997/1998		25,317	25,001	25,655	25,263	25,263	72.97	346.19	1.012	350.33
1998/1999	24,003	24,713	24,867	24,614	24,619	24,619	73.12	336.67	1.026	345.27
1999/2000	24,656	25,318	25,230	25,279	25,283	25,283	77.49	326.29	1.034	337.50
2000/2001	22,247	22,418	22,592	22,616		22,620	78.85	286.89	1.042	299.02
2001/2002	20,433	20,752	20,793			20,828	76.62	271.84	1.017	276.59
2002/2003	20,096	20,313				20,449	75.70	270.15	1.008	272.39
2003/2004	17,939					18,298	71.14	257.22	1.000	257.22

15 year Lost Time Frequency trend

Development Factors

	Report			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
Two year weighted average	1.013	1.005	1.002	1.000
Cumulative	1.020	1.007	1.002	1.000

Notes

Development factors are claim count weighted average from latest two years

(4) From Section V-E, Exhibit 1

(5) = (3) / (4)

(6) From Section V-F, Exhibit 1

(7) = (5) x (6)



Medical Only Claim Counts

Composite Policy Year (1)	Report (2)					Claims Counts Developed to Fifth Report (3)	Estimated Million Worker-Weeks (4)	Unadjusted Claim Frequency (5)	Class Mix Adjustment (6)	Adjusted Claim Frequency (7)
	1	2	3	4	5					
1989/1990						99,685	100.74	989.49	0.946	935.64
1990/1991						85,978	92.11	933.47	1.026	957.90
1991/1992						72,119	76.89	937.97	1.039	974.12
1992/1993						61,114	64.47	947.94	1.016	963.07
1993/1994						57,979	64.36	900.80	1.033	930.21
1994/1995						59,540	66.81	891.15	1.016	904.97
1995/1996				58,372		60,083	72.02	834.22	1.044	870.90
1996/1997				60,103		60,530	74.02	817.74	1.063	869.55
1997/1998				62,650		62,471	72.97	866.07	1.012	866.30
1998/1999		60,551		61,685		60,987	73.12	834.01	1.026	855.31
1999/2000		59,575		60,376		61,862	77.49	798.37	1.034	825.79
2000/2001		60,592		61,576		55,986	78.85	710.06	1.042	740.09
2001/2002		53,425		55,718		52,799	76.62	689.08	1.017	701.14
2002/2003		50,324		52,302		47,784	75.70	631.27	1.008	636.50
2003/2004		45,945		47,191		44,103	71.14	619.97	1.000	619.97
		42,144		55,835						

Development Factors

15 year Medical Only Frequency trend -3.0%

	Report			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
Two year weighted average	1.033	1.008	1.002	1.003
Cumulative	1.046	1.013	1.005	1.003

Notes

Development factors are claim count weighted average from latest two years

(4) From Section V-E, Exhibit 1

(5) = (3) / (4)

(6) From Section V-F, Exhibit 1

(7) = (5) x (6)

Section V - Trend  
Subsection C - Indemnity Loss Development  
9/1/2007

Indemnity Losses

Composite Policy Year	Report				
	1	2	3	4	5
1998/1999	209,914,727	268,370,875	307,599,102	324,224,519	329,216,498
1999/2000	227,085,956	319,699,906	355,552,995	356,585,612	360,610,183
2000/2001	270,629,361	336,953,611	346,692,272	359,716,407	
2001/2002	234,758,862	291,709,420	317,565,058		
2002/2003	215,979,895	290,252,072			
2003/2004	200,172,903				

Development Factors

	Report			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
Two year weighted average	1.291	1.057	1.020	1.013
Cumulative	1.410	1.092	1.034	1.013

(1) Two year weighted average  
(2) Cumulative

Composite Policy Year	Indemnity Losses Developed to Fifth Report	On-Level Indemnity Losses Developed to Fifth Report	Developed Claim Counts	Severity	Cost Containment Adjustment	Severity Adjusted for the effect of Cost Containment
1999/2000	360,610,183	385,580,597	25,283	15,251	1.00	15,251
2000/2001	364,480,439	380,087,248	22,620	16,803	1.00	16,803
2001/2002	328,211,688	338,658,638	20,828	16,259	1.00	16,259
2002/2003	316,967,763	327,305,908	20,449	16,006	1.00	16,006
2003/2004	282,237,294	290,584,741	18,298	15,881	1.00	15,881

Notes

- Development factors are loss weighted average from latest two years
- On-Level Factors are from Section IV-A, Exhibit 5
- (4) From Section V-B, Exhibit 1
- (5) = (3) / (4)
- (6) Cost Containment adjustment is calculated based on the Commissioner's 1999 decision
- (7) = (5) x (6)

Lost Time Medical Losses

Composite Policy Year	Report				
	1	2	3	4	5
1998/1999	120,802,722	130,839,359	141,797,501	144,918,836	147,828,720
1999/2000	137,601,643	162,752,466	173,617,841	187,121,931	191,438,144
2000/2001	140,537,612	148,376,228	153,881,392	163,155,332	
2001/2002	136,025,211	142,551,748	148,699,603		
2002/2003	136,683,903	145,727,141			
2003/2004	143,190,314				

Development Factors

Report	
1st - 2nd	4th - 5th

Two year weighted average	1.057	1.040	1.070	1.022		
Cumulative	1.201	1.137	1.093	1.022		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Composite Policy Year	Lost Time Medical Losses Developed to Fifth Report	On-Level Lost Time Medical Losses Developed to Fifth Report	Lost Time Medical Losses Developed Claim Counts	Severity	Cost Containment Adjustment	Severity Adjusted for the effect of Cost Containment
1999/2000	191,438,144	208,372,182	25,283	8,242	1.00	8,242
2000/2001	166,706,029	177,953,544	22,620	7,867	1.00	7,867
2001/2002	162,503,046	171,884,111	20,828	8,252	1.00	8,252
2002/2003	165,633,547	168,728,934	20,449	8,251	1.00	8,251
2003/2004	172,042,081	173,642,700	18,298	9,490	1.00	9,490

Notes

Development factors are loss weighted average from latest two years

On-Level Factors are from Section IV-A, Exhibit 5

(4) From Section V-B, Exhibit 1

(5) = (3) / (4)

(6) Cost Containment adjustment is calculated based on the Commissioner's 1999 decision

(7) = (5) x (6)

Section V - Trend  
Subsection D - Medical Only Loss Development  
9/1/2007

Medical Only Losses

Composite Policy Year	Report				
	1	2	3	4	5
1998/1999	22,386,398	23,798,585	24,082,457	24,356,513	24,618,456
1999/2000	23,984,000	25,778,819	26,638,933	26,972,757	26,996,663
2000/2001	24,369,725	25,629,802	26,273,451	26,276,745	
2001/2002	24,635,915	26,496,695	26,899,695		
2002/2003	26,178,786	26,659,271			
2003/2004	25,642,089				

Development Factors

	Report		
	1st - 2nd	2nd - 3rd	3rd - 4th
Two year weighted average	1.046	1.020	1.006
Cumulative	1.080	1.032	1.012

(1) (2) (3) (4) (5) (6) (7)

Composite Policy Year	Medical Only Losses Developed to Fifth Report	On-Level Medical Only Losses Developed to Fifth Report	Severity	Cost Containment Adjustment	Severity Adjusted for the effect of Cost Containment
1999/2000	26,996,663	29,384,706	61,862	1.00	475
2000/2001	26,423,078	28,205,821	55,986	1.00	504
2001/2002	27,221,837	28,793,314	52,799	1.00	545
2002/2003	27,520,236	28,034,539	47,784	1.00	587
2003/2004	27,689,807	27,947,423	44,103	1.00	634

Notes  
 Development factors are loss weighted average from latest two years  
 On-Level Factors are from Section IV-A, Exhibit 5  
 (4) From Section V-B, Exhibit 2  
 (5) = (3) / (4)  
 (6) Cost Containment adjustment is calculated based on the Commissioner's 1999 decision  
 (7) = (5) x (6)

Section V - Trend  
Subsection E - Payroll Development & Worker-weeks calculation  
9/1/2007

Payroll (in millions of dollars)

Composite Policy Year (1)	Report (2)					Payroll Developed to Fifth Report (in millions) (3)	Calendar Year (4)	Smoothed State Average Weekly Wage (5)	= (3) / (5) Estimated Million Worker-Weeks (6)
	1	2	3	4	5				
1989/1990					51,453	51,453	1990	510.73	100.74
1990/1991					49,305	49,305	1991	535.31	92.11
1991/1992					42,990	42,990	1992	559.12	76.89
1992/1993					37,402	37,402	1993	580.15	64.47
1993/1994					38,714	38,714	1994	601.48	64.36
1994/1995					41,884	41,884	1995	626.88	66.81
1995/1996				45,724	47,356	47,356	1996	657.51	72.02
1996/1997			51,309	51,413	51,457	51,457	1997	695.16	74.02
1997/1998		54,159	54,308	54,482	54,467	54,467	1998	746.39	72.97
1998/1999	58,032	58,951	59,256	59,224	59,079	59,079	1999	807.92	73.12
1999/2000	66,200	66,378	66,542	66,412	66,410	66,410	2000	857.06	77.49
2000/2001	70,125	70,387	69,587	69,587	69,506	69,506	2001	881.53	78.85
2001/2002	68,420	68,565	68,565		68,419	68,419	2002	892.95	76.62
2002/2003	69,750	69,755			69,206	69,206	2003	914.27	75.70
2003/2004	68,014				67,552	67,552	2004	949.60	71.14

Development Factors

	Report			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
2 Yr Weighted Average	1.001	0.994	0.999	0.999
Cumulative	0.993	0.992	0.998	0.999

2 Yr Weighted Average  
Cumulative

Notes

- Development factors are payroll weighted average from latest two years
- (5) From Section V-G, Exhibit 2. The smoothed SAWW is the average of the calendar year SAWW with the preceding and following calendar year SAWW. For all policy years the following class codes are excluded from reported Schedule Z payrolls: 0059, 0065, 0066, 0067, 0088, 0111, 0277, 0770, 0773, 0774, 0775, 0776, 0779, 0799, 0908, 0909, 0912, 0913, 7445, 7453, 9140, 9885, and 9985.
- (6) Estimated Million Worker-weeks is the Developed Payroll divided by the Statewide Average Weekly wage

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Section V - Trend  
Subsection B - Calculation of Adjustment Factor  
9/1/2007

Section V - F  
Exhibit 1

## Calculation of Adjustment Factor For Class Mix Changes

Composite Policy Year	Average Manual Rates based on Rates Effective 9/1/05	Class Mix Adjustment Factor = 1.370 ÷ (2)
(1)	(2)	(3)
1989/1990	1.449	0.946
1990/1991	1.335	1.026
1991/1992	1.319	1.039
1992/1993	1.349	1.016
1993/1994	1.327	1.033
1994/1995	1.349	1.016
1995/1996	1.313	1.044
1996/1997	1.289	1.063
1997/1998	1.354	1.012
1998/1999	1.336	1.026
1999/2000	1.325	1.034
2000/2001	1.315	1.042
2001/2002	1.347	1.017
2002/2003	1.359	1.008
2003/2004	1.370	1.000

### Notes

(2) Current rates (Effective 9/1/05) averaged over class payrolls (excluding large deductibles) by Composite Policy Year

(3) Adjustment to 2003/2004 level.

# V 000034 R

Section V - Trend  
 Subsection G - External Data  
 9/1/2007

Section V - G  
 Exhibit 1

External Data

Periods from which NCCI data is taken

State	Weights	Annual Statistical Bulletin Year				
		2002	2003	2004	2005	2006
Alabama	1.8%	1/1/1998	5/1/1999	5/1/2000	5/1/2001	5/1/2002
Alaska	0.8%	4/1/1998	4/1/1999	4/1/2000	4/1/2001	4/1/2002
Arizona	2.5%	3/1/1998	3/1/1999	3/1/2000	3/1/2001	3/1/2002
Arkansas	0.8%	8/1/1998	2/1/1999	2/1/2000	2/1/2001	2/1/2002
Colorado	2.6%	3/1/1998	3/1/1999	3/1/2000	3/1/2001	3/1/2002
Connecticut	2.2%	1/1/1998	8/1/1999	8/1/2000	8/1/2001	8/1/2002
District Of Columbia	0.3%	4/1/1998	2/1/1999	2/1/2000	2/1/2001	2/1/2002
Florida	11.6%	10/1/1997	10/1/1998	1/1/2000	1/1/2001	1/1/2002
Georgia	4.4%	1/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
Hawaii	0.8%	1/1/1998	6/1/1999	6/1/2000	6/1/2001	6/1/2002
Idaho	0.7%	3/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
Illinois	8.3%	4/1/1998	4/1/1999	4/1/2000	4/1/2001	4/1/2002
Indiana	2.4%	1/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
Iowa	1.7%	3/1/1998	3/1/1999	3/1/2000	3/1/2001	3/1/2002
Kansas	1.3%	1/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
Kentucky	2.4%	1/1/1998	5/1/1999	5/1/2000	5/1/2001	5/1/2002
Louisiana	2.1%	4/1/1998	9/1/1999	9/1/2000	9/1/2001	9/1/2002
Maine	1.2%	6/1/1998	6/1/1999	6/1/2000	6/1/2001	6/1/2002
Maryland	2.6%	4/1/1998	4/1/1999	4/1/2000	4/1/2001	4/1/2002
Michigan	2.9%	4/1/1998	4/1/1999	4/1/2000	4/1/2001	4/1/2002
Mississippi	1.2%	1/1/1998	9/1/1999	9/1/2000	9/1/2001	9/1/2002
Missouri	3.4%	1/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
Montana	1.0%	1/1/1998	1/1/1999	1/1/2000	1/1/2001	1/1/2002
Nebraska	1.2%	1/1/1998	8/1/1999	8/1/2000	8/1/2001	8/1/2002
Nevada	1.1%	7/1/1997	7/1/1998	7/1/1999	7/1/2000	1/1/2002
New Hampshire	1.1%	4/1/1998	4/1/1999	4/1/2000	4/1/2001	4/1/2002
New Mexico	0.7%	1/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
North Carolina	4.7%	1/1/1998	1/1/1999	1/1/2000	1/1/2001	1/1/2002
Oklahoma	2.4%	1/1/1998	6/1/1999	6/1/2000	6/1/2001	6/1/2002
Oregon	2.4%	1/1/1998	1/1/1999	1/1/2000	1/1/2001	1/1/2002
Rhode Island	0.4%	1/1/1998	1/1/1999	1/1/2000	1/1/2001	1/1/2002
South Carolina	2.4%	1/1/1998	5/1/1999	5/1/2000	5/1/2001	5/1/2002
South Dakota	0.3%	1/1/1998	1/1/1999	1/1/2000	1/1/2001	1/1/2002
Tennessee	3.8%	1/1/1998	6/1/1999	8/1/2000	8/1/2001	6/1/2002
Texas	12.1%	1/1/1998	1/1/1999	1/1/2000	1/1/2001	1/1/2002
Utah	0.9%	1/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
Vermont	0.5%	4/1/1998	7/1/1999	7/1/2000	7/1/2001	7/1/2002
Virginia	3.2%	2/1/1998	2/1/1999	2/1/2000	2/1/2001	2/1/2002
Wisconsin	4.0%	1/1/1998	1/1/1999	1/1/2000	1/1/2001	1/1/2002
TOTAL	100.0%					

Policy Period Start Date	1/13/98	3/10/99	3/22/00	3/23/01	3/22/02
Average Written Date	7/13/98	9/10/99	9/22/00	9/23/01	9/22/02
Average Earned Date	1/13/99	3/10/00	3/22/01	3/23/02	3/22/03
Years	8.04	9.19	10.23	11.23	12.23

Time = 0 corresponds to 1/1/1991

Weights are derived from data obtained from NCCI that underlies the 2006 NCCI Annual Statistical Bulletin. Policy Periods are from the NCCI Annual Statistical Bulletin of the relevant year.

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Section V - Trend  
 Subsection G - External Data  
 9/1/2007

Section V - G  
 Exhibit 2

## Summary of SAWW Data

Date Promulgated by DUA (1)	Period of Data Used by DUA (2)	Average Weekly Wage (3)
10/1/84	4/1/83 to 4/1/84	341.06
10/1/85	4/1/84 to 4/1/85	360.50
10/1/86	4/1/85 to 4/1/86	383.57
10/1/87	4/1/86 to 4/1/87	411.00
10/1/88	4/1/87 to 4/1/88	444.20
10/1/89	4/1/88 to 4/1/89	474.47
10/1/90	4/1/89 to 4/1/90	490.57
10/1/91	4/1/90 to 4/1/91	515.52
10/1/92	4/1/91 to 4/1/92	543.30
10/1/93	4/1/92 to 4/1/93	565.94
10/1/94	4/1/93 to 4/1/94	585.66
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

Corresponding Composite Policy Year (4)	Corresponding Calendar Year (5)	SAWW (6)
1984/1985	1985	377.80
1985/1986	1986	404.14
1986/1987	1987	435.90
1987/1988	1988	466.90
1988/1989	1989	486.55
1989/1990	1990	509.28
1990/1991	1991	536.36
1991/1992	1992	560.28
1992/1993	1993	580.73
1993/1994	1994	599.44
1994/1995	1995	624.28
1995/1996	1996	656.92
1996/1997	1997	691.32
1997/1998	1998	737.25
1998/1999	1999	810.59
1999/2000	2000	875.93
2000/2001	2001	884.66
2001/2002	2002	883.99
2002/2003	2003	910.20
2003/2004	2004	948.63
2004/2005	2005	989.97

**15 Year Exponential Fit, Trend = 4.8%**

(6) SAWW for Year i = [.25 x AWW during period 4/1/(i-1) to 4/1/i] + [.75 x AWW during period 4/1/i to 4/1/(i+1)]

The DUA is the Department of Unemployment Assistance; previously this data was compiled by the DET (the Division of Employment and Training)



**EXPENSES**

The WCRIB has employed in this filing the same general methods to calculate expenses that were used in the WCRIB's filing for 9/1/05 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 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 (excluding data for one carrier due to reporting problems 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. In this filing, general expenses relating to Boards and Bureaus were estimated using the actual WCRIB expenses taken from WCRIB Financial Statements and Expense Analysis Report rather than the Incurred Boards and Bureaus expense item from the Expense Call.

## VI 000002 R

The latest three available years of Massachusetts data, taken from the Massachusetts Workers' Compensation Assigned Risk Pool Annual Report and the WCRIB 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 WCRIB used the "Other Tax" percentage for "Property-Casualty Companies with Commercial Casualty Predominating" as compiled in Best's Aggregates and Averages (2005) 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).

### **Expense Trends**

Fixed expenses are trended over two separate time periods. Fixed expenses are first trended from the historical periods for which they are reported to the periods on which the rate indication is based. Next, fixed expenses are trended forward to the proposed effective period for which the rates are being set. For the first trend period,

## VI 000003 R

reported external index values (such as the CPI) are available that span the time period over which the WCRIB is trending. Consequently, the first trend factor is taken as a ratio of index values for the corresponding time periods (Section VI-G, Exhibit 1). For the second trend period, index values are not available for the proposed effective period of the rates. Therefore, a projection needs to be made and the WCRIB used an exponential least squares regression to do so.

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	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
Office and Store Machines and Equipment	Producer Price Index for Office and Store Machines and Equipment
Paper	Producer Price Index for Paper

(No specific external indices have been utilized for the remaining components of insurance company expenses; rather, it has been assumed that the trends in the costs of these other components will be equal to the weighted average of the trends in the

## VI 000004 R

major components detailed above.) These indices are first normalized to a value of 100 for Calendar Year 2005 and are then combined using the weights shown in Section VI-F, Exhibit 1 to derive the expense trend shown in Section VI-G. The weights attributed to the various components of insurance company expenses for the workers' compensation line are based on the experience of "Property-Casualty Companies with Commercial Casualty Predominating" as compiled in Best's Aggregates and Averages (2005). 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.

### **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. The WCRIB has also considered two additional variable expenses: earned but uncollected premium along with incidental income, and the "frictional costs" of reinsurance.

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 taken to arrive at the commission expense ratio (Section VI-K, Exhibit 3).

The WCRIB 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 WCRIB then averages these three years to determine the other acquisition expense ratio (Section VI-K, Exhibit 2).

The average premium discount is calculated from the Premium Discount Schedules using the methodology of the Commissioner's Decision on 9/1/99 Rates and in the WCRIB's Filings for 9/1/01, 9/1/03 and 9/1/05 Rates. Based on the projected size of policy distributions and each Premium Discount Table, the WCRIB calculated an average premium discount for each of the Type A and Type B Tables. These two averages are weighted using the percentages of voluntary market premium written by Type A insurers and Type B insurers (Section VI-I, Exhibit 1) as weights. The resulting average premium discount for the voluntary market is used 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 WCRIB multiplies the premium tax rate by (one minus the "average premium discount for the total market") (Section VI-I, Exhibit 1).

### **Incidental Income and Earned but Uncollected Premium**

During the hearing on 2003 rates, questions were raised about whether the WCRIB should take various forms of "incidental income" (such as finance charges) into account and, if the WCRIB were to do so, whether it would also be appropriate to make off-setting adjustments for earned but uncollected premium ("EBUP"). The WCRIB therefore instituted a call for data on both incidental income and EBUP. The WCRIB

proposes to treat incidental income as a negative expense item and to offset incidental income by EBUP. This year, the net effect of accounting for both incidental income and EBUP, based upon a three-year average of the experience reported for Policy Years 2002, 2003 and 2004, is no adjustment at all, because incidental income has been more than offset by EBUP (Section VI-K, 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, 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 an altruistic endeavor, and 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 WCRIB 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 WCRIB's load for frictional costs associated with the purchase of reinsurance does not include any provision for reinsurer profit (although the primary carriers undeniably must pay enough for the reinsurance they procure to provide the reinsurers with a reasonable return) and is detailed in Section VI-K, Exhibit 4.

**Expense Constants**

The current expense constants are \$142 and \$284 for risk sizes less than and exceeding \$200, respectively. The indicated constants of \$159 and \$318 for risk sizes less than and exceeding \$200, respectively, are calculated in the same manner as in the WCRIB's Filings for 9/1/03 and 9/1/05 Rates.

The WCRIB calculated a trend factor to bring the current expense constants from 3/1/06 expense levels to those of 3/1/08, the average effective date for policies written during the rate period. The WCRIB then applies this factor to the current expense constants to arrive at the indicated expense constants for the policy effective period (Section VI-E, Exhibit 1).

**Loss Adjustment Expense**

The loss adjustment expense (“LAE”) provision is calculated using a three-year average ratio of LAE to losses (Section VI-D). 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 AO is fixed and from assuming AO is variable (Section VI-L, Exhibit 1, Page 1).



# VI 000009 R

Section VI - Expenses  
Subsection A - Summary  
9/1/2007

Section VI - A  
Exhibit 1

## Loss Ratios Underlying the Proposed Rates

	<u>As a % of Standard Premium plus ARAP</u>
(1) Acquisition Expenses	11.4%
(2) Premium Discount	3.8%
(3) Premium Taxes = 2.28% x [1.0 - (2)]	2.2%
(4) Variable Expense Ratio = (1) + (2) + (3)	17.4%
(5) Profit and Contingencies	-1.0%
(6) Permissible Loss, LAE, and Fixed Expense Ratio = 1.0 - [(4) + (5)]	83.7%
(7) Fixed Expense Ratio	7.6%
(8) Insolvency Fund Assessment	-3.0%
(9) Expected Loss and Loss Adjustment Expense Ratio = (6) - [(7) + (8)]	79.2%
(10) Loss Adjustment Expenses (As a percent of losses)	18.2%
(11) Expected Loss Ratio without Loss Adjustment Expense = (9) / [1.0 + (10)]	67.0%

### Notes:

- (1) Section VI - K, Exhibit 1.
- (2) Section VI - I, Exhibit 1.
- (3) 2.28% is Premium Tax as % of Net Premium.
- (5) Section VIII-B, Exhibit 1.
- (6) Used in Section I.
- (7) Section VI - B, Exhibit 1. The Fixed Expense Ratio for Policy Year 2003 is 6.5%. The Fixed Expense Ratio for Policy Year 2004 is 6.6%. The average of these two ratios is divided by the [1.00 + indicated rate change], -14.6%, to give the Fixed Expense Ratio underlying the rates.
- (8) Section I-E, Exhibit 1, Page 1.
- (10) Section VI-D, Exhibit 1.
- (11) Used in Section IX-C, Exhibit 1.

Calculation of Fixed Expenses

Calendar Year	General Expense			Projected to PY2003			Projected to PY2004		
	Exclusive of Constant Revenue	Pool Expense	Total General Expense = (2) + (3) + (4)	General Expense Trend Factor	Exposure Growth Factor	Projected General Expense = (4) x (5) x (6) + (7)	General Expense Trend Factor	Exposure Growth Factor	Projected General Expense = (4) x (8) x (9) + (10)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2003	26,996,198	3,549,290	30,545,488	1.044	0.985	31,395,716	1.151	0.955	33,594,677
2004	25,520,888	3,666,378	29,187,265	0.960	1.015	28,446,672	1.059	0.985	30,439,082
2005	29,685,103	3,106,230	32,791,333	0.859	1.047	29,476,067	0.947	1.015	31,540,576
Average			30,841,362			29,772,818			31,858,111

Policy Year	Three Year Average Projected General Expense	Provision for Other Taxes	Provision for Fixed Expenses = (12) + (13) + (14)	Expense Trends from PYs to Policy Effective 9/1/07	Trended Fixed Expenses = (14) x (15) + (16)	Standard Earned Premium plus ARAP	Fixed Expense Ratio to Standard Earned Premium plus ARAP = (16) / (17) + (18)
(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
2003	29,772,818	3,289,656	33,062,475	1.394	46,077,657	713,972,602	6.5%
2004	31,858,111	3,520,064	35,378,176	1.263	44,689,123	675,627,416	6.6%

Notes:

- (2) Section VI - B, Exhibit 2, Page 1.
- (3) From the Massachusetts Workers' Compensation Assigned Risk Pool Annual Report and WCRIB Financial Statements and Expense Analysis Report.
- (5), (8) Section VI - G, Exhibit 1.
- (6), (9) -3% annual growth in worker-weeks, from Section VI-H, Exhibit 1; 0.5 years from CY 2003 to PY 2003, 1.5 years from CY 2003 to PY 2004, etc.
- (13) Section VI-C, Exhibit 1.
- (15) Section VI - G, Exhibit 1.
- (17) These premium amounts do not match those displayed in Section I. This is due to the exclusion from this section of a company included in the loss and premium sections. The premium amounts displayed have been adjusted by the same development, trend, and premium level factors

# VI 000011 R

Section VI - Expenses  
 Subsection B - Fixed Expenses  
 9/1/2007

Section VI - B  
 Exhibit 2  
 Page 1

## General Expense Exclusive of Proposed Expense Constant

	Calendar Year		
	2003	2004	2005
(1) Standard Earned Premium plus ARAP Including Expense Constant Revenue	654,646,422	612,860,404	609,942,391
(2) Expense Constant Offset	0.966	0.961	0.959
(3) Standard Earned Premium plus ARAP Excluding Expense Constant Revenue = (1) x (2)	632,459,770	588,922,679	584,929,962
(4) Ratio of General Expense to Standard + ARAP Premium	5.8%	6.1%	7.0%
(5) General Expenses = (1) x (4)	38,055,115	37,177,314	42,833,312
(6) Historical Expense Constant Revenue = (1) - (3)	22,186,652	23,937,725	25,012,429
(7) General Expense Portion of Expense Constant	51.0%	51.0%	51.0%
(8) Average Expense Constant in Effect	195.38	217.46	225.20
(9) Proposed Average Expense Constant	270.13	270.13	270.13
(10) Trend Factor to Adjust Proposed Average Expense Constant to Calendar Year	1.414	1.300	1.163
(11) Adjusted Proposed Average Expense Constant = (9) / (10)	191.05	207.74	232.24
(12) Adjusted General Expenses Generated by the Expense Constant = [(6) x (7)] x [(11) / (8)]	11,058,917	11,656,426	13,148,209
(13) General Expenses Exclusive of Expense Constant Revenue = (5) - (12)	26,996,198	25,520,888	29,685,103
(14) General Expense Percent Exclusive of Expense Constant = (13) / (3)	4.3%	4.3%	5.1%

Notes:

- (1) Policy Year Call Data.
- (2) 2003 and 2004 values: Section VI - J, Exhibit 2. 2005 value: Section VI-J, Exhibit 1.
- (4) Section VI - B, Exhibit 2, Page 2.
- (7) Section VI - B, Exhibit 3.
- (8) The parallelogram method was used to calculate the average expense constant in effect.
- (9) Section VI - E, Exhibit 1.
- (10) Section VI - G, Exhibit 1.

# VI 000012 R

Section VI - Expenses  
 Subsection B - Fixed Expenses  
 9/1/2007

Section VI - B  
 Exhibit 2  
 Page 2

## Calculation of General Expense

		Calendar Year		
		2003	2004	2005
(1)	Direct Standard Earned Premium	757,887,539	715,388,494	694,662,039
(2)	Factor to include ARAP	1.039	1.041	1.039
(3)	Standard Earned Premium plus ARAP = (1) x (2)	787,703,869	744,870,255	721,819,030
(4)	Actual Bureau Expenses	6,921,112	5,576,018	6,545,014
(5)	Audit, Inspection and Other General Expenses	38,868,738	39,609,272	44,144,854
(6)	General Expense = (4) + (5)	45,789,850	45,185,290	50,689,868
(7)	Ratio of General Expense to Standard + ARAP Premium = (6) / (3)	5.8%	6.1%	7.0%

**Notes:**

- (1) MA Data from the Massachusetts Expense Calls, Calendar Years 2003 - 2005.  
Reported premium excludes ARAP and includes large deductible policies at Standard premium.
- (2) Estimated using Schedule Z data for Composite Policy Years 02/03, 03/04 and 04/05
- (4) From the WCRIB Financial Statements and Expense Analysis Report. Excludes Workers' Compensation Bureau Pool Expenses.
- (5) MA Data from the Massachusetts Expense Calls, Calendar Years 2003 - 2005.

# VI 000013 R

Section VI - Expenses  
Subsection B - Fixed Expenses  
9/1/2007

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 [ 1.000 - (3) ]	51.0%
(4)	Other Acquisition Portion of Expense Constant = [ 100% - (1) ] x [ 1.000 - (3) ]	46.7%

Note:

(1) NCCI 1991 Calendar Year Expense database.

# VI 000014 R

Section VI - Expenses  
Subsection C - Other Taxes  
9/1/2007

Section VI - C  
Exhibit 1

## Calculation of Other Taxes

(1)	2005 Calendar Year Massachusetts Standard Earned Premium plus ARAP	609,942,391
(2)	2005 Other Tax Allowance	0.60%
(3)	2005 Massachusetts Other Taxes = (1) x (2)	3,659,654
(4A)	Other Tax Trend Factor, CY 2005 to PY 2003	0.859
(4B)	Other Tax Trend Factor, CY 2005 to PY 2004	0.947
(5A)	Exposure Growth from CY 2005 to PY 2003	1.047
(5B)	Exposure Growth from CY 2005 to PY 2004	1.015
(6A)	Massachusetts Other Taxes for PY 2003 = (3) x (4A) x (5A)	3,289,656
(6B)	Massachusetts Other Taxes for PY 2004 = (3) x (4B) x (5B)	3,520,064

### Notes:

- (1) Massachusetts Policy Year Call.
- (2) 2006 Best's Aggregates and Averages. Pages 694-695.
- (4A),(4B) From VI - G, Exhibit 1.
- (5A),(5B) -3.0% per year (Section VI - H, Exhibit 1); -0.5 years from CY 2005 to PY 2004,  
-1.5 years from CY 2005 to PY 2003.

# VI 000015 R

Section VI - Expenses  
 Subsection D - Loss Adjustment Expense  
 9/1/2007

Section VI - D  
 Exhibit 1

## Loss Adjustment Expense

		Calendar Year		
		2003	2004	2005
(1)	Direct Incurred Losses (\$000)	508,813	412,256	394,361
(2)	Direct Incurred Defense and Cost Containment Expense (\$000)	40,025	30,331	35,333
(3)	Average Provision for Defense and Cost Containment Expense = (2) / (1)	7.9%	7.4%	9.0%
(4)	Three Year Average Provision for Defense and Cost Containment Expense = Average of (3)	<b>8.1%</b>		
(5)	Direct Incurred Adjusting and Other Expense (\$000)	51,129	47,696	45,776
(6)	Average Provision for Adjusting and Other Expense = (5) / (1)	10.0%	11.6%	11.6%
(7)	Factor to adjust for effect of Large Deductible policies	0.903	0.915	0.922
(8)	Adjusted Provision for Adjusting and Other Expense = (6) x (7)	9.1%	10.6%	10.7%
(9)	Three Year Average Provision for Adjusting and Other Expense = Average of (8)	<b>10.1%</b>		
(10) Adjusted Provision for Total Loss Adjustment Expense = (4) + (9)		<b>18.2%</b>		

**Notes:**

- (1),(2),(5) 2003, 2004, and 2005 Massachusetts Expense Calls.
- (7) Section VI - L, Exhibit 1, Page 1.

# VI 000016 R

Section VI - Expenses  
 Subsection E - Expense Constant  
 9/1/2007

Section VI - E  
 Exhibit 1

## Calculation of Revised Expense Constant

Risk Size Intervals		CPY03/04 Policy Count		Policy Distribution	Current Expense Constant	Trend Factor from 3/1/06 to 3/1/08	Calculated Expense Constant (6) x (7)
Unadjusted	Adjusted	Interstate	Intrastate				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Less than \$200	Less Than \$235.29	-	35,505	30%	\$142.00	1.120	\$159.00
\$200 or more	\$235.29 or more	9,587	72,831	70%	\$284.00	1.120	\$318.00
TOTAL		9,587	108,336	100%	\$241.25		\$270.13

**Notes:**

Schedule Z Composite PY 03/04 (excluding Large Deductible policies).

Risk sizes in terms of Standard Premium

(2) Intervals have been adjusted by a factor of 0.85. See Section III - G, Exhibit 1.

(7) from VI - G, Exhibit 1.



# VI 000017 R

Section VI - Expenses  
 Subsection F- Expense Trends  
 9/1/2007

Section VI - F  
 Exhibit 1

## Weights for Expense Trends

Expense Component (1)	Percentage of Net Written Premium (2)	Weight (3)	Corresponding Index (4)	Weight (5)
Salaries	6.00	63.0%	Average Weekly Earnings Covered Employment and Wages; Private Fire, Marine, Casualty	79.8%
Payroll Taxes	0.37	3.9%	Massachusetts	
Employee Relations	1.23	12.9%		
<hr/>				
Travel & Travel Items	0.40	4.2%	Food Away From Home-CPI-US	2.1%
			Private Transportation-CPI-US	2.1%
<hr/>				
Postage & Telephone	0.38	4.0%	Postage-CPI-US	2.0%
			Telephone-CPI-US	2.0%
<hr/>				
Equipment	0.95	10.0%	Office & Stores Machines & Equipment-PPI	10.0%
<hr/>				
Printing & Stationery	0.19	2.0%	Paper-PPI	2.0%
<hr/>				
<b>Total</b>	<b>9.52</b>	<b>100.0%</b>		<b>100.0%</b>

**Note:**

(2): 2006 Best's Aggregates and Averages, Property-Casualty, Totals for Predominately Commercial Casualty Companies with Written Premium Net of Reinsurance Ceded over \$15 million.

# VI 00018 R

Section VI - Expenses  
 Subsection G - Expense Indices  
 9/1/2007

Section VI - G  
 Exhibit 1

## 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)
1999	1,026.00	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

### Economic Indices, Normalized to Calendar Year 2005 Index of 100

Calendar Year (9)	Average Weekly Earnings (10)	Food (11)	Private Transportation (12)	Phone (13)	Postage (14)	Machines & Equipment (15)	Paper (16)
1999	63.77	85.36	82.62	105.47	86.38	97.57	88.85
2000	66.81	87.43	88.14	103.89	86.38	97.91	93.86
2001	70.42	89.91	88.55	104.63	89.78	97.91	94.36
2002	72.47	92.19	87.49	105.16	95.25	97.74	90.66
2003	78.62	94.15	90.14	103.68	100.00	97.57	91.54
2004	87.38	96.95	93.25	101.05	100.00	98.35	93.61
2005	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(17) Weight      79.8%            2.1%            2.1%            2.0%            2.0%            10.0%            2.0%

Calendar Year (18)	Expense Trend Index (19)	Using Actual Values			Exponential Fit (23)	Trend to 3/1/2008 (24)	Trend to 9/1/2008 (25)
		Trend to Latest Calendar Year (20)	Trend to PY2003 (21)	Trend to PY2004 (22)			
1999	69.77	1.433	1.231	1.358	67.82	1.667	
2000	72.47	1.380	1.185	1.307	71.77	1.605	
2001	75.50	1.325	1.137	1.255	75.95	1.541	
2002	77.19	1.296	1.112	1.227	80.38	1.507	
2003	82.26	1.216	1.044	1.151	85.07	1.414	
2004	89.45	1.118	0.960	1.059	90.03	1.300	
2005	100.00	1.000	0.859	0.947	95.28	1.163	
				PY2003 PY2004			1.394 1.263
				3/1/2006 3/1/2008 9/1/2008	98.95 110.82 114.00	1.120 1.000	1.000

**Notes:**

- (2) Average Weekly Earnings, Covered Employment and Wages, Private Fire, Marine, and Casualty Insurers - Massachusetts Unadjusted for Seasonality  
 Years 1997 - 2000: Bureau of Labor Statistics, Series IDs EWU250004050H633 (Fire, Marine, and Casualty Insurance Average Weekly Wage) and EWU250004050H635 (Surety Insurance average Weekly wage), weighted by Series IDs EWU250001050H633 (Fire, Marine, and Casualty Insurance Number of Employees) and EWU250001050H635 (Surety Insurance Number of Employees), respectively.
- Years 2001 - 2005: 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.
- (17) Section VI-F, Exhibit 1.
- (19) = Average of (10)-(16) weighted by (17)
- (20) = [ (19) for CY 2005 ] / (19)
- (21) = [ (19) for PY 2003 ] / (19). Index for PY 2003 is computed as average of indices for CY 2003 - 2004.
- (22) = [ (19) for PY 2004 ] / (19). Index for PY 2003 is computed as average of indices for CY 2004 - 2005.
- (24) = (20) x { [ (23) for projected date ] / [ (23) for CY 2005]
- (25) = [ (19) for CY 2005 ] / [ Average of (19) for Year and Year+1 ] x { [ (23) for projected date ] / [ (23) for CY 2005]

# VI 000019 R

Section VI - Expenses  
Subsection H - Exposure Growth  
9/1/2007

Section VI - H  
Exhibit 1

## Growth in Worker-Weeks

Composite Policy Years	Annual Change in Worker-Weeks
1999/2000 to 2000/2001	1.8%
2000/2001 to 2001/2002	-2.8%
2001/2002 to 2002/2003	-1.2%
2002/2003 to 2003/2004	-6.0%
Average of Latest 4 annual changes	-2.1%
Average of Latest 3 annual changes	-3.4%
Average of Latest 2 annual changes	-3.6%

Selected for overall exposure growth <sup>1</sup> :	<b>-3.0%</b>
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### Notes:

Worker-weeks data from Section V-E, Exhibit 1

<sup>1</sup> The selected number is the average of the three entries in the "Average" section above for Schedule Z exposure growth rates.

# VI 000020 R

Section VI - Expenses  
Subsection I - Expenses Net of Premium Discount  
9/1/2007

Section VI - I  
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	5.7%	3.2%
(2)	% of Voluntary Premium using Discount Table	62.8%	37.2%
(3)	Weighted Average Premium Discount in Voluntary Market = (1) weighted by (2)	4.8%	
(4)	Voluntary Market Share	84.0%	
(5)	Average Premium Discount in Total Market = (3) x (4)	4.0%	
(6)	Average ARAP Surcharge for Policy Effective Period as a percentage of Standard Premium	6.0%	
(7)	Average Premium Discount as a percent of Standard Premium + ARAP = (5) / [1.0 + (6)]	<b>3.8%</b>	

### Notes:

- (1) Section VI - I, Exhibit 2.
- (2) Section VI - I, Exhibit 4.
- (4) From Special Bulletin 02-07. Market Share is estimated using Standard Premium plus ARAP.
- (6) Section X - K, Exhibit 3.

# VI 000021 R

Section VI - Expenses  
Subsection I - Expenses Net of Premium Discount  
9/1/2007

Section VI - I  
Exhibit 2

## Determination of Average Premium Discount for Type A & B Companies Voluntary Market Risks

Layer of Standard Premium (1)	Policy Year Standard Earned Premium (2)	Proportion of Premium in Layer (3)	% Premium Discount	
			Type A Company (4)	Type B Company (5)
First	10,000	180,542,144	0.406	
Next	190,000	211,384,157	0.475	
Next	1,550,000	48,645,358	0.109	
Over	1,750,000	4,291,138	0.010	
TOTALS		444,862,797	1.000	

Note:

(2) Section VI - I, Exhibit 3, Page 1.

# VI 000022 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
 Exhibit 3  
 Page 1

## Standard Premium by Layer Voluntary Market Risks

03/04 Policy Year Layer of Standard Premium (1)	Standard Premium in Layer		Standard Premium = [ (2) + (3) ] (4)
	Intrastate (2)	Interstate (3)	
0 - 11,765	163,676,662	16,865,483	180,542,144
11,765 - 235,294	155,971,174	55,412,982	211,384,157
235,294 - 2,058,824	22,875,737	25,769,621	48,645,358
2,058,824 & Over	670,260	3,620,877	4,291,138
<b>TOTAL</b>	<b>343,193,834</b>	<b>101,668,963</b>	<b>444,862,797</b>

Notes:

- (1) Corresponds to first 10,000, next 190,000, next 1,550,000, and over 1,750,000 with 0.85 premium adjustment. See Section III - G, Exhibit 1.
- (2),(3) Section VI - I, Exhibit 3, Page 2.

# VI 00023 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
 Exhibit 3  
 Page 2

## Premium by Layer Within Intervals for All Companies Voluntary Market Risks

Intrastate Intervals							
Layer of Standard Premium (1)	Standard Premium Sizes				Total = [ Sum of (2) ] (3)		
	0 - 11,765	11,765 - 235,294	235,294 - 2,058,824	2,058,824 & Over			
0 - 11,765	99,347,250	63,023,529	1,294,118	11,765	163,676,662		
11,765 - 235,294		131,159,410	24,588,235	223,529	155,971,174		
235,294 - 2,058,824			21,052,208	1,823,529	22,875,737		
2,058,824 & Over				670,260	670,260		
Total	99,347,250	194,182,939	46,934,561	2,729,084	343,193,834		

Interstate Intervals					
Layer of Standard Premium (4)	Standard Premium Sizes				Total = [ Sum of (5) ] (6)
	0 - 4,706	4,706 - 94,118	94,118 - 823,529	823,529 & Over	
0 - 4,706	5,769,012	10,094,118	983,529	18,824	16,865,483
4,706 - 94,118		36,368,276	18,687,059	357,647	55,412,982
94,118 - 823,529			22,851,974	2,917,647	25,769,621
823,529 & Over				3,620,877	3,620,877
Total	5,769,012	46,462,394	42,522,562	6,914,995	101,668,963

Notes:

Schedule Z, Voluntary Market Data, Carriers choosing either Type A or Type B Discounts.  
 Layers correspond to the Premium Discount layers (Exhibit 2) adjusted by the Premium Adjustment Factor from Section III-G, Exhibit 1.

(4) 40% of premium of Interstate risks is assumed to be in Massachusetts.

# VI 000024 R

Section VI - Expenses  
Subsection I - Expenses Net of Premium Discount  
9/1/2007

Section VI - I  
Exhibit 4

## Calculation of Calendar Year 2005 Voluntary Premium: Type A vs. Type B Table Elected Premium Discount Schedule as of 2/5/07

(1)	Adjusted Voluntary Premium for Companies electing Type A Premium Discount Schedule (\$000)	341,498
(2)	Adjusted Voluntary Premium for Companies electing Type B Premium Discount Schedule (\$000)	202,694
(3)	Percentage of Voluntary Premium electing Type A Discount = (1) / [(1) + (2)]	62.8%
(4)	Percentage of Voluntary Premium electing Type B Discount = (2) / [(1) + (2)]	37.2%

### Notes:

The total market premiums are from the 2005 Annual Statements, Page 15. Ceded and VDAC premium information is from NCCI and VDAC carriers. "Adjusted" Voluntary Premiums that are negative have been set equal to zero under the assumption that there are no negative values after audit.

(1),(2) Section VI - I, Exhibit 5, Page 7.



# VI 00025 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
 Exhibit 5

## Calendar Year 2005 Premiums

Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	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)	Type N/A Written Unknown (\$000) (9)
26158	Associated Industrial of Mass	A	108,804	53,205	55,599	55,599	0	0
16586	Liberty Mutual Fire Insurance Company	B	61,487	36,769	24,718	0	24,718	0
14974	Twin City Fire Insurance Company	B	44,792	0	44,792	0	44,792	0
29211	Atlantic Charter Insurance Company	A	30,546	7,961	22,585	22,585	0	0
21814	Liberty Insurance Corporation	B	29,352	0	29,352	0	29,352	0
10863	Zurich American Insurance Company	A	25,014	0	25,014	25,014	0	0
25844	NorGuard Insurance Company	A	21,197	0	21,197	21,197	0	0
40959	Associated Employers Insurance Company	B	20,221	0	20,221	0	20,221	0
10456	Hartford Underwriters Insurance Company	B	17,448	11,428	6,019	0	6,019	0
17965	American Zurich Insurance Company	A	15,685	11,097	4,588	4,588	0	0
10243	Continental Casualty Company	B	15,620	10,672	4,947	0	4,947	0
12890	Federal Insurance Company	A	15,425	(1)	15,426	15,426	0	0
14397	Hartford Casualty Insurance Company	B	13,085	0	13,085	0	13,085	0
15628	Liberty Mutual Insurance Company	B	12,587	(601)	13,188	0	13,188	0
20605	Hartford Insurance Company of the Midwest	B	11,785	0	11,785	0	11,785	0
35718	Endeavour Insurance Company	A	10,752	0	10,752	10,752	0	0
27723	Firemen's Insurance Company of Washington, D.C.	A	10,278	0	10,278	10,278	0	0
13269	Hartford Fire Insurance Company	B	10,076	0	10,076	0	10,076	0
12408	Transportation Insurance Company	B	9,132	0	9,132	0	9,132	0
35165	Arbella Protection Insurance Company, Inc.	A	7,980	0	7,980	7,980	0	0
33391	Acadia Insurance Company	A	7,206	0	7,206	7,206	0	0
24562	Star Insurance Company	A	6,424	0	6,424	6,424	0	0
16152	Public Service Mutual Insurance Company	A	6,411	0	6,411	6,411	0	0
15555	Employers Insurance Company of Wausau	A	6,410	0	6,410	6,410	0	0
41068	Alea North America Insurance Company	A	6,311	0	6,311	6,311	0	0
16721	Farm Family Casualty Insurance Company	A	6,160	0	6,160	6,160	0	0
13633	Hanover Insurance Company	A	6,053	0	6,053	6,053	0	0
31771	Savers Property and Casualty Insurance Company	A	5,921	0	5,921	5,921	0	0
36835	Independence Casualty Insurance Company	A	5,749	0	5,749	5,749	0	0
16993	Central Mutual Insurance Company	A	5,711	0	5,711	5,711	0	0
10545	Maryland Casualty Company	A	5,199	0	5,199	5,199	0	0
16640	Arrow Mutual Liability Insurance Company	B	4,803	0	4,803	0	4,803	0
10359	OneBeacon Insurance Company	A	4,686	1,856	2,830	2,830	0	0
16322	National Grange Mutual Insurance Company	A	4,622	0	4,622	4,622	0	0
21873	AmGuard Insurance Company	A	4,274	0	4,274	4,274	0	0
21059	Norfolk & Dedham Mutual Fire Insurance Company	A	3,920	0	3,920	3,920	0	0
15571	Sentry Insurance A Mutual Company	A	3,720	0	3,720	3,720	0	0
31879	Arbella Indemnity Insurance Company, Inc.	A	3,439	0	3,439	3,439	0	0
21644	Harleysville Worcester Insurance Company	B	3,409	0	3,409	0	3,409	0
11355	Peerless Insurance Company	A	3,216	0	3,216	3,216	0	0
30406	State National Insurance Company Inc.	A	3,133	0	3,133	3,133	0	0
27243	LM Insurance Corporation	B	3,127	1,542	1,585	0	1,585	0
12629	Electric Insurance Company	A	3,064	0	3,064	3,064	0	0
15717	Utica Mutual Insurance Company	A	2,604	0	2,604	2,604	0	0
19879	Virginia Surety Company, Inc.	A	2,475	0	2,475	2,475	0	0
11509	Old Republic Insurance Company	A	2,421	0	2,421	2,421	0	0
27103	Main Street America Assurance Company	A	2,313	0	2,313	2,313	0	0
23922	Paramount Insurance Company	A	2,286	0	2,286	2,286	0	0
12688	Transcontinental Insurance Company	A	2,260	0	2,260	2,260	0	0
10685	Pacific Indemnity Company	A	2,194	0	2,194	2,194	0	0
12777	United States Fire Insurance Company	A	2,181	0	2,181	2,181	0	0
25461	Clarendon National Insurance Company	A	2,095	0	2,095	2,095	0	0
15822	Graphic Arts Mutual Insurance Company	A	2,068	0	2,068	2,068	0	0

# VI 00026 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
 Exhibit 5

## Calendar Year 2005 Premiums

Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	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)	Type N/A Written Unknown (\$000) (9)
10448	Hartford Accident and Indemnity Company	B	1,942	0	1,942	0	1,942	0
10030	American Casualty Company of Reading, Pennsylvania	A	1,829	0	1,829	1,829	0	0
11363	Ohio Casualty Insurance Company	A	1,776	0	1,776	1,776	0	0
18996	Wausau Underwriters Insurance Company	A	1,732	0	1,732	1,732	0	0
13838	All America Insurance Company	A	1,726	0	1,726	1,726	0	0
28355	Arch Insurance Company	A	1,716	0	1,716	1,716	0	0
15032	Valley Forge Insurance Company	B	1,710	0	1,710	0	1,710	0
14567	Great Northern Insurance Company	A	1,524	0	1,524	1,524	0	0
16446	Federated Mutual Insurance Company	A	1,496	0	1,496	1,496	0	0
17507	Florists' Mutual Insurance Company	A	1,468	0	1,468	1,468	0	0
12238	National Fire Insurance Company of Hartford	A	1,460	0	1,460	1,460	0	0
10693	Vigilant Insurance Company	A	1,407	0	1,407	1,407	0	0
14095	Argonaut Insurance Company	A	1,357	0	1,357	1,357	0	0
11916	Pennsylvania Manufacturers' Association Ins. Co.	A	1,289	0	1,289	1,289	0	0
33936	EastGuard Insurance Company	A	1,265	0	1,265	1,265	0	0
13668	Sentry Select Insurance Company	A	1,262	0	1,262	1,262	0	0
12300	Employers' Fire Insurance Company	A	1,254	0	1,254	1,254	0	0
12297	Universal Underwriters Insurance Company	A	1,193	0	1,193	1,193	0	0
12440	General Casualty Company of Wisconsin	A	1,058	0	1,058	1,058	0	0
61417	Atlantic Specialty Insurance Company	A	993	0	993	993	0	0
14184	Netherlands Insurance Company (The)	A	982	0	982	982	0	0
19089	Mitsui Sumitomo Insurance Company of America	A	959	0	959	959	0	0
14281	Tokio Marine & Nichido Fire Insurance Co., Ltd.	A	931	0	931	931	0	0
27359	First Liberty Insurance Corporation (The)	B	905	0	905	0	905	0
11452	American Guarantee and Liability Insurance Company	A	875	0	875	875	0	0
27332	Wausau Business Insurance Company	A	864	0	864	864	0	0
38563	MEMIC Indemnity Company	A	845	0	845	845	0	0
14540	OneBeacon America Insurance Company	A	797	0	797	797	0	0
13854	TIG Insurance Company	A	791	0	791	791	0	0
27944	XL Specialty Insurance Company	A	786	0	786	786	0	0
34681	Great Divide Insurance Company	A	781	0	781	781	0	0
24023	Vanliner Insurance Company	A	778	0	778	778	0	0
16349	Safety National Casualty Corporation	A	771	0	771	771	0	0
10561	American Economy Insurance Company	A	770	0	770	770	0	0
14508	North River Insurance Company	A	707	0	707	707	0	0
32530	Fairfield Insurance Company	A	685	0	685	685	0	0
11495	American States Insurance Company	A	657	0	657	657	0	0
12742	Argonaut-Midwest Insurance Company	A	653	0	653	653	0	0
16853	Church Mutual Insurance Company	B	647	0	647	0	647	0
31097	Transguard Insurance Company of America, Inc.	A	592	0	592	592	0	0
10510	Fidelity and Deposit Company of Maryland	A	468	0	468	468	0	0
10650	Excelsior Insurance Company	A	424	0	424	424	0	0
13897	Great American Insurance Company of New York	A	393	0	393	393	0	0
15652	Merchants Mutual Insurance Company	A	379	0	379	379	0	0
17604	Pharmacists Mutual Insurance Company	A	338	0	338	338	0	0
20575	Harleysville Preferred Insurance Company	B	290	0	290	0	290	0
14788	Protective Insurance Company	A	288	0	288	288	0	0
10065	American Motorists Insurance Company	A	260	0	260	260	0	0
17027	Penn Millers Insurance Company	A	206	0	206	206	0	0
20583	Selective Insurance Company of the Southeast	A	165	0	165	165	0	0
10960	Middlesex Insurance Company	A	162	0	162	162	0	0
33790	Mountain Valley Indemnity Company	A	139	0	139	139	0	0
13714	Westport Insurance Corporation	A	132	0	132	132	0	0

# VI 000027 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
 Exhibit 5

## Calendar Year 2005 Premiums

Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	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)	Type N/A Written Unknown (\$000) (9)
15539	Employers Mutual Casualty Company	A	132	0	132	132	0	0
11126	Petroleum Casualty Company	A	129	0	129	129	0	0
12173	Assurance Company of America	A	128	0	128	128	0	0
11770	Patriot General Insurance Company	A	121	0	121	121	0	0
28312	Everest National Insurance Company	A	111	0	111	111	0	0
22055	Ullico Casualty Company	A	111	0	111	111	0	0
12572	Security Insurance Company of Hartford	A	107	0	107	107	0	0
15385	Cincinnati Insurance Company	A	98	0	98	98	0	0
24759	American Interstate Insurance Company	A	93	0	93	93	0	0
25992	Midwest Employers Casualty Company	A	88	0	88	88	0	0
36889	MassWest Insurance Company, Inc.	A	84	0	84	84	0	0
31607	National Interstate Insurance Company	N/A	84	0	84	0	0	84
14176	Great American Insurance Company	A	78	0	78	78	0	0
11037	Great West Casualty Company	A	76	0	76	76	0	0
10006	Massachusetts Bay Insurance Company	A	74	0	74	74	0	0
11266	American Fire and Casualty Company	A	69	0	69	69	0	0
14028	Great American Alliance Insurance Company	A	65	0	65	65	0	0
13145	Zenith Insurance Company	A	56	0	56	56	0	0
17299	GuideOne Mutual Insurance Company	A	51	0	51	51	0	0
31720	Chubb Indemnity Insurance Company	A	47	0	47	47	0	0
19968	Accident Fund Insurance Company of America	A	43	0	43	43	0	0
13765	Northern Insurance Company of New York	A	35	0	35	35	0	0
12963	Maine Bonding and Casualty Company	A	34	0	34	34	0	0
14842	State Farm Fire and Casualty Company	A	34	0	34	34	0	0
40851	T.H.E. Insurance Company	B	30	0	30	0	30	0
11029	Insurance Company of Greater New York	A	30	0	30	30	0	0
15660	Amerisure Mutual Insurance Company	B	20	0	20	0	20	0
11002	Citizens Insurance Company of America	A	17	0	17	17	0	0
27154	ACIG Insurance Company	B	17	0	17	0	17	0
12149	Centennial Insurance Company	A	16	0	16	16	0	0
19291	Ohio Security Insurance Company	A	15	0	15	15	0	0
10111	Republic Franklin Insurance Company	A	15	0	15	15	0	0
11614	Harco National Insurance Company	B	13	0	13	0	13	0
11061	Regent Insurance Company	A	13	0	13	13	0	0
19283	NIPPONKOA Insurance Company, Limited (U.S. Branch)	A	12	0	12	12	0	0
36196	Everest Reinsurance Company	A	12	0	12	12	0	0
14591	Greenwich Insurance Company	A	10	0	10	10	0	0
17116	American Manufacturers Mutual Insurance Company	A	10	0	10	10	0	0
19399	American Alternative Insurance Corporation	A	6	0	6	6	0	0
15849	Pennsylvania National Mutual Casualty Ins. Co.	B	4	0	4	0	4	0
13404	General Insurance Company of America	A	3	0	3	3	0	0
20052	Trans Pacific Insurance Company	A	3	0	3	3	0	0
18376	Lumbermen's Underwriting Alliance	B	2	0	2	0	2	0
16519	American Hardware Mutual Insurance Company	A	2	0	2	2	0	0
15407	Pennsylvania General Insurance Company	A	1	0	1	1	0	0
11525	Amerisure Insurance Company	B	1	0	1	0	1	0
10316	Employers Reinsurance Corporation	A	1	0	1	1	0	0
21830	Fitchburg Mutual Insurance Company	A	1	0	1	1	0	0
14869	Merchants Insurance Company of New Hampshire, Inc.	A	0	0	0	0	0	0
11576	West American Insurance Company	A	0	0	0	0	0	0
13420	Seneca Insurance Company, Inc.	A	0	0	0	0	0	0
20273	Coregis Insurance Company	A	0	0	0	0	0	0
51225	United National Casualty Insurance Company	N/A	0	0	0	0	0	0

# VI 00028 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
 Exhibit 5

## Calendar Year 2005 Premiums

Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	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)	Type N/A Written Unknown (\$000) (9)
17388	Frankenmuth Mutual Insurance Company	A	0	0	0	0	0	0
17442	Montgomery Mutual Insurance Company	A	0	0	0	0	0	0
13552	Allstate Indemnity Company	A	0	0	0	0	0	0
13773	Northern Assurance Company of America (The)	A	0	0	0	0	0	0
17612	Union Insurance Company of Providence	A	0	0	0	0	0	0
17698	Republic Western Insurance Company	A	0	0	0	0	0	0
17906	Citation Insurance Company	B	0	0	0	0	0	0
10332	Fidelity and Casualty Company of New York (The)	A	0	0	0	0	0	0
18244	Truck Insurance Exchange	A	0	0	0	0	0	0
14303	Firemen's Insurance Company of Newark, New Jersey	A	0	0	0	0	0	0
18937	Professional Liability Insurance Co. of America	A	0	0	0	0	0	0
17013	Tower National Insurance Company	N/A	0	0	0	0	0	0
17205	Seaton Insurance Company	A	0	0	0	0	0	0
19143	Commerce Insurance Company	B	0	0	0	0	0	0
19224	AXA Corporate Solutions Insurance Company	B	0	0	0	0	0	0
16411	Pennsylvania Lumbermens Mutual Insurance Company	A	0	0	0	0	0	0
10049	American Employers' Insurance Company	A	0	0	0	0	0	0
41270	Strathmore Insurance Company	N/A	0	0	0	0	0	0
13226	Peerless Indemnity Insurance Company	A	0	0	0	0	0	0
19518	Fairmont Insurance Company	A	0	0	0	0	0	0
19666	Trumbull Insurance Company	A	0	0	0	0	0	0
11673	Zurich American Ins Co of Illinois	N/A	0	0	0	0	0	0
11648	Housing Authority Property Insurance, a Mutual Co.	N/A	0	0	0	0	0	0
14710	Fairmont Specialty Insurance Company	A	0	0	0	0	0	0
20117	Massachusetts Homeland Insurance Company	A	0	0	0	0	0	0
11169	Selective Insurance Company of America	A	0	0	0	0	0	0
20354	TIG Indemnity Company	A	0	0	0	0	0	0
14559	TIG Premier Insurance Company	A	0	0	0	0	0	0
14680	CUMIS Insurance Society, Inc.	B	0	0	0	0	0	0
14338	Integon National Insurance Company	N/A	0	0	0	0	0	0
20699	Northbrook Indemnity Company	A	0	0	0	0	0	0
12246	Wausau General Insurance Company	A	0	0	0	0	0	0
11746	Carolina Casualty Insurance Company	B	0	0	0	0	0	0
21172	Insurance Corporation of Hannover	A	0	0	0	0	0	0
10871	Allianz Global Risks US Insurance Company	A	0	0	0	0	0	0
21733	Liberty Northwest Insurance Corporation	A	0	0	0	0	0	0
13943	Occidental Fire & Cas Co. of NC	A	0	0	0	0	0	0
14648	Kansas City Fire and Marine Insurance Company	A	0	0	0	0	0	0
11339	Countryway Insurance Company	A	0	0	0	0	0	0
16357	Preferred Mutual Insurance Company	A	0	0	0	0	0	0
22063	Vermont Mutual Insurance Company	N/A	0	0	0	0	0	0
39055	Caterpillar Insurance Company	N/A	0	0	0	0	0	0
22373	Plymouth Rock Assurance Corporation	B	0	0	0	0	0	0
22438	Nationwide Property & Casualty Insurance Company	B	0	0	0	0	0	0
22551	Patrons Mutual Insurance Company of Connecticut	B	0	0	0	0	0	0
22616	Markel Insurance Company	B	0	0	0	0	0	0
22764	Diamond State Insurance Company	A	0	0	0	0	0	0
15792	Cambridge Mutual Fire Insurance Company	N/A	0	0	0	0	0	0
23957	Selective Insurance Company of South Carolina	A	0	0	0	0	0	0
24015	Rampart Insurance Company	A	0	0	0	0	0	0
13935	Country Casualty Insurance Company	B	0	0	0	0	0	0
24147	North American Specialty Insurance Company	A	0	0	0	0	0	0
24201	NIPPONKOA Insurance Company of America	A	0	0	0	0	0	0

# VI 000029 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
 Exhibit 5

## Calendar Year 2005 Premiums

Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	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)	Type N/A Written Unknown (\$000) (9)
24252	Colonial American Casualty and Surety Company	A	0	0	0	0	0	0
24295	Insurance Corporation of New York (The)	N/A	0	0	0	0	0	0
24430	Banclinsure, Inc.	A	0	0	0	0	0	0
15741	Selective Insurance Company of New York	A	0	0	0	0	0	0
15121	Glens Falls Insurance Company (The)	A	0	0	0	0	0	0
24783	DaimlerChrysler Insurance Company	A	0	0	0	0	0	0
25038	Lancer Insurance Company	A	0	0	0	0	0	0
25453	Redland Insurance Company	A	0	0	0	0	0	0
12203	Boston Old Colony Insurance Company	A	0	0	0	0	0	0
25585	Merchants and Business Men's Mutual Insurance Co.	N/A	0	0	0	0	0	0
25631	Stonington Insurance Company	B	0	0	0	0	0	0
10200	Commercial Insurance Company of Newark, N.J.	A	0	0	0	0	0	0
15156	Atlanta International Insurance Company	N/A	0	0	0	0	0	0
26107	Warner Insurance Company	A	0	0	0	0	0	0
10928	Nationwide Affinity Insurance Company of America	A	0	0	0	0	0	0
26565	Dorchester Mutual Insurance Company	A	0	0	0	0	0	0
26689	York Insurance Company of Maine	N/A	0	0	0	0	0	0
15008	Niagara Fire Insurance Company	A	0	0	0	0	0	0
38199	Centre Insurance Company	A	0	0	0	0	0	0
16926	Harleysville Mutual Insurance Company	A	0	0	0	0	0	0
27308	Genesis Insurance Company	A	0	0	0	0	0	0
15806	Merrimack Mutual Fire Insurance Company	N/A	0	0	0	0	0	0
11142	Houston General Insurance Company	A	0	0	0	0	0	0
27545	Mapfre Reinsurance Corporation	A	0	0	0	0	0	0
27634	Hudson Insurance Company	N/A	0	0	0	0	0	0
10480	XL Insurance America, Inc.	A	0	0	0	0	0	0
27871	Commercial Casualty Insurance Company	A	0	0	0	0	0	0
15067	Allstate Insurance Company	A	0	0	0	0	0	0
15016	Northwestern National Ins. Co. of Milwaukee Wisc.	A	0	0	0	0	0	0
12602	Bituminous Fire and Marine Insurance Company	B	0	0	0	0	0	0
28401	Platte River Insurance Company	N/A	0	0	0	0	0	0
29084	AXA Re America Insurance Company	B	0	0	0	0	0	0
15326	Affiliated FM Insurance Company	B	0	0	0	0	0	0
29386	North American Elite Insurance Company	A	0	0	0	0	0	0
29432	Pilgrim Insurance Company	B	0	0	0	0	0	0
29637	OneBeacon Midwest Insurance Company	N/A	0	0	0	0	0	0
29661	Allmerica Financial Benefit Insurance Company	A	0	0	0	0	0	0
29734	American Compensation Insurance Company	A	0	0	0	0	0	0
29866	Converium Insurance (North America) Inc.	N/A	0	0	0	0	0	0
30147	Property and Casualty Insurance Co. of Hartford	A	0	0	0	0	0	0
30325	Beacon Mutual Insurance Company (The)	B	0	0	0	0	0	0
16381	Empire Insurance Company	B	0	0	0	0	0	0
30449	Maine Employers' Mutual Insurance Company	A	0	0	0	0	0	0
30732	Sirius America Insurance Company	B	0	0	0	0	0	0
30937	Hanover American Insurance Company (The)	A	0	0	0	0	0	0
14311	Union Insurance Company	N/A	0	0	0	0	0	0
11053	Continental Western Insurance Company	N/A	0	0	0	0	0	0
15997	Nationwide Mutual Fire Insurance Company	B	0	0	0	0	0	0
17051	American Country Insurance Company	A	0	0	0	0	0	0
12718	Transport Insurance Company	A	0	0	0	0	0	0
32239	Preferred Professionals Insurance Company	A	0	0	0	0	0	0
32247	Quincy Mutual Fire Insurance Company	A	0	0	0	0	0	0
16942	Eastern Casualty Insurance Company	A	0	0	0	0	0	0

# VI 000030 R

Section VI - Expenses  
 Subsection I - Expenses Net of Premium Discount  
 9/1/2007

Section VI - I  
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## Calendar Year 2005 Premiums

Company Number (1)	Company Name (2)	Elected Discount Schedule (3)	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)	Type N/A Written Unknown (\$000) (9)
32873	AXIS Reinsurance Company	N/A	0	0	0	0	0	0
14966	Integon Preferred Ins. Co.	A	0	0	0	0	0	0
33480	Tower Insurance Company of New York	N/A	0	0	0	0	0	0
33499	Executive Risk Indemnity Inc.	N/A	0	0	0	0	0	0
16284	Country Mutual Insurance Company	B	0	0	0	0	0	0
13129	Federated Service Insurance Company	N/A	0	0	0	0	0	0
14427	New England Insurance Company	A	0	0	0	0	0	0
34738	Allmerica Financial Alliance Insurance Company	A	0	0	0	0	0	0
13234	ProSelect Insurance Company	N/A	0	0	0	0	0	0
35173	Chubb National Insurance Company	A	0	0	0	0	0	0
35246	Covenant Insurance Company	A	0	0	0	0	0	0
10138	Bituminous Casualty Corporation	A	(0)	0	0	0	0	0
22098	Blue Ridge Insurance Company	A	(0)	0	0	0	0	0
20907	York Insurance Company	A	(0)	0	0	0	0	0
16195	Nationwide Mutual Insurance Company	B	(1)	0	0	0	0	0
13307	Great American Assurance Company	A	(4)	0	0	0	0	0
40991	Safety First Insurance Company	A	(9)	0	0	0	0	0
16772	Greater New York Mutual Insurance Company	B	(20)	0	0	0	0	0
12939	Providence Washington Insurance Company	A	(23)	0	0	0	0	0
15644	Lumbermens Mutual Casualty Company	B	(30)	0	0	0	0	0
15113	Continental Insurance Company, (The)	A	(132)	0	0	0	0	0
19321	Sompo Japan Insurance Company of America	A	(265)	0	0	0	0	0
16470	Atlantic Mutual Insurance Company	A	(266)	0	0	0	0	0
10723	Royal Indemnity Company	A	(362)	127	0	0	0	0
Total			677,090	134,055	544,275	341,498	202,694	84

Percentage of Voluntary premium electing Type A Discount: 62.7%  
 Percentage of Voluntary premium electing Type B Discount: 37.2%  
 Percentage of Voluntary premium electing no Discount: 0.0%

# VI 000031 R

Section VI - Expenses  
 Subsection J - Expense Constant Offset  
 9/1/2007

Section VI - J  
 Exhibit 1

## Calculation of Expense Constant Offset for Policy Effective Period

- (1) Expense Constant Offset for Composite Policy Year 03/04
0.961
- (2) Expense Constant as percent of premium for Composite Policy Year 03/04  
= 1.0 - (1)
3.9%
- (3) Expense Constant for Composite Policy Year 03/04
\$214.06

(4) Period

Policy Effective Period	Policy Year 2003	Policy Year 2004	Calendar Year 2005
-------------------------	------------------	------------------	--------------------

- (5) Factor to bring Composite Policy Year 03/04 premium to premium level of (4)

0.85
1.05
1.00
1.00
- (6) Expense Constant for (4)

\$270.13
\$203.87
\$224.26
\$225.20
- (7) Expense Constant as percent of premium for policy effective period  
= [ (2) x { (6) / (3) } ] / { ( (5) x (1) ) + [ (2) x ( (6) / (3) ) ] }

5.7%
3.6%
4.1%
4.1%
- (8) Expense Constant Offset  
= 1.0 - (7)

0.943
0.964
0.959
0.959

**Notes:**

- (1) Section VI - J, Exhibit 2.
- (3) Average of the Expense Constants for Policy Years 2003 and 2004.
- (5) Section III - G, Exhibit 1, Exhibit 2, Exhibit 3.
- (6) For the Policy Effective Period: Section VI - E, Exhibit 1.

# VI 000032 R

Section VI - Expenses  
 Subsection J - Expense Constant Offset  
 9/1/2007

Section VI - J  
 Exhibit 2

## Expense Constant Offsets

	Standard Premium Plus ARAP	Expense Constant	Expense Constant Offset (1) / [(1) + (2)]
	(1)	(2)	(3)
<hr/>			
Policy Year 02/03			
A. First Report	648,735,427	22,757,873	0.966
B. Second Report	648,739,736	22,757,752	0.966
Policy Year 03/04			
A. First Report	587,176,373	23,866,744	0.961

Source: Schedule Z Classification Summaries. Excluding large deductible policies.  
 (Reference Code 01A).



# VI 000033 R

Section VI - Expenses  
Subsection K - Acquisition Expenses  
9/1/2007

Section VI - K  
Exhibit 1

## Provision for Acquisition Expense including Reinsurer's Expenses

(1)	Other Acquisition Expense (exclusive of Expense Constant)	2.2%
(2)	Average Commission (exclusive of Expense Constant)	8.2%
(3)	Average Frictional Reinsurance Cost	1.0%
(4)	Incidental Income and Earned but Uncollected Premium	0.0%

(5)	Acquisition Expense = (1) + (2) + (3) + (4)	<b>11.4%</b>
-----	--	--------------

### Notes:

- (1) Section VI - K, Exhibit 2
- (2) Section VI - K, Exhibit 3
- (3) Section VI - K, Exhibit 4
- (4) Section VI - K, Exhibit 5

# VI 000034 R

Section VI - Expenses  
 Subsection K - Acquisition Expenses  
 9/1/2007

Section VI - K  
 Exhibit 2

## Calculation of Other Acquisition Expense All Companies Combined

	Calendar Year		
	2003	2004	2005
(1) Expense Call Standard Earned Premium	757,887,539	715,388,494	694,662,039
(2) Factor to include ARAP	1.039	1.041	1.039
(3) Standard Earned Premium plus ARAP = (1) x (2)	787,703,869	744,870,255	721,819,030
(4) Other Acquisition, Field Supervision, Collection Expenses for Home Office and Branch Office, excluding Commissions	37,880,159	33,851,297	34,206,065
(5) Percentage for Other Acquisition Expense = (4) / (3)	4.8%	4.5%	4.7%
(6) Three Year Average		4.7%	
(7) Expense Constant as a percent of Premium		5.7%	
(8) Other Acquisition Portion of Expense Constant		46.7%	
(9) Percent of Premium due to Portion of Expense Constant for Other Acquisition Expense = (7) x (8)		2.7%	
(10) Other Acquisition Expense and Field Supervision exclusive of Expense Constant = [(6) - (9)] / [1.0 - (7)]		<b>2.2%</b>	

**Notes:**

- (1),(4) Massachusetts Expense Calls, Calendar Years 2003 - 2005.
  - (1) For CY 2003 - 2005, Reported premium excludes ARAP and includes large deductible policies at Standard premium.
  - (2) Estimated using Schedule Z data for Composite Policy Years 02/03, 03/04 and 04/05
  - (7) Section VI - J, Exhibit 1.
  - (8) Section VI - B, Exhibit 3.

# VI 000035 R

Section VI - Expenses  
 Subsection K - Acquisition Expenses  
 9/1/2007

Section VI - K  
 Exhibit 3

## Calculation of Average Commission All Companies Combined

	Calendar Year		
	2003	2004	2005
(1) Expense Call Written Premium	689,734,827	653,298,249	676,734,334
(2) Factor to include ARAP	1.039	1.041	1.039
(3) Written Premium plus ARAP = (1) x (2)	716,869,936	680,221,218	703,190,463
(4) Total Commissions for Agents and Brokers	59,949,818	53,375,563	49,878,170
(5) Percentage for Commissions = (4) / (3)	8.4%	7.8%	7.1%
(6) Three Year Average		7.8%	
(7) Expense Constant as a Percent of Premium		5.7%	
(8) Commission Exclusive of Expense Constant = (6) / [1.0 - (7)]		<b>8.2%</b>	

**Notes:**

- (1),(4) Massachusetts Expense Calls, Calendar Years 2003 - 2005.
- (2) Estimated using Schedule Z data for Composite Policy Years 02/03, 03/04 and 04/05
- (7) Section VI - J, Exhibit 1.

# VI 000036 R

Section VI - Expenses  
 Subsection K - Acquisition Expenses  
 9/1/2007

Section VI - K  
 Exhibit 4  
 Page 1

## Frictional Reinsurance Expenses

Calendar Year  (1)	Reinsurer Expense as Percentage of Net Premium Written				
	Comm and Brokerage  (2)	Other Acq.  (3)	General Expenses  (4)	Taxes  (5)	Total Underwriting Expenses (2) + (3) + (4) + (5)  (6)
1991	18.7%	3.4%	3.0%	0.3%	25.4%
1992	20.4%	3.6%	3.1%	0.2%	27.3%
1993	19.6%	3.4%	3.2%	0.1%	26.3%
1994	18.3%	3.1%	2.6%	0.1%	24.1%
1995	20.3%	3.2%	2.4%	0.1%	26.0%
1996	22.3%	3.8%	2.6%	0.4%	29.1%
1997	20.7%	4.1%	2.9%	0.2%	27.9%
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%
(7) Average	20.0%	4.0%	3.0%	0.3%	27.4%
(8) Ceding Commissions Offset	13.0%				
(9) Adjusted Average	7.0%	4.0%	3.0%	0.3%	14.4%
(10) Est. % of Direct Premium Ceded for Non-Proportional Reinsurance					11.4%
(11) Implied Frictional Reinsurance Costs Relative to Direct Premiums (as a %)					1.65%
(12) Selected Frictional Reinsurance Costs Relative to Standard plus ARAP Premiums					1.0%

Notes:

(2)-(5): Insurance Expense Exhibit database - By Line Underwriting Experience from Best's  
 Aggregates & Averages, Editions 1992 - 2006

(8): Page 2, (10)

(9): =(7) - (8)

(10): Page 2, (11)

(11): = [ Adjusted Average for (6) ] x (10)

Estimate of Ceding Commission Rate

Calendar Year	Written Premiums (000's)			Ratio of Commission & Brokerage Incurred to Written Premium		Commission & Brokerage Expenses Incurred (000's)		
	Direct (2)	Net (3)	Direct - Net (2) - (3) (4)	Direct (5)	Net (6)	Direct (2) x (5) (7)	Net (3) x (6) (8)	Direct - Net (7) - (8) (9)
1991	0	0	0	0.000	0.000	0	0	0
1992	0	0	0	0.000	0.000	0	0	0
1993	37,285,854	34,261,902	3,023,952	0.050	0.054	1,864,293	1,850,143	14,150
1994	35,030,001	32,708,295	2,321,706	0.057	0.063	1,996,710	2,060,623	(63,913)
1995	31,917,541	29,538,099	2,379,442	0.061	0.068	1,946,970	2,008,591	(61,621)
1996	30,046,302	27,714,978	2,331,324	0.064	0.068	1,922,963	1,884,619	38,345
1997	29,775,890	27,583,106	2,192,784	0.069	0.063	2,054,536	1,737,736	316,801
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	0.084	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
Total	491,940,395	435,676,410	56,263,985	0.071	0.063	34,721,081	27,396,870	7,324,212

(10) Estimated Ceding Commission & Brokerage Ratio - Total (9) / Total (4)

13.0%

(11) Est. % of Direct Premium Ceded for Non-Proportional Reinsurance - Total (4) / Total (2)

11.4%

Notes:  
(2), (3), (5), (6): Insurance Expense Exhibit database - By Line Underwriting Experience from Best's Aggregates & Averages

# VI 000038 R

Section VI - Expenses  
 Subsection K - Acquisition Expenses  
 9/1/2007

Section VI - K  
 Exhibit 5

## Effect of Incidental Income and Earned but Uncollected Premium (Amounts in \$000)

		Policy Year		
		2002	2003	2004
(1)	Standard + ARAP Earned Premium excluding Large Deductible policies	655,866	642,220	607,538
(2)	Standard + ARAP Earned Premium for Large Deductible policies	157,924	140,730	115,795
(3)	Standard + ARAP Earned Premium for all policies = (1) + (2)	813,790	782,950	723,333
(4)	Incidental Income	(82)	(632)	(702)
(5)	Earned But Uncollected Premium	1,953	2,679	937
(6)	Net Effect of Incidental Income and Earned but Uncollected Premium = [ (4) + (5) ] / (3)	0.2%	0.3%	0.0%
(7)	Three Year Average		0.2%	
(8) Selected Effect of Incidental Income and Earned but Uncollected Premium			0.0%	

Notes:

- (1) Policy Year Call.
- (2) Large Deductible Policy Year Call (Gross).
- (4),(5) Call #25.

# VI 000039 R

Section VI - Expenses  
 Subsection L - Adjustment for Large Deductible Policies  
 9/1/2007

Section VI - L  
 Exhibit 1  
 Page 1

## Adjustment to the Adjusting and Other Expense Provision

	Calendar Year		
	2003	2004	2005
(1) Average premium reduction for Large Deductible policies	83.0%	81.2%	78.9%
(2) Loss Elimination Ratio (LER) for Large Deductible policies = (1) x 1.124	93.3%	91.3%	88.7%
(3) Market share (Standard Premium basis) of Large Deductible policies	19.0%	17.2%	16.3%
(4) LER for Full Coverage plus Large Deductible policies = [ (2) x (3) ] + { 0.0% x [ 100% - (3) ] }	17.7%	15.7%	14.5%
(5) Factor to adjust the Direct Losses = 1 / [ 100% - (4) ]	1.215	1.186	1.169
(6) Factor to adjust the Adjusting and Other Expense provision = 1 / [ 100% - { .5 x (4) } ]	1.097	1.085	1.078
(7) Factor to adjust the Ratio of Direct Adjusting and Other Expense to Direct Losses = (6) / (5)	0.903	0.915	0.922

**Notes:**

- (1),(3) Section VI - L, Exhibit 2.
- (2) Section VI - L, Exhibit 1, Page 2.
- (6) Assumes 50% of AO vary directly with losses.

# VI 000040 R

Section VI - Expenses  
 Subsection L - Adjustment for Large Deductible Policies  
 9/1/2007

Section VI - L  
 Exhibit 1  
 Page 2

## Loss Elimination Ratio for Large Deductible Policies

Formulas to derive Factor

D = Premium Reduction for Large Deductible Policies

LER = Loss Elimination Ratio

ELARD = (ELAR for Portion of Loss + LAE that varies with deductible)

assume to be: Loss + DCC + ( 1/2 x AO )

$D = [ LER \times ELARD ] / [ 100\% - (Variable\ Expense) ]$

$LER = D \times [ 100\% - (Variable\ Expense) ] / ELARD$

### Provisions Underlying the Adjustment of the Adjusting and Other Expense Ratio

Expense Provisions: Provisions approved for rates effective 9/1/05, for Voluntary policies.	Percentage of Standard Premium <u>plus ARAP</u>
Variable Expenses (VE):	
Acquisition	10.5%
Premium Discount	4.2%
Premium Taxes	2.2%
Profit	-0.8%
Insolvency Fund Assessment	2.4%
Residual Market Subsidy	0.7%
	<b>19.2%</b>
Fixed Expenses (FE):	
General + Misc. Tax	5.2%
Fixed Adjusting and Other Expenses	2.7%
Assumes that half of AO is fixed and half varies with losses	
= LAE x ELR x 50% x 50% = 16.6% x 63.9% x 50.0% x 50.0%	5.0%
	<b>7.9%</b>
Expected Loss and DCC Ratio (ELARD):	
ELR without LAE	63.9%
Defense and Cost Containment Expense	5.3%
Assumes LAE split into DCC and AO evenly	
= LAE x ELR x 50% = 16.6% x 63.9% x 50.0%	
Variable Adjusting and Other Expense	2.7%
see above note for Fixed AO	
	<b>71.9%</b>

100% - Variable Expenses = 80.8%

ELARD = 71.9%

LER = D x **1.124**



# VI 000041 R

Section VI - Expenses  
 Subsection L - Adjustment for Large Deductible Policies  
 9/1/2007

Section VI - L  
 Exhibit 2

## Average Large Deductible Premium Reduction and Large Deductible Market Share (Amounts in \$000)

		Policy Year			
		2002	2003	2004	2005
(1)	Standard Earned Premium excluding Large Deductible policies	631,767	619,748	586,022	325,859
(2)	Earned Premium Net of Deductible Credit for Large Deductible policies	25,917	23,891	23,034	13,994
(3)	Standard Earned Premium for Large Deductible policies	155,213	137,792	113,502	63,822
(4)	Standard Earned Premium for all policies = (1) + (3)	786,980	757,540	699,523	389,682
(5)	Average premium reduction for Large Deductible policies = 1.000 - (2) / (3)	83.3%	82.7%	79.7%	78.1%
(6)	Market share (Standard Premium basis) of Large Deductible policies = (3) / (4)	19.7%	18.2%	16.2%	16.4%

		Calendar Year		
		2003	2004	2005
(7)	Average premium reduction for Large Deductible policies = Average of PY-1 and PY	83.0%	81.2%	78.9%
(8)	Market share (Standard Premium basis) of Large Deductible policies = Average of PY-1 and PY	19.0%	17.2%	16.3%

**Notes:**

For Calendar Years 2003 - 2005, premium reported on Expense Call includes large deductible policies at Standard premium.

(1) Policy Year Call.

(2),(3) Large Deductible Policy Year Call (Gross).

**Small Deductible Credits**

Massachusetts Workers' Compensation Law requires the Massachusetts Workers' Compensation Assigned Risk Pool and insurers to offer insureds with workers' compensation policies, which provide coverage in Massachusetts, a choice of medical and indemnity benefits deductibles.

In accordance with the statute, the Division of Insurance has approved two separate and distinct deductible programs: the Massachusetts Benefits Deductible Program effective January 1, 1993, and the Massachusetts Benefits Claim and Aggregate Deductible Program effective January 1, 1997. This section updates the small deductible credits for these two programs.

**VII-A – 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 deserve 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.

## VII 000002 R

Section VII-A, 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 Massachusetts Workers' Compensation Schedule Z data from composite policy years 99/00, 98/99, 97/98, 96/97, 95/96, 94/95 at fifth report. Each loss is multiplied by appropriate trend, law amendment and development factors. Claim costs are trended to 9/1/2008, the average accident date (assuming the proposed small deductible benefits will be in effect for one year starting 9/1/2007). These factors are shown in Section VII-A, Exhibit 2 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 WCRIB 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:

$$\text{Premium Credit} = \frac{\text{LER} \times \text{SF} \times \text{ELR}}{1.0 - \text{VEL}}$$

LER - Loss Elimination Ratio (Section VII-A, Exhibit 1)

ELR - Expected Loss Ratio (Section VI-A, Exhibit 1)

## VII 000003 R

VEL - Variable Expense Load (sum of the variable expense ratio from Section VI-A, Exhibit 1 and the Profit Provision from Section VIII-A, Exhibit 1)

SF - Safety Factor (the same factor that was used in the previous Massachusetts Benefits Deductible Program filing)

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 (Regulation 211 CMR 113.00) mandating that all risks are 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 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.

### **VII-B – Massachusetts Benefits Claim and Aggregate Deductible Program Credits**

This Massachusetts Benefits Claim and Aggregate Deductible Program allows insureds to elect a per claim deductible applicable to the sum of medical and indemnity

## VII 000004 R

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 *Massachusetts Workers Compensation and Employers Liability Insurance Manual* as manual premium subject to any applicable merit or experience rating).

Section VII-B, Exhibit 1 shows the pricing of the \$2,500 per claim deductible subject to an aggregate limit. In the exhibit, the WCRIB 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 5.04% is estimated for a \$2,500 per claim deductible (not subject to an aggregate limit). The 5.04% 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 more “smaller insureds” 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

## VII 000005 R

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 VII-B, 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 composite policy year 99/00, 98/99, 97/98, 96/97, 95/96 and 94/95 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.

# VII 000006 R

Section VII - Small Deductible Credits  
Subsection A - Massachusetts Benefits Deductible Program Credits  
9/1/2007

Section VII-A  
Exhibit 1

Premium Credit by Deductible Level

Deductible Level	Premium Credit
500	1.91%
1,000	3.02%
2,000	4.46%
2,500	5.04%
5,000	7.31%

Loss Elimination Ratios by Deductible Level

Deductible Level	LER
500	3.41%
1,000	5.39%
2,000	7.96%
2,500	8.99%
5,000	13.05%

Notes:

Premium Credit = [Loss Elimination Ratio x Safety Factor x Expected Loss Ratio] / [1.0 - Variable Expense Load]  
where:

Safety Factor = 0.7, from 05/30/1991 Massachusetts Benefits Deductible Program Filing.

Expected Loss Ratio = 0.670, Section VI-A, Exhibit 1.

Variable Expense Load = Variable Expense Ratio + Profit Provision

Variable Expense Ratio = 0.174, Section VI-A, Exhibit 1

Profit Provision = -0.010, Section VIII-A, Exhibit 1

## VII 000007 R

Section VII - Small Deductible Credits  
 Subsection A - Massachusetts Benefits Deductible Program Credits  
 9/1/2007

Section VII-A  
 Exhibit 2

### Trend, Law Amendments and Development Factors

(1) Benefit On-Level Development Factors

Composite Policy Year	Indemnity Losses					Medical Losses
	Injury Type 1	Injury Type 2	Injury Type 3	Injury Type 4	Injury Type 5	All Injury Types
1994/1995	1.164	1.114	1.188	1.287	1.062	1.124
1995/1996	1.151	1.107	1.174	1.262	1.059	1.110
1996/1997	1.132	1.097	1.157	1.230	1.053	1.100
1997/1998	1.111	1.085	1.137	1.195	1.046	1.100
1998/1999	1.087	1.072	1.117	1.158	1.039	1.100
1999/2000	1.055	1.053	1.090	1.109	1.029	1.088

(2) Trend Factors

Indemnity Severity Trend	0.062
Medical Only Severity Trend	0.076
Lost Time Medical Severity Trend	0.107

(3) Development Factors

Indemnity Fifth to Ultimate Development Factor	1.116
Injury Types 2 and 3 Medical Fifth to Ultimate Development Factor	1.459

Notes:

(1): Section IV-A, Exhibit 5.

Injury Type 1 = Fatal, Injury Type 2 = Permanent Total, Injury Type 3 = Major Permanent Partial,  
 Injury Type 4 = Minor Permanent Partial, Injury Type 5 = Temporary Total.

(2): Section V-A, Exhibit 1.

(3): Section IV-I, Exhibit 3.



## VII 000008 R

Section VII - Small Deductible Credits  
 Subsection B - Massachusetts Benefits Claim and Aggregate Deductible Program Credits  
 9/1/2007

Section VII-B  
 Exhibit 1

### Pricing \$2,500 Per Claim Deductible with Agregate Limit

Estimated Annual Standard Premium (\$000) (1)	Expected Number of Claims Per Year = (1) / \$18.5 (2)	Aggregate Limit (3)	Selected Adjustment Factor for Aggregate Limit (4)	Deductible Credit = (4) x 5.04% (5)
0 - 75	3	\$10,000	1.00	5.04%
75 - 100	5	\$10,000	0.96	4.86%
100 - 125	7	\$10,000	0.89	4.50%
125 - 150	8	\$10,000	0.86	4.32%
150 - 200	10	\$10,000	0.82	4.13%
Over 200	11 or more	5% of the 'Basis for the Aggregate Limit at Policy Inception'	0.80	4.03%

**Notes:**

(2): Based on about \$18.5 thousand in premium per expected claim.

(4): Selected based on the simulation results shown in Exhibit 2.

(5): The 5.04% is based on the \$2,500 per claim deductible without any aggregate limit, from Section VII-A, Exhibit 1.

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Section VII - Small Deductible Credits  
 Subsection B - Massachusetts Benefits Claim and Aggregate Deductible Program Credits  
 9/1/2007

Section VII-B  
 Exhibit 2

### Results of Simulation Model

\$2,500 Per Claim / \$10,000 Aggregate Limit				
Expected Number of Claims Per Year (1)	LER with Aggregate Limit (2)	LER with No Aggregate Limit (3)	Ratio of LERs = (2) / (3) (4)	Number of Simulated Risks (5)
1	8.88%	8.88%	1.00	5,000
2	8.84%	8.86%	1.00	5,000
5	9.25%	9.58%	0.96	5,000
10	6.86%	8.72%	0.79	2,500
15	5.28%	9.01%	0.59	2,000
20	4.38%	9.55%	0.46	1,500

\$2,500 Per Claim / 5% of the 'Basis for the Aggregate Limit at Policy Inception'				
Expected Number of Claims Per Year (1)	LER with Aggregate Limit (2)	LER with No Aggregate Limit (3)	Ratio of LERs (4)	Number of Simulated Risks (5)
5	6.38%	9.32%	0.68	5,000
10	7.19%	9.63%	0.75	2,500
15	7.33%	9.42%	0.78	2,000
20	6.44%	8.20%	0.78	1,500
25	7.84%	9.71%	0.81	1,000
50	7.81%	9.47%	0.82	500
100	8.18%	9.74%	0.84	250
250	7.40%	8.87%	0.83	200
500	7.67%	9.33%	0.82	100

Note:

(1): Each expected claim per year corresponds to about \$18.5 thousand in annual premium.

**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 WCRIB 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.<sup>1</sup> The WCRIB continues to rely on the use of an IRR model in this filing.

Fundamental principles of economics imply that the price of insurance should be set to cover the expected value of future costs associated with the risk transfer under consideration.<sup>2</sup> In addition to losses and expenses, one of these costs 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 rate that, taken along with investment income, should provide insurers a fair total rate of return.

This suggests that to set an underwriting profit provision in insurance rates, one should first establish an estimate of the fair and reasonable rate of return, and then

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<sup>1</sup> 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."

<sup>2</sup> 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.

## VIII 000002 R

select a profit provision that produces that fair return. Such an analysis is consistent with the traditional practice in 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.<sup>3</sup> It is also consistent with the procedures relied upon in Massachusetts for the regulation of public utilities.

To that end, the WCRIB requested that David Appel and his colleagues at Milliman, Inc. assist the WCRIB's staff in developing a procedure for setting the profit factor in workers' compensation rates that will yield insurers a fair and reasonable return on the equity invested in support of the insurance transaction. Dr. Appel has performed the following analyses for the WCRIB:

1. He has estimated 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 WCRIB in developing a discounted cash flow model (the IRR model) to estimate the underwriting profit factor required to yield the previously determined fair rate of return.

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<sup>3</sup> 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).

## VIII 000003 R

3. He has utilized the WCRIB's IRR model, using assumptions and cash flow patterns specific to Massachusetts workers' compensation insurance, to derive an underwriting profit factor that is consistent with the current cost of capital. This is the underwriting profit factor used in this rate filing.

Dr. Appel's role in preparing the present rate filing has been slightly different than his role in the 2003 filing. In the 2003 filing, Milliman was engaged by the WCRIB to develop a cost of capital and IRR methodology for the WCRIB's use. At that time, Dr. Appel utilized Milliman's cost of capital methodology and also developed a proprietary IRR model that the WCRIB relied upon in its rate filing. During the course of the hearing, however, questions were raised about the use of proprietary models to develop rates in a public proceeding. To address those concerns, the WCRIB decided in the 2005 filing to develop its own IRR model, which would be available to the public and not subject to the confidentiality requirements of the Milliman models. In developing its model, the WCRIB took advantage of Milliman's substantial experience in developing and testing such models. Dr. Appel assisted the WCRIB's staff in designing its model, reviewed the programming and implementation of the design, and tested the model's output for reasonableness. As in 2005, the WCRIB relied on Dr. Appel to estimate the cost of capital.

Our calculated underwriting profit provision is -1.05%. Section VIII-A, Exhibit 1, summarizes this calculation. The IRR model and the cost of capital calculation are actuarially sound and produce a rate in the statutorily required range of reasonableness. We therefore ask that the Commissioner approve their use.

**VIII-B and VIII-C – Internal Rate of Return and Cost of Capital**

In Section VIII-B we present the IRR model we have constructed and implemented with Dr. Appel's assistance, along with the exhibits generated by the model. In Section VIII-C we present Dr. Appel's analysis of the cost of capital, with a detailed appendix describing the methods he used.

**VIII-D – Leverage Ratio**

In the WCRIB's 2003 filing, the IRR model established the level of surplus under the assumption that the written premium to surplus ratio was 2:1. During the course of the 2003 hearing, arguments were raised that surplus should be allocated to workers' compensation based on the level of reserves, not premium. In this filing, the amount of surplus is estimated using a total reserve to surplus ratio, as was approved in the Commissioner's decision on 2005 automobile insurance rates.

In calculating the reserves to surplus ratio, we use data for commercial casualty composite from Best's Aggregates and Averages. 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.

**VIII-E - Premium Flow**

In the WCRIB's 2005 filing, in an effort to improve the accuracy of the profit model, the Bureau has updated the premium cash flow. In order to construct a new flow, a special premium payment call was made to representative group of carriers.

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The call obtained a random sample of fifty complete-year guaranteed cost (non large deductible) policies with policy effective dates in 2001 that include premiums related to Massachusetts' workers' compensation exposures. The premium flow used in the profit model is shown in Exhibit 1.

### **VIII-F - Expense Flows and Weights**

The expense flows used by the WCRIB this year are weighted averages of separately determined flows for commissions, premium and other taxes, general expenses, other acquisition expenses, loss and loss adjustment expenses, premium discount and reinsurance expenses. In the current filing, separate policy year 2003 and policy year 2004 weights are calculated for general expense, miscellaneous and other taxes, and loss and loss adjustment expenses. The average of the two policy year weights is used in the IRR model.

The resulting expense flows appear in Table II-A of the IRR display (Section VIII-B, Exhibit 2, page 1). All flows in the IRR model have been converted to a policy year basis from their original form as single policy flows.

### **General Expense**

The results of a study of general expense flow patterns were reported in the July 13, 1977 filing. General expenses were divided into general administration, audit, inspection and Bureau expenses. A time line was constructed to indicate a particular type of expenditure's distance from the effective date of a typical policy. Expenses by cost

center, including home and field office expenses, were analyzed to establish how the pattern of such expenses relates to the effective date of a policy. The combination of all such expense patterns resulted in the overall general expense pattern listed in Exhibit 2.

**Other Acquisition Expense**

The distribution of other acquisition costs was estimated from the same time pattern study that was used for general expenses. Marketing field offices and services, billing and collection, policy issuance and advertising expenses were examined to see when they arise with relation to the issuance of a policy. The combination of all such expense patterns resulted in the other acquisition expense pattern listed in Exhibit 2.

**Premium and Other Taxes**

The premium tax liability for any individual policy is assumed to be incurred and paid as the policy is written. The payment pattern for other taxes, which remains unchanged, was estimated from the same time pattern study that was used for general expenses.

**Commissions and Premium Discount**

We assume that the commission and premium discount flow patterns coincide with the paid premium flow.



**Reinsurance Expenses**

As in the last filing we are including a provision to reflect the estimated net cost of reinsurance to insurers. We assume that the reinsurance expense flow pattern coincide with the earned premium flow.

**Loss Adjustment Expense**

The Direct and Cost Containment Expense (DCC) flow is assumed to have the same pattern as the loss flow as shown in Section VIII-F, Exhibit 3. 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 weights given to each of these flows have been calculated from data in Section VI-D, Exhibit 1.

**Expense Flow Weights**

The weights used to combine the various expense flow patterns into final expense flows are calculated using the expense provisions from Section VI.

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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 expense 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.

### **VIII-G - Loss Flows**

The WCRIB has updated both the medical and the indemnity loss flows used in determining the profit provision. The WCRIB has used the most recent available financial aggregate data to derive estimates of the patterns of loss payments. The combined loss flow used in the profit model, which reflects a weighted average of the medical and indemnity flows, appears in Table II-A of the IRR display (Section VIII-B, Exhibit 2, page 1). The aggregated flow on a single policy basis is shown in Exhibit 1.

**Medical Loss Flow**

The flow for medical losses is based on Accident Year Financial Aggregate Data (see Exhibit 2, page 1). The estimate of ultimate medical losses for each accident year is calculated using a medical tail factor from Section II.

We compute the loss development factors from the averages of the latest two year link ratios for each reporting interval until the 20th report. Beyond that report, the selected percentage of paid to ultimate has been extended geometrically. We calculate the percentage of losses paid by taking one over the loss development factors to ultimate. The resulting medical loss flow is shown in Exhibit 1.

**Indemnity Loss Flow**

The flow for indemnity losses has been derived from the financial aggregate data using a method identical to the method we used for medical losses except that the indemnity losses have been adjusted for escalation of benefits (see Exhibit 1, column (5)). The indemnity financial aggregate data and loss flows are shown in Exhibit 2, page 2.

Exhibit 1 shows the final combined medical and indemnity loss flow.

**VIII-H - 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

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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 does the Flow of Funds data. Hence this is a preferred source for estimating the mix of securities in the insurer asset 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 public utilities and 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); and preferred stocks. We assign weights using data from Best's Aggregates and Averages Property Casualty, 2006 edition for total US Property and Casualty Industry (Exhibit 1, page 2). The weights are shown in the "Proportion" column of Exhibit 1, page 1.

### **Investment Yields**

Prior to 2005 filing the WCRIB has 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 IRR used this year, the WCRIB has relied on yields average over the last 3 months, as opposed to the 12-month averages previously used.

## VIII 000011 R

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. 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.

### **Market Risk Premium**

We use market returns from 1926-2006 to calculate the short term, intermediate term and long term market risk premium used to calculate the yield on stocks. The calculation, shown on Exhibit 4, uses data drawn from the 2006 Ibbotson & Associates *Year Book*.

**Investment Expenses**

The WCRIB 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. The pre-tax average investment expense carried to Section VIII-H, Exhibit 1, page 1 is 0.45%.

**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 VIII-C, Exhibit 1 as opposed to the risk free rate we used in the last filing.

Combining a tax rate of 14.18% for common stock dividends and of 29.94% on capital gains, we derive an overall average tax rate of 27.33% (Exhibit 6, page 1).

Exhibit 6, page 3 displays the calculation of common stock tax rate for different discount rates and turnover rates.

**Overall Result**

The after-tax portfolio rate of return used in this filing is 4.09%.

# VIII 000014 R

Section VIII - Profit  
Subsection A - Summary  
9/1/2007

Section VIII - A  
Exhibit 1

## Summary Exhibit

(1) IRR Profit Provision	-1.05%
Cost of Capital:	
(2) Equity DCF	10.15%
(3) Equity CAPM	12.35%
(4) Debt Cost	5.84%
(5) Debt / Equity Ratios	14% / 86%
(6) Weighted Cost of Capital	10.51%
Portfolio Rate of Return:	
(7) Investment Expense	0.45%
(8) Pretax Return on Assets	5.40%
(9) Tax Rate	24.14%
(10) After-Tax Return on Assets	4.09%
Leverage Ratio:	
(11) Reserves to Surplus	2.46

### Notes:

- (1) Section VIII-B, Exhibit 1.
- (2) - (6) Section VIII-C, Exhibit 1.
- (7) - (10) Section VIII-H, Exhibit 1, page 1.
- (11) Section VIII-D, Exhibit 1.



**INTERNAL RATE OF RETURN MODEL****Internal Rate of Return (IRR) Model: General Considerations**

The objective of this analysis is to estimate the profit provision to be included in Massachusetts workers' compensation rates. Once the fair rate of return has been estimated, one needs to determine the underwriting profit provision that will yield a total return on equity (including both underwriting and investment income) equal to the fair return. The internal rate of return (IRR) methodology, applied to the Massachusetts workers' compensation insurance transaction, is used for this purpose.

In general, the IRR model estimates the cash flows attributable to an investment decision, and then calculates the rate of return embodied in those cash flows. As applied to insurance, the IRR model estimates the cash flows attributable to the sale of insurance coverage, and calculates the rate of return they will produce. 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. Furthermore, many insurers rely on precisely this model to estimate the expected rate of return associated with alternative insurance transactions.

The IRR methodology has several features that make it particularly appealing for use in rate regulation.

1. An IRR analysis is prospective, and therefore consistent with both actuarial principles and regulatory standards.

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Discounted cash flow models, such as the IRR, attempt to estimate the rate of return attributable to the 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. While this is no doubt an interesting question, it is not directly related to the primary economic issue in rate regulation – the return to the policies sold under a set of proposed rates.

2. An IRR analysis accounts for all investment income on both policyholder and investor supplied funds.

One crucial aspect of the IRR is its ability to account for investment income in ratemaking. In essence the intention is to 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. This investment income is then used as an offset against premium requirements.

The IRR model accounts for all such income based on the investment yields insurers can expect to earn when the investible funds are received. Moreover, it accounts for all the income that will be earned by the investment of funds provided by, or on behalf of, future policyholders.

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3. An IRR analysis accounts 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 the comparison of alternative investment opportunities.

Virtually every textbook on modern financial theory recommends 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. An IRR analysis accounts 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 the IRR model.

The IRR model focuses 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

## VIII 000018 R

the rate of return should be calculated, as they are the ones to which the rates will apply. To calculate the rate of return, the IRR follows 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:

1. Premiums
2. Losses
3. Loss Adjustment Expenses
4. Other Expenses
5. Taxes
6. Investment Income
7. 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 for the first six years and yearly after that, to calculate the final flow of funds to and from the equity of the insurer. In essence it is an estimate of the "cash in, cash out" attributable to the policies sold at a given rate. 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.

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Although the model may appear complex, the underlying concepts are quite straightforward. Furthermore, the general ideas behind discounted cash flow models are common to a wide range of financial analyses. A very simple example illustrates these concepts.

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:

<u>Year</u>	<u>Cash Flow</u>
1	\$55.00
2	\$48.40
3	\$39.90

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:

<u>Year</u>	<u>Cash Flow</u>	<u>Present Value at 10% interest</u>
0	-\$120.00	-\$120.00
1	\$55.00	\$ 50.00
2	\$48.40	\$ 40.00
3	\$39.90	\$ 30.00
Total	\$23.30	0

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 earnings 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 IRR for Massachusetts Workers' Compensation Insurance**

The implementation of the IRR in this filing is designed to set an appropriate underwriting profit to be included in the rates. The IRR model is used to find the underwriting profit factor that would produce a rate of return equal to the current cost of capital. To the extent that the profit factor is set too high, the estimated IRR will exceed the cost of capital, while if the profit factor is set too low, the IRR will fall short of the cost of capital.

In the context of insurance ratemaking, it is appropriate to use the cost of capital as the “target” rate of return in the IRR. 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 a tendency 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 balances the interests of insurers and policyholders.

This section of the filing contains a series of spreadsheets that portray the cash flows arising from the sale of Massachusetts workers' compensation insurance policies

## VIII 000021 R

during the coming year, the year the approved rates will be in effect. As can be seen from the first page of the exhibits to this Section VIII-B, the rates are set such that with a model underwriting profit of -1.05%, insurers can expect to earn a return of 10.51%, exactly equal to the cost of capital.

The WCRIB estimated the IRR with information available as of January 1, 2007, the most recent available data. The model reflects the cash flows arising from a policy year of activity, which in this context is defined as the financial transactions associated with the block of policies sold during a given calendar year. The policy year is the relevant period of analysis for the insurers subject to the approved rates, because for Massachusetts workers' compensation insurers, all the policies sold during the coming year will be at these rates.

The IRR analysis displayed in the exhibits to this Section VIII-B is composed of seven tables, as follows.

Table I identifies the WCRIB's assumptions concerning the net loss and expense provisions, investment income yield, and the operating characteristics of insurers.

Table II provides the cash flow patterns and amounts for premium collection, payment of losses and expenses calculated by the WCRIB. The cash flow patterns for a single policy were converted to a policy year basis.

For Tables III through VII, all values are derived from previous calculations in the model, with the exception of the tax credits in Table IV, which rely on IRS discount factors and an accident year payment pattern for discounting, as required by law.

## VIII 000022 R

Table III presents the flow of premiums available to pay expenses after accounting for loss, loss adjustment expense, and unearned premium reserves.

Table IV presents the tax credits and liabilities arising from the insurance operations, with special attention to the implications of the Tax Reform Act of 1986. (The details supporting the discounting of each accident year's losses are provided in Tables IV-A through IV-C.)

Table V presents the funds from the underwriting operation after accounting for reserves, payment of expenses, and income tax liabilities and credits.

Table VI derives the amount of funds available for investment. These funds include the funds held in loss, loss adjustment expense, and unearned premium reserves, less non-cash assets, plus the surplus that supports the liabilities in this analysis.

Table VII presents the net cash flow to and from the Massachusetts workers' compensation insurance operations. This net cash flow is the sum of the funds from the underwriting operation, income expected from the investment of reserves and surplus, and the flow of surplus to and from this business.

### **Additional IRR Issues**

In the course of the 2003 rate hearing, a number of issues arose relating to the specific implementation of the IRR model for workers' compensation ratemaking in Massachusetts. In addition, the WCRIB has made several changes in the model to make it more internally consistent.



**Deferred Tax Assets:** Under the new statutory accounting rules applicable to property casualty insurers, insurers may establish a balance sheet asset relating to the tax credits that will emerge in the future as a result of the loss discounting and revenue acceleration provisions of the 1986 Tax Reform Act. The IRR model used in this filing appropriately reflects those deferred tax assets.

**Tax Credits on Debt:** Because the WCRIB has considered debt in determining the cost of capital, it is appropriate to reflect the tax deductibility of debt interest. The IRR model reflects the tax deductions attributable to the interest payments on debt.

### **IRR Results**

As shown in Table I of this Section, given the assumptions in the filing regarding losses, expenses, investment yields and cash flow patterns, if the model underwriting profit is set to -1.05%, as proposed by the WCRIB, Massachusetts workers' compensation insurance would be expected to produce a rate of return on equity equal to the cost of capital of 10.51%. 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.

# VIII 000024 R

Section VIII - Profit  
 Subsection B - Internal Rate of Return Model  
 9/1/2007

Section VIII-B  
 Exhibit 1

<b>INTERNAL RATE OF RETURN ANALYSIS</b>		
<b>WCRIB OF MA</b>		
<b>TABLE I: ASSUMPTIONS AND INTERNAL RATE OF RETURN</b>		
<b>ASSUMPTIONS</b>		
(1)	LOSS AND LAE RATIO	76.06%
(2)	COMMISSIONS	8.24%
(3)	GENERAL EXPENSES	6.87%
(4)	OTHER ACQUISITION EXPENSES	2.16%
(5)	PREMIUM TAXES	2.19%
(6)	MISCELLANEOUS AND OTHER TAXES	0.76%
(7)	REINSURANCE EXPENSES	1.00%
(8)	PREMIUM DISCOUNT	3.77%
(9)	PROFIT	-1.05%
(10)	INVESTMENT INCOME	
	(A) PRE-TAX RETURN ON ASSETS	5.40%
	(B) POST-TAX RETURN ON ASSETS	4.09%
(11)	LOSS RESERVE TO SURPLUS RATIO	2.46
(12)	PREMIUMS WRITTEN	1,000
(13)	COLLECTED PREMIUM	1,000
(14)	FEDERAL DISCOUNT RATE FOR TAXES	3.98%
<b>PROFIT PROVISION</b>		-1.05%
<b>INTERNAL RATE OF RETURN</b>		10.51%

**Notes:**

(1) - (8): From Section VIII-F, Exhibit 1 (average of the two policy years).

(1), (3), (6) are divided by the rate change.

(9)=1.0-[(1)+(2)+(3)+(4)+(5)+(6)+(7)+(8)]

(10): From Section VIII-H, Exhibit 1, Page1

(11): From Section VIII-D, Exhibit 1

(14): Current Rate specified in IRS regulations (Internal Revenue Bulletin: 2007-3)

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## INTERNAL RATE OF RETURN ANALYSIS WCRIB OF MA

**TABLE II-A: CASH FLOW PATTERNS**

TIME INTERVAL		PREMIUM WRITTEN (3)	PREMIUM COLLECTED (4)	LOSS + LAE PAYOUT (5)	COMMISS. & BROKER. (6)	GENERAL EXPENSES (7)	OTHER ACQ. EXPENSES (8)	PREMIUM TAXES (9)	MISC. AND OTHER TAXES (10)	REINS. EXPENSES (11)	PREMIUM DISCOUNT (12)
FROM (1)	TO (2)										
09/01/06	11/30/06		0.00%	0.00%	0.00%	0.10%	0.19%	0.00%	0.10%	0.00%	0.00%
12/01/06	02/28/07		0.00%	0.00%	0.00%	0.35%	1.08%	0.00%	0.44%	0.00%	0.00%
03/01/07	05/31/07		0.00%	0.00%	0.00%	2.01%	3.32%	0.00%	2.18%	0.00%	0.00%
06/01/07	08/31/07		0.00%	0.00%	0.00%	6.68%	9.59%	0.00%	7.28%	0.00%	0.00%
09/01/07	11/30/07	18.50%	3.59%	0.59%	3.59%	12.52%	19.33%	9.64%	14.23%	2.41%	3.59%
12/01/07	02/29/08	33.32%	11.69%	2.17%	11.69%	16.61%	23.86%	25.77%	18.47%	8.83%	11.69%
03/01/08	05/31/08	24.28%	17.97%	3.96%	17.97%	16.98%	21.57%	28.38%	18.22%	16.09%	17.97%
06/01/08	08/31/08	23.90%	20.51%	5.45%	20.51%	13.85%	13.37%	24.82%	13.76%	22.15%	20.51%
09/01/08	11/30/08		16.99%	6.16%	16.99%	10.66%	4.64%	11.38%	9.13%	22.45%	16.99%
12/01/08	02/28/09		11.20%	6.24%	11.20%	8.51%	1.26%	0.00%	6.72%	15.96%	11.20%
03/01/09	05/31/09		7.65%	6.56%	7.65%	6.46%	0.94%	0.00%	5.14%	9.26%	7.65%
06/01/09	08/31/09		4.75%	6.57%	4.75%	3.79%	0.61%	0.00%	3.06%	2.85%	4.75%
09/01/09	11/30/09		2.91%	6.33%	2.91%	1.39%	0.23%	0.00%	1.16%	0.00%	2.91%
12/01/09	02/28/10		1.39%	5.62%	1.39%	0.12%	0.00%	0.00%	0.12%	0.00%	1.39%
03/01/10	05/31/10		0.67%	5.03%	0.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.67%
06/01/10	08/31/10		0.39%	4.28%	0.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.39%
09/01/10	11/30/10		0.21%	3.78%	0.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.21%
12/01/10	02/28/11		0.08%	3.28%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%
03/01/11	05/31/11		0.00%	2.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
06/01/11	08/31/11		0.00%	2.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/11	11/30/11		0.00%	2.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12/01/11	02/29/12		0.00%	1.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
03/01/12	05/31/12		0.00%	1.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
06/01/12	08/31/12		0.00%	1.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/12	11/30/12		0.00%	1.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12/01/12	02/28/13		0.00%	1.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
03/01/13	05/31/13		0.00%	0.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
06/01/13	08/31/13		0.00%	0.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/13	08/31/14		0.00%	2.27%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/14	08/31/15		0.00%	1.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/15	08/31/16		0.00%	1.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/16	08/31/17		0.00%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/17	08/31/18		0.00%	0.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/18	08/31/19		0.00%	0.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/19	08/31/20		0.00%	0.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/20	08/31/21		0.00%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/21	08/31/22		0.00%	0.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/22	08/31/23		0.00%	0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/23	08/31/24		0.00%	0.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/24	08/31/25		0.00%	0.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/25	08/31/26		0.00%	0.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/26	08/31/27		0.00%	0.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/27	08/31/28		0.00%	0.41%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/28	08/31/29		0.00%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/29	08/31/30		0.00%	0.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/30	08/31/31		0.00%	0.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/31	08/31/32		0.00%	0.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/32	08/31/33		0.00%	0.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/33	08/31/34		0.00%	0.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/34	08/31/35		0.00%	0.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/35	08/31/36		0.00%	0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/36	08/31/37		0.00%	0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/37	08/31/38		0.00%	0.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/38	08/31/39		0.00%	0.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/39	08/31/40		0.00%	0.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/40	08/31/41		0.00%	0.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/41	08/31/42		0.00%	0.41%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
09/01/42	08/31/43		0.00%	0.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL</b>		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Notes:**

- (3): The distribution is from Section III-F, Exhibit 1 (average of the two policy years) .
- (4): The premium collection pattern for a single policy from Section VIII-E, Exhibit 1, converted to a full policy year basis.
- (5): The loss and LAE payout pattern for a single policy from Section VIII-F, Exhibit 3, converted to a full policy year basis.
- (6): We assume that commissions and brokerage have the same payment pattern as premium collected.
- (7)-(10): Single policy patterns from Section VIII-F, Exhibit 2, converted to a full policy year basis.
- (11): We assume that the reinsurance expense pattern coincides with the earned premium flow.
- (12): We assume that premium discount payment pattern coincides with premium collected.

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Section VIII - Profit  
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Section VIII-B  
 Exhibit 2  
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INTERNAL RATE OF RETURN ANALYSIS WCRIB OF MA										
TABLE II-B: CASH FLOWS										
TIME INTERVAL		PREMIUM COLLECTED (3)	LOSS + LAE PAYOUT (4)	COMMISS. & BROKER. (5)	GENERAL EXPENSES (6)	OTHER ACQ. EXPENSES (7)	PREMIUM TAXES (8)	MISC. AND OTHER TAXES (9)	REINS. EXPENSES (10)	PREMIUM DISCOUNT (11)
FROM (1)	TO (2)									
9/1/2006	11/30/2006	0.00	0.00	0.00	0.07	0.04	0.00	0.01	0.00	0.00
12/1/2006	2/28/2007	0.00	0.00	0.00	0.24	0.23	0.00	0.03	0.00	0.00
3/1/2007	5/31/2007	0.00	0.00	0.00	1.38	0.72	0.00	0.17	0.00	0.00
6/1/2007	8/31/2007	0.00	0.00	0.00	4.59	2.07	0.00	0.55	0.00	0.00
9/1/2007	11/30/2007	35.95	4.51	2.96	8.60	4.17	2.12	1.08	0.24	1.35
12/1/2007	2/29/2008	116.88	16.51	9.63	11.41	5.15	5.65	1.40	0.88	4.40
3/1/2008	5/31/2008	179.75	30.09	14.80	11.67	4.66	6.23	1.38	1.61	6.77
6/1/2008	8/31/2008	205.08	41.43	16.89	9.52	2.89	5.45	1.04	2.22	7.73
9/1/2008	11/30/2008	169.86	46.85	13.99	7.33	1.00	2.50	0.69	2.25	6.40
12/1/2008	2/28/2009	112.04	47.46	9.23	5.85	0.27	0.00	0.51	1.60	4.22
3/1/2009	5/31/2009	76.47	49.91	6.30	4.44	0.20	0.00	0.39	0.93	2.88
6/1/2009	8/31/2009	47.49	49.97	3.91	2.60	0.13	0.00	0.23	0.28	1.79
9/1/2009	11/30/2009	29.14	48.17	2.40	0.95	0.05	0.00	0.09	0.00	1.10
12/1/2009	2/28/2010	13.86	42.75	1.14	0.08	0.00	0.00	0.01	0.00	0.52
3/1/2010	5/31/2010	6.74	38.25	0.56	0.00	0.00	0.00	0.00	0.00	0.25
6/1/2010	8/31/2010	3.89	32.57	0.32	0.00	0.00	0.00	0.00	0.00	0.15
9/1/2010	11/30/2010	2.09	28.76	0.17	0.00	0.00	0.00	0.00	0.00	0.08
12/1/2010	2/28/2011	0.75	24.98	0.06	0.00	0.00	0.00	0.00	0.00	0.03
3/1/2011	5/31/2011	0.00	21.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/1/2011	8/31/2011	0.00	17.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2011	11/30/2011	0.00	15.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/2011	2/29/2012	0.00	13.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/1/2012	5/31/2012	0.00	12.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/1/2012	8/31/2012	0.00	10.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2012	11/30/2012	0.00	9.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/2012	2/28/2013	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/1/2013	5/31/2013	0.00	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/1/2013	8/31/2013	0.00	5.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2013	8/31/2014	0.00	17.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2014	8/31/2015	0.00	11.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2015	8/31/2016	0.00	8.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2016	8/31/2017	0.00	6.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2017	8/31/2018	0.00	5.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2018	8/31/2019	0.00	5.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2019	8/31/2020	0.00	5.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2020	8/31/2021	0.00	3.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2021	8/31/2022	0.00	3.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2022	8/31/2023	0.00	3.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2023	8/31/2024	0.00	2.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2024	8/31/2025	0.00	3.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2025	8/31/2026	0.00	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2026	8/31/2027	0.00	2.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2027	8/31/2028	0.00	3.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2028	8/31/2029	0.00	3.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2029	8/31/2030	0.00	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2030	8/31/2031	0.00	3.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2031	8/31/2032	0.00	3.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2032	8/31/2033	0.00	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2033	8/31/2034	0.00	3.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2034	8/31/2035	0.00	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2035	8/31/2036	0.00	3.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2036	8/31/2037	0.00	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2037	8/31/2038	0.00	3.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2038	8/31/2039	0.00	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2039	8/31/2040	0.00	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2040	8/31/2041	0.00	3.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2041	8/31/2042	0.00	3.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2042	8/31/2043	0.00	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL		1,000.00	760.56	82.36	68.71	21.60	21.94	7.59	10.00	37.69

Notes:  
 (3) = Table I, (13) x Table II-A, (4)  
 (4) = Table I, (1) x Table I, (12) x Table II-A, (5)  
 (5) = Table I, (2) x Table I, (13) x Table II-A, (6)  
 (6) = Table I, (3) x Table I, (13) x Table II-A, (7)  
 (7) = Table I, (4) x Table I, (13) x Table II-A, (8)  
 (8) = Table I, (5) x Table I, (13) x Table II-A, (9)  
 (9) = Table I, (6) x Table I, (13) x Table II-A, (10)  
 (10) = Table I, (7) x Table I, (13) x Table II-A, (11)  
 (11) = Table I, (8) x Table I, (13) x Table II-A, (12)

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Section VIII - Profit  
 Subsection B - Internal Rate of Return Model  
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Section VIII-B  
 Exhibit 3

INTERNAL RATE OF RETURN ANALYSIS WCRI OF MA								
TABLE III: CASH FLOW NET OF LOSS, LOSS ADJUSTMENT EXPENSE AND UNEARNED PREMIUM RESERVES								
TIME INTERVAL		CUMULATIVE PREMIUM COLLECTED (3)	PREMIUM BALANCES (4)	NON-CASH ASSETS (incl. deferred tax) (5)	LOSSES INCURRED (6)	UNEARNED PREMIUMS (7)	TOTAL PREM NET OF RESERVES (8)	PREMIUM NET OF RESERVES (9)
FROM (1)	TO (2)							
9/1/2006	11/30/2006	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/1/2006	2/28/2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/1/2007	5/31/2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/1/2007	8/31/2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2007	11/30/2007	35.95	149.10	163.42	18.34	160.93	20.09	20.09
12/1/2007	2/29/2008	152.83	365.40	381.39	85.47	405.85	42.89	22.80
3/1/2008	5/31/2008	332.57	428.42	444.95	207.87	487.68	81.97	39.08
6/1/2008	8/31/2008	537.65	462.35	479.42	376.36	505.15	135.55	53.59
9/1/2008	11/30/2008	707.51	292.49	310.10	547.15	280.60	189.86	54.31
12/1/2008	2/28/2009	819.55	180.45	195.92	668.50	121.05	225.93	36.06
3/1/2009	5/31/2009	896.02	103.98	115.97	738.92	28.46	244.62	18.69
6/1/2009	8/31/2009	943.52	56.48	65.00	760.56	0.00	247.95	3.33
9/1/2009	11/30/2009	972.66	27.34	32.38	760.56	0.00	244.47	(3.48)
12/1/2009	2/28/2010	986.52	13.48	17.24	760.56	0.00	243.19	(1.27)
3/1/2010	5/31/2010	993.26	6.74	10.32	760.56	0.00	243.02	(0.17)
6/1/2010	8/31/2010	997.16	2.84	6.25	760.56	0.00	242.85	(0.17)
9/1/2010	11/30/2010	999.25	0.75	3.99	760.56	0.00	242.68	(0.17)
12/1/2010	2/28/2011	1,000.00	0.00	3.04	760.56	0.00	242.47	(0.20)
3/1/2011	5/31/2011	1,000.00	0.00	2.82	760.56	0.00	242.26	(0.22)
6/1/2011	8/31/2011	1,000.00	0.00	2.60	760.56	0.00	242.04	(0.22)
9/1/2011	11/30/2011	1,000.00	0.00	2.38	760.56	0.00	241.82	(0.22)
12/1/2011	2/29/2012	1,000.00	0.00	2.25	760.56	0.00	241.69	(0.13)
3/1/2012	5/31/2012	1,000.00	0.00	2.16	760.56	0.00	241.60	(0.08)
6/1/2012	8/31/2012	1,000.00	0.00	2.08	760.56	0.00	241.52	(0.08)
9/1/2012	11/30/2012	1,000.00	0.00	1.99	760.56	0.00	241.43	(0.08)
12/1/2012	2/28/2013	1,000.00	0.00	1.83	760.56	0.00	241.27	(0.16)
3/1/2013	5/31/2013	1,000.00	0.00	1.63	760.56	0.00	241.06	(0.20)
6/1/2013	8/31/2013	1,000.00	0.00	1.42	760.56	0.00	240.86	(0.20)
9/1/2013	8/31/2014	1,000.00	0.00	1.05	760.56	0.00	240.49	(0.37)
9/1/2014	8/31/2015	1,000.00	0.00	1.05	760.56	0.00	240.49	(0.00)
9/1/2015	8/31/2016	1,000.00	0.00	0.90	760.56	0.00	240.34	(0.14)
9/1/2016	8/31/2017	1,000.00	0.00	0.73	760.56	0.00	240.17	(0.17)
9/1/2017	8/31/2018	1,000.00	0.00	0.65	760.56	0.00	240.09	(0.08)
9/1/2018	8/31/2019	1,000.00	0.00	0.56	760.56	0.00	240.00	(0.08)
9/1/2019	8/31/2020	1,000.00	0.00	0.30	760.56	0.00	239.73	(0.27)
9/1/2020	8/31/2021	1,000.00	0.00	0.09	760.56	0.00	239.52	(0.21)
9/1/2021	8/31/2022	1,000.00	0.00	0.03	760.56	0.00	239.46	(0.06)
9/1/2022	8/31/2023	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.01)
9/1/2023	8/31/2024	1,000.00	0.00	0.03	760.56	0.00	239.46	0.00
9/1/2024	8/31/2025	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2025	8/31/2026	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.01)
9/1/2026	8/31/2027	1,000.00	0.00	0.02	760.56	0.00	239.46	0.00
9/1/2027	8/31/2028	1,000.00	0.00	0.03	760.56	0.00	239.46	0.00
9/1/2028	8/31/2029	1,000.00	0.00	0.03	760.56	0.00	239.46	0.00
9/1/2029	8/31/2030	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2030	8/31/2031	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2031	8/31/2032	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2032	8/31/2033	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2033	8/31/2034	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2034	8/31/2035	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2035	8/31/2036	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2036	8/31/2037	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2037	8/31/2038	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2038	8/31/2039	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2039	8/31/2040	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2040	8/31/2041	1,000.00	0.00	0.02	760.56	0.00	239.46	(0.00)
9/1/2041	8/31/2042	1,000.00	0.00	0.01	760.56	0.00	239.45	(0.01)
9/1/2042	8/31/2043	1,000.00	0.00	0.00	760.56	0.00	239.44	(0.01)

Notes:

- (3) = Table II-B, (3), cumulative
- (4) = Table II-A, (3), cumulative x Table I, (13) - Table III, (3)
- (5) = Table III, (4) + Deferred Tax Asset
- Deferred Tax Asset = 0.35 x [ Table IV, (4), cumulative x 0.2 + Table IV-A, (10) + Table IV-B, (10) + Table IV-C, (10) ]
- (6) = Table I, (1) x Table I, (12) x earned premium, cumulative
- (7) = Table II-A, (3), cumulative x Table I, (12) - earned premium, cumulative
- (8) = (3) + (5) - (6) - (7)
- (9) = (8) current period - (8) previous period

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**TABLE IV: TAX CREDITS AVAILABLE FROM UNDERWRITING OPERATIONS**

TIME INTERVAL		PREMIUM WRITTEN (3)	CHANGE IN UNEARNED PREMIUMS (4)	EXPENSES (5)	LOSSES PAID			CHANGE IN DISCOUNTED LOSSES			DEBT INTEREST (12)	TAX CREDITS (13)
FROM (1)	TO (2)				ACCIDENT YEAR 1 (6)	ACCIDENT YEAR 2 (7)	ACCIDENT YEAR 3 (8)	ACCIDENT YEAR 1 (9)	ACCIDENT YEAR 2 (10)	ACCIDENT YEAR 3 (11)		
1/1/2006	12/31/2006	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
1/1/2007	12/31/2007	265.42	221.31	41.19	5.01	0.00	0.00	25.55	0.00	0.00	0.15	(5.76)
1/1/2008	12/31/2008	734.58	(10.09)	162.95	8.64	130.73	0.00	(8.27)	389.99	0.00	1.91	(19.85)
1/1/2009	12/31/2009	0.00	(211.22)	42.96	6.74	149.41	51.48	(6.11)	(141.45)	97.73	1.63	11.69
1/1/2010	12/31/2010	0.00	0.00	2.54	3.83	93.86	37.79	(3.31)	(85.37)	(35.75)	1.05	5.13
1/1/2011	12/31/2011	0.00	0.00	0.04	2.14	50.72	22.23	(1.80)	(43.91)	(20.29)	0.73	3.45
1/1/2012	12/31/2012	0.00	0.00	0.00	1.25	29.50	12.07	(0.95)	(24.82)	(10.47)	0.55	2.50
1/1/2013	12/31/2013	0.00	0.00	0.00	0.71	17.22	7.08	(0.57)	(12.88)	(5.96)	0.44	2.12
1/1/2014	12/31/2014	0.00	0.00	0.00	0.47	9.60	4.09	(0.34)	(7.53)	(3.00)	0.40	1.29
1/1/2015	12/31/2015	0.00	0.00	0.00	0.37	7.39	2.44	(0.22)	(5.23)	(1.91)	0.36	1.12
1/1/2016	12/31/2016	0.00	0.00	0.00	0.30	5.60	1.92	(0.20)	(3.22)	(1.34)	0.33	1.19
1/1/2017	12/31/2017	0.00	0.00	0.00	0.25	4.71	1.49	(0.17)	(3.11)	(0.84)	0.31	0.93
1/1/2018	12/31/2018	0.00	0.00	0.00	0.26	4.10	1.27	(0.18)	(2.67)	(0.83)	0.29	0.78
1/1/2019	12/31/2019	0.00	0.00	0.00	0.22	4.58	1.20	(0.15)	(3.25)	(0.80)	0.27	0.72
1/1/2020	12/31/2020	0.00	0.00	0.00	0.17	3.15	1.18	(0.15)	(2.01)	(0.82)	0.25	0.62
1/1/2021	12/31/2021	0.00	0.00	0.00	0.16	2.65	0.83	(0.16)	(2.46)	(0.52)	0.24	0.26
1/1/2022	12/31/2022	0.00	0.00	0.00	0.15	2.81	0.76	(0.14)	(2.75)	(0.71)	0.23	0.12
1/1/2023	12/31/2023	0.00	0.00	0.00	0.13	2.25	0.75	(0.13)	(2.21)	(0.74)	0.21	0.10
1/1/2024	12/31/2024	0.00	0.00	0.00	0.17	2.19	0.63	(0.17)	(2.14)	(0.61)	0.20	0.09
1/1/2025	12/31/2025	0.00	0.00	0.00	0.16	3.26	0.71	(0.15)	(3.20)	(0.70)	0.19	0.10
1/1/2026	12/31/2026	0.00	0.00	0.00	0.12	2.30	0.86	(0.11)	(2.25)	(0.84)	0.18	0.09
1/1/2027	12/31/2027	0.00	0.00	0.00	0.15	1.82	0.60	(0.14)	(1.79)	(0.59)	0.17	0.08
1/1/2028	12/31/2028	0.00	0.00	0.00	0.17	2.80	0.60	(0.16)	(2.75)	(0.58)	0.16	0.08
1/1/2029	12/31/2029	0.00	0.00	0.00	0.16	2.82	0.81	(0.16)	(2.76)	(0.79)	0.15	0.08
1/1/2030	12/31/2030	0.00	0.00	0.00	0.16	2.76	0.79	(0.16)	(2.71)	(0.78)	0.14	0.07
1/1/2031	12/31/2031	0.00	0.00	0.00	0.16	2.71	0.78	(0.16)	(2.66)	(0.76)	0.13	0.07
1/1/2032	12/31/2032	0.00	0.00	0.00	0.16	2.67	0.76	(0.15)	(2.61)	(0.75)	0.11	0.06
1/1/2033	12/31/2033	0.00	0.00	0.00	0.15	2.62	0.75	(0.15)	(2.57)	(0.74)	0.10	0.06
1/1/2034	12/31/2034	0.00	0.00	0.00	0.15	2.58	0.74	(0.15)	(2.53)	(0.72)	0.09	0.06
1/1/2035	12/31/2035	0.00	0.00	0.00	0.15	2.54	0.73	(0.15)	(2.49)	(0.71)	0.08	0.05
1/1/2036	12/31/2036	0.00	0.00	0.00	0.15	2.50	0.72	(0.14)	(2.45)	(0.70)	0.07	0.05
1/1/2037	12/31/2037	0.00	0.00	0.00	0.14	2.47	0.71	(0.14)	(2.42)	(0.69)	0.06	0.04
1/1/2038	12/31/2038	0.00	0.00	0.00	0.14	2.44	0.70	(0.14)	(2.39)	(0.68)	0.05	0.04
1/1/2039	12/31/2039	0.00	0.00	0.00	0.14	2.41	0.69	(0.14)	(2.36)	(0.67)	0.04	0.04
1/1/2040	12/31/2040	0.00	0.00	0.00	0.14	2.38	0.68	(0.14)	(2.33)	(0.67)	0.03	0.03
1/1/2041	12/31/2041	0.00	0.00	0.00	0.14	2.35	0.67	(0.14)	(2.31)	(0.66)	0.02	0.03
1/1/2042	12/31/2042	0.00	0.00	0.00	0.05	2.33	0.66	(0.05)	(2.28)	(0.65)	0.01	0.02
1/1/2043	12/31/2043	0.00	0.00	0.00	0.00	0.14	0.47	0.00	(0.14)	(0.46)	0.00	0.01

**Notes:**

- (3) = Table I, (12) x Percentage of Premium written in corresponding year
- (4) = Table I, (12) x (unearned premium at end of year i - unearned premium at end of year i-1)
- (5) = Table II-B [ (5) + (6) + (7) + (8) + (9) + (10) + (11) ] for each CY
- (6), (7), (8) = Table I, (1) x Table I, (13) x Loss and LAE Payout (from Section VIII-F, Exhibit 3) for each CY
- (9) = Table IV-A, (8)
- (10) = Table IV-B, (8)
- (11) = Table IV-C, (8)
- (12) = [ ( Table VI, (8), current + Table VI, (8), previous ) / 2 ] x [ debt share x ( (1 + debt cost)^ length of time period - 1 ) ]  
 where debt share = 14% and debt cost = 5.84% from Section VIII-C Exhibit 1
- (13) = - 0.35 x [ (3) - 0.8 x (4) - (5) - (6) - (7) - (8) - (9) - (10) - (11) - (12) ]

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Table IV-A : DERIVATION OF DISCOUNTED LOSS RESERVES										
ACCIDENT YEAR 1										
TIME INTERVAL		DISCOUNT FACTOR	UNDISCOUNTED		DISCOUNTED		CHANGE IN DISCOUNTED LOSSES	PAID LOSSES	PAID + CHANGE IN DISCOUNTED LOSSES AY1	
			BEG OF YEAR	END OF YEAR	BEG OF YEAR	END OF YEAR				
FROM	TO	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1/1/2007	12/31/2007	0.895214	0.00	28.54	0.00	25.55	25.55			
1/1/2008	12/31/2008	0.868351	28.54	19.90	25.55	17.28	(8.27)	8.64	0.37	
1/1/2009	12/31/2009	0.848274	19.90	13.17	17.28	11.17	(6.11)	6.74	0.62	
1/1/2010	12/31/2010	0.842059	13.17	9.34	11.17	7.86	(3.31)	3.83	0.52	
1/1/2011	12/31/2011	0.842298	9.34	7.20	7.86	6.06	(1.80)	2.14	0.34	
1/1/2012	12/31/2012	0.859472	7.20	5.95	6.06	5.11	(0.95)	1.25	0.30	
1/1/2013	12/31/2013	0.867836	5.95	5.23	5.11	4.54	(0.57)	0.71	0.14	
1/1/2014	12/31/2014	0.883080	5.23	4.76	4.54	4.20	(0.34)	0.47	0.14	
1/1/2015	12/31/2015	0.906955	4.76	4.39	4.20	3.98	(0.22)	0.37	0.15	
1/1/2016	12/31/2016	0.924232	4.39	4.10	3.98	3.79	(0.20)	0.30	0.10	
1/1/2017	12/31/2017	0.941919	4.10	3.84	3.79	3.62	(0.17)	0.25	0.09	
1/1/2018	12/31/2018	0.959970	3.84	3.58	3.62	3.44	(0.18)	0.26	0.08	
1/1/2019	12/31/2019	0.978116	3.58	3.36	3.44	3.29	(0.15)	0.22	0.07	
1/1/2020	12/31/2020	0.980675	3.36	3.20	3.29	3.14	(0.15)	0.17	0.01	
1/1/2021	12/31/2021	0.980675	3.20	3.04	3.14	2.98	(0.16)	0.16	0.00	
1/1/2022	12/31/2022	0.980675	3.04	2.89	2.98	2.84	(0.14)	0.15	0.00	
1/1/2023	12/31/2023	0.980675	2.89	2.76	2.84	2.71	(0.13)	0.13	0.00	
1/1/2024	12/31/2024	0.980675	2.76	2.59	2.71	2.54	(0.17)	0.17	0.00	
1/1/2025	12/31/2025	0.980675	2.59	2.43	2.54	2.39	(0.15)	0.16	0.00	
1/1/2026	12/31/2026	0.980675	2.43	2.32	2.39	2.27	(0.11)	0.12	0.00	
1/1/2027	12/31/2027	0.980675	2.32	2.17	2.27	2.13	(0.14)	0.15	0.00	
1/1/2028	12/31/2028	0.980675	2.17	2.00	2.13	1.96	(0.16)	0.17	0.00	
1/1/2029	12/31/2029	0.980675	2.00	1.84	1.96	1.80	(0.16)	0.16	0.00	
1/1/2030	12/31/2030	0.980675	1.84	1.68	1.80	1.64	(0.16)	0.16	0.00	
1/1/2031	12/31/2031	0.980675	1.68	1.52	1.64	1.49	(0.16)	0.16	0.00	
1/1/2032	12/31/2032	0.980675	1.52	1.36	1.49	1.34	(0.15)	0.16	0.00	
1/1/2033	12/31/2033	0.980675	1.36	1.21	1.34	1.19	(0.15)	0.15	0.00	
1/1/2034	12/31/2034	0.980675	1.21	1.06	1.19	1.04	(0.15)	0.15	0.00	
1/1/2035	12/31/2035	0.980675	1.06	0.91	1.04	0.89	(0.15)	0.15	0.00	
1/1/2036	12/31/2036	0.980675	0.91	0.76	0.89	0.75	(0.14)	0.15	0.00	
1/1/2037	12/31/2037	0.980675	0.76	0.62	0.75	0.60	(0.14)	0.14	0.00	
1/1/2038	12/31/2038	0.980675	0.62	0.47	0.60	0.46	(0.14)	0.14	0.00	
1/1/2039	12/31/2039	0.980675	0.47	0.33	0.46	0.33	(0.14)	0.14	0.00	
1/1/2040	12/31/2040	0.980675	0.33	0.19	0.33	0.19	(0.14)	0.14	0.00	
1/1/2041	12/31/2041	0.980675	0.19	0.05	0.19	0.05	(0.14)	0.14	0.00	
1/1/2042	12/31/2042	0.980675	0.05	0.00	0.05	0.00	(0.05)	0.05	0.00	
1/1/2043	12/31/2043	0.980675	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Notes:  
 (3) = Discount factors specified in IRS regulations (Internal Revenue Bulletin: 2007-3)  
 (4) = (5) in previous period  
 (5) = Table IV, (6), Total - Table IV, (6), cumulative  
 (6) = (7) in previous period  
 (7) = (3) x (5)  
 (8) = (7) - (6)  
 (9) = (4) - (5)  
 (10) = (8) + (9)

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Table IV-B : DERIVATION OF DISCOUNTED LOSS RESERVES									
ACCIDENT YEAR 2									
TIME INTERVAL		DISCOUNT FACTOR	UNDISCOUNTED		DISCOUNTED		CHANGE IN DISCOUNTED LOSSES	PAID LOSSES	PAID + CHANGE IN DISCOUNTED LOSSES AY2
			BEG OF YEAR	END OF YEAR	BEG OF YEAR	END OF YEAR			
FROM	TO	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1/1/2007	12/31/2007	N/A	0.00	0.00	0.00	0.00	0.00		0.00
1/1/2008	12/31/2008	0.8952	0.00	435.64	0.00	389.99	389.99		0.00
1/1/2009	12/31/2009	0.8684	435.64	286.23	389.99	248.55	(141.45)	149.41	7.97
1/1/2010	12/31/2010	0.8483	286.23	192.37	248.55	163.18	(85.37)	93.86	8.49
1/1/2011	12/31/2011	0.8421	192.37	141.65	163.18	119.28	(43.91)	50.72	6.82
1/1/2012	12/31/2012	0.8423	141.65	112.15	119.28	94.46	(24.82)	29.50	4.69
1/1/2013	12/31/2013	0.8595	112.15	94.92	94.46	81.58	(12.88)	17.22	4.35
1/1/2014	12/31/2014	0.8678	94.92	85.33	81.58	74.05	(7.53)	9.60	2.06
1/1/2015	12/31/2015	0.8831	85.33	77.93	74.05	68.82	(5.23)	7.39	2.16
1/1/2016	12/31/2016	0.9070	77.93	72.33	68.82	65.60	(3.22)	5.60	2.38
1/1/2017	12/31/2017	0.9242	72.33	67.62	65.60	62.50	(3.11)	4.71	1.61
1/1/2018	12/31/2018	0.9419	67.62	63.52	62.50	59.83	(2.67)	4.10	1.43
1/1/2019	12/31/2019	0.9600	63.52	58.94	59.83	56.58	(3.25)	4.58	1.33
1/1/2020	12/31/2020	0.9781	58.94	55.78	56.58	54.56	(2.01)	3.15	1.14
1/1/2021	12/31/2021	0.9807	55.78	53.13	54.56	52.11	(2.46)	2.65	0.19
1/1/2022	12/31/2022	0.9807	53.13	50.33	52.11	49.35	(2.75)	2.81	0.05
1/1/2023	12/31/2023	0.9807	50.33	48.08	49.35	47.15	(2.21)	2.25	0.04
1/1/2024	12/31/2024	0.9807	48.08	45.89	47.15	45.00	(2.14)	2.19	0.04
1/1/2025	12/31/2025	0.9807	45.89	42.63	45.00	41.81	(3.20)	3.26	0.06
1/1/2026	12/31/2026	0.9807	42.63	40.33	41.81	39.55	(2.25)	2.30	0.04
1/1/2027	12/31/2027	0.9807	40.33	38.51	39.55	37.77	(1.79)	1.82	0.04
1/1/2028	12/31/2028	0.9807	38.51	35.71	37.77	35.02	(2.75)	2.80	0.05
1/1/2029	12/31/2029	0.9807	35.71	32.89	35.02	32.25	(2.76)	2.82	0.05
1/1/2030	12/31/2030	0.9807	32.89	30.12	32.25	29.54	(2.71)	2.76	0.05
1/1/2031	12/31/2031	0.9807	30.12	27.41	29.54	26.88	(2.66)	2.71	0.05
1/1/2032	12/31/2032	0.9807	27.41	24.75	26.88	24.27	(2.61)	2.67	0.05
1/1/2033	12/31/2033	0.9807	24.75	22.13	24.27	21.70	(2.57)	2.62	0.05
1/1/2034	12/31/2034	0.9807	22.13	19.55	21.70	19.17	(2.53)	2.58	0.05
1/1/2035	12/31/2035	0.9807	19.55	17.01	19.17	16.68	(2.49)	2.54	0.05
1/1/2036	12/31/2036	0.9807	17.01	14.51	16.68	14.23	(2.45)	2.50	0.05
1/1/2037	12/31/2037	0.9807	14.51	12.04	14.23	11.81	(2.42)	2.47	0.05
1/1/2038	12/31/2038	0.9807	12.04	9.60	11.81	9.42	(2.39)	2.44	0.05
1/1/2039	12/31/2039	0.9807	9.60	7.20	9.42	7.06	(2.36)	2.41	0.05
1/1/2040	12/31/2040	0.9807	7.20	4.82	7.06	4.73	(2.33)	2.38	0.05
1/1/2041	12/31/2041	0.9807	4.82	2.47	4.73	2.42	(2.31)	2.35	0.05
1/1/2042	12/31/2042	0.9807	2.47	0.14	2.42	0.14	(2.28)	2.33	0.04
1/1/2043	12/31/2043	0.9807	0.14	0.00	0.14	0.00	(0.14)	0.14	0.00

Notes:  
 (3) = Discount factors specified in IRS regulations (Internal Revenue Bulletin: 2007-3)  
 (4) = (5) in previous period  
 (5) = Table IV, (7), Total - Table IV, (7), cumulative  
 (6) = (7) in previous period  
 (7) = (3) x (5)  
 (8) = (7) - (6)  
 (9) = (4) - (5)  
 (10) = (8) + (9)



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Table IV-C: DERIVATION OF DISCOUNTED LOSS RESERVES									
ACCIDENT YEAR 3									
TIME INTERVAL		DISCOUNT FACTOR	UNDISCOUNTED		DISCOUNTED		CHANGE IN DISCOUNTED LOSSES	PAID LOSSES	PAID + CHANGE IN DISCOUNTED LOSSES AY3
			UNPAID LOSSES BEG OF YEAR	UNPAID LOSSES END OF YEAR	UNPAID LOSSES BEG OF YEAR	UNPAID LOSSES END OF YEAR			
FROM	TO	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1/1/2007	12/31/2007	N/A	0.00	0.00	0.00	0.00	0.00		0.00
1/1/2008	12/31/2008	N/A	0.00	0.00	0.00	0.00	0.00		0.00
1/1/2009	12/31/2009	0.8952	0.00	109.17	0.00	97.73	97.73		0.00
1/1/2010	12/31/2010	0.8684	109.17	71.38	97.73	61.98	(35.75)	37.79	2.04
1/1/2011	12/31/2011	0.8483	71.38	49.15	61.98	41.70	(20.29)	22.23	1.94
1/1/2012	12/31/2012	0.8421	49.15	37.08	41.70	31.23	(10.47)	12.07	1.60
1/1/2013	12/31/2013	0.8423	37.08	30.00	31.23	25.27	(5.96)	7.08	1.13
1/1/2014	12/31/2014	0.8595	30.00	25.91	25.27	22.27	(3.00)	4.09	1.09
1/1/2015	12/31/2015	0.8678	25.91	23.46	22.27	20.36	(1.91)	2.44	0.54
1/1/2016	12/31/2016	0.8831	23.46	21.54	20.36	19.02	(1.34)	1.92	0.58
1/1/2017	12/31/2017	0.9070	21.54	20.05	19.02	18.18	(0.84)	1.49	0.65
1/1/2018	12/31/2018	0.9242	20.05	18.77	18.18	17.35	(0.83)	1.27	0.44
1/1/2019	12/31/2019	0.9419	18.77	17.58	17.35	16.56	(0.80)	1.20	0.40
1/1/2020	12/31/2020	0.9600	17.58	16.39	16.56	15.74	(0.82)	1.18	0.36
1/1/2021	12/31/2021	0.9781	16.39	15.56	15.74	15.22	(0.52)	0.83	0.32
1/1/2022	12/31/2022	0.9807	15.56	14.80	15.22	14.51	(0.71)	0.76	0.05
1/1/2023	12/31/2023	0.9807	14.80	14.05	14.51	13.78	(0.74)	0.75	0.01
1/1/2024	12/31/2024	0.9807	14.05	13.42	13.78	13.16	(0.61)	0.63	0.01
1/1/2025	12/31/2025	0.9807	13.42	12.71	13.16	12.47	(0.70)	0.71	0.01
1/1/2026	12/31/2026	0.9807	12.71	11.86	12.47	11.63	(0.84)	0.86	0.02
1/1/2027	12/31/2027	0.9807	11.86	11.26	11.63	11.04	(0.59)	0.60	0.01
1/1/2028	12/31/2028	0.9807	11.26	10.66	11.04	10.46	(0.58)	0.60	0.01
1/1/2029	12/31/2029	0.9807	10.66	9.85	10.46	9.66	(0.79)	0.81	0.02
1/1/2030	12/31/2030	0.9807	9.85	9.06	9.66	8.88	(0.78)	0.79	0.02
1/1/2031	12/31/2031	0.9807	9.06	8.28	8.88	8.12	(0.76)	0.78	0.02
1/1/2032	12/31/2032	0.9807	8.28	7.52	8.12	7.37	(0.75)	0.76	0.01
1/1/2033	12/31/2033	0.9807	7.52	6.76	7.37	6.63	(0.74)	0.75	0.01
1/1/2034	12/31/2034	0.9807	6.76	6.02	6.63	5.91	(0.72)	0.74	0.01
1/1/2035	12/31/2035	0.9807	6.02	5.30	5.91	5.19	(0.71)	0.73	0.01
1/1/2036	12/31/2036	0.9807	5.30	4.58	5.19	4.49	(0.70)	0.72	0.01
1/1/2037	12/31/2037	0.9807	4.58	3.87	4.49	3.80	(0.69)	0.71	0.01
1/1/2038	12/31/2038	0.9807	3.87	3.18	3.80	3.12	(0.68)	0.70	0.01
1/1/2039	12/31/2039	0.9807	3.18	2.49	3.12	2.44	(0.67)	0.69	0.01
1/1/2040	12/31/2040	0.9807	2.49	1.81	2.44	1.78	(0.67)	0.68	0.01
1/1/2041	12/31/2041	0.9807	1.81	1.14	1.78	1.12	(0.66)	0.67	0.01
1/1/2042	12/31/2042	0.9807	1.14	0.47	1.12	0.46	(0.65)	0.66	0.01
1/1/2043	12/31/2043	0.9807	0.47	0.00	0.46	0.00	(0.46)	0.47	0.01

Notes:  
 (3) = Discount factors specified in IRS regulations (Internal Revenue Bulletin: 2007-3)  
 (4) = (5) in previous period  
 (5) = Table IV, (8), Total - Table IV, (8), cumulative  
 (6) = (7) in previous period  
 (7) = (3) x (5)  
 (8) = (7) - (6)  
 (9) = (4) - (5)  
 (10) = (8) + (9)

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Table V: NET CASH FLOWS FROM UNDERWRITING						
TIME INTERVAL		PREMIUM FLOWS NET OF RESERVES (3)	TAX CREDITS (4)	EXPENSES (5)	NET CASH FLOW FROM UNDERWRITING (6)	
FROM (1)	TO (2)					
9/1/2006	11/30/2006	0.00	0.06	0.12		(0.06)
12/1/2006	2/28/2007	0.00	(0.94)	0.51		(1.45)
3/1/2007	5/31/2007	0.00	(1.44)	2.26		(3.71)
6/1/2007	8/31/2007	0.00	(1.44)	7.21		(8.65)
9/1/2007	11/30/2007	20.09	(1.44)	20.53		(1.88)
12/1/2007	2/29/2008	22.80	(3.79)	38.53		(19.52)
3/1/2008	5/31/2008	39.08	(4.96)	47.13		(13.01)
6/1/2008	8/31/2008	53.59	(4.96)	45.73		2.89
9/1/2008	11/30/2008	54.31	(4.96)	34.16		15.19
12/1/2008	2/28/2009	36.06	0.30	21.68		14.68
3/1/2009	5/31/2009	18.69	2.92	15.14		6.48
6/1/2009	8/31/2009	3.33	2.92	8.95		(2.69)
9/1/2009	11/30/2009	(3.48)	2.92	4.59		(5.14)
12/1/2009	2/28/2010	(1.27)	1.83	1.75		(1.20)
3/1/2010	5/31/2010	(0.17)	1.28	0.81		0.30
6/1/2010	8/31/2010	(0.17)	1.28	0.47		0.64
9/1/2010	11/30/2010	(0.17)	1.28	0.25		0.86
12/1/2010	2/28/2011	(0.20)	1.00	0.09		0.71
3/1/2011	5/31/2011	(0.22)	0.86	0.00		0.64
6/1/2011	8/31/2011	(0.22)	0.86	0.00		0.64
9/1/2011	11/30/2011	(0.22)	0.86	0.00		0.64
12/1/2011	2/29/2012	(0.13)	0.70	0.00		0.57
3/1/2012	5/31/2012	(0.08)	0.62	0.00		0.54
6/1/2012	8/31/2012	(0.08)	0.62	0.00		0.54
9/1/2012	11/30/2012	(0.08)	0.62	0.00		0.54
12/1/2012	2/28/2013	(0.16)	0.56	0.00		0.40
3/1/2013	5/31/2013	(0.20)	0.53	0.00		0.33
6/1/2013	8/31/2013	(0.20)	0.53	0.00		0.33
9/1/2013	8/31/2014	(0.37)	1.57	0.00		1.19
9/1/2014	8/31/2015	(0.00)	1.18	0.00		1.18
9/1/2015	8/31/2016	(0.14)	1.17	0.00		1.02
9/1/2016	8/31/2017	(0.17)	1.01	0.00		0.84
9/1/2017	8/31/2018	(0.08)	0.83	0.00		0.75
9/1/2018	8/31/2019	(0.08)	0.74	0.00		0.66
9/1/2019	8/31/2020	(0.27)	0.65	0.00		0.39
9/1/2020	8/31/2021	(0.21)	0.38	0.00		0.17
9/1/2021	8/31/2022	(0.06)	0.17	0.00		0.11
9/1/2022	8/31/2023	(0.01)	0.10	0.00		0.10
9/1/2023	8/31/2024	0.00	0.09	0.00		0.10
9/1/2024	8/31/2025	(0.00)	0.09	0.00		0.09
9/1/2025	8/31/2026	(0.01)	0.09	0.00		0.08
9/1/2026	8/31/2027	0.00	0.08	0.00		0.08
9/1/2027	8/31/2028	0.00	0.08	0.00		0.08
9/1/2028	8/31/2029	0.00	0.08	0.00		0.08
9/1/2029	8/31/2030	(0.00)	0.07	0.00		0.07
9/1/2030	8/31/2031	(0.00)	0.07	0.00		0.07
9/1/2031	8/31/2032	(0.00)	0.07	0.00		0.07
9/1/2032	8/31/2033	(0.00)	0.06	0.00		0.06
9/1/2033	8/31/2034	(0.00)	0.06	0.00		0.06
9/1/2034	8/31/2035	(0.00)	0.05	0.00		0.05
9/1/2035	8/31/2036	(0.00)	0.05	0.00		0.05
9/1/2036	8/31/2037	(0.00)	0.04	0.00		0.04
9/1/2037	8/31/2038	(0.00)	0.04	0.00		0.04
9/1/2038	8/31/2039	(0.00)	0.04	0.00		0.04
9/1/2039	8/31/2040	(0.00)	0.03	0.00		0.03
9/1/2040	8/31/2041	(0.00)	0.03	0.00		0.03
9/1/2041	8/31/2042	(0.01)	0.02	0.00		0.01
9/1/2042	8/31/2043	(0.01)	0.01	0.00		0.01

Notes:

(3) = Table III, (9)

(4) = Table IV, (13)

(5) = Table II-B, [(5) + (6) + (7) + (8) + (9) + (10) + (11)]

(6) = (3) + (4) - (5)

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INTERNAL RATE OF RETURN ANALYSIS WCRIB OF MA							
Table VI: DERIVATION OF INVESTED CASH LEVELS							
TIME INTERVAL		LOSS AND LOSS ADJ. RESERVES (3)	UNEARNED PREMIUM RESERVES (4)	NON-CASH ASSETS (5)	INVESTABLE FUND (6)	RESERVE/ SURPLUS RATIO (7)	FUNDS IN SURPLUS ACCOUNT (8)
FROM (1)	TO (2)						
9/1/2006	11/30/2006	0.00	0.00	0.00	0.00	0.00	0.00
12/1/2006	2/28/2007	0.00	0.00	0.00	0.00	0.00	0.00
3/1/2007	5/31/2007	0.00	0.00	0.00	0.00	0.00	0.00
6/1/2007	8/31/2007	0.00	0.00	0.00	0.00	0.00	0.00
9/1/2007	11/30/2007	13.83	160.93	163.42	11.35	2.46	70.92
12/1/2007	2/29/2008	64.46	405.85	381.39	88.92	2.46	190.85
3/1/2008	5/31/2008	156.76	487.68	444.95	199.50	2.46	261.52
6/1/2008	8/31/2008	283.83	505.15	479.42	309.56	2.46	320.17
9/1/2008	11/30/2008	407.76	280.60	310.10	378.26	2.46	279.34
12/1/2008	2/28/2009	481.64	121.05	195.92	406.78	2.46	244.58
3/1/2009	5/31/2009	502.16	28.46	115.97	414.65	2.46	215.33
6/1/2009	8/31/2009	473.83	0.00	65.00	408.84	2.46	192.28
9/1/2009	11/30/2009	425.66	0.00	32.38	393.28	2.46	172.73
12/1/2009	2/28/2010	382.91	0.00	17.24	365.67	2.46	155.39
3/1/2010	5/31/2010	344.66	0.00	10.32	334.34	2.46	139.86
6/1/2010	8/31/2010	312.09	0.00	6.25	305.84	2.46	126.65
9/1/2010	11/30/2010	283.34	0.00	3.99	279.35	2.46	114.98
12/1/2010	2/28/2011	258.36	0.00	3.04	255.32	2.46	104.84
3/1/2011	5/31/2011	236.69	0.00	2.82	233.87	2.46	96.05
6/1/2011	8/31/2011	218.92	0.00	2.60	216.32	2.46	88.84
9/1/2011	11/30/2011	203.48	0.00	2.38	201.10	2.46	82.57
12/1/2011	2/29/2012	189.77	0.00	2.25	187.52	2.46	77.01
3/1/2012	5/31/2012	177.71	0.00	2.16	175.55	2.46	72.12
6/1/2012	8/31/2012	167.46	0.00	2.08	165.38	2.46	67.96
9/1/2012	11/30/2012	158.40	0.00	1.99	156.40	2.46	64.28
12/1/2012	2/28/2013	150.40	0.00	1.83	148.57	2.46	61.03
3/1/2013	5/31/2013	143.30	0.00	1.63	141.67	2.46	58.15
6/1/2013	8/31/2013	137.31	0.00	1.42	135.88	2.46	55.72
9/1/2013	8/31/2014	120.03	0.00	1.05	118.99	2.46	48.71
9/1/2014	8/31/2015	108.99	0.00	1.05	107.95	2.46	44.23
9/1/2015	8/31/2016	100.41	0.00	0.90	99.50	2.46	40.75
9/1/2016	8/31/2017	93.59	0.00	0.73	92.86	2.46	37.98
9/1/2017	8/31/2018	87.72	0.00	0.65	87.07	2.46	35.60
9/1/2018	8/31/2019	81.90	0.00	0.56	81.33	2.46	33.23
9/1/2019	8/31/2020	76.73	0.00	0.30	76.44	2.46	31.14
9/1/2020	8/31/2021	72.92	0.00	0.09	72.83	2.46	29.59
9/1/2021	8/31/2022	69.26	0.00	0.03	69.24	2.46	28.11
9/1/2022	8/31/2023	65.88	0.00	0.02	65.86	2.46	26.73
9/1/2023	8/31/2024	62.93	0.00	0.03	62.90	2.46	25.54
9/1/2024	8/31/2025	59.23	0.00	0.02	59.21	2.46	24.04
9/1/2025	8/31/2026	55.49	0.00	0.02	55.47	2.46	22.52
9/1/2026	8/31/2027	52.79	0.00	0.02	52.76	2.46	21.42
9/1/2027	8/31/2028	49.66	0.00	0.03	49.63	2.46	20.15
9/1/2028	8/31/2029	45.84	0.00	0.03	45.82	2.46	18.60
9/1/2029	8/31/2030	42.10	0.00	0.02	42.07	2.46	17.08
9/1/2030	8/31/2031	38.43	0.00	0.02	38.40	2.46	15.59
9/1/2031	8/31/2032	34.82	0.00	0.02	34.79	2.46	14.13
9/1/2032	8/31/2033	31.27	0.00	0.02	31.25	2.46	12.69
9/1/2033	8/31/2034	27.78	0.00	0.02	27.76	2.46	11.28
9/1/2034	8/31/2035	24.35	0.00	0.02	24.33	2.46	9.88
9/1/2035	8/31/2036	20.97	0.00	0.02	20.95	2.46	8.51
9/1/2036	8/31/2037	17.64	0.00	0.02	17.61	2.46	7.16
9/1/2037	8/31/2038	14.35	0.00	0.02	14.32	2.46	5.82
9/1/2038	8/31/2039	11.10	0.00	0.02	11.08	2.46	4.50
9/1/2039	8/31/2040	7.89	0.00	0.02	7.87	2.46	3.20
9/1/2040	8/31/2041	4.72	0.00	0.02	4.70	2.46	1.91
9/1/2041	8/31/2042	1.58	0.00	0.01	1.57	2.46	0.64
9/1/2042	8/31/2043	0.00	0.00	0.00	0.00	2.46	0.00

Notes:

- (3) = Table III, (6) - [ Table II-A, (5), cumulative x Table I, (1) x Table I, (13) ]
- (4) = Table III, (7)
- (5) = Table III, (5)
- (6) = The maximum value of [ (3) + (4) - (5) ] or 0
- (7) = Table I, (11)
- (8) = [ (3) + (4) ] / (7)

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Section VIII - Profit  
 Subsection B - Internal Rate of Return Model  
 9/1/2007

Section VIII-B  
 Exhibit 7

INTERNAL RATE OF RETURN ANALYSIS WCRIB OF MA							
Table VII: NOMINAL CASH FLOWS TO INVESTORS							
TIME INTERVAL		NET CASH FLOW FROM UNDERWRITING (3)	CASH POST-TAX INCOME (4)	NET FLOW FOR SURPLUS ACCOUNT (5)	SURPLUS POST-TAX INCOME (6)	NET CASH FLOW (7)	
FROM (1)	TO (2)						
9/1/2006	11/30/2006	(0.06)	0.00	0.00	0.00	(0.06)	
12/1/2006	2/28/2007	(1.45)	0.00	0.00	0.00	(1.45)	
3/1/2007	5/31/2007	(3.71)	0.00	0.00	0.00	(3.71)	
6/1/2007	8/31/2007	(8.65)	0.00	0.00	0.00	(8.65)	
9/1/2007	11/30/2007	(1.88)	0.11	(70.92)	0.71	(71.98)	
12/1/2007	2/29/2008	(19.52)	0.88	(119.93)	1.90	(136.67)	
3/1/2008	5/31/2008	(13.01)	2.00	(70.66)	2.62	(79.05)	
6/1/2008	8/31/2008	2.89	3.10	(58.65)	3.21	(49.45)	
9/1/2008	11/30/2008	15.19	3.75	40.83	2.77	62.54	
12/1/2008	2/28/2009	14.68	3.99	34.76	2.40	55.83	
3/1/2009	5/31/2009	6.48	4.17	29.25	2.16	42.06	
6/1/2009	8/31/2009	(2.69)	4.11	23.04	1.93	26.39	
9/1/2009	11/30/2009	(5.14)	3.91	19.55	1.72	20.03	
12/1/2009	2/28/2010	(1.20)	3.59	17.35	1.53	21.27	
3/1/2010	5/31/2010	0.30	3.36	15.52	1.41	20.59	
6/1/2010	8/31/2010	0.64	3.07	13.22	1.27	18.21	
9/1/2010	11/30/2010	0.86	2.78	11.67	1.14	16.45	
12/1/2010	2/28/2011	0.71	2.51	10.14	1.03	14.39	
3/1/2011	5/31/2011	0.64	2.35	8.79	0.97	12.75	
6/1/2011	8/31/2011	0.64	2.17	7.21	0.89	10.92	
9/1/2011	11/30/2011	0.64	2.00	6.26	0.82	9.73	
12/1/2011	2/29/2012	0.57	1.86	5.57	0.77	8.77	
3/1/2012	5/31/2012	0.54	1.76	4.89	0.72	7.91	
6/1/2012	8/31/2012	0.54	1.66	4.16	0.68	7.04	
9/1/2012	11/30/2012	0.54	1.55	3.68	0.64	6.41	
12/1/2012	2/28/2013	0.40	1.46	3.25	0.60	5.70	
3/1/2013	5/31/2013	0.33	1.42	2.88	0.58	5.22	
6/1/2013	8/31/2013	0.33	1.37	2.43	0.56	4.68	
9/1/2013	8/31/2014	1.19	4.86	7.01	1.99	15.05	
9/1/2014	8/31/2015	1.18	4.41	4.48	1.81	11.87	
9/1/2015	8/31/2016	1.02	4.07	3.48	1.67	10.25	
9/1/2016	8/31/2017	0.84	3.78	2.77	1.55	8.93	
9/1/2017	8/31/2018	0.75	3.55	2.38	1.45	8.14	
9/1/2018	8/31/2019	0.66	3.32	2.36	1.36	7.70	
9/1/2019	8/31/2020	0.39	3.13	2.10	1.27	6.88	
9/1/2020	8/31/2021	0.17	2.96	1.55	1.20	5.89	
9/1/2021	8/31/2022	0.11	2.83	1.48	1.15	5.56	
9/1/2022	8/31/2023	0.10	2.69	1.37	1.09	5.25	
9/1/2023	8/31/2024	0.10	2.57	1.20	1.05	4.92	
9/1/2024	8/31/2025	0.09	2.41	1.50	0.98	4.98	
9/1/2025	8/31/2026	0.08	2.26	1.52	0.92	4.78	
9/1/2026	8/31/2027	0.08	2.15	1.10	0.87	4.21	
9/1/2027	8/31/2028	0.08	2.03	1.27	0.82	4.21	
9/1/2028	8/31/2029	0.08	1.87	1.55	0.76	4.25	
9/1/2029	8/31/2030	0.07	1.72	1.52	0.70	4.01	
9/1/2030	8/31/2031	0.07	1.57	1.49	0.64	3.76	
9/1/2031	8/31/2032	0.07	1.42	1.46	0.58	3.53	
9/1/2032	8/31/2033	0.06	1.27	1.44	0.52	3.29	
9/1/2033	8/31/2034	0.06	1.13	1.42	0.46	3.07	
9/1/2034	8/31/2035	0.05	0.99	1.39	0.40	2.84	
9/1/2035	8/31/2036	0.05	0.86	1.37	0.35	2.63	
9/1/2036	8/31/2037	0.04	0.72	1.35	0.29	2.41	
9/1/2037	8/31/2038	0.04	0.58	1.33	0.24	2.20	
9/1/2038	8/31/2039	0.04	0.45	1.32	0.18	1.99	
9/1/2039	8/31/2040	0.03	0.32	1.30	0.13	1.79	
9/1/2040	8/31/2041	0.03	0.19	1.29	0.08	1.58	
9/1/2041	8/31/2042	0.01	0.06	1.27	0.03	1.38	
9/1/2042	8/31/2043	0.01	0.00	0.64	0.00	0.65	

**Notes:**

- (3) = Table V, (6)
- (4) = Table VI, (6) x [ 1.0 + Table I, (10B) ] ^ length of time period -1.0
- (5) = - (Table VI, (8), current - Table VI, (8), previous)
- (6) = Table VI, (8) x [ 1.0 + Table I, (10B) ] ^ length of time period -1.0
- (7) = (3) + (4) + (5) + (6)

## 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.<sup>1</sup> 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.<sup>2</sup> To narrow the debate this year, the WCRIB 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 on accounting data. Indeed, it is market requirements that suggest use of the term "cost

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<sup>1</sup> Insurance operating companies typically carry no debt on their balance sheets; that is, the capital of the operating companies is all equity capital.

<sup>2</sup> See, for example, page 52: "We agree that estimates of the cost of capital should reflect debt/equity financing at the holding company level."

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of capital," as the phrase refers to the cost to the firm of attracting investment funds in capital markets.

In the past, Dr. Appel has relied on the two most prominent market based methodologies to estimate the cost of equity capital for the WCRIB: 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, Dr. Appel has explicitly given equal weight to each method in the estimation process. However, the WCRIB is aware that in the past year, Dr. Appel has adopted an alternative version of the CAPM – known as the Fama French 3 Factor (FF3F) CAPM - for use in estimating the cost of capital for property casualty insurers.

The FF3F CAPM is the version of CAPM that is currently recognized within the academic community as the proper specification of the model for purposes of estimating capital costs. CAPM was originally developed in the 1950's and early 1960's to explain the behavior of security prices, however years of testing identified several capital market phenomena that the model did not adequately explain. The FF3F model, introduced in 1992, addresses these anomalies, by including factors that control for the impact of firm size and financial distress on firm risk and required return. In recent years the finance literature has strongly supported the use of the FF3F version of CAPM due to its superior ability to explain the cross-sectional variation in security returns. In addition, in the past year the model has been successfully applied to property casualty insurers and

published in the leading scholarly journal in insurance economics and finance.<sup>3</sup> As a consequence, this version of the model should provide superior estimates of the cost of capital.

Although it is not adopting the FF3F CAPM procedure in this rate filing, the WCRIB is reviewing the methodology and may consider its use in the future. The WCRIB notes that according to Dr. Appel, the FF3F CAPM is currently producing an estimated cost of equity capital for property casualty insurers of approximately 17% as opposed to the single factor (i.e., traditional) CAPM cost of equity of approximately 12.3% that is used in this filing. However, because the WCRIB has not yet adopted the FF3F CAPM for use in developing rate indications, it has asked Dr. Appel to perform the cost of capital analysis for this filing using the models and methodology relied upon in previous rate filings. Thus, the remainder of the discussion in this section relates to the traditional single factor CAPM along with the aforementioned DCF model.

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: a sample of large, publicly traded property/casualty insurers, drawn from the Value Line Investment Survey. This sample included all those insurers contained in the Value Line “Property/Casualty” industry group – numbering 26 in total.

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<sup>3</sup> See Cummins and Phillips, “Estimating the Cost of Capital for Property casualty Insurers”, *Journal of Risk and Insurance*, 2005, Vol. 72, No. 3.

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Based on these data, Dr. Appel calculated the cost of equity capital for the full sample of 26 property/casualty insurers covered by Value Line. This calculation provides an estimate of the fair rate of return for the average risk activity in which property/casualty insurers are engaged. Dr. Appel determined that investors currently require a return on equity of at least 11.25% for bearing the risk of underwriting property/casualty insurance, based on the average of the DCF and CAPM results shown below.

DCF	10.15%
CAPM	12.35%
Average	11.25%

Given these results, the WCRIB has used a cost of equity capital of 11.25% 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, Dr. Appel also calculated the cost of debt capital for the Value Line sample of insurers, as well as the share of debt in their capital structure. For this group of 26 insurers, the average interest cost on long term debt is 5.84%, and the share of non-equity capital in the corporate capital structure is 14%. Thus, the weighted average cost of capital is 10.51%, as shown below:



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$$(14\% \times 5.84\%) + (86\% \times 11.25\%) = 10.51\%$$

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 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.

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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 has become an increasingly attractive alternative to health insurance for coverage of any illness or injury.

While these characteristics suggest that workers' compensation is of above-average risk, the WCRIB 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.

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Section VIII – Profit  
Subsection C – Cost of Capital  
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Section VIII - C  
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The results of Dr. Appel's analysis for the full sample of Value Line 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 WCRIB 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:

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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 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

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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).<sup>4</sup>

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.

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<sup>4</sup> As discussed earlier, the FF3F version of CAPM is the model currently used in the academic literature to estimate capital costs. At the request of the WCRIB, however, Dr. Appel has utilized the traditional, single factor CAPM to estimate the cost of capital for this filing.

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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 any real resource has a variety of 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.



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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

$$k = (D_1 / P_0) + g,$$

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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

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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,  $\beta$  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 - 2006 a diversified portfolio of common stocks earned an annual return which averaged 8.58 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 8.58 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. 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

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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. His estimates are based on the most recent available data, from January 2007.

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. The annual DCF model requires an estimate of the dividends payable during the first year of the investment. Since 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 one to use in the DCF model.

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.

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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. Thus, 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 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)

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$r$  = 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 VIII-C, 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 capital averages 10.15%.

To illustrate the calculation, consider the model shown in section VIII-C, Exhibit 2, page 1. In this model, the first-year dividend yield is 1.37%, and the expected growth rate in dividends is 8.77%. Accordingly, the required rate of return ( $k$ ) in this DCF model is equal to:

$$k = (D_1 / P_0) + g, \text{ or}$$
$$10.15\% = 1.37\% + 8.77\%$$

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:

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$$K = r_f + (\beta \times r_d)$$

where  $r_f$  is the risk-free yield,  $\beta$  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 26 property/casualty insurers, the beta coefficient for this sample of companies ranges from 0.60 to 1.65, and averages 0.97. This is shown on Section VIII-C, 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 October through December 2006. 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 5.02%, while the yields on 5- and 20-year Treasuries averaged 4.60% and 4.83% respectively.

Combining the information concerning the recent yields on U.S. Treasury securities, beta coefficients for the property/casualty insurance industry, and the



## VIII 000055 R

historical differential between risk-free and equity investments, Dr. Appel's best estimate of investors' required return is 12.35%.

To illustrate this calculation, consider the results for the short term CAPM below:

$$K = r_f + (\beta \times r_d) , \text{ or}$$
$$13.34\% = 5.02\% + (0.97 \times 8.58\%)$$

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 12.35% 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 11.25%, 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, to estimate the overall cost of capital, consistent with the 2003 Commissioner's decision, the WCRIB requested that Dr. Appel estimate the share of debt and equity in insurer capital structures, and estimate the cost of debt, so as to create a weighted average cost of capital, even though this is not the traditional way to estimate capital costs for purposes of insurance regulation. The details of these calculations are contained in Section VIII-C, Exhibits 4 and 5. As these exhibits show,

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debt accounts for approximately 14% of insurer capital, while common equity accounts for 86% of capital. Given the equity cost, as shown above, of 11.25%, and the debt cost estimated in Exhibit 4 of 5.84%, the weighted average cost of capital is 10.51%, as shown below:

$$(14\% \times 5.84\%) + (86\% \times 11.25\%) = 10.51\%$$

## VIII 000057 R

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Exhibit 1

### Cost of Capital: Summary Exhibit for Property-Casualty Insurance Companies

(1) Discounted Cash Flow (from Exhibit 2, page 1)	10.15
(2) Capital Asset Pricing Model (from Exhibit 3, page 1)	<u>12.35</u>
(3) Cost of Equity ( $=[(1)+(2)] / 2.0$ )	11.25
(4) Cost of Debt (from Exhibit 4)	5.84
(5) Capital Structure (from Exhibit 5):	
(a) Equity	86%
(b) Debt	14%
(6) Weighted Average Cost of Capital $[= (3) \times (5a) + (4) \times (5b) ]$	<b>10.51</b>

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Page 1

## Cost of Capital Estimate using Discounted Cash Flow 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 (from Page 2)	1.37
(2) Growth Forecast { = [ (a) + (b) ] / 2.0 }	9.24
(a) Dividend Component [ = Page 2, average of columns (3) through (5) ]	8.46
(b) Earnings Component [ = Page 2, average of columns (6) through (8) ]	10.03
(3) Fundamental Analysis [ = (a) + (b) ]	8.30
(a) Retention to book [ = Page 2, average of columns (9) through (11) ]	8.40
(b) Stock issuance factor [ = Page 2, column (15) ]	-0.10
(4) Dividend Growth Rate { = [ (2) + (3) ] / 2.0 }	8.77
(5) Cost of Capital [ = (1) + (4) ]	<b>10.15</b>

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Discounted Cash Flow Analysis: Parameter Calculation

Property/Casualty Insurance Companies (1)	Estimated Dividend Yield (2)	Average Dividend Growth Rate			Average Earnings Growth Rate			Average Earnings Retention Rates as a Percent of Common Equity			Stock Issuance Adjustment Factor				
		Annual Rate of Change		Forecast	Annual Rate of Change		Forecast	Past 10 Years		Past 5 Years	Forecast	2007	2009-2011	2009-2011	2009-2011
		Past 10 Years (3)	Past 5 Years (4)	(5)	Past 10 Years (6)	Past 5 Years (7)	(8)	Past 10 Years (9)	Past 5 Years (10)	2009-2011 (11)	Shares (12)	Shares (13)	Market/ Book (14)	Stock Issuance Adjustment Factor (15)	
ACE Limited	1.70	20.50	14.00	8.00	12.50	8.50	13.00	9.2	7.3	9.5	325.00	320.00	1.25	-0.13	
Alleghany Corp.	Nil	NA	NA	Nil	NA	NA	25.00	6.0	6.7	8.0	8.25	8.40	1.30	0.18	
Allstate Corp	2.30	13.50	12.50	9.50	10.00	1.00	9.50	10.8	7.5	8.0	615.00	610.00	1.15	-0.04	
American Finan	1.10	-6.00	-13.00	3.00	NA	11.50	16.00	6.5	5.6	13.5	117.00	117.00	1.25	0.00	
Berkley (W.R.)	0.50	8.00	5.00	9.50	20.50	NMF	14.00	9.0	12.7	14.5	185.00	180.00	1.75	-0.68	
Berkshire Hath. 'A'	Nil	NA	NA	Nil	24.00	25.00	9.00	6.2	7.3	8.5	1.54	1.54	1.45	0.00	
CNA Financial	Nil	NA	NA	Nil	NA	NA	NMF	5.4	2.4	9.5	270.00	270.00	0.95	0.00	
Chubb	1.90	5.50	4.00	7.50	8.00	10.00	8.50	6.5	5.3	8.5	405.00	390.00	1.40	-0.50	
Cincinnati Fin	3.00	11.50	11.00	7.50	9.50	20.00	3.00	3.3	3.8	4.0	172.00	170.00	1.35	-0.14	
Everest Re Group	1.00	29.50	12.00	18.50	NMF	1.50	25.50	9.4	8.0	10.5	65.00	65.00	1.15	0.00	
HCC Ins Hldngs	1.30	NA	11.50	17.00	14.50	13.50	16.00	11.4	9.6	11.5	115.00	115.00	1.65	0.00	
Hanover Ins. Group	0.60	NA	NA	24.00	-3.00	-16.50	18.00	7.0	4.0	8.5	51.00	52.00	1.05	0.03	
Market Corp.	Nil	NA	NA	Nil	11.00	23.00	20.50	8.0	5.6	13.5	10.00	10.00	1.50	0.00	
Mercury General	3.60	15.50	12.50	5.50	10.50	10.50	6.50	9.8	7.8	10.0	54.50	54.50	2.00	0.00	
Ohio Casualty	1.20	NA	NA	NMF	-5.50	-15.50	9.00	5.2	7.3	8.0	60.00	60.00	0.90	0.00	
Old Republic	2.70	14.50	11.00	11.00	10.50	10.50	4.00	9.3	8.6	7.0	230.00	230.00	1.05	0.00	
PMI Group, Inc.	0.40	16.50	16.50	15.50	11.50	9.50	9.50	14.7	13.2	10.5	80.00	80.00	1.10	0.00	
Partnerre Ltd.	2.20	17.00	7.00	5.00	3.00	2.50	21.50	6.9	5.4	9.5	58.00	60.00	1.10	0.11	
Progressive	0.20	4.50	5.00	24.00	20.00	NMF	2.00	17.2	21.5	13.0	745.00	700.00	1.75	-1.54	
RLI Corp	1.50	10.00	12.50	13.00	25.00	14.50	10.00	8.7	8.6	9.0	22.00	22.00	1.40	0.00	
SAFECO	1.90	-1.50	-10.50	8.50	3.00	18.00	9.50	5.0	6.8	10.0	100.00	100.00	1.50	0.00	
St. Paul	2.00	3.00	-0.50	3.00	-0.50	-6.00	18.50	6.2	3.2	10.0	660.00	650.00	1.20	-0.10	
Selective	1.60	2.50	4.00	6.00	9.50	17.00	10.00	6.7	7.0	11.5	28.00	28.00	1.45	0.00	
Transatlantic	0.90	11.50	8.50	12.00	6.00	-2.50	17.00	8.9	5.6	9.5	66.00	66.00	1.25	0.00	
21st Century	1.90	-10.00	-27.50	27.00	NA	2.50	5.50	8.4	5.9	6.0	86.50	86.50	1.55	0.00	
XL Capital Lmtd	2.20	12.50	2.50	-2.50	NA	NA	NMF	7.6	3.0	10.5	183.00	189.00	1.20	0.22	
Average	1.37	9.39	4.90	11.07	10.00	7.55	12.54	8.20	7.30	9.71				-0.10	

Notes:

Source: Value Line Investment Survey, Part 3, The Ratings & Reports, December 22, 2006.

All companies with Nil values pay no dividends

NMF = Not a Meaningful Figure

(15) =  $[(14) - 1.0] \times \frac{((13) / ((12))^{t}) - 1.0}{t} \times 100$ , where t is 0.333 for the years between midyear 2007 and midyear 2010 (which is the midpoint of 2009-2011)

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Section VIII - Profit  
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Exhibit 3  
Page 1

## Cost of Capital Estimate using Capital Asset Pricing Model Analysis

$$\text{Cost of Capital: } K = r_f + (\beta \times r_d)$$

	Risk-Free Yield ( $r_f$ )	Market Risk Premium ( $r_d$ )	Beta Coefficient ( $\beta$ )	Estimated Cost of Capital (K)
Short-Term	5.02	8.58	0.97	13.34
Intermediate-Term	4.60	7.58	0.97	11.95
Long-Term	4.83	7.13	0.97	11.75
Average	4.82	7.76	0.97	<b>12.35</b>

where for  $\beta$ : = average beta coefficient (Page 2).

where for  $r_f$ : (From Section VIII-H, 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))

where for  $r_d$ : (From Section VIII-H, 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

## VIII 000061 R

Section VIII - Profit  
Subsection C - Cost of Capital  
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Section VIII - C  
Exhibit 3  
Page 2

### Capital Asset Pricing Model - Beta Coefficient

<u>Property/Casualty Insurance Companies</u>	<u>Beta Coefficients</u>
ACE Limited	1.35
Alleghany Corp.	0.60
Allstate Corp	0.90
American Finan	1.00
Berkley (W.R.)	0.90
Berkshire Hath. 'A'	0.65
CNA Financial	1.00
Chubb	1.05
Cincinnati Fin	0.85
Everest Re Group	1.05
HCC Ins Hldngs	0.90
Hanover Ins. Group	1.65
Markel Corp.	0.75
Mercury General	0.90
Ohio Casualty	0.95
Old Republic	1.05
PMI Group, Inc.	1.15
Partnerre Ltd.	1.00
Progressive	0.90
RLI Corp	0.80
SAFECO	0.85
St. Paul	1.20
Selective	0.90
Transatlantic	0.80
21st Century	0.90
XL Capital Lmtd	1.05
Average	<u><u>0.97</u></u>

Source: Value Line Investment Survey, Part 3, The Ratings & Reports, December 22, 2006.

## VIII 000062 R

Section VIII - Profit  
 Subsection C - Cost of Capital  
 9/1/2007

Section VIII - C  
 Exhibit 4

### Average Cost of Long-Term Debt for Property-Casualty Insurance Companies

Property/Casualty Insurance Companies  (1)	Long-Term Interest \$ in millions  (2)	Long-Term Debt \$ in millions  (3)	Yield  =(2)/(3) (4)
ACE Limited			
Alleghany Corp.	5.0	80.0	6.25%
Allstate Corp			
American Finan			
Berkley (W.R.)	85.0	1320.5	6.44%
Berkshire Hath. 'A'			
CNA Financial	135.0	2155.0	6.26%
Chubb	135.0	2463.0	5.48%
Cincinnati Fin	52.0	840.0	6.19%
Everest Re Group			
HCC Ins Hldngs			
Hanover Ins. Group	41.0	508.8	8.06%
Markel Corp.			
Mercury General	7.0	142.0	4.93%
Ohio Casualty	12.0	199.7	6.01%
Old Republic	9.0	144.0	6.25%
PMI Group, Inc.	31.0	919.4	3.37%
Partnerre Ltd.	36.0	620.0	5.81%
Progressive	78.0	1185.4	6.58%
RLI Corp			
SAFECO			
St. Paul			
Selective	18.8	361.8	5.20%
Transatlantic			
21st Century	7.0	118.9	5.89%
XL Capital Lmted	165.0	3368.1	4.90%
<b>Average</b>			<b>5.84%</b>

Source: Value Line Investment Survey, Part 3, The Ratings & Reports, December 22, 2006.



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Capital Structure Ratios of Property-Casualty Insurance Companies  
(in millions)

Property/Casualty Insurance Companies (1)	Total Debt (2)	L-T Debt (3)	S-T Debt = (2) - (3) (4)	Preferred Stock (5)	Total Non-equity Cap = (3) + (4) + (5) (6)	Common Equity (7)
ACE Limited	2,441.0	1,632.0	809.0	309.0	2,750.0	19,569.4
Alleghany Corp.	80.0	80.0	0.0	299.5	379.5	2,875.7
Allstate Corp	5,529.0	5,529.0	0.0	0.0	5,529.0	40,800.0
American Finan	923.7	0.0	923.7	0.0	923.7	4,367.5
Berkley (W.R.)	1,320.5	1,320.5	0.0	0.0	1,320.5	6,598.3
Berkshire Hath. 'A'	21,051.0	19,891.0	1,160.0	0.0	21,051.0	123,924.2
CNA Financial	2,405.0	2,155.0	250.0	0.0	2,405.0	10,788.7
Chubb	2,463.0	2,463.0	0.0	0.0	2,463.0	21,655.3
Cincinnati Fin	840.0	840.0	0.0	0.0	840.0	7,897.9
Everest Re Group	995.6	0.0	995.6	0.0	995.6	6,398.1
HCC Ins Hldngs	309.4	0.0	309.4	0.0	309.4	3,485.6
Hanover Ins. Group	508.8	508.8	0.0	0.0	508.8	2,479.5
Markel Corp.	959.0	0.0	959.0	0.0	959.0	4,627.3
Mercury General	142.0	142.0	0.0	0.0	142.0	2,911.7
Ohio Casualty	199.7	199.7	0.0	0.0	199.7	1,814.0
Old Republic	144.0	144.0	0.0	0.0	144.0	5,350.3
PMI Group, Inc.	1,264.4	919.4	345.0	0.0	1,264.4	3,763.2
Partnerre Ltd.	620.0	620.0	0.0	20.8	640.8	4,046.6
Progressive	1,185.4	1,185.4	0.0	0.0	1,185.4	18,321.6
RLI Corp	105.0	0.0	105.0	0.0	105.0	1,357.2
SAFECO	1,274.7	0.0	1,274.7	0.0	1,274.7	7,247.8
St. Paul	6,569.0	0.0	6,569.0	0.0	6,569.0	36,637.3
Selective	361.8	361.8	0.0	0.0	361.8	1,622.9
Transatlantic	0.0	0.0	0.0	0.0	0.0	4,119.9
21st Century	118.9	118.9	0.0	0.0	118.9	1,502.3
XL Capital Lmtd	3,368.1	3,368.1	0.0	517.5	3,885.6	12,819.8
<b>Total</b>	<b>55,179.0</b>	<b>41,478.6</b>	<b>13,700.4</b>	<b>1,146.8</b>	<b>56,325.8</b>	<b>356,982.0</b>
<b>Capital Structure Ratios</b>					<b>0.14</b>	<b>0.86</b>

Notes:

Source: Value Line Investment Survey, Part 3, The Ratings & Reports, December 22, 2006.

(7) = (outstanding shares) \* (one month average share price)

One month (Dec 15, 2006 - Jan 14, 2007) average share price from 'Yahoo Finance' and outstanding shares from Value Line Investment Survey, Part 3. Value Line doesn't have debt information for Berkshire Hathaway. 'Yahoo Finance' used instead.

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Section VIII - Profit  
Subsection D - Leverage Ratio  
9/1/2007

Section VIII - D  
Exhibit 1

## Losses & LAE and Unearned Premium Reserves to Surplus Ratio (In Millions)

Year	Losses & LAE	Unearned Premium	Year-End Surplus	Ratio = [(2)+(3)]/(4)
(1)	(2)	(3)	(4)	(5)
2001	171,600	48,659	90,425	2.44
2002	181,237	57,760	92,155	2.59
2003	201,486	65,957	108,353	2.47
2004	228,817	70,629	122,090	2.45
2005	254,366	74,153	138,554	2.37
Average				<b>2.46</b>

Notes:

Source: Best's Aggregates and Averages - Property-Casualty, 2006, pp. 134.

(3) Data for Unearned Premium were provided by AM Best after a request from WCRBMA.

VIII 000065 R

Section VIII - Profit  
 Subsection E - Premium Flow  
 9/1/2007

Section VIII - E  
 Exhibit 1

Determination of Selected Premium Flow From Premium Collection Call  
 by Duration after Policy Inception

Quarter (1)	Net Premium Ranges											Weighted Average Selected Collection Pattern (11)
	0 - 9,999			10,000 - 199,999			200,000 +					
	Actual Premium Collection Pattern		Weight (4)	Actual Premium Collection Pattern		Weight (7)	Actual Premium Collection Pattern		Weight (10)	Actual Premium Collection Pattern		
	Actual (2)	Selected (3)		Actual (5)	Selected (6)		Actual (8)	Selected (9)		Actual (8)	Selected (9)	
-4	0.1%	0.0%	25.3%	0.0%	0.0%	53.7%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%
-3	0.0%	0.0%	25.3%	0.0%	0.0%	53.7%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%
-2	0.0%	0.0%	25.3%	0.1%	0.0%	53.7%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%
-1	9.9%	0.0%	25.3%	2.8%	0.0%	53.7%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%
0	38.8%	48.8%	25.3%	32.5%	35.4%	53.7%	27.1%	28.1%	21.0%	28.1%	37.3%	37.3%
1	17.5%	17.5%	25.3%	23.5%	23.5%	53.7%	22.7%	22.7%	21.0%	22.7%	21.8%	21.8%
2	12.1%	12.1%	25.3%	17.7%	17.7%	53.7%	21.7%	21.7%	21.0%	21.7%	17.1%	17.1%
3	4.6%	4.6%	25.3%	6.8%	6.8%	53.7%	10.8%	10.8%	21.0%	10.8%	7.1%	7.1%
4	10.5%	10.5%	25.3%	7.1%	7.1%	53.7%	6.4%	6.4%	21.0%	6.4%	7.8%	7.8%
5	4.8%	4.8%	25.3%	5.9%	5.9%	53.7%	5.8%	5.8%	21.0%	5.8%	5.6%	5.6%
6	0.5%	0.5%	25.3%	1.6%	1.6%	53.7%	1.5%	1.5%	21.0%	1.5%	1.3%	1.3%
7	0.5%	0.5%	25.3%	0.8%	0.8%	53.7%	1.7%	1.7%	21.0%	1.7%	0.9%	0.9%
8	0.1%	0.7%	25.3%	0.4%	0.4%	53.7%	0.3%	0.3%	21.0%	0.3%	0.4%	0.4%
9	0.0%	0.0%	25.3%	0.3%	0.8%	53.7%	0.0%	0.0%	21.0%	1.1%	0.7%	0.7%
10	0.0%	0.0%	25.3%	0.4%	0.0%	53.7%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%
11	0.0%	0.0%	25.3%	0.0%	0.0%	53.7%	0.7%	0.0%	21.0%	0.0%	0.0%	0.0%
12	0.0%	0.0%	25.3%	0.0%	0.0%	53.7%	0.3%	0.0%	21.0%	0.0%	0.0%	0.0%
13	0.5%	0.0%	25.3%	0.1%	0.0%	53.7%	0.1%	0.0%	21.0%	0.0%	0.0%	0.0%
14	0.1%	0.0%	25.3%	0.0%	0.0%	53.7%	0.0%	0.0%	21.0%	0.0%	0.0%	0.0%

Notes:  
 (4), (7), (10) are calculated using Schedule Z data for CPY 03/04.  
 (2), (5), (8) are from the premium collection call.  
 (11) = (3) x (4) + (6) x (7) + (9) x (10)

## VIII 000066 R

Section VIII - Profit  
 Subsection F - Expense Flows and Weights  
 9/1/2007

Section VIII - F  
 Exhibit 1

### Cash Flow Weights

Item of Expense Allowance (% of Standard Premium plus ARAP)	Policy Year		Average
	2003	2004	
(1) Expected Losses	53.67%	56.27%	54.97%
(2) Expected Loss Adjustment Expense:	9.76%	10.23%	9.99%
(a) Defense and Cost Containment Expense	4.33%	4.54%	4.43%
(b) Adjusting and Other Expense	5.43%	5.69%	5.56%
(3) Expected Losses + LAE [= (1) + (2) ]	63.43%	66.50%	64.96%
(4) Fixed Expenses	6.44%	6.60%	6.52%
(a) General Expenses	5.80%	5.94%	5.87%
(b) Miscellaneous and Other Taxes	0.64%	0.66%	0.65%
(5) Variable Expenses [= (5a) + (5b) + (5c) ]	17.36%	17.36%	17.36%
(a) Total Acquisition	11.40%	11.40%	11.40%
(i) Commissions	8.24%	8.24%	8.24%
(ii) Other Acquisition	2.16%	2.16%	2.16%
(iii) Reinsurance Expenses	1.00%	1.00%	1.00%
(b) Premium Tax	2.19%	2.19%	2.19%
(c) Premium Discount	3.77%	3.77%	3.77%
(6) Total Expenses [= (4) + (5) ]	23.80%	23.96%	23.88%

**Notes:**

- (1) Policy year 2003 basis Expected Losses =  $0.537 * 0.998$  from Section I-B, Exhibit 1. Policy year 2004 basis Expected Losses =  $0.564 * 0.997$  from Section I-B, Exhibit 1. Where 0.997 is the factor to reflect the impact of large deductible policies, and 0.538, 0.564 are the loss ratio projected to policy effective period.
- (2) Expected LAE = Expected Losses \* 0.182 where 0.182 is the LAE ratio calculated in VI-D, Exhibit 1.
- (2a), (2b) Loss Adjustment Expense split between DCC and AO is  $0.443 = 0.081 / 0.182$  and  $0.557 = 1 - 0.443$  where 0.081 is three year average provision for DCC from Section VI-D, Exhibit 1, line (4) and LAE ratio = 0.182 from Section VI-D, Exhibit 1, line (10).
- (4) From 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 2003 Fixed Expenses split between General Expenses and Other Taxes based on \$29,772,818 General Expenses and \$3,289,656 Other Taxes. Policy Year 2004 General Expenses split based on \$31,858,111 General Expenses and \$3,520,064 Other Taxes. See VI-B, Exhibit 1, columns (12) & (13).
- (5a) From Section VI-K, Exhibit 1.
- (5b), (5c) From Section VI-A, Exhibit 1.

## VIII 000067 R

Section VIII - Profit  
 Subsection F - Expense Flows and Weights  
 9/1/2007

Section VIII - F  
 Exhibit 2

### Percentage Distributions of General, Other Acquisition, and Taxes by Duration from Policy Inception

Time Interval		Distribution (%)			
From (1)	To (2)	General Expense (3)	Other Acquisition (4)	Premium Tax (5)	Other Tax (6)
09/01/06	11/30/06	1	2	0	1
12/01/06	02/28/07	1	6	0	2
03/01/07	05/31/07	15	12	0	14
06/01/07	08/31/07	23	44	0	29
09/01/07	11/30/07	21	30	100	23
12/01/07	02/29/08	10	2	0	8
03/01/08	05/31/08	9	1	0	7
06/01/08	08/31/08	9	1	0	7
09/01/08	11/30/08	10	2	0	8
12/01/08	02/28/09	1	0	0	1
Total		100	100	100	100

Notes:

(3) from 1977 Filing, Exhibit 20.

(4) & (6) from 1977 Filing, Exhibit 21.

# VIII 000068 R

Section VIII - Profit  
 Subsection F - Expense Flows and Weights  
 9/1/2007

Section VIII - F  
 Exhibit 3

## Loss and Loss Adjustment Expense Flow

Time Interval		Earned Premium (3)	Loss Flow (4)	DCC Flow (5) = (4)	AO Flow (6) = [(3) + (4)] / 2.0	Loss and LAE Flow (7)
From (1)	To (2)					
09/01/06	11/30/06	0.0000	0.0000	0.0000	0.0000	0.0000
12/01/06	02/28/07	0.0000	0.0000	0.0000	0.0000	0.0000
03/01/07	05/31/07	0.0000	0.0000	0.0000	0.0000	0.0000
06/01/07	08/31/07	0.0000	0.0000	0.0000	0.0000	0.0000
09/01/07	11/30/07	0.2500	0.0530	0.0530	0.1515	0.0615
12/01/07	02/29/08	0.2500	0.0530	0.0530	0.1515	0.0615
03/01/08	05/31/08	0.2500	0.0530	0.0530	0.1515	0.0615
06/01/08	08/31/08	0.2500	0.0530	0.0530	0.1515	0.0615
09/01/08	11/30/08	0.0000	0.0692	0.0692	0.0346	0.0662
12/01/08	02/28/09	0.0000	0.0692	0.0692	0.0346	0.0662
03/01/09	05/31/09	0.0000	0.0692	0.0692	0.0346	0.0662
06/01/09	08/31/09	0.0000	0.0692	0.0692	0.0346	0.0662
09/01/09	11/30/09	0.0000	0.0416	0.0416	0.0208	0.0398
12/01/09	02/28/10	0.0000	0.0416	0.0416	0.0208	0.0398
03/01/10	05/31/10	0.0000	0.0416	0.0416	0.0208	0.0398
06/01/10	08/31/10	0.0000	0.0416	0.0416	0.0208	0.0398
09/01/10	11/30/10	0.0000	0.0222	0.0222	0.0111	0.0213
12/01/10	02/28/11	0.0000	0.0222	0.0222	0.0111	0.0213
03/01/11	05/31/11	0.0000	0.0222	0.0222	0.0111	0.0213
06/01/11	08/31/11	0.0000	0.0222	0.0222	0.0111	0.0213
09/01/11	11/30/11	0.0000	0.0130	0.0130	0.0065	0.0125
12/01/11	02/29/12	0.0000	0.0130	0.0130	0.0065	0.0125
03/01/12	05/31/12	0.0000	0.0130	0.0130	0.0065	0.0125
06/01/12	08/31/12	0.0000	0.0130	0.0130	0.0065	0.0125
09/01/12	11/30/12	0.0000	0.0076	0.0076	0.0038	0.0073
12/01/12	02/28/13	0.0000	0.0076	0.0076	0.0038	0.0073
03/01/13	05/31/13	0.0000	0.0076	0.0076	0.0038	0.0073
06/01/13	08/31/13	0.0000	0.0076	0.0076	0.0038	0.0073
09/01/13	08/31/14	0.0000	0.0169	0.0169	0.0084	0.0161
09/01/14	08/31/15	0.0000	0.0134	0.0134	0.0067	0.0128
09/01/15	08/31/16	0.0000	0.0101	0.0101	0.0051	0.0097
09/01/16	08/31/17	0.0000	0.0086	0.0086	0.0043	0.0082
09/01/17	08/31/18	0.0000	0.0075	0.0075	0.0037	0.0072
09/01/18	08/31/19	0.0000	0.0085	0.0085	0.0043	0.0082
09/01/19	08/31/20	0.0000	0.0056	0.0056	0.0028	0.0054
09/01/20	08/31/21	0.0000	0.0048	0.0048	0.0024	0.0046
09/01/21	08/31/22	0.0000	0.0052	0.0052	0.0026	0.0050
09/01/22	08/31/23	0.0000	0.0041	0.0041	0.0020	0.0039
09/01/23	08/31/24	0.0000	0.0040	0.0040	0.0020	0.0039
09/01/24	08/31/25	0.0000	0.0061	0.0061	0.0031	0.0059
09/01/25	08/31/26	0.0000	0.0041	0.0041	0.0021	0.0039
09/01/26	08/31/27	0.0000	0.0033	0.0033	0.0017	0.0032
09/01/27	08/31/28	0.0000	0.0053	0.0053	0.0026	0.0051
09/01/28	08/31/29	0.0000	0.0052	0.0052	0.0026	0.0050
09/01/29	08/31/30	0.0000	0.0051	0.0051	0.0025	0.0049
09/01/30	08/31/31	0.0000	0.0050	0.0050	0.0025	0.0048
09/01/31	08/31/32	0.0000	0.0049	0.0049	0.0025	0.0047
09/01/32	08/31/33	0.0000	0.0048	0.0048	0.0024	0.0046
09/01/33	08/31/34	0.0000	0.0048	0.0048	0.0024	0.0045
09/01/34	08/31/35	0.0000	0.0047	0.0047	0.0023	0.0045
09/01/35	08/31/36	0.0000	0.0046	0.0046	0.0023	0.0044
09/01/36	08/31/37	0.0000	0.0045	0.0045	0.0023	0.0044
09/01/37	08/31/38	0.0000	0.0045	0.0045	0.0022	0.0043
09/01/38	08/31/39	0.0000	0.0044	0.0044	0.0022	0.0042
09/01/39	08/31/40	0.0000	0.0044	0.0044	0.0022	0.0042
09/01/40	08/31/41	0.0000	0.0043	0.0043	0.0022	0.0041
09/01/41	08/31/42	0.0000	0.0043	0.0043	0.0021	0.0041
(8) Relative Weights			1.0000	0.0806	0.1012	

**Notes:**

- (3) The distribution is from Section III-F, Exhibit 1 (average of the two policy years) .
- (4) From Section VIII-G, Exhibit 1.
- (7) Loss and LAE flow = 1.0000 \*(2) + 0.0806 \* (3) + 0.1012 \* (4) / ( 1.000 + 0.0806 + 0.1012 )  
 Loss Flow from Section VIII-G, Exhibit 1, column (13)
- (8) DCC relative weight = 1.000 \* 0.182 \* 0.443; AO relative weight = 1.000 \* 0.182 \* 0.557  
 where 0.182 is the LAE factor calculated in Section VI-D, Exhibit 1 and 0.443, 0.557 are the DCC and AO split from Section VI-D, Exhibit 1.

VIII 000069 R

Loss Payment Pattern

Age In Months (1)	Indemnity Unadjusted LDF to Ult (2)	Indemnity % Paid =1.0 / (2) (3)	Incremental % Paid (3) - 1st Diff (4)	COLA not Reflected in LDFs (5)	Weights for Escalation Benefits = (4) x (5) (6)	Addt Losses as a Result of Escalation (7)	Adjusted Payment Pattern (4) + (7) (8)	Normalized Adjusted Payment Pattern (8) / Tot (8) (9)	Medical LDF to Ult (10)	Medical %Paid 1.0 / (10) (11)	Medical Incremental % Paid (11) - 1st Diff (12)	Indemnity & Medical Incremental % Paid (13)
12	6.259	15.98%	15.98%				15.98%	15.49%	3.324	30.09%	30.09%	21.21%
24	2.355	42.47%	26.49%	0.480	0.0025	0.10%	26.49%	25.67%	1.642	60.88%	30.80%	27.68%
36	1.563	63.97%	21.51%	0.960	0.0066	0.26%	21.51%	20.84%	1.408	71.00%	10.12%	16.64%
48	1.321	75.72%	11.75%	0.960	0.0032	0.13%	11.75%	11.39%	1.316	76.00%	5.00%	8.88%
60	1.210	82.65%	6.93%	0.960	0.0024	0.09%	6.93%	6.72%	1.267	78.90%	2.89%	5.22%
72	1.156	86.47%	3.82%	0.960	0.0033	0.13%	3.82%	3.70%	1.236	80.93%	2.03%	3.04%
84	1.130	88.48%	2.01%	0.960	0.0016	0.07%	2.01%	1.95%	1.216	82.21%	1.28%	1.69%
96	1.111	90.03%	1.55%	1.032	0.0024	0.09%	1.55%	1.50%	1.201	83.30%	1.09%	1.34%
108	1.099	91.03%	1.00%	1.032	0.0044	0.18%	1.00%	0.97%	1.185	84.38%	1.08%	1.01%
120	1.089	91.80%	0.77%	1.032	0.0033	0.13%	0.77%	0.74%	1.171	85.42%	1.04%	0.86%
132	1.083	92.32%	0.52%	1.032	0.0024	0.09%	0.62%	0.60%	1.157	86.41%	0.98%	0.75%
144	1.075	93.00%	0.68%	1.032	0.0066	0.26%	0.94%	0.91%	1.147	87.16%	0.76%	0.85%
156	1.071	93.34%	0.34%	1.032	0.0032	0.13%	0.46%	0.45%	1.138	87.90%	0.74%	0.56%
168	1.069	93.58%	0.25%	1.032	0.0024	0.09%	0.34%	0.33%	1.128	88.62%	0.72%	0.48%
180	1.065	93.93%	0.35%	1.032	0.0033	0.13%	0.48%	0.46%	1.121	89.23%	0.61%	0.52%
192	1.063	94.10%	0.17%	1.032	0.0016	0.07%	0.24%	0.23%	1.112	89.92%	0.69%	0.41%
204	1.060	94.33%	0.23%	1.032	0.0024	0.09%	0.32%	0.31%	1.105	90.46%	0.54%	0.40%
216	1.055	94.76%	0.43%	1.032	0.0044	0.18%	0.61%	0.59%	1.097	91.12%	0.66%	0.61%
228	1.052	95.08%	0.32%	1.032	0.0033	0.13%	0.45%	0.44%	1.093	91.49%	0.37%	0.41%
240	1.049	95.32%	0.24%	1.032	0.0024	0.10%	0.33%	0.32%	1.089	91.83%	0.34%	0.33%
252	1.046	95.61%	0.29%	1.032	0.0030	0.12%	0.41%	0.40%	1.080	92.57%	0.73%	0.53%
264	1.043	95.91%	0.29%	1.032	0.0030	0.12%	0.41%	0.40%	1.072	93.27%	0.70%	0.52%
276	1.039	96.20%	0.30%	1.032	0.0031	0.12%	0.42%	0.41%	1.065	93.94%	0.67%	0.51%
288	1.036	96.50%	0.30%	1.032	0.0031	0.12%	0.42%	0.41%	1.057	94.58%	0.64%	0.50%
300	1.033	96.81%	0.30%	1.032	0.0031	0.12%	0.43%	0.41%	1.051	95.19%	0.61%	0.49%
312	1.030	97.11%	0.31%	1.032	0.0032	0.12%	0.43%	0.42%	1.044	95.78%	0.58%	0.48%
324	1.026	97.42%	0.31%	1.032	0.0032	0.13%	0.43%	0.42%	1.038	96.33%	0.56%	0.48%
336	1.023	97.73%	0.31%	1.032	0.0032	0.13%	0.44%	0.43%	1.032	96.87%	0.53%	0.47%
348	1.020	98.05%	0.31%	1.032	0.0032	0.13%	0.44%	0.43%	1.027	97.38%	0.51%	0.46%
360	1.017	98.36%	0.32%	1.032	0.0033	0.13%	0.45%	0.43%	1.022	97.87%	0.49%	0.45%
372	1.013	98.69%	0.32%	1.032	0.0033	0.13%	0.45%	0.44%	1.017	98.33%	0.47%	0.45%
384	1.010	99.01%	0.32%	1.032	0.0033	0.13%	0.46%	0.44%	1.012	98.78%	0.45%	0.44%
396	1.007	99.34%	0.33%	1.032	0.0034	0.13%	0.46%	0.45%	1.008	99.20%	0.43%	0.44%
408	1.003	99.67%	0.33%	1.032	0.0034	0.13%	0.46%	0.45%	1.004	99.61%	0.41%	0.43%
420	1.000	100.00%	0.33%	1.032	0.0034	0.14%	0.47%	0.45%	1.000	100.00%	0.39%	0.43%
Total			100.00%		8.05%	3.18%	103.18%				100.00%	

(2), (10) from Section-G, Exhibit 2, Pages 1 and 2.  
 (5) For months greater than 204 the escalation factor was taken from Section II-D, Exhibit 1, Page 1. For months 144-192 an escalation factor of 0.96 was judgmentally selected.  
 Month-age=132 is the half of month-age=144.  
 (13) Medical and Indemnity flows weighted by AY 2005 Paid Losses Developed to Ultimate. See Exhibit 2, pages 2 and 3.  
 Medical flow weight = (45,713 x 3.324) / (45,713 x 3.324 + 37,606 x 6.259) = 0.39

Accident Year Financial Aggregate Data  
Summary of Loss Development Factors  
Industrywide

		Loss Development Factors From:																	Tail 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	Tail Factor		
2 Yr Average	(1) Medical Paid Losses	2.024	1.166	1.070	1.038	1.026	1.016	1.013	1.013	1.012	1.009	1.008	1.008	1.007	1.007	1.008	1.006	1.007	1.004	1.004	1.004	1.008	1.080	
	Cumulative	3.324	1.642	1.408	1.316	1.267	1.236	1.201	1.201	1.185	1.171	1.157	1.147	1.138	1.128	1.121	1.112	1.105	1.097	1.093	1.089	1.089	1.080	
	(2) Indemnity Paid Losses	2.658	1.506	1.184	1.092	1.046	1.023	1.018	1.011	1.008	1.006	1.007	1.004	1.003	1.004	1.002	1.002	1.005	1.003	1.002	1.002	1.003	1.046	1.046
2 Yr Average	Cumulative	6.259	2.355	1.563	1.321	1.210	1.156	1.130	1.111	1.099	1.089	1.083	1.075	1.071	1.069	1.065	1.063	1.060	1.055	1.052	1.049	1.049	1.046	1.046

Note: Tail Factor from Section II-A, Exhibit 1, page 1.  
(We use policy year tail factor for accident year data because the results won't change significantly.)



# VIII 000071 R

Section VIII - Profit  
 Subsection G - Loss Flows  
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Section VIII - G  
 Exhibit 2  
 Page 2

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

Accident Year	Losses evaluated at Month:		Link Ratio	Accident Year	Losses evaluated at Month:		Link Ratio
	12	24			132	144	
2005	45,713						
2004	45,047	93,616	2.078	1994	93,125	93,916	1.008
2003	48,259	95,020	1.969	1993	113,366	114,388	1.009
Average			2.024	Average			1.009
	24	36			144	156	
2003	95,020	110,778	1.166	1993	114,388	115,177	1.007
2002	87,329	101,876	1.167	1992	136,003	137,372	1.010
Average			1.166	Average			1.008
	36	48			156	168	
2002	101,876	109,803	1.078	1992	137,372	138,398	1.007
2001	97,350	103,488	1.063	1991	184,744	186,402	1.009
Average			1.070	Average			1.008
	48	60			168	180	
2001	103,488	107,177	1.036	1991	186,402	187,955	1.008
2000	107,455	111,803	1.040	1990	204,208	205,311	1.005
Average			1.038	Average			1.007
	60	72			180	192	
2000	111,803	114,289	1.022	1990	205,311	206,582	1.006
1999	103,970	107,008	1.029	1989	204,763	206,642	1.009
Average			1.026	Average			1.008
	72	84			192	204	
1999	107,008	108,983	1.018	1989	206,642	207,753	1.005
1998	92,719	93,941	1.013	1988	183,062	184,293	1.007
Average			1.016	Average			1.006
	84	96			204	216	
1998	93,941	94,947	1.011	1988	184,293	185,805	1.008
1997	78,731	79,978	1.016	1987	159,837	160,849	1.006
Average			1.013	Average			1.007
	96	108			216	228	
1997	79,978	80,958	1.012	1987	160,849	161,747	1.006
1996	83,674	84,822	1.014	1986	126,641	126,958	1.003
Average			1.013	Average			1.004
	108	120			228	240	
1996	84,822	85,774	1.011	1986	126,958	127,348	1.003
1995	85,174	86,323	1.013	1985	110,892	111,386	1.004
Average			1.012	Average			1.004
	120	132			240	252	
1995	86,323	87,244	1.011	1985	111,386	112,276	1.008
1994	91,987	93,125	1.012	Average			1.008
Average			1.012				

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Section VIII - Profit  
 Subsection G - Loss Flows  
 9/1/2007

Section VIII - G  
 Exhibit 2  
 Page 3

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

Accident Year	Losses evaluated at Month:		Link Ratio		Accident Year	Losses evaluated at Month:		Link Ratio
	12	24				132	144	
2005	37,606							
2004	38,306	105,296	2.749		1994	206,149	207,943	1.009
2003	42,730	109,681	2.567		1993	250,558	252,085	1.006
Average			2.658		Average			1.007
	24	36				144	156	
2003	109,681	163,745	1.493		1993	252,085	252,380	1.001
2002	109,336	166,182	1.520		1992	299,091	300,909	1.006
Average			1.506		Average			1.004
	36	48				156	168	
2002	166,182	194,929	1.173		1992	300,909	302,119	1.004
2001	167,606	200,171	1.194		1991	588,490	589,236	1.001
Average			1.184		Average			1.003
	48	60				168	180	
2001	200,171	218,509	1.092		1991	589,236	591,943	1.005
2000	209,001	228,121	1.091		1990	752,738	754,851	1.003
Average			1.092		Average			1.004
	60	72				180	192	
2000	228,121	238,684	1.046		1990	754,851	755,909	1.001
1999	199,316	208,493	1.046		1989	763,251	764,974	1.002
Average			1.046		Average			1.002
	72	84				192	204	
1999	208,493	213,035	1.022		1989	764,974	766,612	1.002
1998	189,651	194,342	1.025		1988	719,287	721,243	1.003
Average			1.023		Average			1.002
	84	96				204	216	
1998	194,342	197,566	1.017		1988	721,243	725,814	1.006
1997	162,274	165,277	1.019		1987	594,608	596,262	1.003
Average			1.018		Average			1.005
	96	108				216	228	
1997	165,277	166,936	1.010		1987	596,262	597,840	1.003
1996	176,491	178,638	1.012		1986	481,401	483,393	1.004
Average			1.011		Average			1.003
	108	120				228	240	
1996	178,638	180,718	1.012		1986	483,393	483,836	1.001
1995	181,743	182,685	1.005		1985	385,271	386,841	1.004
Average			1.008		Average			1.002
	120	132				240	252	
1995	182,685	183,746	1.006		1985	386,841	388,024	1.003
1994	205,019	206,149	1.006		Average			1.003
Average			1.006					

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## 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	8.34%	4.90%	35.00%	3.19%
Governments	9.33%	4.82%	35.00%	3.13%
Public Utilities	1.65%	5.44%	35.00%	3.54%
Industrials	22.43%	5.25%	35.00%	3.41%
States & Territories	14.62%	3.57%	5.25%	3.39%
Special Revenue	24.04%	3.45%	5.25%	3.27%
Stocks	17.72%	12.58%	27.33%	9.15%
Real Estate	0.86%	8.97%	35.00%	5.83%
Preferred	1.03%	6.02%	14.18%	5.17%
(6) Total	100.00%	5.85%	24.97%	4.39%
(7) Investment Expenses		0.45%	35.00%	0.29%
(8) Portfolio Rate of Return		5.40%	24.14%	<b>4.09%</b>

Notes:

- (2) From page 2, Total US Property/Casualty Industry.
- (3) Pretax bond returns are from Section VIII-H, Exhibit 2, page 1.  
 Cash and short term investments: using short horizon CAPM with beta=0.00. From Section VIII-H, Exhibit 2, Page 3, line (2).  
 Common stock return:  $r_f + b \times \text{MRP}$  with  $b=1.00$  and three horizons. MRP from Section VIII-H, 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  
 $12.58\% = \text{average} ( 8.58\% \times 5.03\%, 7.58\% \times 4.6\%, 7.13\% \times 4.83\% )$   
 Real Estate: 3 month treasury rate, 5.03% from Section VIII-H, 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"
- Preferred Stock return: yield on A rated preferred stock from Mergent Bond Record (from Section VIII-H, Exhibit 2, page 3, line (17)).
- (4) Governments and Other taxable bonds taxed at Federal Tax Rate of 0.35.  
 Tax rate for Tax Exempt Bonds =  $0.15 \times 0.35$ .  
 Tax rate for Preferred stock =  $(0.30 \times 0.35) + (0.70 \times 0.15 \times 0.35)$ .  
 Tax rate for Common Stocks from Section VIII-H, Exhibit 6, page 1.
- (5) Calculated as the product of the pretax return and the complement of the tax rate.
- (7) From Section VIII-H, Exhibit 5.

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### Asset Distribution for Property-Casualty Industry

Assets (1)	Net Admitted Assets (2)	Share =(2)/(5) (3)	Adjusted Share =(3)/(6) (4)
Bonds:	804,377,021	69.49%	72.06%
Governments			9.33%
States & Territories			14.62%
Special Revenue			24.04%
Public Utilities			1.65%
Industrials			22.43%
Preferred Stocks	11,524,785	1.00%	1.03%
Common Stocks	197,810,818	17.09%	17.72%
Cash and Short Term Investments	93,072,517	8.04%	8.34%
Real Estate	9,550,766	0.83%	0.86%
Other Invested Assets	41,215,519	3.56%	

(5) Total 1,157,551,426 100.00% 100.00%

(6) Total excluding Other Invested Assets 96.44%

**Notes:**

Source: Best's Aggregates and Averages Property Casualty, 2006 Edition, page 152.

(2) Real estate is sum of: properties occupied by the company, properties held for the production of income and properties held for sales.

None of the values include investments in affiliates.

(4) Governments, States & Territories, Special Revenue, Public Utilities and Industrial adjusted shares are calculated by multiplying each bond percentage from Exhibit 3 to the total Bonds adjusted share of 72.06%.

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### Calculation of Pretax Returns on Bonds

% of Bonds (adjusted by Other Bonds Distribution) by Class, by Maturity for P/C Industry Distribution					
Term to Maturity in years	Governments	States and Territories	Special Revenue	Public Utilities	Industrials
0.5	4.41%	0.31%	1.21%	0.13%	3.34%
3	0.68%	3.39%	7.57%	0.85%	13.06%
7	4.56%	10.70%	14.16%	0.96%	9.72%
15	1.89%	5.25%	6.99%	0.14%	1.73%
25	1.40%	0.64%	3.43%	0.21%	3.27%
Total	12.94%	20.28%	33.36%	2.29%	31.12%

As of	Term to Maturity in years	Yield Data				
		Governments	States and Territories	Special Revenue	Public Utilities	Industrials
Oct-06	0.5	5.12%	3.55%	3.57%	5.46%	5.45%
	3	4.72%	3.32%	3.25%	5.29%	5.14%
	7	4.69%	3.56%	3.36%	5.62%	5.26%
	15	4.84%	3.98%	3.77%	5.77%	5.49%
	25	4.90%	4.18%	4.17%	5.84%	5.67%
Nov-06	0.5	5.15%	3.60%	3.62%	5.47%	5.46%
	3	4.64%	3.26%	3.20%	5.17%	5.02%
	7	4.58%	3.46%	3.28%	5.45%	5.09%
	15	4.69%	3.84%	3.67%	5.57%	5.31%
	25	4.74%	4.01%	4.07%	5.64%	5.50%
Dec-06	0.5	5.07%	3.57%	3.59%	5.48%	5.48%
	3	4.58%	3.24%	3.17%	5.22%	5.14%
	7	4.54%	3.45%	3.25%	5.54%	5.36%
	15	4.67%	3.83%	3.62%	5.65%	5.50%
	25	4.73%	4.00%	3.98%	5.68%	5.57%
		Weighted Yields				
Oct-06	All	4.88%	3.65%	3.51%	5.52%	5.28%
Nov-06	All	4.81%	3.55%	3.43%	5.37%	5.16%
Dec-06	All	4.76%	3.53%	3.40%	5.44%	5.31%
	Average	<b>4.82%</b>	<b>3.57%</b>	<b>3.45%</b>	<b>5.44%</b>	<b>5.25%</b>

**Notes:**

- % of bonds by Class and by Maturity for P/C industry Distribution are from Exhibit 3.
- Yield Data are from Page 2.
- Example of Weighted Yield calculation:  $3.65 = (3.55 \times 0.31 + 3.32 \times 3.39 + 3.56 \times 10.7 + 3.98 \times 5.25 + 4.18 \times 0.64) / 20.28$

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 Page 2

## Calculation of Yield Data

Term to Maturity in Years	Oct-06	Nov-06	Dec-06	Formulas used to derive the yields (reference to data on page 3)
<b>Governments</b>				
0.5	5.12%	5.15%	5.07%	=(5)
3	4.72%	4.64%	4.58%	=(8)
7	4.69%	4.58%	4.54%	=(10)
10	4.73%	4.60%	4.56%	=(11)
20	4.94%	4.78%	4.78%	=(12)
30	4.85%	4.69%	4.68%	=(13)
<b>States and Territories</b>				
0.5	3.55%	3.60%	3.57%	=(5) + 9.5/9.0 x [ (25) - (6) ] - 0.5/9.0 x [ (26) - (11) ]
3	3.32%	3.26%	3.24%	=(8) + 7.0/9.0 x [ (25) - (6) ] + 2.0/9.0 x [ (26) - (11) ]
7	3.56%	3.46%	3.45%	=(10) + 1.0/3.0 x [ (25) - (6) ] + 2.0/3.0 x [ (26) - (11) ]
10	3.80%	3.68%	3.66%	=(26)
20	4.16%	3.99%	3.99%	=(12) + 0.5 x [ (26) - (11) ] + 0.5 x [ (27) - (13) ]
30	4.21%	4.03%	4.00%	=(27)
<b>Special Revenue</b>				
0.5	3.57%	3.62%	3.59%	=(5) + 29.5/29.0 x [ (25) - (6) ] - 0.5/29.0 x [ (24) - (13) ]
3	3.25%	3.20%	3.17%	=(8) + 27.0/29.0 x [ (25) - (6) ] + 2.0/29.0 x [ (24) - (13) ]
7	3.36%	3.28%	3.25%	=(10) + 23.0/29.0 x [ (25) - (6) ] + 6.0/29.0 x [ (24) - (13) ]
10	3.50%	3.40%	3.36%	=(11) + 20.0/29.0 x [ (25) - (6) ] + 9.0/29.0 x [ (24) - (13) ]
20	4.04%	3.93%	3.88%	=(12) + 10.0/29.0 x [ (25) - (6) ] + 19.0/29.0 x [ (24) - (13) ]
30	4.29%	4.20%	4.08%	=(24)
<b>Public Utilities</b>				
0.5	5.46%	5.47%	5.48%	=(5) + 26.0/27.0 x [ (1) - (2) ] + 1.0/27.0 x [ (22) - (10) ]
3	5.29%	5.17%	5.22%	=(8) + 16.0/27.0 x [ (1) - (2) ] + 11.0/27.0 x [ (22) - (10) ]
7	5.62%	5.45%	5.54%	=(22)
10	5.66%	5.47%	5.55%	=(11) + 20.0/23.0 x [ (22) - (10) ] + 3.0/23.0 x [ (16) - (13) ]
20	5.88%	5.68%	5.74%	=(12) + 10.0/23.0 x [ (22) - (10) ] + 13.0/23.0 x [ (16) - (13) ]
30	5.80%	5.61%	5.62%	=(16)
<b>Industrial</b>				
0.5	5.45%	5.46%	5.48%	=(5) + 26.0/27.0 x [ (1) - (2) ] + 1.0/27.0 x [ (19) - (10) ]
3	5.14%	5.02%	5.14%	=(8) + 16.0/27.0 x [ (1) - (2) ] + 11.0/27.0 x [ (19) - (10) ]
7	5.26%	5.09%	5.36%	=(19)
10	5.33%	5.15%	5.38%	=(11) + 20.0/23.0 x [ (19) - (10) ] + 3.0/23.0 x [ (15) - (13) ]
20	5.66%	5.47%	5.62%	=(12) + 10.0/23.0 x [ (19) - (10) ] + 13.0/23.0 x [ (15) - (13) ]
30	5.68%	5.52%	5.53%	=(15)

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## Yield Data

	Oct-06	Nov-06	Dec-06	Average
<b>FEDERAL RESERVE STATISTICAL RELEASE</b>				
Commercial Paper				
(1) 3-month	5.24%	5.24%	5.24%	5.24%
U.S. Govt Securities - Secondary Market				
(2) 3-month	4.92%	4.94%	4.85%	4.90%
Treasury Constant Maturities				
(3) 1-month	4.97%	5.21%	4.87%	5.02%
(4) 3-month	5.05%	5.07%	4.97%	5.03%
(5) 6-month	5.12%	5.15%	5.07%	5.11%
(6) 1-year	5.01%	5.01%	4.94%	4.99%
(7) 2-year	4.80%	4.74%	4.67%	4.74%
(8) 3-year	4.72%	4.64%	4.58%	4.65%
(9) 5-year	4.69%	4.58%	4.53%	4.60%
(10) 7-year	4.69%	4.58%	4.54%	4.60%
(11) 10-year	4.73%	4.60%	4.56%	4.63%
(12) 20-year	4.94%	4.78%	4.78%	4.83%
(13) 30-year	4.85%	4.69%	4.68%	4.74%
Corporate Bonds - Moody's Seasoned				
(14) Conventional Mortgages	6.36%	6.24%	6.14%	6.25%
<b>MERGENT BOND RECORD</b>				
Long-Term Corporate Bond Yields (avg maturity at least 20 yrs)				
(15) Aa Industrial	5.68%	5.52%	5.53%	5.58%
(16) Aa Public Utility	5.80%	5.61%	5.62%	5.68%
Moody's Preferred Stock Ratings				
(17) Pub Util Pref Stock ("a")	6.02%	6.02%	6.02%	6.02%
<b>S&amp;P's CREDIT WEEK</b>				
Aa Industrial				
(18) 5-year to maturity	5.18%	5.00%	5.29%	5.16%
(19) 7-year to maturity ( = (18) + 0.4 x [ (20) - (18) ] )	5.26%	5.09%	5.36%	5.23%
(20) 10-year to maturity	5.37%	5.22%	5.46%	5.35%
A Public Utility				
(21) 5-year to maturity	5.52%	5.35%	5.46%	5.44%
(22) 7-year to maturity ( = (21) + 0.4 x [ (23) - (21) ] )	5.62%	5.45%	5.54%	5.53%
(23) 10-year to maturity	5.76%	5.59%	5.65%	5.67%
<b>VALUE LINE INVESTMENT SURVEY (Part II)</b>				
Municipal Bond Yields				
Bond Buyer Indexes				
(24) 20-Bond Index (Gos)	4.29%	4.20%	4.08%	4.19%
General Obligation Bonds (GOs)				
(25) 1-year Aaa	3.48%	3.50%	3.47%	3.48%
(26) 10-year Aaa	3.80%	3.68%	3.66%	3.71%
(27) 25/30-year Aaa	4.21%	4.03%	4.00%	4.08%

Sources: Various issues of Federal Reserve Statistical Release, H.15 , Mergend Bond Record, Standard & Poor's Credit Week and Value Line Investment Survey, Part II.

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## Bond Distribution by Class and by Maturity for Property-Casualty Industry

### 2005 Industry Totals

Term to Maturity in Years	Governments	States and Territories	Special Revenue	Public Utilities	Industrials	Other Bonds	Total Bonds
0.5	32,932,974	2,278,465	9,037,118	942,183	24,940,033	27,040	70,157,813
3	5,105,112	25,308,082	56,537,731	6,325,523	97,595,031	5,128,486	195,999,965
7.5	34,089,061	79,916,464	105,782,418	7,153,038	72,600,194	726,475	300,267,650
15	14,107,315	39,213,250	52,230,589	1,064,652	12,901,922	362,134	119,879,862
25	10,446,119	4,804,135	25,629,998	1,596,434	24,460,427	59,721	66,996,834
Total	96,680,581	151,520,396	249,217,854	17,081,830	232,497,607	6,303,856	753,302,124

### % of Bonds by Class, by Maturity for P/C Industry Distribution

Term to Maturity in Years	Governments	States and Territories	Special Revenue	Public Utilities	Industrials	Other Bonds	Total Bonds
0.5	4.37%	0.30%	1.20%	0.13%	3.31%	0.00%	9.31%
3	0.68%	3.36%	7.51%	0.84%	12.96%	0.68%	26.02%
7.5	4.53%	10.61%	14.04%	0.95%	9.64%	0.10%	39.86%
15	1.87%	5.21%	6.93%	0.14%	1.71%	0.05%	15.91%
25	1.39%	0.64%	3.40%	0.21%	3.25%	0.01%	8.89%
Total	12.83%	20.11%	33.08%	2.27%	30.86%	0.84%	100.00%

### % of Bonds (adjusted by Other Bonds Distribution) by Class, by Maturity for P/C Industry Distribution

Term to Maturity in Years	Governments	States and Territories	Special Revenue	Public Utilities	Industrials	Total Bonds
0.5	4.41%	0.31%	1.21%	0.13%	3.34%	9.39%
3	0.68%	3.39%	7.57%	0.85%	13.06%	25.55%
7.5	4.56%	10.70%	14.16%	0.96%	9.72%	40.10%
15	1.89%	5.25%	6.99%	0.14%	1.73%	16.00%
25	1.40%	0.64%	3.43%	0.21%	3.27%	8.96%
Total	12.94%	20.28%	33.36%	2.29%	31.12%	100.00%

Notes:

Source: Best's Aggregates and Averages - Property-Casualty, 2006, pp. 167-168.

Bonds less than a year adjusted to remove cash and short term investments using data from One Source.



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## Market Risk Premium

Year	Large Company Stocks Total Returns	Long-Term Government Bonds Income Returns	Interm.-Term Government Bonds Income Returns	Short - Term Total Returns	Long Term Risk Premium =(2)-(3)	Interm. Term Risk Premium =(2)-(4)	Short Term Risk Premium =(2)-(5)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(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	4.01	6.74	7.49	6.52	(2.73)	(3.48)	(2.51)
1971	14.31	6.32	5.75	4.39	7.99	8.56	9.92
1972	18.98	5.87	5.75	3.84	13.11	13.23	15.14
1973	(14.66)	6.51	6.58	6.93	(21.17)	(21.24)	(21.59)
1974	(26.47)	7.27	7.24	8.00	(33.74)	(33.71)	(34.47)
1975	37.20	7.99	7.35	5.80	29.21	29.85	31.40
1976	23.84	7.89	7.10	5.08	15.95	16.74	18.76
1977	(7.18)	7.14	6.49	5.12	(14.32)	(13.67)	(12.30)
1978	6.56	7.90	7.83	7.18	(1.34)	(1.27)	(0.62)
1979	18.44	8.86	9.04	10.38	9.58	9.40	8.06
1980	32.42	9.97	10.55	11.24	22.45	21.87	21.18
1981	(4.91)	11.55	12.97	14.71	(16.46)	(17.88)	(19.62)
1982	21.41	13.50	12.81	10.54	7.91	8.60	10.87
1983	22.51	10.38	10.35	8.80	12.13	12.16	13.71
1984	6.27	11.74	11.68	9.85	(5.47)	(5.41)	(3.58)
1985	32.16	11.25	10.29	7.72	20.91	21.87	24.44
1986	18.47	8.98	7.72	6.16	9.49	10.75	12.31
1987	5.23	7.92	7.47	5.47	(2.69)	(2.24)	(0.24)
1988	16.81	8.97	8.24	6.35	7.84	8.57	10.46
1989	31.49	8.81	8.46	8.37	22.68	23.03	23.12
1990	(3.17)	8.19	8.15	7.81	(11.36)	(11.32)	(10.98)
1991	30.55	8.22	7.43	5.60	22.33	23.12	24.95
1992	7.67	7.26	6.27	3.51	0.41	1.40	4.16
1993	9.99	7.17	5.53	2.90	2.82	4.46	7.09
1994	1.31	6.59	6.07	3.90	(5.28)	(4.76)	(2.59)
1995	37.43	7.60	6.69	5.60	29.83	30.74	31.83
1996	23.07	6.18	5.82	5.21	16.89	17.25	17.86
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	(9.11)	6.50	6.19	5.89	(15.61)	(15.30)	(15.00)
2001	(11.88)	5.53	4.27	3.83	(17.41)	(16.15)	(15.71)
2002	(22.10)	5.59	3.98	1.65	(27.69)	(26.08)	(23.75)
2003	28.70	4.80	2.85	1.02	23.90	25.85	27.68
2004	10.87	5.02	3.28	1.20	5.85	7.59	9.67
2005	4.91	4.69	3.92	2.98	0.22	0.99	1.93
2006	15.80	4.68	5.54	4.80	11.12	10.26	11.00
Average	12.34	5.21	4.76	3.77	7.13	7.58	8.58

Long-Term Equity Risk Premium **7.13**  
 Intermediate-Term Equity Risk Premium **7.58**  
 Short-Term Equity Risk Premium **8.58**

Source: SBBI, 2006 Yearbook from Ibbotson Associates

- (2) Table B-1: Large Company Stocks, Total Returns, page 229
- (3) Table B-7: Long Term Government stocks, Income Returns, page 241
- (4) Table B-11: Intermediate Term Government stocks, Income Returns, page 249
- (5) Table B-14: US Treasury Bills, Total Returnsstocks, Income Returns, page 255

## Investment Expense to Assets Ratio

Year	(1) Total Investment Expense Incurred	(2) Interest Expense	(3) Depreciation of Real Estate	(4) Aggregate Write-ins	(5) Total Deductions =(1)+(2)+(3)+(4)	(6) Total Cash and Invested Assets	(7) Ratio =(5)/(6)
1996	2,239,687		319,959	520,338	3,079,984	700,806,046	0.44%
1997	2,372,330	437,438	348,993	400,689	3,559,450	766,061,919	0.46%
1998	2,413,574	518,642	362,308	414,986	3,709,510	796,780,574	0.47%
1999	2,387,349	586,903	331,030	477,017	3,782,299	799,060,669	0.47%
2000	2,326,369	655,946	349,789	483,714	3,815,818	789,330,250	0.48%
2001	2,401,142	975,916	363,182	513,466	4,253,706	800,784,777	0.53%
2002	2,282,667	1,009,027	377,121	667,290	4,336,105	848,344,235	0.51%
2003	2,618,719	650,543	381,157	524,392	4,174,811	967,703,877	0.43%
2004	2,510,188	666,498	380,398	578,543	4,135,627	1,086,486,764	0.38%
2005	2,583,504	790,938	390,271	598,809	4,363,522	1,170,135,319	0.37%
Average	2,413,553	699,095	360,421	517,924	3,921,083	872,549,443	0.45%

## Notes:

Source: Best's Aggregates and Averages

(1) - (4) are from Exhibit of Net Investment Income, page 162 (year 2005)

(6) is from Exhibit of Assets, page 152 (year 2005)

## VIII 000081 R

Section VIII - Profit  
 Subsection H - Portfolio Rate of Return  
 9/1/2007

Section VIII - H  
 Exhibit 6  
 Page 1

### Calculation of Common Stock Total Return Tax Rate

Year (1)	Income Returns (2)	Capital Appreciation Returns (3)
1997	2.11%	31.01%
1998	1.68%	26.67%
1999	1.36%	19.53%
2000	1.10%	-10.14%
2001	1.18%	-13.04%
2002	1.39%	-23.37%
2003	2.00%	26.38%
2004	1.75%	8.99%
2005	1.84%	3.00%
2006	2.01%	13.62%
Average	1.64%	8.27%

	Dividend	Capital Gains
(4) Weights	16.57%	83.43%
(5) Tax Rate	14.18%	29.94%
(6) Common Stock Tax Rate		<b>27.33%</b>

**Notes:**

Sources: SBBI, 2006 Yearbook from Ibbotson Associates and Stocks, Bonds, Bills and Inflation, December Market Report 2006, Ibbotson Associates.

(2) Table B-2 - Large Company Stocks: Income Returns, page 231

(3) Table B-3 - Large Company Stocks: Capital Appreciation Returns, page 233

(5) Dividend Tax Rate =  $0.3 * 0.35 + 0.7 * 0.35 * 0.15$

Capital Gains Tax Rate is from page 2

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Calculation of Capital Gains Tax Rate

Year (1)	Realized Capital Gains (2)	Taxes Paid =(2) x (7) (3)	Present Value of the Taxes =(3) x [1.0+ (6)] <sup>t</sup> - [(1) - 1.0] (4)
1	0.360	0.126	0.126
2	0.230	0.081	0.073
3	0.147	0.052	0.042
4	0.094	0.033	0.024
5	0.060	0.021	0.014
6	0.039	0.014	0.008
7	0.025	0.009	0.005
8	0.016	0.006	0.003
9	0.010	0.004	0.002
10	0.006	0.002	0.001
11	0.004	0.001	0.001
12	0.003	0.001	0.000
13	0.002	0.001	0.000
14	0.001	0.000	0.000
15	0.001	0.000	0.000
16	0.000	0.000	0.000
17	0.000	0.000	0.000
18	0.000	0.000	0.000
19	0.000	0.000	0.000
20	0.000	0.000	0.000
Total	1.000	0.350	<b>0.299</b>

- (5) Turnover Rate 0.360
- (6) Interest Rate used in calculating the present value 0.105
- (7) Marginal Tax Rate 0.350

Notes:

(2) Realized Capital Gains:  $RCG_t = \text{Turnover Rate} * (1 - \text{sum}(RCG_{t+i}))$

$$RCG_t = 0.36 * (1 - \text{sum}(RCG_{t+i}), i=1, 2, \dots, t-1)$$

(5) Turnover Rate is based on AIB Stock Turnover Study of 1998 transactions (2001 AIB Profit Filing, R2000-10, 100H-3, Exhibits 15 and 16)

(6) Interest Rate is the weighted average cost of capital from Section VIII - C, Exhibit 1.

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%			
0.10	22.84%	21.85%	20.96%	20.15%	19.41%	18.74%	18.12%	17.55%	17.03%	16.54%	16.10%	15.68%			
0.15	25.90%	25.01%	24.19%	23.44%	22.74%	22.10%	21.51%	20.96%	20.44%	19.97%	19.52%	19.10%			
0.20	27.52%	26.77%	26.07%	25.42%	24.82%	24.25%	23.73%	23.23%	22.76%	22.33%	21.91%	21.52%			
0.25	28.49%	27.87%	27.29%	26.74%	26.22%	25.74%	25.28%	24.85%	24.44%	24.05%	23.68%	23.33%			
0.30	29.13%	28.62%	28.14%	27.68%	27.24%	26.83%	26.44%	26.06%	25.71%	25.37%	25.04%	24.73%			
0.35	29.60%	29.17%	28.77%	28.38%	28.02%	27.67%	27.33%	27.01%	26.70%	26.41%	26.13%	25.85%			
0.40	29.96%	29.60%	29.26%	28.94%	28.63%	28.33%	28.04%	27.77%	27.51%	27.25%	27.01%	26.77%			
0.45	30.24%	29.94%	29.66%	29.39%	29.12%	28.87%	28.63%	28.39%	28.17%	27.95%	27.74%	27.53%			
0.50	30.47%	30.22%	29.98%	29.76%	29.53%	29.32%	29.12%	28.92%	28.72%	28.54%	28.35%	28.18%			
0.55	30.66%	30.45%	30.26%	30.06%	29.88%	29.70%	29.53%	29.36%	29.20%	29.04%	28.88%	28.73%			
0.60	30.82%	30.65%	30.49%	30.33%	30.17%	30.03%	29.88%	29.74%	29.60%	29.47%	29.34%	29.21%			
0.65	30.96%	30.82%	30.68%	30.55%	30.43%	30.31%	30.19%	30.07%	29.96%	29.85%	29.74%	29.63%			
0.70	31.07%	30.96%	30.86%	30.75%	30.65%	30.55%	30.45%	30.36%	30.27%	30.18%	30.09%	30.00%			

# MASSACHUSETTS WORKERS' COMPENSATION

## VOLUME 2: INDEX 9/1/07

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**RETROSPECTIVE RATING PLANS**

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 NCCI's Retrospective Rating Plan has been adopted for use in Massachusetts, and the WCRIB relies in many respects on the NCCI's filing memorandum for its Plan throughout this section of the WCRIB's filing. See NCCI Item B-1403, "Revision to Basic Manual and Retrospective Rating Plan Manual/2006 update to Hazard Groups and Retrospective Rating Plan Parameters". A portion of NCCI's Item B-1403 is included as Section IX-D, Exhibit 1 and Exhibit 2.

The basic premium provides for the expenses of carriers. It also includes a net insurance charge, which contains a charge to compensate for the possibility that the

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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.

The calculations in this section are substantially similar to those used by the Commissioner in her 1999 and 2003 decisions and in the 2005 filing and appear in Sections IX-A, IX-B and IX-C. This year, consistent with the 2005 filing, the WCRIB includes miscellaneous taxes in the Tax Multiplier.

Section IX-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 defense and cost containment expenses (DCC). Option one, the traditional approach, is designed so that expected DCC is primarily recovered through the application of the loss conversion factor to losses (Exhibit 1). Option two uses the sum of losses and DCC, as opposed to only losses, in its calculation of retrospective premium and therefore, the loss conversion factor is smaller (Exhibit 2).

Section IX-B calculates the revised provision for the residual market subsidy.

Section IX-C displays the tables of expense ratios corresponding to the parameters calculated in Section IX-A.

Section IX-D and IX-E display Expected Loss Ranges and State and Hazard Group Relativities. These factors are needed in order to determine the insurance charge for a retrospectively rated policy.

Section IX-F presents an update of the Excess Loss Factors, last reviewed in 1994.



**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 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 generally inversely proportional to risk size.

As inflation increases claim size, there is an apparent growth in the size of the insured, measured in expected losses, but no real growth in the size of the insured, measured by the expected number of claims. To correct for the impact of loss size inflation, the WCRIB updated the Table of Expected Loss Ranges.

Updated Expected Loss Ranges and the State and Hazard Group Relativities are shown in Sections IX-D and IX-E, respectively.

**Expected Loss Ranges IX-D**

The NCCI's updated Expected Loss Ranges capture countrywide claim severity changes, and represent the first step in maintaining accurate and up-to-date Insurance Charges. (The second step is the updating of State and Hazard Group Relativities). The update of Expected Loss Ranges is necessary to maintain the aggregate expected balance between the retrospectively rated premium and the guaranteed cost premium.

Expected Loss Ranges were last revised in Massachusetts effective September 1, 2005. The Table of Expected Loss Ranges proposed in this filing is that filed by the NCCI as part of its Item B-1403 and is shown in Exhibit 2 of this subsection.

**State and Hazard Group Relativities IX-E**

State and Hazard Group Relativities capture differences among states in average claim size by hazard group. Relative claim costs vary by state, in large part because of differing benefit structures. The variation in the loss ratios of employers in the lower hazard groups should be smaller than the variation for employers in the higher hazard groups. The State Hazard Group Relativities adjust for this difference by placing lower hazard group employers in a higher Expected Loss Range and higher hazard group employers in a lower Expected Loss Range than would otherwise be the case. This adjustment affects the column selection in the Table of Insurance Charges, which then impacts the basic premium portion of the retrospective policy premium.

The state hazard group relativities should be updated regularly due to changes in the circumstances (changes in benefit levels, inflation, etc.) underlying severity. Retrospective rating should produce premiums that are equitably distributed to all

## **IX 000005 R**

Section IX – Retrospective Rating Plans  
Subsection A - Summary  
9/1/2007

Section IX-A  
Page 5

insured employers, but on average approximate the premium for a guaranteed cost policy. The object of this change is to maintain the aggregate expected balance, although the impact will vary slightly for individual insured employers. Thus, insurance charges and premiums will be higher for some insureds and lower for others. For most of the insured employers electing retrospective rating, the impact on final premium from these changes will be quite small. The State and Hazard Group Relativities are applied to the otherwise applicable expected losses before the retrospectively rated insured is assigned to an Expected Loss Group.

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Section IX - Retrospective Rating  
Subsection A - Expenses  
9/1/2007

Section IX - A  
Exhibit 1

## Expense Provisions Underlying the Proposed Retrospective Rating Plans

Total Expenses:	
(1) Acquisition and Field Supervision	11.4%
(2) Fixed Expenses	6.9%
(3) Premium Discount	4.5%
(4) Profit and Contingencies	-1.0%
(5) Total Expenses Excluding Taxes and Assessments ( = (1) + (2) + (3) + (4) )	<u>21.7%</u>
(6) Premium Tax Rate	2.3%
(7) Miscellaneous Taxes	0.7%
(8) Residual Market Subsidy	1.0%
(9) Insolvency Fund Assessment	<u>-3.0%</u>
(10) Tax Multiplier ( = 1.0 / { 1.0 - [ (6) + (7) + (8) + (9) ] } )	1.009
(11) Expected Loss and LAE Ratio (adjusted for Residual Market Subsidy) ( = [ 1.0 / (10) ] - (5) )	77.4%
(12) Loss Adjustment Expense (as percentage of losses)	18.2%
(13) Loss Conversion Factor ( = 1.0 + (12) )	1.182
(14) Expected Loss without LAE ( = (11) / (13) )	65.5%
(15) Expenses excluding Premium Taxes but including LAE ( = (5) + [ (14) x (12) ] )	33.7%

### 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) above.
- (3): Average Voluntary Premium Discount as a Percent of Standard Premium / (1.0 + Average ARAP Surcharge)  
 $4.5\% = 4.8\% / (1.0 + 6.0\%)$  Section VI-I, Exhibit 1, line (3) / [1.0 + line (6)].
- (4): Section VIII-B, Exhibit 1.
- (6): Section VI-A, Exhibit 1, line (3) / [ 1.0 - line (2) ].
- (7): Section VI-B, Exhibit 1, the average of the results of lines (13) x (15) / (17).
- (8): Section IX-B, Exhibit 1.
- (9): Section I-E, Exhibit 1, page 1.
- (12): Section VI-A, Exhibit 1, line (10).
- (10), (13), (14), (15): rounded to three decimal places.

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Section IX - Retrospective Rating  
Subsection A - Expenses  
9/1/2007

Section IX - A  
Exhibit 2

## Expense Provisions Underlying the DCC Option of the Proposed Retrospective Rating Plans

(1) Expected Loss without Defense and Cost Containment Expense (as percentage of standard premium)	65.5%
(2) Provision for DCC Expenses (as percentage of losses)	8.1%
(3) Expected Loss plus DCC Ratio ( = (1) x [ 1.0 + (2) ] )	70.8%
(4) Loss Adjustment Expense (as percentage of losses)	18.2%
(5) Loss Conversion Factor ( = [1.0 + (4)] / [1.0 + (2)] )	1.094
(6) Tax Multiplier	1.009
(7) Expenses excluding Premium Taxes but including LAE (as percentage of standard premium)	33.7%
(8) Expenses including all AO Expenses but excluding DCC Expenses and Premium Taxes ( = (7) - [ (2) x (1) ] )	28.4%

### Notes:

(1), (4), (6), (7): Exhibit 1.

(2): Section VI-D, Exhibit 1, line (4).

(3), (5), (8): rounded to three decimal places.

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Section IX - Retrospective Rating  
Subsection B - Residual Market Subsidy  
9/1/2007

Section IX - B  
Exhibit 1

## Calculation of the Provision for the Residual Market Subsidy

(1) Expected Loss Ratio (as % of Standard Premium plus ARAP) (without loss adjustment expense)	67.0%
(2) Residual Market Loss Ratio / Full Coverage Voluntary Ratio	1.156
(3) Residual Market Premium / Full Coverage Voluntary Market Premium	0.310
(4) Provision for Premium Discounts	3.8%
(5) Residual Market Premium / Voluntary Assessable Premium	0.245
(6) Provision for Loss Adjustment Expense	1.182
(7) Factor to take into account Basic Premium	0.800
(8) Retro Provision for the Residual Market Subsidy	0.010

### Notes:

(1): Section VI-A, Exhibit 1, line (11).

(2): Section I-D, Exhibit 1, page 2.

(3): Section I-D, Exhibit 2.

(4): Section VI-A, Exhibit 1, line (2).

(5): Residual Market Written Premium from Section I-D, Exhibit 2 and  
Voluntary Net Assessable Premium from Section I-D, Exhibit 3.

(6): Section VI-A, Exhibit 1, line (10).

(7): From the filing for the provision for the Residual Market Subsidy effective 1/1/89.

(8) = (5) x (7) x  $\left[ \frac{\{(1) \times (6) \times [(2) - 1.0]\}}{\{1.0 + [(2) \times (3)]\}} - (4) \right]$ , rounded to three decimal places.

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Table of Compensation Expense Ratios - Type A Discount

*Excluding Taxes, but Including Profit and Contingencies*

			<u>Standard</u>	<u>Expense</u>				<u>Standard</u>	<u>Expense</u>				<u>Standard</u>	<u>Expense</u>
			<u>Premium</u>	<u>Ratio</u>				<u>Premium</u>	<u>Ratio</u>				<u>Premium</u>	<u>Ratio</u>
0	-	10,056		0.337	18,525	-	18,912	0.295	134,846	-	158,550	0.253		
10,057	-	10,169		0.336	18,913	-	19,317	0.294	158,551	-	192,369	0.252		
10,170	-	10,285		0.335	19,318	-	19,740	0.293	192,370	-	206,442	0.251		
10,286	-	10,404		0.334	19,741	-	20,182	0.292	206,443	-	214,871	0.250		
10,405	-	10,525		0.333	20,183	-	20,644	0.291	214,872	-	224,018	0.249		
10,526	-	10,649		0.332	20,645	-	21,127	0.290	224,019	-	233,977	0.248		
10,650	-	10,777		0.331	21,128	-	21,634	0.289	233,978	-	244,864	0.247		
10,778	-	10,907		0.330	21,635	-	22,166	0.288	244,865	-	256,813	0.246		
10,908	-	11,041		0.329	22,167	-	22,724	0.287	256,814	-	269,989	0.245		
11,042	-	11,177		0.328	22,725	-	23,312	0.286	269,990	-	284,589	0.244		
11,178	-	11,318		0.327	23,313	-	23,930	0.285	284,590	-	300,858	0.243		
11,319	-	11,461		0.326	23,931	-	24,582	0.284	300,859	-	319,101	0.242		
11,462	-	11,609		0.325	24,583	-	25,271	0.283	319,102	-	339,699	0.241		
11,610	-	11,760		0.324	25,272	-	26,000	0.282	339,700	-	363,139	0.240		
11,761	-	11,916		0.323	26,001	-	26,771	0.281	363,140	-	390,054	0.239		
11,917	-	12,075		0.322	26,772	-	27,590	0.280	390,055	-	421,278	0.238		
12,076	-	12,239		0.321	27,591	-	28,461	0.279	421,279	-	457,936	0.237		
12,240	-	12,408		0.320	28,462	-	29,388	0.278	457,937	-	501,582	0.236		
12,409	-	12,581		0.319	29,389	-	30,378	0.277	501,583	-	554,424	0.235		
12,582	-	12,759		0.318	30,379	-	31,437	0.276	554,425	-	619,712	0.234		
12,760	-	12,942		0.317	31,438	-	32,573	0.275	619,713	-	702,427	0.233		
12,943	-	13,130		0.316	32,574	-	33,793	0.274	702,428	-	810,625	0.232		
13,131	-	13,324		0.315	33,794	-	35,109	0.273	810,626	-	958,224	0.231		
13,325	-	13,524		0.314	35,110	-	36,531	0.272	958,225	-	1,171,539	0.230		
13,525	-	13,730		0.313	36,532	-	38,073	0.271	1,171,540	-	1,507,024	0.229		
13,731	-	13,942		0.312	38,074	-	39,751	0.270	1,507,025	-	1,822,686	0.228		
13,943	-	14,161		0.311	39,752	-	41,584	0.269	1,822,687	-	1,982,530	0.227		
14,162	-	14,387		0.310	41,585	-	43,594	0.268	1,982,531	-	2,173,105	0.226		
14,388	-	14,620		0.309	43,595	-	45,808	0.267	2,173,106	-	2,404,216	0.225		
14,621	-	14,861		0.308	45,809	-	48,259	0.266	2,404,217	-	2,690,334	0.224		
14,862	-	15,110		0.307	48,260	-	50,988	0.265	2,690,335	-	3,053,752	0.223		
15,111	-	15,367		0.306	50,989	-	54,043	0.264	3,053,753	-	3,530,686	0.222		
15,368	-	15,634		0.305	54,044	-	57,488	0.263	3,530,687	-	4,184,169	0.221		
15,635	-	15,910		0.304	57,489	-	61,401	0.262	4,184,170	-	5,134,496	0.220		
15,911	-	16,195		0.303	61,402	-	65,887	0.261	5,134,497	-	6,643,367	0.219		
16,196	-	16,491		0.302	65,888	-	71,080	0.260	6,643,368	-	9,408,125	0.218		
16,492	-	16,799		0.301	71,081	-	77,161	0.259	9,408,126	-	16,114,447	0.217		
16,800	-	17,117		0.300	77,162	-	84,380	0.258	16,114,448	-	56,113,161	0.216		
17,118	-	17,448		0.299	84,381	-	93,090	0.257	56,113,162	-	OVER	0.215		
17,449	-	17,793		0.298	93,091	-	103,804	0.256						
17,794	-	18,151		0.297	103,805	-	117,306	0.255						
18,152	-	18,524		0.296	117,307	-	134,845	0.254						

Notes:

- Above table based on the following discounts:

First	10,000	0.0%
Next	190,000	9.1%
Next	1,550,000	11.3%
Over	1,750,000	12.3%

- Tax Multiplier = 1.009 Section IX - A, Exhibit 1.

# IX 000010 R

Section IX-Retrospective Rating  
 Subsection C - Expense Ratios  
 9/1/2007

Section IX-C  
 Exhibit 1  
 Page 2

Table of Compensation Expense Ratios - Type B Discount  
*Excluding Taxes, but Including Profit and Contingencies*

<u>Standard Premium</u>			<u>Expense Ratio</u>	<u>Standard Premium</u>			<u>Expense Ratio</u>	<u>Standard Premium</u>			<u>Expense Ratio</u>
0	-	10,100	0.337	19,408	-	20,182	0.312	219,869	-	235,663	0.287
10,101	-	10,306	0.336	20,183	-	21,021	0.311	235,664	-	253,903	0.286
10,307	-	10,520	0.335	21,022	-	21,933	0.310	253,904	-	275,203	0.285
10,521	-	10,744	0.334	21,934	-	22,928	0.309	275,204	-	300,404	0.284
10,745	-	10,977	0.333	22,929	-	24,018	0.308	300,405	-	330,686	0.283
10,978	-	11,221	0.332	24,019	-	25,216	0.307	330,687	-	367,757	0.282
11,222	-	11,476	0.331	25,217	-	26,540	0.306	367,758	-	414,190	0.281
11,477	-	11,742	0.330	26,541	-	28,010	0.305	414,191	-	474,042	0.280
11,743	-	12,022	0.329	28,011	-	29,654	0.304	474,043	-	554,114	0.279
12,023	-	12,315	0.328	29,655	-	31,502	0.303	554,115	-	666,734	0.278
12,316	-	12,622	0.327	31,503	-	33,596	0.302	666,735	-	836,810	0.277
12,623	-	12,945	0.326	33,597	-	35,988	0.301	836,811	-	1,123,367	0.276
12,946	-	13,286	0.325	35,989	-	38,746	0.300	1,123,368	-	1,708,387	0.275
13,287	-	13,644	0.324	38,747	-	41,963	0.299	1,708,388	-	1,904,195	0.274
13,645	-	14,023	0.323	41,964	-	45,762	0.298	1,904,196	-	2,097,888	0.273
14,024	-	14,423	0.322	45,763	-	50,318	0.297	2,097,889	-	2,335,447	0.272
14,424	-	14,847	0.321	50,319	-	55,881	0.296	2,335,448	-	2,633,677	0.271
14,848	-	15,296	0.320	55,882	-	62,827	0.295	2,633,678	-	3,019,224	0.270
15,297	-	15,773	0.319	62,828	-	71,745	0.294	3,019,225	-	3,537,010	0.269
15,774	-	16,281	0.318	71,746	-	83,613	0.293	3,537,011	-	4,269,156	0.268
16,282	-	16,823	0.317	83,614	-	100,187	0.292	4,269,157	-	5,383,521	0.267
16,824	-	17,402	0.316	100,188	-	124,954	0.291	5,383,522	-	7,285,139	0.266
17,403	-	18,023	0.315	124,955	-	165,989	0.290	7,285,140	-	11,263,870	0.265
18,024	-	18,689	0.314	165,990	-	206,057	0.289	11,263,871	-	24,818,128	0.264
18,690	-	19,407	0.313	206,058	-	219,868	0.288	24,818,129	-	OVER	0.263

Notes:

- Above table based on the following discounts:

First	10,000	0.0%
Next	190,000	5.1%
Next	1,550,000	6.5%
Over	1,750,000	7.5%

- Tax Multiplier = 1.009 Section IX - A, Exhibit 1.



# IX 00011 R

Section IX-Retrospective Rating  
 Subsection C - Expense Ratios  
 9/1/2007

Section IX-C  
 Exhibit 2  
 Page 1

Table of Compensation Expense Ratios - Type A Discount with DCC Option

*Excluding DCC Expenses and Taxes, but Including Profit and Contingencies*

	<u>Standard Premium</u>	<u>Expense Ratio</u>	<u>Standard Premium</u>	<u>Expense Ratio</u>	<u>Standard Premium</u>	<u>Expense Ratio</u>					
0	-	10,056	0.284	18,525	-	18,912	0.242	134,846	-	158,550	0.200
10,057	-	10,169	0.283	18,913	-	19,317	0.241	158,551	-	192,369	0.199
10,170	-	10,285	0.282	19,318	-	19,740	0.240	192,370	-	206,442	0.198
10,286	-	10,404	0.281	19,741	-	20,182	0.239	206,443	-	214,871	0.197
10,405	-	10,525	0.280	20,183	-	20,644	0.238	214,872	-	224,018	0.196
10,526	-	10,649	0.279	20,645	-	21,127	0.237	224,019	-	233,977	0.195
10,650	-	10,777	0.278	21,128	-	21,634	0.236	233,978	-	244,864	0.194
10,778	-	10,907	0.277	21,635	-	22,166	0.235	244,865	-	256,813	0.193
10,908	-	11,041	0.276	22,167	-	22,724	0.234	256,814	-	269,989	0.192
11,042	-	11,177	0.275	22,725	-	23,312	0.233	269,990	-	284,589	0.191
11,178	-	11,318	0.274	23,313	-	23,930	0.232	284,590	-	300,858	0.190
11,319	-	11,461	0.273	23,931	-	24,582	0.231	300,859	-	319,101	0.189
11,462	-	11,609	0.272	24,583	-	25,271	0.230	319,102	-	339,699	0.188
11,610	-	11,760	0.271	25,272	-	26,000	0.229	339,700	-	363,139	0.187
11,761	-	11,916	0.270	26,001	-	26,771	0.228	363,140	-	390,054	0.186
11,917	-	12,075	0.269	26,772	-	27,590	0.227	390,055	-	421,278	0.185
12,076	-	12,239	0.268	27,591	-	28,461	0.226	421,279	-	457,936	0.184
12,240	-	12,408	0.267	28,462	-	29,388	0.225	457,937	-	501,582	0.183
12,409	-	12,581	0.266	29,389	-	30,378	0.224	501,583	-	554,424	0.182
12,582	-	12,759	0.265	30,379	-	31,437	0.223	554,425	-	619,712	0.181
12,760	-	12,942	0.264	31,438	-	32,573	0.222	619,713	-	702,427	0.180
12,943	-	13,130	0.263	32,574	-	33,793	0.221	702,428	-	810,625	0.179
13,131	-	13,324	0.262	33,794	-	35,109	0.220	810,626	-	958,224	0.178
13,325	-	13,524	0.261	35,110	-	36,531	0.219	958,225	-	1,171,539	0.177
13,525	-	13,730	0.260	36,532	-	38,073	0.218	1,171,540	-	1,507,024	0.176
13,731	-	13,942	0.259	38,074	-	39,751	0.217	1,507,025	-	1,822,686	0.175
13,943	-	14,161	0.258	39,752	-	41,584	0.216	1,822,687	-	1,982,530	0.174
14,162	-	14,387	0.257	41,585	-	43,594	0.215	1,982,531	-	2,173,105	0.173
14,388	-	14,620	0.256	43,595	-	45,808	0.214	2,173,106	-	2,404,216	0.172
14,621	-	14,861	0.255	45,809	-	48,259	0.213	2,404,217	-	2,690,334	0.171
14,862	-	15,110	0.254	48,260	-	50,988	0.212	2,690,335	-	3,053,752	0.170
15,111	-	15,367	0.253	50,989	-	54,043	0.211	3,053,753	-	3,530,686	0.169
15,368	-	15,634	0.252	54,044	-	57,488	0.210	3,530,687	-	4,184,169	0.168
15,635	-	15,910	0.251	57,489	-	61,401	0.209	4,184,170	-	5,134,496	0.167
15,911	-	16,195	0.250	61,402	-	65,887	0.208	5,134,497	-	6,643,367	0.166
16,196	-	16,491	0.249	65,888	-	71,080	0.207	6,643,368	-	9,408,125	0.165
16,492	-	16,799	0.248	71,081	-	77,161	0.206	9,408,126	-	16,114,447	0.164
16,800	-	17,117	0.247	77,162	-	84,380	0.205	16,114,448	-	56,113,161	0.163
17,118	-	17,448	0.246	84,381	-	93,090	0.204	56,113,162	-	OVER	0.162
17,449	-	17,793	0.245	93,091	-	103,804	0.203				
17,794	-	18,151	0.244	103,805	-	117,306	0.202				
18,152	-	18,524	0.243	117,307	-	134,845	0.201				

Note:

- Above table based on the following discounts:
 

First	10,000	0.0%
Next	190,000	9.1%
Next	1,550,000	11.3%
Over	1,750,000	12.3%

- Tax Multiplier = 1.009 Section IX - A, Exhibit 1.

# IX 000012 R

Section IX-Retrospective Rating  
 Subsection C - Expense Ratios  
 9/1/2007

Section IX-C  
 Exhibit 2  
 Page 2

Table of Compensation Expense Ratios - Type B Discount with DCC Option

*Excluding DCC Expenses and Taxes, but Including Profit and Contingencies*

	<u>Standard Premium</u>	<u>Expense Ratio</u>		<u>Standard Premium</u>	<u>Expense Ratio</u>		<u>Standard Premium</u>	<u>Expense Ratio</u>
0	- 10,100	0.284	19,408	- 20,182	0.259	219,869	- 235,663	0.234
10,101	- 10,306	0.283	20,183	- 21,021	0.258	235,664	- 253,903	0.233
10,307	- 10,520	0.282	21,022	- 21,933	0.257	253,904	- 275,203	0.232
10,521	- 10,744	0.281	21,934	- 22,928	0.256	275,204	- 300,404	0.231
10,745	- 10,977	0.280	22,929	- 24,018	0.255	300,405	- 330,686	0.230
10,978	- 11,221	0.279	24,019	- 25,216	0.254	330,687	- 367,757	0.229
11,222	- 11,476	0.278	25,217	- 26,540	0.253	367,758	- 414,190	0.228
11,477	- 11,742	0.277	26,541	- 28,010	0.252	414,191	- 474,042	0.227
11,743	- 12,022	0.276	28,011	- 29,654	0.251	474,043	- 554,114	0.226
12,023	- 12,315	0.275	29,655	- 31,502	0.250	554,115	- 666,734	0.225
12,316	- 12,622	0.274	31,503	- 33,596	0.249	666,735	- 836,810	0.224
12,623	- 12,945	0.273	33,597	- 35,988	0.248	836,811	- 1,123,367	0.223
12,946	- 13,286	0.272	35,989	- 38,746	0.247	1,123,368	- 1,708,387	0.222
13,287	- 13,644	0.271	38,747	- 41,963	0.246	1,708,388	- 1,904,195	0.221
13,645	- 14,023	0.270	41,964	- 45,762	0.245	1,904,196	- 2,097,888	0.220
14,024	- 14,423	0.269	45,763	- 50,318	0.244	2,097,889	- 2,335,447	0.219
14,424	- 14,847	0.268	50,319	- 55,881	0.243	2,335,448	- 2,633,677	0.218
14,848	- 15,296	0.267	55,882	- 62,827	0.242	2,633,678	- 3,019,224	0.217
15,297	- 15,773	0.266	62,828	- 71,745	0.241	3,019,225	- 3,537,010	0.216
15,774	- 16,281	0.265	71,746	- 83,613	0.240	3,537,011	- 4,269,156	0.215
16,282	- 16,823	0.264	83,614	- 100,187	0.239	4,269,157	- 5,383,521	0.214
16,824	- 17,402	0.263	100,188	- 124,954	0.238	5,383,522	- 7,285,139	0.213
17,403	- 18,023	0.262	124,955	- 165,989	0.237	7,285,140	- 11,263,870	0.212
18,024	- 18,689	0.261	165,990	- 206,057	0.236	11,263,871	- 24,818,128	0.211
18,690	- 19,407	0.260	206,058	- 219,868	0.235	24,818,129	- OVER	0.210

Notes:

- Above table based on the following discounts:

First	10,000	0.0%
Next	190,000	5.1%
Next	1,550,000	6.5%
Over	1,750,000	7.5%

- Tax Multiplier = 1.009 Section IX - A, Exhibit 1.

**ITEM B-1403—REVISION TO BASIC MANUAL AND RETROSPECTIVE RATING PLAN MANUAL/2006  
UPDATE TO HAZARD GROUPS AND RETROSPECTIVE RATING PLAN PARAMETERS****EXHIBIT 5****DEVELOPMENT OF STATE HAZARD GROUP RELATIVITIES  
FOR HAZARD GROUPS 1 TO 4\***

**Step 1.** Individual state severities are calculated for each hazard group.

**Step 2.** The state 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 use the square root rule 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.

**Example: State X**

<u>Step 1</u>	<u>Hazard Group</u>	<u>State X</u>	<u>Countrywide</u>
Severities	1	41,597	37,928
	2	50,849	47,067
	3	68,963	64,356
	4	97,855	94,564
<b>Step 2</b>	<b>Claim Count</b>	<b>52,631</b>	
	<b>Credibility =</b>	$(52,631 / 155,000)^{0.5} = 0.583$	
<u>Step 3</u>	<u>Hazard Group</u>	<u>State X</u>	
Cred. Wtd. Severities	1	40,067	= 0.583 x 41,597 + 0.417 x 37,928
	2	49,272	
	3	67,042	
	4	96,483	
	<b>Countrywide Overall: 51,533</b>		
<u>Step 4</u>	<u>Hazard Group</u>	<u>State X</u>	
Relativities	1	1.29	= 51,533 / 40,067
	2	1.05	
	3	0.77	
	4	0.53	

Note: The underlying data source for the above calculations is NCCI's *URE Workers Compensation Statistical Plan* (WCSP), excluding medical-only claims. The WCSP data for each state is adjusted accordingly, as reflected in the data underlying the Excess Loss Factor (ELF) calculation.

\* Carriers that elect to use NCCI's four hazard groups must make a filing in each state to adopt the filed four hazard groups referenced in this item. If a carrier does not file to elect the four hazard groups, they are considered to have accepted the seven hazard groups.

ITEM B-1403—REVISION TO BASIC MANUAL AND RETROSPECTIVE RATING PLAN MANUAL/2006  
UPDATE TO HAZARD GROUPS AND RETROSPECTIVE RATING PLAN PARAMETERS

## EXHIBIT 3

RETROSPECTIVE RATING PLAN MANUAL  
2007 EXPECTED LOSS RANGES  
EFFECTIVE DATE TO COINCIDE WITH THE  
FIRST LOSS COST/RATE FILING ON OR AFTER JANUARY 1, 2007

Expected Loss Group	Range Rounded Values		Expected Loss Group	Range Rounded Values		Expected Loss Group	Range Rounded Values	
95	950	— 1,482	65	79,631	— 86,005	35	993,169	— 1,115,100
94	1,483	— 2,195	64	86,006	— 92,890	34	1,115,101	— 1,252,005
93	2,196	— 2,899	63	92,891	— 100,326	33	1,252,006	— 1,427,664
92	2,900	— 3,832	62	100,327	— 108,357	32	1,427,665	— 1,641,009
91	3,833	— 4,985	61	108,358	— 117,031	31	1,641,010	— 1,886,237
90	4,986	— 6,020	60	117,032	— 126,424	30	1,886,238	— 2,168,113
89	6,021	— 7,266	59	126,425	— 136,696	29	2,168,114	— 2,577,266
88	7,267	— 8,435	58	136,697	— 147,592	28	2,577,267	— 3,081,849
87	8,436	— 9,791	57	147,593	— 159,021	27	3,081,850	— 3,685,227
86	9,792	— 11,357	56	159,022	— 171,339	26	3,685,228	— 4,543,120
85	11,358	— 12,844	55	171,340	— 184,612	25	4,543,121	— 5,781,252
84	12,845	— 14,520	54	184,613	— 199,613	24	5,781,253	— 7,356,812
83	14,521	— 16,398	53	199,614	— 215,895	23	7,356,813	— 9,400,713
82	16,399	— 18,246	52	215,896	— 233,510	22	9,400,714	— 12,029,102
81	18,247	— 20,301	51	233,511	— 252,554	21	12,029,103	— 15,392,375
80	20,302	— 22,583	50	252,555	— 272,532	20	15,392,376	— 19,696,001
79	22,584	— 25,126	49	272,533	— 294,043	19	19,696,002	— 25,202,895
78	25,127	— 27,726	48	294,044	— 317,406	18	25,202,896	— 34,570,976
77	27,727	— 30,525	47	317,407	— 345,321	17	34,570,977	— 51,130,195
76	30,526	— 33,609	46	345,322	— 375,689	16	51,130,196	— 75,621,156
75	33,610	— 36,933	45	375,690	— 408,729	15	75,621,157	— 111,843,086
74	36,934	— 40,435	44	408,730	— 446,652	14	111,843,087	— 165,415,034
73	40,436	— 44,268	43	446,653	— 488,733	13	165,415,035	— 244,647,514
72	44,269	— 48,471	42	488,734	— 534,783	12	244,647,515	— 382,966,802
71	48,472	— 52,908	41	534,784	— 589,532	11	382,966,803	— 606,006,859
70	52,909	— 57,713	40	589,533	— 651,490	10	606,006,860	— 958,945,559
69	57,714	— 62,948	39	651,491	— 719,961	9	958,945,560	— & over
68	62,949	— 68,250	38	719,962	— 795,628			
67	68,251	— 73,720	37	795,629	— 884,563			
66	73,721	— 79,630	36	884,564	— 993,168			

# IX 000015 R

Section IX - Retrospective Rating Plans  
 Subsection E - State and Hazard Group Differentials  
 9/1/2007

Section IX-E  
 Exhibit 1

## Development of State and Hazard Group Relativities

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)
1	21,087	37,928	23,652
2	27,497	47,067	29,351
3	45,418	64,356	40,132
4	79,633	94,564	58,970
Overall	32,136	51,533	32,136

Step 2, Credibility:

(5) Massachusetts Claim Count =	59,024
(6) Requirement for Full Credibility =	155,000
(7) Massachusetts Credibility = = [(5) / (6)] <sup>0.5</sup>	0.62

Step 3, Credibility Weighted Severities:

Hazard Group (1)	Massachusetts Credibility Weighted Severities = [(2) x (7)] + (3) x [1.0 - (7)] (8)
1	27,535
2	34,991
3	52,669
4	85,350

Step 4, Relativities:

Hazard Group (1)	Indicated Relativities (9) = Overall (3) / (8)	Indicated Relativities Based on MA Severity Split Using CW Relativities (10) = Overall (3) / (4)	Average of the two Indicated Relativities (11) = [(9)+(10)] / 2.0	Selected Relativities (12)
1	1.87	2.18	2.03	2.03
2	1.47	1.76	1.61	1.61
3	0.98	1.28	1.13	1.13
4	0.60	0.87	0.74	0.74

Notes:

- (2): Data (excluding medical-only claims) for Composite Policy Years 03/04 at 1st report, 02/03 at 2nd report, 01/02 at 3rd report, adjusted for trend, law amendments and development factors. Factors are shown on Section IX-F, Exhibit 4.
- (3), (6): NCCI's Item B-1403. Exhibit IX-D, Exhibit 1
- (5): Data for Composite Policy Years 03/04 at 1st report, 02/03 at 2nd report, 01/02 at 3rd report.

## IX 000016 R

### EXCESS LOSS FACTORS

This Section proposes new Excess Loss Factors (ELFs) to be effective 9/1/2007. The proposed ELFs are shown in Exhibit 1, page 1. Exhibit 1, page 2 shows the Excess Loss and DCC Expense Factors. For purposes of comparison, the current ELFs are included as Exhibit 2. These factors were last reviewed in 1994, using data from the 1993 Schedule Z (88/89 @ 3<sup>rd</sup>, 87/88 @ 4<sup>th</sup>, 86/87 @ 5<sup>th</sup>). A filing was made 7/6/1994 and finally approved effective 1/1/1996.

The proposed ELFs in Exhibit 1, page 1 are the selected Excess Ratios in Exhibit 3, page 1 times 0.655, the proposed Expected Loss Ratio (without LAE) underlying the Retrospective Rating Plans from Section IX-A, Exhibit 1. 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 adjusted for trend, law amendments, and development. Exhibit 3, page 2 shows the Excess Ratios for higher limits estimated by curve fitting. Exhibit 4 shows the adjustment factors for trend, law amendments and development. Exhibit 5 displays the parameters of the mixed Pareto - Exponential distribution and a calculation of excess factors for different entry ratios.

#### **Method of Analysis**

The database used is Massachusetts Workers' Compensation Schedule Z data from composite policy years 99/00, 98/97, 97/98, 96/97, 95/96, 94/95 at fifth report<sup>1</sup>. Each loss is multiplied by appropriate trend, law amendment and development factors.

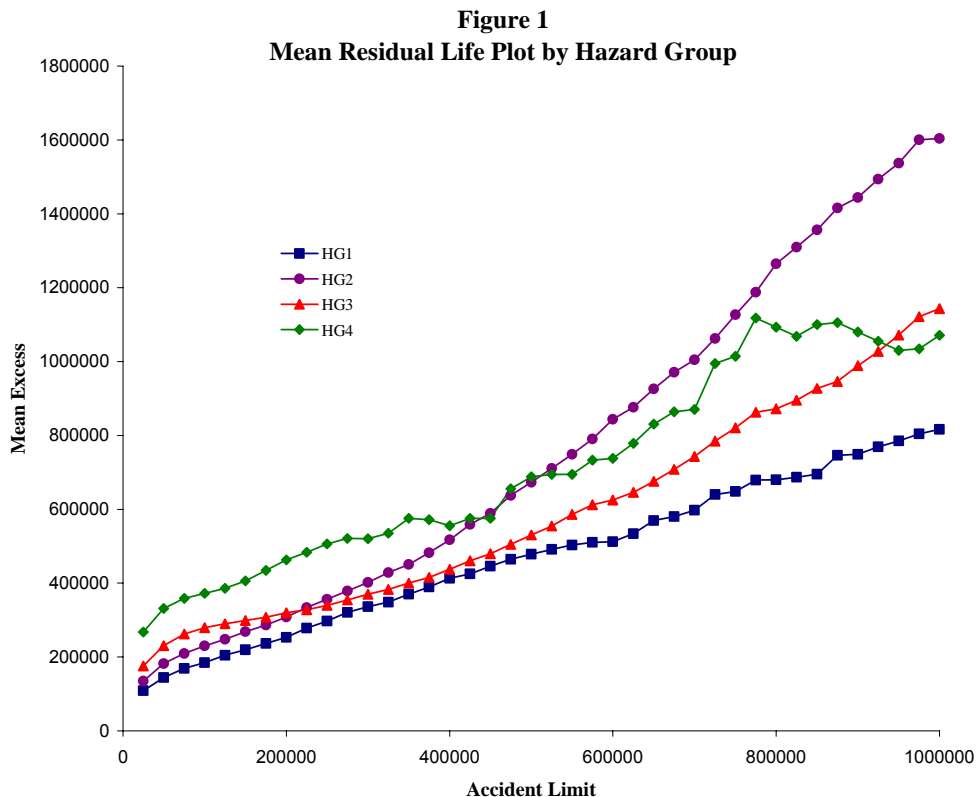
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<sup>1</sup> Composite policy year 1999/2000 includes all data from policies with effective dates from July 1, 1999 to June 30, 2000. Fifth report is evaluated 66 months from policy inception.

# IX 000017 R

Claim costs are trended to 9/1/2008, the average accident date (assuming the proposed ELF factors will be in effect for one year starting 9/1/2007). These factors are shown in Exhibit 4 and they are taken directly from other sections of the filing.

After the above adjustments, all data are grouped into accidents. A computer program is used which grouped data by hazard group<sup>2</sup>, accident date and policy number, on the assumption that a risk will not experience two or more accidents on one particular date. This is the same grouping procedure as used in the approved filing for ELF factors. For the six composite policy years combined there were a total of 438,728 accidents of which 9,758 had adjusted values greater than \$150,000. In this Section only, the WCRIB adopts NCCI's revised four-hazard group system.



<sup>2</sup> There are four hazard groups, with hazard group 4 having the highest expected claim severity.

### Curve Fitting Procedure

The mean residual life (or mean excess loss) statistic provides a convenient way to examine the tails of loss distributions.<sup>3</sup> The mean residual life at a limit  $x$  is defined as  $e(x) = (\text{dollars excess of } x) / (\text{number of accidents larger than } x)$ . Figure 1 displays the mean residual lives for each of the four hazard groups based on the following number of claims: HG1 125,414, HG2 207,849, HG3 101,661 and HG4 3,804. As expected, for lower limits the higher the hazard group the larger the mean residual life. However, as we reach higher limits the data in hazard group 2 show a higher mean residual life compared to hazard groups 3 and 4.

A number of adjustments are made to the accident data in order to fit a distribution to it. First, the accident data for all composite policy years are combined. Next, for each of the four Hazard Groups, the data are truncated and shifted at \$150,000.<sup>4</sup> Finally, these four sets of data are combined and normalized to a mean of unity.

A mixture of Pareto and Exponential distributions is fit to this combined data<sup>5</sup> using the method of maximum likelihood. The method of maximum likelihood is a commonly used method for fitting size of loss distributions.<sup>6</sup> The Pareto and Exponential curves are standard size of loss distributions. They are described in the Appendix of this Section.

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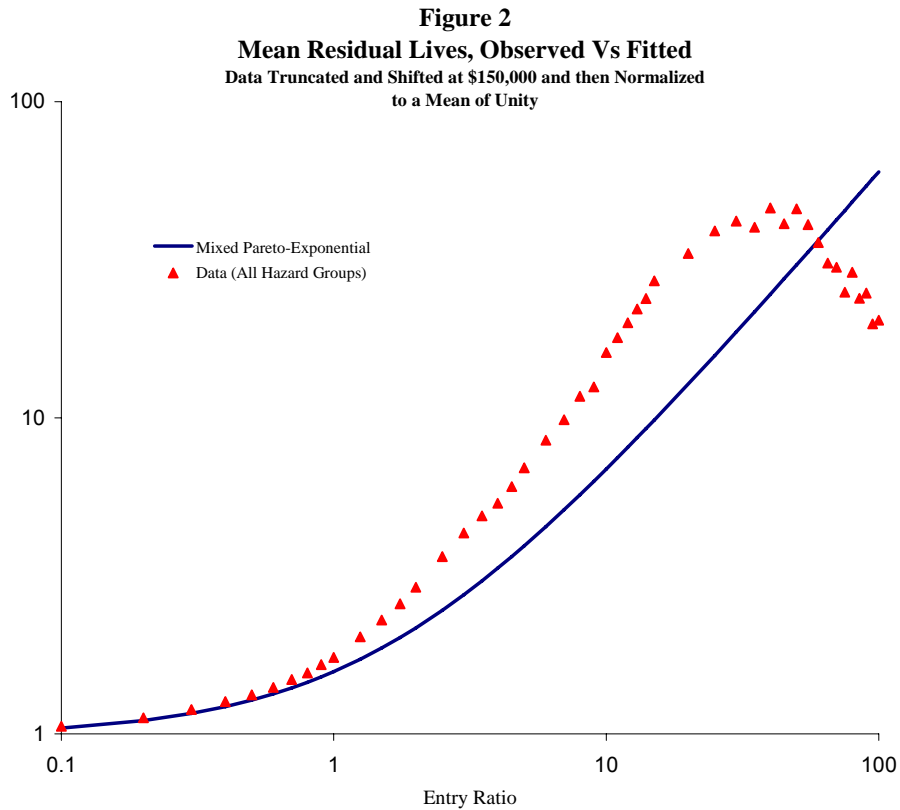
<sup>3</sup> See for example Hogg and Klugman. The mean residual life is the average excess cost of a claim that exceeds a given limit.

<sup>4</sup> Accidents with less than or equal to \$150,000 are eliminated from consideration. Those of size  $x > \$150,000$  have \$150,000 subtracted from them and appear in the truncated and shifted data as  $x - \$150,000$ .

<sup>5</sup> The data has been combined across injury types and hazard groups, representing 9,758 accidents over \$150,000 in size.

<sup>6</sup> See for example, Loss Distributions by Hogg and Klugman, which is on the Syllabus of Examination for the Casualty Actuarial Society.





The mixed distribution is  $(p \times \text{Pareto distribution}) + (1-p) \times (\text{Exponential distribution})$  where  $p$  is a fitted parameter with a value between zero and one. Together with the two Pareto parameters (shape and scale) and the single exponential parameter, the mixed distribution has a total of four parameters. The fitted parameters obtained by this method are displayed in Exhibit 5. The Kolmogorov-Smirnov test was performed to assess the goodness of fit of the resulting curve; this test indicated a very good fit.<sup>7</sup> Figure 2 compares the mean residual lives for the fitted curve and the observed data.

<sup>7</sup> The K-S statistic for 9,758 data points was 0.00627. The critical value for a significance level of 0.20 is  $1.07 / \sqrt{n} = 0.01083$ . Since  $0.00627 < 0.01083$ , the fitted distribution cannot be rejected at even the 20% level. See Hogg and Klugman.

**Estimation of Excess Ratios**

For each hazard group this fitted curve, scaled to the observed mean, is used in Exhibit 4 to estimate the excess ratios for the data truncated and shifted at \$150,000.

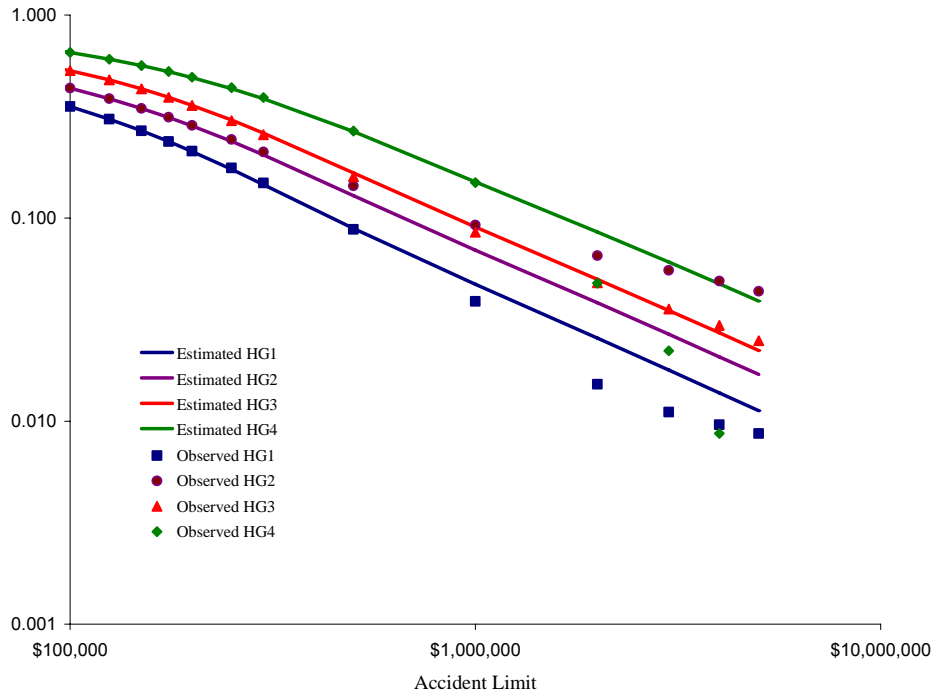
The excess ratios for accident limits less than or equal to \$150,000 are determined directly from the data, as has been done in the past. For accident limits  $L$  above \$150,000 the excess ratio is estimated from the product of (Empirical Excess Ratio at \$150,000)  $\times$  (Excess Ratio estimated 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. Figure 3 compares the estimated and observed excess ratios by Hazard Group. 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.

**Selection of a truncation point**

The \$150,000 truncation point was selected to permit the maximum reliance on reported data while still retaining enough data above the truncation point to permit the reasonable fitting of loss distribution. For this technique and data set, a truncation point of \$150,000 achieves the desired balance. Other values such as \$100,000 or \$200,000 could also have been used without substantially altering the estimated excess ratios.

**Figure 3**  
**Excess Ratios by Hazard Group**  
**Observed versus Estimated**



In this data set there are 9,758 accidents with values greater than \$150,000, with the two smallest hazard groups having about 250 and 1,500 accidents.<sup>8</sup> For the two larger hazard groups, a higher truncation point could have been selected, but for hazard groups 1 and 4 a higher truncation point would make it difficult to get a reliable average value to use to normalize the data.<sup>9</sup>

<sup>8</sup> There are 1,526 accidents from hazard group 1 and 248 accidents from hazard group 4.

<sup>9</sup> These average values are used in Exhibit 3, page 2 in order to calculate excess ratios by hazard group.

**Calculation of Excess Loss Factors with DCC expenses**

The calculation of the Excess Loss Factors including DCC expenses follows the same general methodology outlined above. The assumption is made that DCC expenses are proportional to the underlying losses. Let  $(1 + a)$  be the factor to load losses for DCC expenses. For an accident limit of  $L$ , the excess ratio is computed at a limit of  $L / (1 + a)$ . The Excess Loss factors are derived by multiplying this excess ratio by 70.8%, the expected loss and DCC ratio (from Section IX-A, Exhibit 2).

**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

$$R(\$500,000) = \frac{\text{HG3 Losses Excess of } \$500,000}{\text{Total HG3 Losses}}$$

We can also express this in terms of the data truncated and shifted at \$150,000 as follows:

$$R(\$500,000) = \frac{\text{HG3 Losses Excess of } \$500,000}{\text{HG3 Losses Excess of } \$150,000} \times \frac{\text{HG3 Losses Excess of } \$150,000}{\text{Total HG3 Losses}}$$

## IX 000024 R

However, 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:

$$\begin{aligned} m_f &= \int_0^{\infty} x f(x) dx = \int_0^{\infty} x \{pg(x) + (1-p)h(x)\} dx \\ &= p \int_0^{\infty} xg(x) dx + (1-p) \int_0^{\infty} xh(x) dx \\ &= pm_g + (1-p)m_h. \end{aligned}$$

The excess ratio for limit L is given by:

$$\begin{aligned} R_f(L) &= \frac{\int_L^{\infty} (x-L) f(x) dx}{\int_0^{\infty} x f(x) dx} \\ &= \frac{p \int_L^{\infty} (x-L)g(x) dx + (1-p) \int_L^{\infty} (x-L)h(x) dx}{pm_g + (1-p)m_h} \\ &= \frac{pm_g R_g(L) + (1-p)m_h R_h(L)}{pm_g + (1-p)m_h} \end{aligned}$$

## IX 000025 R

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:

$p = 0.6343$ ,  $s = 1.9196$ ,  $b = 1.0870$ ,  $\theta = 0.6531$  (weight to Pareto, Pareto Shape, Pareto Scale, Exponential scale), at an entry ratio of 2, the excess ratio is computed as follows:

$$\text{Excess Ratio for Pareto} = \left(1 + \frac{x}{b}\right)^{1-s} = \left(1 + \frac{2}{1.0870}\right)^{1-1.9196} = 0.3829$$

$$\text{Excess Ratio for Exponential} = e^{-x/\theta} = e^{-2/0.6531} = 0.0468$$

$$\text{Mean for Pareto} = \frac{b}{s-1} = \frac{1.0870}{1.9196-1} = 1.1820$$

$$\text{Mean for Exponential} = \theta = 0.6531$$

Excess Ratio for Pareto-Exponential distribution at entry ratio 2

$$= \frac{(0.6343)(1.1820)(0.3829) + (1-0.6343)(0.6531)(0.0468)}{(0.6343)(1.1820) + (1-0.6343)(0.6531)} = \frac{0.2983}{0.9886} = 0.3017$$

This matches the value shown on Exhibit 5.

## 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:  $\theta$  is the scale parameter.

# IX 000028 R

Section IX - Retrospective Rating Plans  
Subsection F - Excess Loss Factors  
9/1/2007

Section IX-F  
Exhibit 1  
Page 1

## Excess Loss Factors Proposed to be Effective 9/1/2007

Accident Limit	Hazard Group 1	Hazard Group 2	Hazard Group 3	Hazard Group 4
\$25,000	0.409	0.451	0.504	0.558
\$30,000	0.389	0.433	0.489	0.546
\$35,000	0.371	0.418	0.475	0.536
\$40,000	0.355	0.403	0.462	0.526
\$50,000	0.327	0.378	0.438	0.507
\$75,000	0.273	0.326	0.390	0.465
\$100,000	0.232	0.286	0.349	0.429
\$125,000	0.201	0.254	0.314	0.397
\$150,000	0.176	0.227	0.284	0.369
\$175,000	0.156	0.205	0.258	0.344
\$200,000	0.139	0.186	0.235	0.322
\$250,000	0.114	0.157	0.199	0.285
\$300,000	0.096	0.134	0.172	0.254
\$500,000	0.058	0.084	0.109	0.175
\$1,000,000	0.031	0.046	0.059	0.099
\$2,000,000	0.017	0.025	0.033	0.056
\$3,000,000	0.012	0.018	0.023	0.040
\$4,000,000	0.009	0.014	0.018	0.031
\$5,000,000	0.007	0.011	0.015	0.026

Notes:

Data from Exhibit 3, page 1 times the Expected Loss Ratio of 65.5% from Section IX-A, Exhibit 1.

# IX 00029 R

Section IX - Retrospective Rating Plans  
Subsection F - Excess Loss Factors  
9/1/2007

Section IX-F  
Exhibit 1  
Page 2

## Excess Loss and DCC Expense Factors Proposed to be Effective 9/1/2007

Accident Limit	Hazard Group 1	Hazard Group 2	Hazard Group 3	Hazard Group 4
\$25,000	0.450	0.496	0.552	0.608
\$30,000	0.429	0.477	0.536	0.596
\$35,000	0.411	0.460	0.521	0.585
\$40,000	0.394	0.445	0.508	0.575
\$50,000	0.364	0.418	0.483	0.555
\$75,000	0.306	0.364	0.432	0.512
\$100,000	0.263	0.321	0.390	0.475
\$125,000	0.229	0.286	0.353	0.441
\$150,000	0.202	0.258	0.321	0.412
\$175,000	0.180	0.234	0.293	0.386
\$200,000	0.161	0.213	0.269	0.362
\$250,000	0.132	0.180	0.229	0.322
\$300,000	0.112	0.155	0.198	0.289
\$500,000	0.068	0.098	0.127	0.201
\$1,000,000	0.036	0.053	0.068	0.114
\$2,000,000	0.020	0.029	0.038	0.064
\$3,000,000	0.014	0.020	0.027	0.046
\$4,000,000	0.011	0.016	0.021	0.036
\$5,000,000	0.009	0.013	0.017	0.030

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Section IX - Retrospective Rating Plans  
Subsection F - Excess Loss Factors  
9/1/2007

Section IX-F  
Exhibit 2

## Excess Loss Factors Effective 1/1/1996

Accident Limit	Hazard Group 1	Hazard Group 2	Hazard Group 3	Hazard Group 4
\$25,000	0.483	0.481	0.553	0.586
\$30,000	0.454	0.452	0.530	0.566
\$35,000	0.427	0.425	0.508	0.546
\$40,000	0.402	0.401	0.488	0.528
\$50,000	0.357	0.357	0.450	0.495
\$75,000	0.267	0.270	0.370	0.422
\$100,000	0.198	0.209	0.306	0.362
\$125,000	0.147	0.163	0.255	0.313
\$150,000	0.112	0.130	0.214	0.272
\$175,000	0.087	0.105	0.182	0.238
\$200,000	0.070	0.087	0.156	0.210
\$250,000	0.050	0.063	0.118	0.165
\$300,000	0.039	0.049	0.094	0.134
\$500,000	0.024	0.029	0.053	0.075
\$1,000,000	0.014	0.017	0.031	0.043
\$2,000,000	0.006	0.008	0.017	0.025
\$3,000,000	0.004	0.005	0.011	0.016
\$4,000,000	0.002	0.003	0.007	0.012
\$5,000,000	0.002	0.002	0.006	0.009

Note:

Source: 7/6/1994 Excess Loss Factor Filing

# IX 000031 R

Section IX - Retrospective Rating Plans  
 Subsection F - Excess Loss Factors  
 9/1/2007

Section IX-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 1	Hazard Group 2	Hazard Group 3	Hazard Group 4
\$25,000	0.6237	0.6888	0.7699	0.8512
\$30,000	0.5934	0.6618	0.7463	0.8339
\$35,000	0.5663	0.6377	0.7249	0.8178
\$40,000	0.5419	0.6157	0.7051	0.8025
\$50,000	0.4992	0.5766	0.6694	0.7738
\$75,000	0.4164	0.4978	0.5949	0.7104
\$100,000	0.3545	0.4365	0.5329	0.6545
\$125,000	0.3069	0.3873	0.4798	0.6054
\$150,000	0.2690	0.3471	0.4337	0.5632
\$175,000	0.2382	0.3133	0.3935	0.5256
\$200,000	0.2128	0.2847	0.3592	0.4920
\$250,000	0.1741	0.2391	0.3041	0.4346
\$300,000	0.1463	0.2050	0.2623	0.3879
\$500,000	0.0887	0.1288	0.1668	0.2670
\$1,000,000	0.0472	0.0695	0.0904	0.1506
\$2,000,000	0.0257	0.0383	0.0500	0.0854
\$3,000,000	0.0179	0.0268	0.0351	0.0608
\$4,000,000	0.0138	0.0207	0.0272	0.0474
\$5,000,000	0.0112	0.0170	0.0222	0.0390

**Notes:**

For Accident Limit  $L \leq \$150,000$  data are from Exhibit 3, page 3. For Accident Limit  $L > \$150,000$  data are from Exhibit 3, page 2 times the estimated excess ratio at  $L = \$150,000$

Excess Ratios Truncated and Shifted to \$150,000

Accident Limit	Hazard Group 1		Hazard Group 2		Hazard Group 3		Hazard Group 4	
	Entry Ratio <sup>1</sup>	Excess Ratio <sup>2</sup>	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio
\$175,000	0.1254	0.8854	0.1049	0.9026	0.0992	0.9074	0.0700	0.9332
\$200,000	0.2507	0.7912	0.2097	0.8201	0.1985	0.8283	0.1400	0.8735
\$250,000	0.5014	0.6472	0.4195	0.6889	0.3969	0.7012	0.2799	0.7717
\$300,000	0.7521	0.5440	0.6292	0.5906	0.5954	0.6047	0.4199	0.6887
\$500,000	1.7550	0.3299	1.4681	0.3712	1.3893	0.3846	0.9798	0.4740
\$1,000,000	4.2621	0.1756	3.5655	0.2002	3.3739	0.2084	2.3795	0.2674
\$2,000,000	9.2764	0.0954	7.7601	0.1103	7.3432	0.1153	5.1790	0.1516
\$3,000,000	14.2910	0.0664	11.9550	0.0772	11.3130	0.0809	7.9784	0.1079
\$4,000,000	19.3050	0.0512	16.1490	0.0597	15.2820	0.0627	10.7780	0.0842
\$5,000,000	24.3190	0.0418	20.3440	0.0489	19.2510	0.0513	13.5770	0.0693

Notes:

$$^1 \text{ Entry Ratio} = \frac{\text{LIMIT} - \$150,000}{\text{Average Size of Data Truncated and Shifted to } \$150,000} \text{ Point}$$

For the four Hazard Groups, these average sizes are \$199,431 for HG1, \$238,399 for HG2, \$251,933 for HG3 and \$357,213 for HG4.

<sup>2</sup> Excess Ratio is computed for a Mixed Pareto - Exponential distribution with parameters: 0.634, 1.920, 1.087, 0.653 (weight to Pareto, Pareto Shape, Pareto Scale, Exponential).

# IX 000033 R

Section IX - Retrospective Rating Plans  
 Subsection F - Excess Loss Factors  
 9/1/2007

Section IX-F  
 Exhibit 3  
 Page 3

Excess Ratios based on Adjusted Data<sup>1</sup>

Accident Limit	Hazard Group 1	Hazard Group 2	Hazard Group 3	Hazard Group 4
\$25,000	0.6237	0.6888	0.7699	0.8512
\$30,000	0.5934	0.6618	0.7463	0.8339
\$35,000	0.5663	0.6377	0.7249	0.8178
\$40,000	0.5419	0.6157	0.7051	0.8025
\$50,000	0.4992	0.5766	0.6694	0.7738
\$75,000	0.4164	0.4978	0.5949	0.7104
\$100,000	0.3545	0.4365	0.5329	0.6545
\$125,000	0.3069	0.3873	0.4798	0.6054
\$150,000	0.2690	0.3471	0.4337	0.5632
\$175,000	0.2385	0.3141	0.3938	0.5268
\$200,000	0.2139	0.2868	0.3588	0.4947
\$250,000	0.1765	0.2438	0.3018	0.4392
\$300,000	0.1489	0.2119	0.2578	0.3928
\$500,000	0.0880	0.1440	0.1598	0.2684
\$1,000,000	0.0389	0.0925	0.0852	0.1495
\$2,000,000	0.0152	0.0653	0.0480	0.0478
\$3,000,000	0.0111	0.0553	0.0357	0.0222
\$4,000,000	0.0096	0.0490	0.0296	0.0087
\$5,000,000	0.0087	0.0436	0.0249	0.0000

Notes:

<sup>1</sup> Data for Composite Policy Years 99/00, 98/99, 97/98, 96/97, 95/96, 94/95 at fifth report, adjusted for trend, law amendments and development factors

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Section IX - Retrospective Rating Plans  
 Subsection F - Excess Loss Factors  
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Section IX-F  
 Exhibit 4

## Trend, Law Amendments and Development Factors

### (1) Benefit On-Level Development Factors

Composite Policy Year	Indemnity Losses					Medical Losses
	Injury Type 1	Injury Type 2	Injury Type 3	Injury Type 4	Injury Type 5	All Injury Types
1994/1995	1.164	1.114	1.188	1.287	1.062	1.124
1995/1996	1.151	1.107	1.174	1.262	1.059	1.110
1996/1997	1.132	1.097	1.157	1.230	1.053	1.100
1997/1998	1.111	1.085	1.137	1.195	1.046	1.100
1998/1999	1.087	1.072	1.117	1.158	1.039	1.100
1999/2000	1.055	1.053	1.090	1.109	1.029	1.088

### (2) Trend Factors

Indemnity Severity Trend	0.062
Medical Only Severity Trend	0.076
Lost Time Medical Severity Trend	0.107

### (3) Development Factors

Indemnity Fifth to Ultimate Development Factor	1.116
Injury Types 2 and 3 Medical Fifth to Ultimate Development Factor	1.459

#### Notes:

(1): Section IV-A, Exhibit 5.

Injury Type 1 = Fatal, Injury Type 2 = Permanent Total, Injury Type 3 = Major Permanent Partial,  
 Injury Type 4 = Minor Permanent Partial, Injury Type 5 = Temporary Total.

(2): Section V-A, Exhibit 1.

(3): Section IV-I, Exhibit 3.



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Section IX - Retrospective Rating Plans  
 Subsection F - Excess Loss Factors  
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Section IX-F  
 Exhibit 5

## Mixed Pareto-Exponential Distribution

Parameters:

Pareto shape = s	1.9196
Pareto scale = b	1.0870
Exponential scale = $\theta$	0.6531
Weight to Pareto = p	0.6343
Mean =	1.0000
Variance =	9.5357
Coefficient of Variation =	3.0880
Skewness =	21.9834
Pareto Mean = $b / (s - 1.0)$	1.1820
Exponential Mean = $\theta$	0.6531

Entry Ratio	Excess Ratio	Entry Ratio	Excess Ratio
0.1	0.9067	11	0.0828
0.2	0.8272	12	0.0769
0.3	0.7587	13	0.0719
0.4	0.6995	14	0.0675
0.5	0.6479	15	0.0636
0.6	0.6027	20	0.0496
0.7	0.5629	25	0.0408
0.8	0.5277	30	0.0347
0.9	0.4964	35	0.0303
1.0	0.4685	40	0.0269
1.25	0.4108	45	0.0242
1.5	0.3660	50	0.0220
1.75	0.3305	55	0.0202
2.0	0.3017	60	0.0187
2.50	0.2582	65	0.0174
3.0	0.2268	70	0.0162
3.5	0.2029	75	0.0152
4.0	0.1840	80	0.0144
4.5	0.1686	85	0.0136
5.0	0.1557	90	0.0129
6.0	0.1353	95	0.0123
7.0	0.1198	100	0.0117
8.0	0.1076		
9.0	0.0978		
10.0	0.0896		

Note:  
 See the Appendix for a sample calculation of an excess ratio.

**CLASSIFICATION PRICING****Background**

One of the primary goals 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.

**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

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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 used in the 9/1/05 rate decision. Finally, proposed manual rates are determined by applying offsets to the proposed average capped rates. Since ARAP, Merit 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 is the Unit Statistical Plan data from Schedule Z, which shows detailed composite policy year payroll, premium and loss data for each classification in Massachusetts. The data used excludes the experience of both large deductible policies and Self-Insured Groups. In this review, we have utilized the latest available five composite policy years of data, 7/1/99-6/30/00 through 7/1/03-6/30/04.

**Adjustment of Massachusetts Data**

Because we do not want the indication to be unduly influenced by individual large losses in the historical period, we cap each claim at \$200,000. Capping helps stabilize rates by reducing the impact of infrequently occurring large losses. An average excess loss amount is loaded back into the rates through the application of excess loss factors (discussed below) to account for the possibility of large losses in the future.

We begin this process by calculating "limited losses." Limited losses are determined by subtracting the calculated excess losses from reported losses. These limited losses are multiplied by conversion factors (Section X - B) in order to adjust each composite policy year's experience to reflect current conditions. Conversion factors include benefit level adjustments, loss development factors, loss adjustment expense loadings, and escalation. Converted limited losses are the product of the limited losses and these conversion factors.

Similarly, we calculate converted "excess losses." These are then used in the derivation of excess loss factors. Excess loss factors more equitably distribute expected excess losses among classifications. Indicated excess loss factors are calculated by adding unity to the quotient of converted excess losses and converted limited losses by hazard group and injury type.

The product of the converted limited losses and the excess loss factors is referred to as the adjusted converted losses.

The adjusted converted losses are then summed by composite policy year and injury type. They are displayed by classification or class combination in Section X - G. Massachusetts indicated pure premiums are calculated by dividing these losses by payroll.

**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 is supplied by NCCI and other independent bureaus. Countrywide relativities are based upon the latest available three composite policy years, although the specific years vary by state (see Section X - D, Exhibit 3). Before the data can be used for ratemaking purposes, it must be adjusted to reflect the Massachusetts distribution of payroll and loss levels.

Pitch factors are used to adjust the countrywide data to a corresponding Massachusetts. These pitch factors are calculated as follows:

1. Multiply each state's classification pure premiums by the corresponding Massachusetts payroll to estimate the loss level that would occur if the employers in that state were located in Massachusetts.
2. Sum these losses by state, industry group, and injury type 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 payroll distribution and loss level as the Massachusetts Schedule Z data (Section X - D, Exhibit 2). Each state's pure premiums are multiplied by its corresponding pitch factor to derive adjusted pure premiums. The sum of the product of the adjusted pure premiums and payroll by state by class is then divided by the total payroll by class to derive countrywide class pure premiums.

Finally, the countrywide adjusted pure premiums are further adjusted to the Massachusetts indicated loss level by applying the conversion and excess loss factors in a manner similar to the adjustment of Massachusetts data. These countrywide pure premiums are then on a comparable basis with the Massachusetts pure premiums.

For each Industry Group and injury type, 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 the pure premium underlying present rate to unity, based on the five most recent years of payroll.

**Formula Relativities**

Once we have the separate (MA Indicated, Countrywide 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 relativities by injury type, using the Industry Group pure premiums by injury type as weights. The calculated formula relativities are then balanced to unity based on the five most recent years of payroll.

**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.

The general principles are as follows:

1. Larger volumes of data receive more credibility.
2. A given volume of Massachusetts data receives more credibility than the same volume of data from another state.
3. A given volume of data, as measured by expected losses, for serious losses receives less credibility than a similar volume of data for non-serious or medical losses.

This filing follows the 9/1/05 filing's use of the classical credibility method based on the formula

$$Z = (E/F)^{0.4}$$

Where        Z= Credibility assigned to MA or Countrywide experience

E= Expected Losses

F= Full Credibility Criterion



**Massachusetts Credibility**

The full credibility criterion is calculated as the product of the claim count standard and the average claim cost. We use the same claim count standards as the 9/1/05 rates:

Serious	Non-Serious	Medical
100	200	200

The average claim costs have been updated in Section X - D, Exhibit 1, Pages 2 & 3 of this filing.

Credibility is determined based on the volume of expected losses by injury type. By class, expected losses are calculated separately for serious indemnity, non-serious indemnity, and medical only losses by multiplying the pure premiums underlying the present rate by payroll. 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 since the previous revision (Section X - E).

**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-Massachusetts credibility).

**Countrywide Credibility**

The credibility of adjusted countrywide pure premiums is determined based on claim counts by injury type (Section X - D, Exhibit 1). Payroll cannot be used as a measure of credibility since wage levels vary significantly between states.

**Proposed Average Capped Rates**

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 a maximum and minimum cap (Section X – H, Exhibit 1). Proposed average uncapped rates are capped by an iterative process using rate levels and the 5 most recent years of payrolls to determine if the required change is achieved. The maximum rate change by industry group is equal to the benefit level change plus  $\frac{1}{2}$  the experience change plus 20%. The minimum rate change equals the benefit level change plus  $\frac{1}{2}$  Experience Change minus 20%. Setting the caps in this manner provides some rate stability over time, but will also allow those

classes whose movement was capped previously to move towards their indicated relativities.

**Manual Rates**

Section X - 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), as shown in Section X - K.

**All Risk Adjustment Program**

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. 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 surcharge premium.

The WCRIB calculates the ARAP adjustment and identifies it as a separate factor on the Experience Rating Calculation sheet. The ARAP factor can range from 1.00 to a maximum of 1.49. The offset factor for ARAP, calculated in Section X – K, Exhibit 3, is 1.060.

**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 has an average annual premium over the last three policy years of \$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.

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 average merit rating credit weighted by the percentage of premium eligible for merit rating. Section X - 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 may reduce an eligible employer's premium if the employer's average weekly wage is

\$18.00 or more per hour per construction employee. Since this is a credit-only program, we have calculated an offset to the eligible classes to assure revenue neutrality. Section X - K, Exhibit 4 shows the derivation our selection of the 3.4% 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") makes assessments upon carriers that write policies in Massachusetts on the lines of insurance protected by the Fund, to cover the Fund's costs of providing relief in the event of insurer insolvencies. Beginning in 1988, workers' compensation insurance was covered by the Fund. The loading included in this filing is a recoupment of these recent assessments.

The loading provides for the recoupment of assessments made by the Fund in 2005 and 2006 that have not yet been recouped

The "true up" loading is the difference between the recoupment amounts approved or filed to be collected and the amount actually collected, since the recoupment amount is affected by the loading from 9/1/05 rates. The proposed factor is a loading of -3.02%.

### **Pricing Example**

Section X - L is a sample rate calculation, for Class 3131 - Button or Fastener Manufacturing - Metal. Exhibit 1 shows the calculation of the MA indicated pure premium and relativity. Exhibit 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 1/1/90.
- The rates and rating values for 6811, 6854, 6882, and 6884 are assigned 84.1% of the rates and rating values 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.

#### **0046: Fertilizer or Pesticide Application – Commercial or Domestic & Drivers**

- Established 8/15/97.
- The rate and rating values for 0046 are calculated as the weighted average the rates and rating values of Class Codes 0042 [Landscape Gardening- and Drivers] and 9102 [Parks-NOC-All Employees and Drivers] using weights of 1/3 and 2/3, respectively.
- See Circular Letter No. 1783, released 8/11/1997.

9533: Scaffold Installation, Repair or Removal–NOC–All Operations

- Established 6/1/02.
- The rate and rating values for 9533 are calculated as the mean of the rate and rating values of Class Codes 5057 [Iron or Steel Erection-NOC] and 5403 [Carpentry-NOC].
- See Circular Letter No. 1892, released 5/23/2002.

8747: Display Showroom

- Established 7/1/04.
- The rate and rating values for 8747 are assigned the rate and rating values of Class 8017 [Store: Retail NOC].
- See Circular Letter No. 1961, released 7/9/2004.

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Section X - Classification Pricing  
 Subsection A - Summary  
 9/1/2007

Section X - A  
 Exhibit 1

## Manual Rates and Rating Values All Industry Groups

Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
0005	2.91	281	20	1.50	0.21
0008	1.96	248	20	1.01	0.19
0016	2.91	281	20	1.50	0.17
0034	2.82	278	20	1.46	0.19
0035	1.73	240	20	0.89	0.22
0036	2.82	278	20	1.46	0.19
0037	1.96	248	20	1.01	0.19
0042	3.90	316	20	2.01	0.20
0046	2.80	277	20	1.44	0.21
0050	4.17	355	50	2.15	0.15
0059	0.28	-	-	-	-
0065	0.12	-	-	-	-
0066	0.10	-	-	-	-
0067	0.10	-	-	-	-
0079	4.10	323	20	1.89	0.19
0083	4.15	324	20	2.14	0.16
0106	15.07	500	20	6.94	0.16
0113	2.82	278	20	1.46	0.19
0170	2.82	278	20	1.46	0.19
0251	3.82	313	20	1.97	0.16
0400	(a)	(a)	(a)	(a)	(a)
0401	(a)	(a)	(a)	(a)	(a)
0770	1.59	-	-	-	-
0773	4.22	-	-	-	-
0774	3.08	-	-	-	-
0775	1.70	-	-	-	-
0776	2.86	-	-	-	-
0779	2.38	-	-	-	-
0799	9.48	-	-	-	-
0908	68.00	132	0	35.17	0.19
0909	121.00	185	0	62.47	0.21
0912	242.00	306	0	124.95	0.21
0913	136.00	200	0	70.35	0.19
0917	2.30	260	20	1.19	0.22
0918	0.82	208	20	0.42	0.19
1005	z	z	z	z	z
1164	z	z	z	z	z
1165	z	z	z	z	z
1430	16.49	500	0	7.59	0.30
1438	3.09	267	0	1.43	0.16
1452	z	z	z	z	z
1463	6.26	500	0	2.88	0.15
1624	4.20	326	20	1.93	0.14
1655	4.81	347	20	2.21	0.15
1701	3.78	291	0	1.74	0.22
1710	4.20	326	20	1.93	0.14
1741	z	z	z	z	z
1747	3.62	286	0	1.67	0.17
1748	3.17	270	0	1.46	0.17



**X 000016 R**

Section X - Classification Pricing  
 Subsection A - Summary  
 9/1/2007

Section X - A  
 Exhibit 1

Manual Rates and Rating Values  
 All Industry Groups

Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
1852	8.47	500	0	3.90	0.10
1853	2.10	233	0	1.08	0.17
1860	2.18	235	0	1.12	0.14
1924	2.52	247	0	1.30	0.19
1925	4.08	302	0	2.10	0.17
2001	2.82	258	0	1.46	0.21
2002	3.56	284	0	1.84	0.19
2003	2.82	258	0	1.30	0.21
2014	3.32	275	0	1.53	0.17
2016	z	z	z	z	z
2021	2.30	240	0	1.18	0.16
2030	z	z	z	z	z
2039	3.22	272	0	1.66	0.18
2041	2.15	234	0	1.11	0.21
2065	z	z	z	z	z
2070	4.08	302	0	2.10	0.18
2081	4.03	300	0	2.08	0.20
2089	2.88	260	0	1.49	0.18
2095	4.50	317	0	2.32	0.19
2101	2.88	260	0	1.49	0.18
2105	(a)	(a)	(a)	(a)	(a)
2111	2.40	243	0	1.24	0.20
2114	2.88	260	0	1.49	0.18
2115	2.64	251	0	1.22	0.20
2121	2.22	237	0	1.15	0.17
2130	3.08	267	0	1.59	0.18
2131	2.08	232	0	1.07	0.20
2143	2.62	251	0	1.35	0.18
2150	4.96	333	0	2.56	0.21
2156	5.63	356	0	2.90	0.17
2157	4.39	313	0	2.27	0.19
2172	1.12	198	0	0.58	0.17
2174	6.39	500	0	3.34	0.16
2177	z	z	z	z	z
2211	4.89	330	0	2.25	0.17
2220	3.13	269	0	1.61	0.18
2260	5.78	500	0	2.66	0.15
2286	3.13	269	0	1.61	0.18
2288	2.49	246	0	1.29	0.21
2300	z	z	z	z	z
2302	3.13	269	0	1.61	0.18
2305	2.38	242	0	1.23	0.18
2362	2.11	233	0	1.09	0.18
2380	2.46	245	0	1.27	0.23
2402	2.65	252	0	1.22	0.17
2413	3.90	296	0	2.01	0.16
2416	3.83	293	0	1.97	0.25
2417	2.86	259	0	1.47	0.18
2501	2.39	243	0	1.23	0.20

**X 000017 R**

Section X - Classification Pricing  
 Subsection A - Summary  
 9/1/2007

Section X - A  
 Exhibit 1

Manual Rates and Rating Values  
 All Industry Groups

Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
2503	0.86	189	0	0.44	0.21
2534	2.39	243	0	1.23	0.20
2570	4.68	323	0	2.42	0.18
2576	2.74	255	0	1.41	0.19
2578	2.74	255	0	1.41	0.19
2585	2.95	262	0	1.52	0.21
2586	1.26	203	0	0.65	0.19
2587	1.96	248	20	1.01	0.21
2600	z	z	z	z	z
2623	2.67	252	0	1.38	0.17
2640	3.02	265	0	1.56	0.17
2651	3.02	265	0	1.56	0.17
2660	1.93	227	0	0.99	0.23
2683	2.24	237	0	1.15	0.19
2688	2.64	251	0	1.36	0.19
2702	17.96	500	20	8.27	0.16
2710	6.71	500	0	3.09	0.19
2714	z	z	z	z	z
2731	4.66	322	0	2.41	0.19
2741	5.81	500	0	3.04	0.22
2747	7.94	500	0	4.16	0.17
2790	2.06	231	0	1.06	0.20
2802	4.36	312	0	2.25	0.19
2835	2.93	262	0	1.54	0.20
2836	4.04	300	0	2.12	0.17
2841	2.63	251	0	1.36	0.19
2883	2.76	256	0	1.42	0.20
2915	z	z	z	z	z
2916	z	z	z	z	z
2923	1.74	220	0	0.90	0.20
2942	1.75	220	0	0.92	0.18
2960	z	z	z	z	z
3004	z	z	z	z	z
3018	3.18	270	0	1.64	0.17
3022	4.11	303	0	2.12	0.18
3027	4.28	309	0	2.21	0.18
3028	4.30	310	0	2.22	0.24
3030	7.12	500	0	3.28	0.17
3040	9.48	500	0	4.36	0.19
3041	4.84	328	0	2.50	0.15
3042	3.20	271	0	1.65	0.21
3064	2.93	262	0	1.51	0.18
3066	2.93	262	0	1.51	0.18
3076	2.52	247	0	1.30	0.20
3081	7.72	500	0	3.55	0.19
3082	7.72	500	0	3.55	0.19
3085	4.67	322	0	2.15	0.19
3110	7.48	500	0	3.86	0.23
3111	2.19	236	0	1.13	0.17

# X 000018 R

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## Manual Rates and Rating Values All Industry Groups

Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
3113	1.83	223	0	0.94	0.21
3114	3.83	293	0	1.98	0.19
3118	1.83	223	0	0.94	0.21
3119	0.87	189	0	0.46	0.18
3120	1.67	217	0	0.87	0.26
3122	2.27	238	0	1.17	0.15
3126	z	z	z	z	z
3127	0.65	182	0	0.33	0.23
3131	2.59	250	0	1.34	0.18
3132	2.17	235	0	1.00	0.23
3145	1.51	212	0	0.78	0.20
3146	2.35	241	0	1.21	0.20
3169	4.18	305	0	2.15	0.21
3175	z	z	z	z	z
3179	2.08	232	0	1.07	0.20
3180	3.28	274	0	1.69	0.22
3188	3.06	266	0	1.58	0.21
3200	2.81	257	0	1.45	0.20
3220	1.99	229	0	1.03	0.19
3223	(a)	(a)	(a)	(a)	(a)
3227	4.18	305	0	2.15	0.21
3241	2.52	247	0	1.30	0.19
3255	3.44	279	0	1.80	0.20
3257	2.52	247	0	1.30	0.22
3270	2.05	231	0	1.06	0.19
3300	7.13	500	0	3.73	0.17
3303	z	z	z	z	z
3305	(a)	(a)	(a)	(a)	(a)
3315	1.94	227	0	1.00	0.20
3334	(a)	(a)	(a)	(a)	(a)
3336	2.93	262	0	1.51	0.22
3365	10.14	500	50	4.51	0.16
3372	2.34	241	0	1.08	0.18
3373	4.51	317	0	2.33	0.16
3381	3.12	268	0	1.61	0.22
3383	1.43	209	0	0.74	0.21
3385	0.78	186	0	0.40	0.20
3400	4.18	305	0	2.15	0.21
3507	3.09	267	0	1.59	0.19
3515	2.73	255	0	1.41	0.20
3548	1.94	227	0	1.00	0.20
3558	0.53	178	0	0.27	0.17
3559	1.94	227	0	1.00	0.20
3565	z	z	z	z	z
3571	1.18	200	0	0.62	0.19
3574	1.94	227	0	1.00	0.20
3580	z	z	z	z	z
3581	z	z	z	z	z
3612	1.73	220	0	0.89	0.20

# X 000019 R

Section X - Classification Pricing  
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## Manual Rates and Rating Values All Industry Groups

Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
3620	4.23	307	0	1.95	0.20
3629	1.94	227	0	1.00	0.20
3632	1.94	227	0	1.00	0.20
3634	2.67	252	0	1.38	0.19
3635	2.74	255	0	1.41	0.21
3638	1.94	227	0	1.00	0.20
3639	z	z	z	z	z
3642	1.26	203	0	0.65	0.20
3643	2.08	232	0	1.07	0.20
3647	2.86	259	0	1.47	0.23
3648	1.74	220	0	0.90	0.20
3681	0.77	186	0	0.40	0.20
3685	0.77	186	0	0.40	0.20
3724	5.76	500	50	2.56	0.16
3726	12.44	500	50	4.42	0.12
3803	z	z	z	z	z
3807	4.18	305	0	2.15	0.21
3808	2.76	256	0	1.43	0.22
3821	4.42	334	20	2.04	0.18
3822	z	z	z	z	z
3826	2.29	239	0	1.18	0.21
3827	z	z	z	z	z
3830	1.94	227	0	0.89	0.20
3841	1.82	223	0	0.94	0.21
3851	z	z	z	z	z
3881	z	z	z	z	z
4000	5.58	500	20	2.57	0.18
4021	3.18	270	0	1.64	0.18
4024	3.65	287	0	1.68	0.17
4034	6.39	500	0	2.94	0.17
4036	2.54	248	0	1.17	0.19
4038	1.77	221	0	0.93	0.18
4053	1.57	214	0	0.81	0.18
4054	z	z	z	z	z
4061	2.16	235	0	1.12	0.20
4062	2.16	235	0	1.12	0.20
4101	z	z	z	z	z
4112	0.65	182	0	0.34	0.22
4113	1.57	214	0	0.81	0.18
4114	2.46	245	0	1.27	0.18
4130	3.65	287	0	1.88	0.20
4133	1.86	224	0	0.96	0.19
4150	0.89	190	0	0.47	0.19
4206	z	z	z	z	z
4207	z	z	z	z	z
4239	4.24	307	0	1.95	0.20
4243	3.64	286	0	1.88	0.22
4244	3.45	280	0	1.78	0.20
4250	2.62	251	0	1.35	0.18

# X 000020 R

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## Manual Rates and Rating Values All Industry Groups

Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
4251	2.24	237	0	1.16	0.19
4273	3.42	279	0	1.77	0.22
4279	3.79	292	0	1.96	0.18
4282	0.58	179	0	0.30	0.21
4283	3.05	266	0	1.58	0.22
4299	1.88	225	0	0.97	0.20
4301	3.35	276	0	1.73	0.17
4304	3.19	271	0	1.65	0.21
4307	1.84	223	0	0.96	0.20
4308	0.77	186	0	0.40	0.21
4350	0.59	180	0	0.31	0.23
4351	0.84	188	0	0.43	0.19
4352	0.96	193	0	0.50	0.19
4360	1.08	197	0	0.56	0.17
4361	0.44	194	20	0.23	0.18
4362	0.73	205	20	0.34	0.21
4410	3.90	296	0	2.01	0.20
4417	4.16	305	0	2.15	0.21
4420	z	z	z	z	z
4431	z	z	z	z	z
4432	1.46	210	0	0.76	0.20
4439	2.17	235	0	1.00	0.19
4452	2.76	256	0	1.42	0.20
4459	2.53	248	0	1.31	0.22
4470	2.74	255	0	1.26	0.19
4484	2.45	245	0	1.27	0.21
4493	3.12	268	0	1.61	0.20
4511	0.44	194	20	0.23	0.17
4512	0.19	186	20	0.10	0.20
4557	1.48	211	0	0.77	0.18
4558	2.39	243	0	1.23	0.20
4561	2.17	235	0	1.12	0.19
4568	z	z	z	z	z
4581	z	z	z	z	z
4583	3.10	268	0	1.43	0.15
4611	1.31	205	0	0.68	0.21
4635	2.56	249	0	0.94	0.19
4653	4.49	316	0	2.32	0.27
4665	6.49	500	0	2.99	0.18
4670	z	z	z	z	z
4673	z	z	z	z	z
4683	z	z	z	z	z
4686	z	z	z	z	z
4692	0.50	177	0	0.26	0.21
4693	0.97	193	0	0.50	0.26
4703	z	z	z	z	z
4716	z	z	z	z	z
4717	z	z	z	z	z
4720	2.65	252	0	1.37	0.18

**X 000021 R**

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Manual Rates and Rating Values  
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Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
4740	1.79	222	0	0.82	0.16
4741	2.78	256	0	1.43	0.25
4770	10.67	500	0	4.51	0.10
4773	20.58	500	0	9.13	0.10
4774	17.43	500	0	7.54	0.11
4775	10.46	500	0	4.47	0.11
4776	15.04	500	0	6.59	0.09
4777	3.10	268	0	1.43	0.15
4779	13.49	500	0	5.84	0.11
4799	35.66	500	0	16.61	0.10
4825	0.50	177	0	0.23	0.18
4828	1.82	223	0	0.84	0.16
4829	1.82	223	0	0.84	0.16
4902	1.75	220	0	0.90	0.18
4923	1.08	197	0	0.56	0.17
5020	4.94	500	50	2.20	0.15
5022	10.84	500	50	4.82	0.16
5037	31.03	500	50	11.03	0.12
5040	46.46	500	50	16.51	0.13
5057	36.60	500	50	13.01	0.13
5059	36.60	500	50	13.01	0.13
5069	36.60	500	50	16.28	0.13
5102	7.63	500	50	3.40	0.17
5146	5.11	500	50	2.27	0.19
5160	3.38	327	50	1.50	0.19
5183	4.04	350	50	1.80	0.17
5188	4.13	354	50	1.84	0.21
5190	3.25	323	50	1.45	0.18
5191	1.21	221	20	0.56	0.17
5192	4.98	353	20	2.57	0.22
5213	19.83	500	50	8.82	0.13
5215	4.99	500	50	2.49	0.18
5221	6.68	500	50	2.97	0.15
5222	8.76	500	50	3.11	0.13
5223	4.99	500	50	2.22	0.18
5348	6.31	500	50	2.81	0.19
5402	16.31	500	50	8.13	0.15
5403	11.65	500	50	5.18	0.17
5437	5.69	500	50	2.53	0.16
5443	6.33	500	50	3.15	0.14
5445	6.80	500	50	3.03	0.17
5462	9.11	500	50	4.05	0.15
5472	7.33	500	50	3.26	0.20
5473	13.02	500	50	5.79	0.12
5474	4.87	500	50	2.17	0.18
5478	4.94	500	50	2.20	0.19
5479	10.09	500	50	4.49	0.18
5480	5.16	500	50	2.30	0.16
5506	5.90	500	50	2.63	0.16

**X 000022 R**

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Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
5507	6.45	500	50	2.87	0.15
5508	4.32	500	50	1.92	0.15
5509	3.92	346	50	1.74	0.18
5538	5.23	500	50	2.33	0.18
5545	32.90	500	50	14.63	0.14
5547	13.81	500	50	6.15	0.15
5606	1.73	270	50	0.77	0.18
5610	5.36	500	50	2.67	0.17
5645	6.91	500	50	3.07	0.18
5651	6.91	500	50	3.07	0.18
5701	25.82	500	50	9.18	0.11
5703	22.12	500	50	9.84	0.12
5705	10.58	500	50	4.71	0.13
5951	z	z	z	z	z
6003	14.92	500	50	6.64	0.15
6005	4.32	500	50	1.92	0.15
6017	z	z	z	z	z
6018	z	z	z	z	z
6204	11.23	500	50	5.00	0.15
6217	4.20	356	50	1.87	0.18
6229	4.20	356	50	2.10	0.18
6233	5.35	500	50	2.38	0.16
6251	7.24	500	50	2.57	0.12
6252	8.19	500	50	2.91	0.11
6257	z	z	z	z	z
6260	z	z	z	z	z
6306	5.56	500	50	2.48	0.16
6319	5.50	500	50	2.45	0.16
6325	3.45	330	50	1.53	0.19
6400	6.17	500	50	3.07	0.15
6504	2.88	260	0	1.49	0.18
6811	7.91	500	20	3.71	0.15
6834	3.61	305	20	1.66	0.17
6836	2.70	274	20	1.24	0.17
6845	z	z	z	z	z
6854	8.97	500	20	4.07	0.16
6882	18.31	500	20	8.31	0.17
6884	26.06	500	20	12.22	0.15
7133	(a)	(a)	(a)	(a)	(a)
7219	7.24	500	20	3.34	0.17
7230	7.99	500	20	3.68	0.15
7231	5.71	500	20	2.63	0.18
7360	5.20	500	20	2.39	0.18
7370	3.62	306	20	1.87	0.21
7380	6.33	500	20	2.91	0.19
7382	3.94	317	20	1.82	0.19
7403	4.17	325	20	2.15	0.18
7405	0.80	207	20	0.49	0.18
7409	8.14	500	20	3.00	0.11

**X 000023 R**

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Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
7418	8.14	500	20	3.00	0.11
7420	8.14	500	20	3.00	0.11
7421	2.28	259	20	1.05	0.12
7422	2.28	259	20	0.84	0.12
7423	3.82	313	20	1.76	0.18
7425	(a)	(a)	(a)	(a)	(a)
7430	z	z	z	z	z
7431	1.71	239	20	0.84	0.12
7445	0.27	0	0	0.00	0.00
7453	0.57	0	0	0.00	0.00
7502	3.96	318	20	1.82	0.19
7515	1.81	242	20	0.67	0.16
7520	3.82	313	20	1.76	0.16
7538	4.11	353	50	1.46	0.18
7539	1.60	235	20	0.74	0.16
7580	2.57	269	20	1.18	0.18
7590	8.44	500	20	4.35	0.19
7600	3.18	290	20	1.47	0.17
7601	4.11	353	50	1.83	0.18
7610	0.16	185	20	0.08	0.19
7704	1.85	244	20	0.85	0.19
7720	1.46	230	20	0.67	0.17
7855	8.74	500	50	3.89	0.17
8001	1.22	222	20	0.64	0.21
8002	2.71	274	20	1.40	0.18
8006	1.24	222	20	0.64	0.20
8008	0.83	208	20	0.43	0.20
8010	1.57	234	20	0.81	0.20
8013	0.48	196	20	0.25	0.18
8017	1.20	221	20	0.62	0.20
8018	3.51	302	20	1.81	0.22
8021	3.96	318	20	2.04	0.18
8031	2.20	256	20	1.13	0.19
8032	1.74	240	20	0.90	0.22
8033	1.91	246	20	0.98	0.24
8034	4.29	329	20	2.22	0.19
8039	2.25	258	20	1.16	0.23
8044	3.26	293	20	1.68	0.20
8046	2.08	252	20	1.07	0.21
8048	3.16	290	20	1.63	0.17
8050	1.23	222	20	0.63	0.20
8058	2.94	282	20	1.52	0.21
8103	3.08	287	20	1.59	0.17
8105	3.95	317	20	2.04	0.13
8106	7.63	500	20	3.52	0.22
8107	2.97	283	20	1.37	0.20
8111	3.20	291	20	1.65	0.21
8116	2.97	283	20	1.53	0.20
8203	4.51	337	20	2.33	0.19



**X 000024 R**

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Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
8204	7.84	500	20	3.61	0.14
8215	3.69	308	20	1.70	0.23
8227	3.10	318	50	1.38	0.15
8232	4.85	349	20	2.24	0.21
8233	8.95	500	20	4.12	0.17
8235	4.30	330	20	2.22	0.20
8263	5.37	500	20	2.77	0.16
8264	4.81	347	20	2.48	0.20
8265	8.95	500	20	4.12	0.17
8279	5.43	500	20	2.80	0.18
8291	3.67	307	20	1.90	0.21
8292	3.64	306	20	1.88	0.23
8293	7.91	500	20	4.08	0.18
8304	z	z	z	z	z
8350	4.98	353	20	2.29	0.20
8380	2.56	269	20	1.18	0.19
8381	1.49	231	20	0.77	0.21
8385	2.77	276	20	1.27	0.19
8392	1.41	228	20	0.73	0.18
8393	2.01	249	20	0.92	0.19
8500	8.95	500	20	4.12	0.17
8601	0.31	190	20	0.14	0.17
8606	z	z	z	z	z
8710	1.82	243	20	0.84	0.19
8719	1.82	243	20	0.84	0.19
8720	0.93	212	20	0.43	0.17
8721	0.24	187	20	0.11	0.22
8742	0.21	186	20	0.09	0.19
8745	4.31	330	20	2.22	0.22
8747	1.20	221	20	0.62	0.20
8748	0.63	201	20	0.29	0.19
8800	0.64	201	20	0.34	0.18
8803	0.06	181	20	0.03	0.16
8810	0.12	183	20	0.06	0.21
8820	0.11	183	20	0.05	0.17
8829	2.23	257	20	1.15	0.22
8831	0.96	213	20	0.49	0.20
8832	0.27	188	20	0.13	0.19
8833	1.19	221	20	0.62	0.21
8835	2.06	251	20	1.06	0.23
8837	(a)	(a)	(a)	(a)	(a)
8868	0.52	197	20	0.27	0.22
8901	0.12	183	20	0.06	0.21
9014	2.13	254	20	1.06	0.19
9015	2.73	275	20	1.26	0.18
9016	1.80	242	20	0.93	0.20
9019	5.13	359	20	2.36	0.15
9033	3.57	304	20	1.84	0.21
9040	3.14	289	20	1.62	0.21

**X 000025 R**

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Manual Rates and Rating Values  
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Class (1)	Manual Rate (2)	Minimum Premium (3)	Loss Constant (4)	Expected Loss Rate (5)	D-Ratio (6)
9052	1.65	237	20	0.85	0.22
9058	1.65	237	20	0.85	0.22
9060	1.26	223	20	0.65	0.21
9061	0.96	213	20	0.50	0.21
9063	0.64	201	20	0.30	0.23
9079	1.16	220	20	0.60	0.21
9088	(a)	(a)	(a)	(a)	(a)
9089	0.93	212	20	0.48	0.18
9093	1.63	236	20	0.85	0.20
9101	2.92	281	20	1.51	0.21
9102	2.25	258	20	1.16	0.22
9154	1.22	222	20	0.56	0.19
9156	0.94	212	20	0.49	0.21
9178	23.07	500	20	11.91	0.21
9179	22.92	500	20	11.83	0.21
9180	4.16	325	20	2.15	0.20
9182	3.31	295	20	1.71	0.19
9186	4.16	325	20	1.91	0.20
9220	3.80	312	20	1.96	0.23
9402	5.33	500	20	2.45	0.17
9403	6.75	500	20	3.11	0.17
9410	1.75	240	20	0.90	0.19
9501	2.71	254	0	1.40	0.19
9505	2.71	254	0	1.40	0.19
9519	2.51	267	20	1.16	0.18
9521	4.70	324	0	2.16	0.19
9522	1.57	214	0	0.81	0.18
9533	24.13	500	50	9.10	0.15
9534	6.16	500	50	2.74	0.15
9545	4.79	500	50	2.21	0.17
9549	3.95	347	50	1.82	0.15
9552	7.05	500	50	3.25	0.16
9553	7.05	500	50	3.25	0.16
9586	0.50	197	20	0.26	0.20
9620	0.69	203	20	0.32	0.18

Notes:

(a): Rate for each individual risk must be obtained by Home Office from the WCRIB.

z: Classifications potentially available. If needed, Home Office should contact the WCRIB.

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 Ratio (6)	Pure Premium Underlying Proposed Rate Factor = (3) x (5) x (6) (7)
Manufacturing	Serious	2.352	0.888	0.390	0.792	0.726
	Non-Serious	2.352	0.496	0.218	0.792	0.405
	Medical Total	2.352	0.895 2.278	0.393	0.792	0.731
Construction	Serious	6.077	2.976	0.506	0.792	2.438
	Non-Serious	6.077	0.914	0.156	0.792	0.749
	Medical Total	6.077	1.985 5.876	0.338	0.792	1.626
Office and Clerical	Serious	0.208	0.073	0.356	0.792	0.059
	Non-Serious	0.208	0.046	0.225	0.792	0.037
	Medical Total	0.208	0.086 0.206	0.419	0.792	0.069
Goods and Services	Serious	2.045	0.695	0.358	0.792	0.579
	Non-Serious	2.045	0.441	0.227	0.792	0.368
	Medical Total	2.045	0.807 1.943	0.415	0.792	0.672
Miscellaneous	Serious	5.274	2.101	0.436	0.792	1.821
	Non-Serious	5.274	0.876	0.182	0.792	0.759
	Medical Total	5.274	1.842 4.819	0.382	0.792	1.597

Notes:

(3): Uncapped rate level factors from Section X - H, Exhibit 1

(4): Industry Group Pure Premiums from Section X - C.

(6): Expected Loss and Loss Adjustment Expense Ratio from Section VI - A, Exhibit 1.

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Page 1

## Calculation of Indemnity and Medical Conversion Factors

The MA Indicated Pure Premium Relativities are calculated from exposure and loss data for the latest available 5 composite policy years of Unit Statistical Plan data.

Below are adjustment factors used to put the losses at the level proposed in this filing.

### A. Benefit Level Adjustment Factor

The following factors are used to bring MA Unit Statistical Plan losses to the benefit level of the proposed effective policy year period.

Indemnity	Composite Policy Year				
	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
(1) Fatal	1.061	1.028	1.021	1.022	1.020
(2) Permanent Total	1.062	1.040	1.031	1.031	1.029
(3) Major Permanent Partial	1.108	1.076	1.060	1.061	1.057
(4) Minor Permanent Partial	1.128	1.077	1.060	1.061	1.057
(5) Temporary Total	1.033	1.021	1.016	1.017	1.015
<b>Medical</b>					
(6) All Injury Types	1.088	1.067	1.058	1.019	1.009

### 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	Composite Policy Year				
	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
(7) Fatal	1.116	1.116	1.076	1.079	1.079
(8) Permanent Total	1.116	1.478	2.599	3.898	6.417
(9) Major Permanent Partial	1.116	1.157	1.257	1.526	2.493
(10) Minor Permanent Partial	1.000	1.037	1.127	1.367	2.235
(11) Temporary Total	1.000	0.969	0.920	0.864	0.929
<b>Medical</b>					
(12) Fatal	1.000	1.039	0.998	1.096	1.018
(13) Permanent Total	1.459	1.765	2.030	3.045	3.998
(14) Major Permanent Partial	1.459	1.506	1.598	1.807	2.353
(15) Minor Permanent Partial	1.000	1.032	1.095	1.238	1.613
(16) Temporary Total	1.000	0.985	0.928	0.854	0.806
(17) Medical Only	1.000	1.006	1.008	1.024	1.069

Notes:

(A): From Section IV - A Exhibit 6.

(B): Development to 5th report (Exhibit 2, Pages 1 through 5) x Development from 5th to ultimate (Section IV - I, Exhibit 3.)

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Section X - Classification Pricing  
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Exhibit 1  
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## Calculation of Indemnity and Medical Conversion Factors

### C. Loss Adjustment Expense Factor:

The following factor is applied to include the proposed loss adjustment expense.

	Indemnity	Medical
(1) Loss Adjustment Expense	1.182	1.182

### D. Investment Income Offset Factor:

The following factor is applied to adjust for investment income.

Indemnity	Investment Income Offset Factor
(2) Fatal	0.689
(3) Permanent Total	0.615
(4) Major Permanent Partial	1.021
(5) Minor Permanent Partial	1.063
(6) Temporary Total	1.039

Medical	
(7) Fatal	1.000
(8) Permanent Total	0.623
(9) Major Permanent Partial	1.034
(10) Minor Permanent Partial	1.077
(11) Temporary Total	1.052
(12) Medical Only	1.000

### E. Conversion Factors:

The factors above are combined multiplicatively, resulting in the following conversion factors.

Indemnity	Composite Policy Year				
	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
(13) Fatal	0.964	0.935	0.896	0.898	0.897
(14) Permanent Total	0.862	1.118	1.949	2.924	4.802
(15) Major Permanent Partial	1.492	1.502	1.607	1.953	3.179
(16) Minor Permanent Partial	1.418	1.404	1.501	1.824	2.969
(17) Temporary Total	1.269	1.214	1.149	1.078	1.159

Medical					
(18) Fatal	1.287	1.311	1.248	1.319	1.215
(19) Permanent Total	1.170	1.388	1.582	2.286	2.973
(20) Major Permanent Partial	1.941	1.965	2.065	2.249	2.902
(21) Minor Permanent Partial	1.386	1.403	1.475	1.607	2.073
(22) Temporary Total	1.354	1.308	1.221	1.082	1.012
(23) Medical Only	1.287	1.269	1.260	1.233	1.275

### Notes:

(C): From Section VI - D, Exhibit 1.

(D): From Section X - B, Exhibit 3.

(E): (A) x (B) x (C) x (D)

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## Development Factors for Injury Type 1 - Fatal

Composite Policy Year (1)	Indemnity Losses					On-Level Indemnity Losses Developed to Fifth Report (3)
	First	Second	Report (2) Third	Fourth	Fifth	
1993/1994	4,369,637	5,455,536	7,697,291	8,073,344	7,230,734	
1994/1995	11,729,565	14,199,366	13,010,755	11,948,192	8,913,080	
1995/1996	5,761,984	8,280,702	8,601,065	8,085,068	8,577,272	
1996/1997	6,803,507	7,769,302	8,563,069	8,179,956	9,196,824	
1997/1998	6,562,623	7,127,279	6,376,781	7,853,041	7,664,599	
1998/1999	6,462,798	7,158,760	6,362,791	7,130,151	7,923,459	
1999/2000	5,432,859	7,326,544	8,317,104	6,246,164	6,419,123	
2000/2001	17,598,453	11,312,138	10,582,931	9,506,424		
2001/2002	12,630,626	11,954,632	11,820,812			
2002/2003	11,141,798	13,392,709				
2003/2004	5,298,678					5,199,748

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(4) Average	0.958	1.003	0.965	0.970
(5) Selected	1.000	1.003	0.965	1.000
(6) Cumulative	0.967	0.967	0.965	1.000

Composite Policy Year (7)	Medical Losses					On-Level Medical Losses Developed to Fifth Report (9)
	First	Second	Report (8) Third	Fourth	Fifth	
1993/1994	161,838	357,024	437,716	202,050	331,433	
1994/1995	926,798	1,139,366	1,063,861	1,233,409	1,158,985	
1995/1996	192,172	177,988	374,285	329,599	322,968	
1996/1997	472,989	280,179	103,614	89,809	81,309	
1997/1998	154,147	135,324	122,509	130,501	121,392	
1998/1999	434,352	421,937	687,907	309,926	709,478	
1999/2000	287,687	393,831	357,106	587,804	371,235	
2000/2001	200,006	253,319	380,611	489,991		
2001/2002	441,507	629,887	642,697			
2002/2003	1,070,087	588,948				
2003/2004	221,607					227,745

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(10) Average	0.929	1.097	0.961	1.039
(11) Selected	0.929	1.097	0.961	1.039
(12) Cumulative	1.018	1.096	0.998	1.039

Composite Policy Year (13)	Claim Counts					Claims Counts Developed to Fifth Report (15)
	First	Second	Report (14) Third	Fourth	Fifth	
1993/1994	23	30	35	36	37	
1994/1995	31	41	40	45	44	
1995/1996	30	33	35	32	30	
1996/1997	37	37	37	38	37	
1997/1998	37	39	38	38	37	
1998/1999	18	23	26	26	28	
1999/2000	14	18	23	27	27	27
2000/2001	23	29	32	34		34
2001/2002	28	37	37			38
2002/2003	33	33				36
2003/2004	22					28

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(16) Average	1.156	1.076	1.019	0.994
(17) Selected	1.156	1.076	1.019	0.994
(18) Cumulative	1.261	1.091	1.014	0.994

**Notes:**

Development factors are a five year weighted average, ignoring diagonal starting with Composite Policy Year 1998/1999. On-Level factors are from Section IV - A, Exhibit 5.

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## Development Factors for Injury Type 2 - Permanent Total

Composite Policy Year (1)	Indemnity Losses					On-Level Indemnity Losses Developed to Fifth Report (3)
	First	Second	Report (2) Third	Fourth	Fifth	
1993/1994	1,966,532	2,110,713	2,044,995	5,549,495	8,964,258	
1994/1995	2,483,218	2,091,038	3,433,387	11,679,018	12,006,322	
1995/1996	1,177,222	2,194,287	3,179,659	9,245,041	19,285,444	
1996/1997	355,607	1,550,095	1,541,323	6,292,194	12,060,688	
1997/1998	2,361,000	2,336,155	8,127,675	13,712,953	18,309,629	
1998/1999	2,232,684	1,640,169	9,298,371	10,764,769	17,791,806	
1999/2000	2,786,848	4,910,262	7,763,497	10,469,141	9,908,772	
2000/2001	1,134,136	1,943,499	4,845,940	14,957,316		
2001/2002	3,048,480	4,128,655	5,903,689			
2002/2003	632,072	3,079,008				
2003/2004	3,344,429					19,629,753

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(4) Average	1.646	2.071	1.781	1.324
(5) Selected	1.646	1.500	1.759	1.324
(6) Cumulative	5.751	3.494	2.329	1.324

Composite Policy Year (7)	Medical Losses					On-Level Medical Losses Developed to Fifth Report (9)
	First	Second	Report (8) Third	Fourth	Fifth	
1993/1994	1,745,988	1,795,375	3,345,611	3,801,054	5,165,066	
1994/1995	7,252,084	8,419,247	7,869,777	9,358,685	9,796,381	
1995/1996	3,935,258	4,677,680	5,182,595	6,240,636	13,530,726	
1996/1997	407,744	693,564	1,634,653	2,804,586	5,476,977	
1997/1998	1,404,967	2,646,501	3,087,914	7,943,488	13,457,771	
1998/1999	5,221,229	1,026,027	7,285,508	8,508,572	10,735,935	
1999/2000	4,274,702	6,997,081	9,857,376	22,049,755	21,834,059	
2000/2001	2,165,999	2,253,912	9,999,496	16,146,140		
2001/2002	2,325,905	1,586,635	2,481,252			
2002/2003	673,976	2,672,475				
2003/2004	9,906,304					27,399,773

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(10) Average	1.490	2.489	1.719	1.210
(11) Selected	1.313	1.500	1.150	1.210
(12) Cumulative	2.740	2.087	1.391	1.210

Composite Policy Year (13)	Claim Counts					Claims Counts Developed to Fifth Report (15)
	First	Second	Report (14) Third	Fourth	Fifth	
1993/1994	5	6	5	14	25	
1994/1995	5	6	7	29	30	
1995/1996	3	5	11	24	61	
1996/1997	1	9	8	28	39	
1997/1998	5	6	33	48	50	
1998/1999	5	8	38	35	50	
1999/2000	5	13	19	33	30	30
2000/2001	3	8	14	35		42
2001/2002	4	7	15			26
2002/2003	5	11				35
2003/2004	9					51

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(16) Average	2.045	2.089	1.522	1.150
(17) Selected	1.810	1.833	1.440	1.190
(18) Cumulative	5.685	3.141	1.714	1.190

**Notes:**

Development factors are a five year weighted average, ignoring diagonal starting with Composite Policy Year 1998/1999.  
 On-Level factors are from Section IV - A, Exhibit 5.

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## Development Factors for Injury Types 3 and 4 Combined - Partial Disability

Composite Policy Year (1)	Indemnity Losses					Injury Type 3 Indemnity Losses at First Report (3)	Injury Type 3 Indemnity Losses Developed to Fifth Report (4)	Injury Type 4 Indemnity Losses at First Report (5)	Injury Type 4 Indemnity Losses Developed to Fifth Report (6)
	Report (2)								
	First	Second	Third	Fourth	Fifth				
1993/1994	101,909,207	142,248,520	164,203,393	167,738,006	171,510,708				
1994/1995	95,735,817	152,248,674	165,727,201	175,860,101	177,753,162				
1995/1996	87,749,625	139,924,790	162,441,348	162,676,950	171,025,995				
1996/1997	77,196,161	134,457,373	148,317,993	155,109,510	160,138,521				
1997/1998	95,628,688	143,889,177	163,800,672	175,901,973	186,878,142				
1998/1999	87,281,206	138,123,851	166,452,171	181,449,932	191,808,559				
1999/2000	89,043,665	147,977,474	179,599,633	214,308,700	235,729,262				
2000/2001	92,475,741	144,810,518	199,147,168	236,412,935					
2001/2002	92,489,275	159,019,752	216,239,058						
2002/2003	80,369,422	202,935,168							
2003/2004	89,050,535					73,068,619	169,717,837	15,981,916	37,121,493

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(7) Average	1.634	1.214	1.086	1.037
(8) Selected	1.634	1.214	1.086	1.037
(9) Cumulative	2.235	1.367	1.127	1.037

Composite Policy Year (10)	Medical Losses					Injury Type 3 Medical Losses at First Report (12)	Injury Type 3 Medical Losses Developed to Fifth Report (13)	Injury Type 4 Medical Losses at First Report (14)	Injury Type 4 Medical Losses Developed to Fifth Report (15)
	Report (11)								
	First	Second	Third	Fourth	Fifth				
1993/1994	43,383,560	49,586,155	53,674,828	54,350,920	55,305,583				
1994/1995	41,941,244	59,036,860	61,646,699	62,575,117	62,962,522				
1995/1996	42,117,725	52,950,901	55,592,302	54,203,610	57,866,063				
1996/1997	42,021,424	54,579,760	55,575,614	58,714,754	60,089,208				
1997/1998	45,776,581	58,374,542	64,255,666	66,293,371	71,920,710				
1998/1999	41,662,710	60,089,432	66,300,424	69,953,826	71,700,235				
1999/2000	50,520,403	67,593,303	81,533,467	96,373,481	108,725,171				
2000/2001	47,061,575	57,159,969	71,585,977	90,424,309					
2001/2002	49,165,807	67,769,974	88,951,065						
2002/2003	42,733,873	87,676,220							
2003/2004	48,485,618					36,398,758	59,255,644	12,086,860	19,676,899

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(16) Average	1.302	1.131	1.061	1.032
(17) Selected	1.302	1.131	1.061	1.032
(18) Cumulative	1.613	1.238	1.095	1.032

Composite Policy Year (19)	Claim Counts					Injury Type 3 Claim Counts at Latest Report (21)	Injury Type 3 Claim Counts Developed to Fifth Report (22)	Injury Type 4 Claim Counts at Latest Report (23)	Injury Type 4 Claim Counts Developed to Fifth Report (24)
	Report (20)								
	First	Second	Third	Fourth	Fifth				
1993/1994	3,823	4,668	4,860	4,787	4,823				
1994/1995	3,618	4,533	4,544	4,657	4,820				
1995/1996	3,679	4,385	4,577	4,752	5,086				
1996/1997	3,410	4,279	4,629	4,913	4,974				
1997/1998	4,036	5,042	5,254	5,384	5,472				
1998/1999	4,096	4,898	5,117	5,222	5,476				
1999/2000	3,967	4,746	4,932	5,461	5,829	2,084	2,084	3,745	3,745
2000/2001	3,269	3,827	4,583	5,240		2,159	2,211	3,081	3,155
2001/2002	3,156	4,100	4,822			2,027	2,165	2,795	2,986
2002/2003	2,409	4,816				2,091	2,406	2,725	3,135
2003/2004	2,478					960	1,362	1,518	2,153

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(25) Average	1.233	1.077	1.043	1.024
(26) Selected	1.233	1.077	1.043	1.024
(27) Cumulative	1.418	1.150	1.068	1.024

Notes:  
 Development factors are a five year weighted average, ignoring diagonals starting with Composite Policy Years 1998/1999 and 2003/2004.  
 On-Level factors are from Section IV - A, Exhibit 5.



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## Development Factors for Injury Type 5 - Temporary Total

Composite Policy Year (1)	Indemnity Losses					On-Level Indemnity Losses Developed to Fifth Report (3)
	First	Second	Report (2) Third	Fourth	Fifth	
1993/1994	92,985,770	98,703,893	91,274,600	93,614,482	92,002,876	
1994/1995	92,250,333	84,498,175	88,283,395	85,396,459	88,319,090	
1995/1996	100,474,290	97,126,209	95,617,958	101,559,567	97,812,881	
1996/1997	95,795,454	93,290,561	96,998,711	93,012,630	93,066,961	
1997/1998	100,119,484	109,958,417	108,679,258	111,574,095	107,643,161	
1998/1999	113,938,039	121,448,095	125,485,769	124,879,667	111,692,674	
1999/2000	129,822,584	159,485,626	159,872,761	125,561,607	108,553,026	
2000/2001	159,421,031	178,887,456	132,116,233	98,839,732		
2001/2002	126,590,481	116,606,381	83,601,499			
2002/2003	123,836,603	70,845,187				
2003/2004	102,479,261					96,291,783

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(4) Average	1.076	0.938	0.950	0.969
(5) Selected	1.076	0.938	0.950	0.969
(6) Cumulative	0.929	0.864	0.920	0.969

Composite Policy Year (17)	Medical Losses					On-Level Medical Losses Developed to Fifth Report (9)
	First	Second	Report (8) Third	Fourth	Fifth	
1993/1994	57,914,670	52,932,497	49,095,439	48,928,791	47,560,688	
1994/1995	59,304,612	48,675,100	50,613,845	47,696,560	48,120,925	
1995/1996	62,948,490	53,929,988	50,950,415	52,060,078	52,522,749	
1996/1997	63,119,301	55,157,375	54,099,343	53,482,639	53,809,936	
1997/1998	66,455,588	61,626,964	60,443,000	59,427,895	57,342,292	
1998/1999	73,484,431	69,301,963	67,523,662	66,146,512	64,683,072	
1999/2000	82,518,851	87,768,251	81,869,892	68,110,891	60,507,679	
2000/2001	91,110,032	88,709,028	71,915,308	56,094,892		
2001/2002	84,091,992	72,565,252	56,624,589			
2002/2003	92,205,967	54,789,498				
2003/2004	84,576,785					68,821,814

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(10) Average	0.945	0.920	0.942	0.985
(11) Selected	0.945	0.920	0.942	0.985
(12) Cumulative	0.806	0.854	0.928	0.985

Composite Policy Year (13)	Claim Counts					Claims Counts Developed to Fifth Report (15)
	First	Second	Report (14) Third	Fourth	Fifth	
1993/1994	20,320	19,999	19,925	20,072	19,927	
1994/1995	21,052	20,448	20,526	20,057	19,899	
1995/1996	20,601	20,065	19,905	19,885	20,033	
1996/1997	20,518	20,036	20,105	19,929	19,903	
1997/1998	20,259	20,230	19,676	20,185	19,704	
1998/1999	19,884	19,784	19,686	19,331	19,065	
1999/2000	20,670	20,541	20,256	19,758	19,397	19,397
2000/2001	18,952	18,554	17,963	17,307		17,120
2001/2002	17,245	16,608	15,919			15,616
2002/2003	17,649	15,453				14,996
2003/2004	15,430					14,716

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(16) Average	0.983	0.989	0.992	0.989
(17) Selected	0.983	0.989	0.992	0.989
(18) Cumulative	0.954	0.970	0.981	0.989

**Notes:**

Development factors are a five year weighted average, ignoring diagonals starting with Composite Policy Years 1998/1999 and 2003/2004.

On-Level factors are from Section IV - A, Exhibit 5.

# X 000033 R

Section X - Classification Pricing  
 Subsection B - Conversion/Excess Loss Factors  
 9/1/2007

Section X - B  
 Exhibit 2  
 Page 5

## Development Factors for Injury Type 6 - Medical Only

Composite Policy Year (1)	Medical Losses					On-Level Medical Losses Developed to Fifth Report (3)
	First	Second	Report (2) Third	Fourth	Fifth	
1998/1999	22,384,250	23,796,437	24,080,309	24,354,365	24,616,308	
1999/2000	23,983,467	25,778,286	26,638,400	26,737,684	26,761,590	
2000/2001	24,369,675	25,629,104	26,083,118	26,085,877		
2001/2002	24,556,773	26,285,413	26,682,936			
2002/2003	26,020,225	26,500,710				
2003/2004	25,606,424					27,622,697

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(4) Average	1.044	1.016	1.002	1.006
(5) Selected	1.044	1.016	1.002	1.006
(6) Cumulative	1.069	1.024	1.008	1.006

Composite Policy Year (7)	Claim Counts					Claims Counts Developed to Fifth Report (9)
	First	Second	Report (8) Third	Fourth	Fifth	
1998/1999	56,944	59,575	60,376	60,839	60,987	
1999/2000	57,330	60,592	61,576	61,678	61,862	61,862
2000/2001	53,425	55,120	55,718	55,835		55,986
2001/2002	50,324	52,302	52,558			52,799
2002/2003	45,945	47,191				47,784
2003/2004	42,144					44,103

	Development Factors from			
	1st - 2nd	2nd - 3rd	3rd - 4th	4th - 5th
(10) Average	1.033	1.008	1.002	1.003
(11) Selected	1.033	1.008	1.002	1.003
(12) Cumulative	1.046	1.013	1.005	1.003

Notes:  
 Development factors are a two year weighted average.  
 On-Level factors are from Section IV - A, Exhibit 5.

**X 000034 R**

Section X - Classification Pricing  
 Subsection B - Conversion/Excess Loss Factors  
 9/1/2007

Section X - B  
 Exhibit 3

Calculation of Investment Income Offset Factor

Indemnity

Injury Type (1)	Loss Flow Discounted at 2.44% Post-Chapter 398 (2)	Injury Type Weights At Ultimate (3)	Investment Income Offset Factor (4)
Fatal	0.639	1.66%	0.689
Permanent Total	0.570	3.15%	0.615
Major Permanent Partial	0.946	35.12%	1.021
Minor Permanent Partial	0.985	4.70%	1.063
Temporary Total	0.962	18.22%	1.039
Total Indemnity			0.926

Medical

Injury Type (5)	Loss Flow Discounted at 2.44% Post-Chapter 398 (6)	Injury Type Weights At Ultimate (7)	Investment Income Offset Factor (8)
Fatal	0.639	0.06%	1.000
Permanent Total	0.570	3.50%	0.623
Major Permanent Partial	0.946	15.66%	1.034
Minor Permanent Partial	0.985	2.94%	1.077
Temporary Total	0.962	10.68%	1.052
Medical Only		4.32%	1.000
Total Medical			0.914

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 VIII - H of the 8/1/99 rate filing) times the complement of the federal tax rate on investment income (Section VIII - A of the 8/1/99 rate filing):  $[3.25\% \times (1.000 - 25.05\%)] = 2.44\%$

(3): From Section IV - I, Exhibit 1.

(4): (2) / 0.926, which is the weighted average of (2) and (3).

(7): From Section IV - I, Exhibit 2.

(8): (6) / 0.914, 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.

# X 000035 R

Section X - Classification Pricing  
Subsection B - Conversion/Excess Loss Factors  
9/1/2007

Section X - B  
Exhibit 4

## Calculation of Excess Loss Factors For Five Composite Policy Years, 1999/2000 through 2003/2004

Hazard Group	Injury Type		
	Serious	Non-Serious	Medical
(1) Excess Losses			
1	345,165	134,957	741,091
2	35,925,337	3,774,900	46,295,114
3	94,739,741	4,087,577	87,351,383
4	9,978,343	230,011	4,562,373
Total	140,988,586	8,227,445	138,949,961
(2) Limited Losses			
1	4,350,986	3,729,251	5,821,778
2	299,894,871	282,716,326	390,171,354
3	452,618,736	282,414,752	372,838,719
4	36,300,355	8,243,640	13,631,021
Total	793,164,948	577,103,969	782,462,872
(3) Converted Excess Losses			
1	531,846	156,887	1,275,643
2	52,596,408	4,631,143	76,887,579
3	149,389,101	4,827,885	173,484,747
4	15,617,491	264,057	8,823,095
Total	218,134,846	9,879,972	260,471,064
(4) Converted Limited Losses			
1	7,501,051	4,851,174	8,876,771
2	521,541,540	372,000,101	586,760,563
3	788,230,726	361,584,561	599,171,623
4	64,021,493	10,135,555	24,865,265
Total	1,381,294,810	748,571,391	1,219,674,222
(5) Excess Loss Factors = 1.000 + [(3) / (4)]			
1	1.071	1.032	1.144
2	1.101	1.012	1.131
3	1.190	1.013	1.290
4	1.244	1.026	1.355
(6) Selected Excess Loss Factors			
1	1.080	1.007	1.106
2	1.102	1.009	1.136
3	1.199	1.016	1.272
4	1.288	1.022	1.405

### Notes:

- (1): From Unit Statistical Plan data. Excess Losses = Losses in excess of \$200,000 for combined indemnity and medical, per claim.
- (2): Reported losses from Unit Statistical Plan data, less excess losses in (1).
- (3): (1) x Conversion factors consistent with Section X - B, Exhibit 1, at the claim level.
- (4): (2) x Conversion factors consistent with Section X - B, Exhibit 1, at the claim level.

Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical  
Manufacturing Industry Group, Industry Code 1  
All Classes

Composite Policy Year (1)	Injury Type (3)	Report (2)	Serious			Limited Losses			Converted Limited Losses			Total (11)
			(4)	(5)	(6)	(7)	(8)	(9)	(10)			
1999/2000	1	5	209,052	0	56,558	265,610	201,526	0	72,790	274,316		
	2		944,631	0	235,489	1,180,120	814,272	0	275,522	1,089,794		
	3		27,621,161	0	9,446,187	37,067,348	41,210,772	0	18,335,049	59,545,821		
	4		0	5,978,252	3,536,750	9,515,002	0	8,477,161	4,901,936	13,379,097		
	5		0	19,708,045	11,567,451	31,275,496	0	25,009,509	15,662,329	40,671,838		
	6		0	0	6,123,714	6,123,714	0	0	7,881,220	7,881,220		
2000/2001	1	4	268,262	0	1,339	269,601	250,825	0	1,755	252,580		
	2		444,333	0	204,877	649,210	496,764	0	284,369	781,134		
	3		33,354,370	0	10,535,003	43,889,373	50,098,264	0	20,701,281	70,799,545		
	4		0	5,292,348	2,772,393	8,064,741	0	7,430,457	3,889,667	11,320,124		
	5		0	15,367,693	9,263,949	24,631,642	0	18,656,379	12,117,245	30,773,625		
	6		0	0	5,296,685	5,296,685	0	0	6,721,493	6,721,493		
2001/2002	1	3	1,093,217	0	7,730	1,100,947	979,522	0	9,647	989,169		
	2		152,361	0	57,639	210,000	296,952	0	91,185	388,136		
	3		25,990,481	0	8,706,014	34,696,495	41,766,703	0	17,977,919	59,744,622		
	4		0	4,549,696	2,915,252	7,464,948	0	6,829,094	4,299,997	11,129,090		
	5		0	12,947,317	8,458,533	21,405,850	0	14,876,467	10,327,869	25,204,336		
	6		0	0	5,153,830	5,153,830	0	0	6,493,826	6,493,826		
2002/2003	1	2	666,010	0	74,268	740,278	598,077	0	97,959	696,036		
	2		187,277	0	100,678	287,955	547,598	0	230,150	777,748		
	3		22,051,321	0	7,837,008	29,888,329	43,066,230	0	17,625,431	60,691,661		
	4		0	5,241,815	3,585,153	8,826,968	0	9,561,071	5,761,341	15,322,411		
	5		0	9,951,776	8,455,158	18,406,934	0	10,728,015	9,148,481	19,876,495		
	6		0	0	4,870,330	4,870,330	0	0	6,005,117	6,005,117		
2003/2004	1	1	311,337	0	1	311,338	279,269	0	1	279,271		
	2		84,122	0	115,878	200,000	403,954	0	344,505	748,459		
	3		9,024,012	0	3,932,469	12,956,481	28,687,334	0	11,412,025	40,099,359		
	4		0	3,322,837	2,308,238	5,631,075	0	9,865,503	4,784,977	14,650,480		
	5		0	15,572,389	12,630,001	28,202,390	0	18,048,399	12,781,561	30,829,960		
	6		0	0	4,748,800	4,748,800	0	0	6,054,720	6,054,720		
(12) All Years, All Injury Types			122,401,947	97,932,168	132,997,375	353,331,490	209,698,062	129,482,054	204,291,368	543,471,485		

Notes:  
 (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.  
 (8): (4) x Conversion Factors from Section X - B, Exhibit 1.  
 (9): (5) x Conversion Factors from Section X - B, Exhibit 1.  
 (10): (6) x Conversion Factors from Section X - B, Exhibit 1.  
 (11): (8) + (9) + (10)

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Section X - Classification Pricing  
 Subsection C - Losses by Injury Type  
 9/1/2007

Section X - C  
 Exhibit 1  
 Page 2

## Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical Manufacturing Industry Group, Industry Code 1 All Classes

Composite Policy Year (1)	Report (2)	Injury Type (3)	Adjusted Converted Losses				Exposure (8)
			Serious (4)	Non-Serious (5)	Medical (6)	Total (7)	
1999/2000	5	1	236,766	0	90,225	326,991	58,665,562
		2	904,839	0	330,523	1,235,362	
		3	46,014,897	0	21,187,047	67,201,944	
		4	0	8,559,648	5,632,377	14,192,025	
		5	0	25,264,357	18,086,557	43,350,914	
		6	0	0	9,065,582	9,065,582	
2000/2001	4	1	282,582	0	1,994	284,575	54,180,977
		2	558,562	0	325,930	884,492	
		3	55,830,458	0	23,860,499	79,690,957	
		4	0	7,502,266	4,462,455	11,964,720	
		5	0	18,842,888	13,958,329	32,801,216	
		6	0	0	7,730,272	7,730,272	
2001/2002	3	1	1,115,112	0	11,278	1,126,391	50,861,285
		2	327,239	0	103,552	430,791	
		3	46,841,701	0	20,873,887	67,715,588	
		4	0	6,897,368	4,951,369	11,848,737	
		5	0	15,028,880	11,971,824	27,000,704	
		6	0	0	7,482,175	7,482,175	
2002/2003	2	1	697,307	0	116,604	813,911	51,104,098
		2	603,450	0	261,363	864,814	
		3	48,097,958	0	20,368,267	68,466,225	
		4	0	9,656,481	6,678,105	16,334,586	
		5	0	10,838,126	10,584,588	21,422,715	
		6	0	0	6,919,588	6,919,588	
2003/2004	1	1	307,753	0	1	307,755	49,054,058
		2	445,155	0	391,228	836,383	
		3	32,113,846	0	13,331,283	45,445,129	
		4	0	9,961,403	5,494,618	15,456,022	
		5	0	18,231,609	14,794,073	33,025,682	
		6	0	0	6,969,193	6,969,193	
(9) All Years, All Injury Types			234,377,627	130,783,025	236,034,786	601,195,438	263,865,980
(10) Pure Premium			0.888	0.496	0.895	2.278	

**Notes:**

(4), (5), (6): Converted Limited Losses from Page 1 x Excess Loss Factors from Section X - B, Exhibit 4.

(7): (4) + (5) + (6)

(8): From Unit Statistical Plan data, excluding Large Deductibles.

(10): Pure Premium calculated as the All Years, All Injury Types Adjusted Converted Losses divided by the All Years, All Injury Types Exposure.

Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical  
Construction Industry Group, Industry Code 2  
All Classes

Composite Policy Year (1)	Report Type (2)	Injury Type (3)	Serious			Limited Losses		Total (7)	Converted Limited Losses		Total (11)
			(4)	(5)	(6)	Non-Serious (5)	Medical (6)		Non-Serious (9)	Medical (10)	
1999/2000	5	1	580,373	0	91,206	671,579	559,480	0	117,382	676,862	
		2	723,368	0	676,632	1,400,000	623,543	0	791,659	1,415,203	
		3	65,284,922	0	17,343,139	82,628,061	97,405,104	0	33,663,033	131,068,136	
		4	0	7,061,907	4,343,492	11,405,399	0	10,013,784	6,020,080	16,033,864	
		5	0	23,255,328	10,570,971	33,826,299	0	29,511,011	14,313,095	43,824,106	
		6	0	0	3,754,482	3,754,482	0	0	4,832,018	4,832,018	
2000/2001	4	1	1,870,428	0	162,850	2,033,278	1,748,850	0	213,496	1,962,347	
		2	2,677,919	0	1,241,198	3,919,117	2,993,913	0	1,722,783	4,716,696	
		3	70,337,229	0	19,500,954	89,838,183	105,646,518	0	38,319,375	143,965,893	
		4	0	6,149,610	3,851,729	10,001,339	0	8,634,052	5,403,976	14,038,028	
		5	0	27,855,945	13,273,837	41,129,782	0	33,817,117	17,362,179	51,179,296	
		6	0	0	4,104,527	4,104,527	0	0	5,208,645	5,208,645	
2001/2002	3	1	990,486	0	123,316	1,113,802	887,475	0	153,898	1,041,374	
		2	691,160	0	108,840	800,000	1,347,071	0	172,185	1,519,256	
		3	66,262,363	0	19,622,873	85,885,236	106,483,617	0	40,521,233	147,004,850	
		4	0	4,616,592	2,716,987	7,333,579	0	6,929,505	4,007,556	10,937,060	
		5	0	22,611,431	11,670,184	34,281,615	0	25,980,534	14,249,295	40,229,829	
		6	0	0	4,101,930	4,101,930	0	0	5,168,432	5,168,432	
2002/2003	2	1	1,402,930	0	86,890	1,489,820	1,259,831	0	114,608	1,374,439	
		2	190,058	0	209,942	400,000	555,730	0	479,927	1,035,657	
		3	56,988,166	0	18,786,403	75,774,569	111,297,888	0	42,250,620	153,548,509	
		4	0	5,695,893	3,859,255	9,555,148	0	10,389,309	6,201,823	16,591,132	
		5	0	18,916,826	12,069,848	30,986,674	0	20,392,338	13,059,576	33,451,914	
		6	0	0	4,269,698	4,269,698	0	0	5,264,538	5,264,538	
2003/2004	1	1	1,321,566	0	86,809	1,408,375	1,185,445	0	105,473	1,290,918	
		2	141,954	0	258,046	400,000	681,663	0	767,171	1,448,834	
		3	28,016,643	0	12,464,967	40,481,610	89,064,908	0	36,173,334	125,238,242	
		4	0	2,971,775	2,263,997	5,235,772	0	8,823,200	4,693,266	13,516,466	
		5	0	31,047,910	21,534,211	52,582,121	0	35,984,528	21,792,622	57,777,149	
		6	0	0	4,377,271	4,377,271	0	0	5,581,021	5,581,021	
(12) All Years, All Injury Types			297,479,565	150,183,217	197,526,484	645,189,266	521,741,036	190,475,379	328,724,296	1,040,940,711	

Notes:  
 (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.  
 (8): (4) x Conversion Factors from Section X - B, Exhibit 1.  
 (9): (5) x Conversion Factors from Section X - B, Exhibit 1.  
 (10): (6) x Conversion Factors from Section X - B, Exhibit 1.  
 (11): (8) + (9) + (10)

# X 000039 R

Section X - Classification Pricing  
 Subsection C - Losses by Injury Type  
 9/1/2007

Section X - C  
 Exhibit 2  
 Page 2

## Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical Construction Industry Group, Industry Code 2 All Classes

Composite Policy Year (1)	Report (2)	Injury Type (3)	Adjusted Converted Losses				Exposure (8)
			Serious (4)	Non-Serious (5)	Medical (6)	Total (7)	
1999/2000	5	1	687,852	0	149,479	837,331	37,036,820
		2	749,316	0	1,034,953	1,784,268	
		3	117,530,940	0	43,068,065	160,599,005	
		4	0	10,178,168	7,682,341	17,860,509	
		5	0	29,988,358	18,247,598	48,235,955	
		6	0	0	6,172,441	6,172,441	
2000/2001	4	1	2,096,845	0	271,673	2,368,518	41,928,655
		2	3,605,013	0	2,197,733	5,802,746	
		3	127,366,167	0	49,134,935	176,501,102	
		4	0	8,775,643	6,912,192	15,687,835	
		5	0	34,363,047	22,084,186	56,447,234	
		6	0	0	6,660,729	6,660,729	
2001/2002	3	1	1,064,070	0	195,835	1,259,904	42,565,525
		2	1,615,117	0	219,104	1,834,222	
		3	128,475,742	0	51,830,434	180,306,176	
		4	0	7,041,628	5,111,639	12,153,267	
		5	0	26,399,724	18,147,242	44,546,966	
		6	0	0	6,587,238	6,587,238	
2002/2003	2	1	1,524,931	0	147,963	1,672,894	44,397,707
		2	666,311	0	610,705	1,277,016	
		3	135,233,501	0	54,445,813	189,679,315	
		4	0	10,556,621	7,885,683	18,442,303	
		5	0	20,728,322	16,661,423	37,389,744	
		6	0	0	6,724,551	6,724,551	
2003/2004	1	1	1,436,871	0	134,964	1,571,835	45,767,104
		2	817,304	0	976,220	1,793,524	
		3	107,127,678	0	46,207,183	153,334,861	
		4	0	8,965,693	5,981,453	14,947,147	
		5	0	36,566,985	27,704,327	64,271,312	
		6	0	0	7,094,593	7,094,593	
(9) All Years, All Injury Types			629,997,658	193,564,188	420,282,695	1,243,844,541	211,695,811
(10) Pure Premium			2.976	0.914	1.985	5.876	

**Notes:**

- (4), (5), (6): Converted Losses from Page 1 x Excess Loss Factors from Section X - B, Exhibit 4, Page 1.
- (7): (4) + (5) + (6)
- (8): From Unit Statistical Plan data, excluding Large Deductibles.
- (10): Pure Premium calculated as the All Years, All Injury Types Adjusted Converted Losses divided by the All Years, All Injury Types Exposure.



Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical  
Office and Clerical Industry Group, Industry Code 3  
All Classes

Composite Policy Year (1)	Injury Type (3)	Report (2)	Serious			Limited Losses		Total (7)	Serious (8)	Converted Limited Losses		Total (11)
			(4)	(5)	(6)	Non-Serious (5)	Medical (6)			Non-Serious (9)	Medical (10)	
1999/2000	1	5	726,043	0	31,700	757,743	699,905	0	40,798	740,703		
	2		390,493	0	209,507	600,000	336,605	0	245,123	581,728		
	3		22,045,165	0	6,588,054	28,633,219	32,891,386	0	12,787,413	45,678,799		
	4		0	3,688,649	2,797,009	6,485,658	0	5,230,504	3,876,654	9,107,159		
	5		0	15,170,716	9,097,008	24,267,724	0	19,251,639	12,317,349	31,568,987		
	6		0	0	4,972,881	4,972,881	0	0	6,400,098	6,400,098		
2000/2001	1	4	455,202	0	17,772	472,974	425,614	0	23,299	448,913		
	2		414,161	0	116,806	530,967	463,032	0	162,127	625,159		
	3		19,768,190	0	6,203,246	25,971,436	29,691,821	0	12,189,378	41,881,200		
	4		0	3,549,899	2,277,720	5,827,619	0	4,984,058	3,195,641	8,179,699		
	5		0	13,090,694	7,998,128	21,088,822	0	15,892,103	10,461,551	26,353,654		
	6		0	0	5,179,287	5,179,287	0	0	6,572,515	6,572,515		
2001/2002	1	3	602,396	0	81,254	683,650	539,747	0	101,405	641,152		
	2		114,004	0	85,996	200,000	222,194	0	136,046	358,239		
	3		18,194,119	0	6,067,213	24,261,332	29,237,949	0	12,528,795	41,766,744		
	4		0	3,437,475	2,914,444	6,351,919	0	5,159,650	4,298,805	9,458,455		
	5		0	11,622,868	8,146,831	19,769,699	0	13,354,675	9,947,281	23,301,956		
	6		0	0	5,249,070	5,249,070	0	0	6,613,828	6,613,828		
2002/2003	1	2	398,776	0	8,641	407,417	358,101	0	11,397	369,498		
	2		121,309	0	78,691	200,000	354,708	0	179,888	534,595		
	3		18,111,338	0	6,597,494	24,708,832	35,371,443	0	14,837,764	50,209,207		
	4		0	4,352,139	3,644,438	7,996,577	0	7,938,302	5,856,612	13,794,913		
	5		0	10,025,430	8,355,531	18,380,961	0	10,807,414	9,040,685	19,848,098		
	6		0	0	5,385,002	5,385,002	0	0	6,639,707	6,639,707		
2003/2004	1	1	199,115	0	885	200,000	178,606	0	1,075	179,681		
	2		3,154	0	5,209	8,363	15,146	0	15,486	30,632		
	3		5,199,348	0	2,352,532	7,551,880	16,528,727	0	6,827,048	23,355,775		
	4		0	2,364,824	1,943,545	4,308,369	0	7,021,162	4,028,969	11,050,131		
	5		0	12,813,314	11,667,066	24,480,380	0	14,850,631	11,807,071	26,657,702		
	6		0	0	4,852,426	4,852,426	0	0	6,186,843	6,186,843		
(12) All Years, All Injury Types			86,742,813	80,116,008	112,925,386	279,784,207	147,314,984	104,490,137	167,330,652	419,135,773		

Notes:  
 (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.  
 (8): (4) x Conversion Factors from Section X - B, Exhibit 1.  
 (9): (5) x Conversion Factors from Section X - B, Exhibit 1.  
 (10): (6) x Conversion Factors from Section X - B, Exhibit 1.  
 (11): (8) + (9) + (10)

# X 000041 R

Section X - Classification Pricing  
 Subsection C - Losses by Injury Type  
 9/1/2007

Section X - C  
 Exhibit 3  
 Page 2

## Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical Office and Clerical Industry Group, Industry Code 3 All Classes

Composite Policy Year (1)	Report (2)	Injury Type (3)	Adjusted Converted Losses				Exposure (8)
			Serious (4)	Non-Serious (5)	Medical (6)	Total (7)	
1999/2000	5	1	829,336	0	51,915	881,251	442,000,628
		2	385,908	0	281,719	667,627	
		3	37,483,977	0	15,128,429	52,612,406	
		4	0	5,289,206	4,586,211	9,875,417	
		5	0	19,457,375	14,436,765	33,894,140	
		6	0	0	7,515,553	7,515,553	
2000/2001	4	1	487,039	0	26,701	513,740	471,570,320
		2	523,224	0	199,395	722,619	
		3	33,748,950	0	14,460,712	48,209,662	
		4	0	5,040,812	3,769,674	8,810,487	
		5	0	16,066,544	12,269,437	28,335,981	
		6	0	0	7,719,670	7,719,670	
2001/2002	3	1	621,748	0	122,802	744,550	457,533,081
		2	244,857	0	154,496	399,353	
		3	33,151,644	0	14,684,313	47,835,957	
		4	0	5,216,921	5,054,837	10,271,758	
		5	0	13,501,665	11,630,314	25,131,979	
		6	0	0	7,742,901	7,742,901	
2002/2003	2	1	412,045	0	12,943	424,988	464,793,521
		2	425,289	0	228,906	654,195	
		3	40,127,358	0	17,562,300	57,689,658	
		4	0	8,027,768	6,926,718	14,954,486	
		5	0	10,926,038	10,619,839	21,545,877	
		6	0	0	7,787,234	7,787,234	
2003/2004	1	1	214,146	0	1,368	215,514	451,199,950
		2	16,690	0	17,587	34,277	
		3	18,749,740	0	8,100,273	26,850,013	
		4	0	7,099,615	4,752,663	11,852,278	
		5	0	15,010,767	13,847,081	28,857,848	
		6	0	0	7,263,104	7,263,104	
(9) All Years, All Injury Types			167,421,951	105,636,713	196,955,861	470,014,524	2,287,097,500
(10) Pure Premium			0.073	0.046	0.086	0.206	

**Notes:**

- (4), (5), (6): Converted Losses from Page 1 x Excess Loss Factors from Section X - B, Exhibit 4, Page 1.
- (7): (4) + (5) + (6)
- (8): From Unit Statistical Plan data, excluding Large Deductibles.
- (10): Pure Premium calculated as the All Years, All Injury Types Adjusted Converted Losses divided by the All Years, All Injury Types Exposure.

Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical  
Goods and Services Industry Group, Industry Code 9  
All Classes

Composite Policy Year (1)	Report Type (2)	Injury Type (3)	Serious (4)	Non-Serious (5)	Medical (6)	Total (7)	Serious (8)	Non-Serious (9)	Converted Limited Losses Medical (10)	Total (11)
1999/2000	5	1	1,182,806	0	16,159	1,198,965	1,140,225	0	20,797	1,161,022
		2	1,582,660	0	779,840	2,362,500	1,364,253	0	912,413	2,276,666
		3	43,225,192	0	16,487,289	59,712,481	64,491,986	0	32,001,828	96,493,814
		4	0	9,568,366	6,230,610	15,798,976	0	13,567,943	8,635,625	22,203,568
		5	0	36,602,724	21,274,384	57,877,108	0	46,448,857	28,805,516	75,254,373
		6	0	0	9,840,804	9,840,804	0	0	12,665,115	12,665,115
2000/2001	4	1	1,005,021	0	88,423	1,093,444	939,695	0	115,923	1,055,617
		2	868,479	0	131,521	1,000,000	970,960	0	182,551	1,153,511
		3	42,279,173	0	15,059,641	57,338,814	63,503,318	0	29,592,195	93,095,512
		4	0	9,190,087	5,566,364	14,756,451	0	12,902,882	7,809,609	20,712,491
		5	0	30,464,821	18,927,538	49,392,359	0	36,984,293	24,757,220	61,741,512
		6	0	0	9,415,526	9,415,526	0	0	11,948,302	11,948,302
2001/2002	3	1	1,664,716	0	99,184	1,763,900	1,491,586	0	123,782	1,615,367
		2	431,867	0	164,290	596,157	841,709	0	259,907	1,101,616
		3	42,570,705	0	16,107,018	58,677,723	68,411,123	0	33,260,992	101,672,115
		4	0	8,992,440	5,247,457	14,239,897	0	13,497,652	7,739,999	21,237,652
		5	0	27,330,188	20,558,281	47,888,469	0	31,402,386	25,101,661	56,504,047
		6	0	0	9,874,790	9,874,790	0	0	12,442,235	12,442,235
2002/2003	2	1	1,252,660	0	54,397	1,307,057	1,124,889	0	71,750	1,196,638
		2	235,991	0	164,009	400,000	690,038	0	374,925	1,064,962
		3	44,706,600	0	18,158,109	62,864,709	87,311,990	0	40,837,587	128,149,577
		4	0	9,498,127	7,120,086	16,618,213	0	17,324,584	11,441,978	28,766,562
		5	0	22,819,203	18,335,732	41,154,935	0	24,599,101	19,839,262	44,438,363
		6	0	0	9,641,965	9,641,965	0	0	11,888,543	11,888,543
2003/2004	1	1	832,131	0	69,845	901,976	746,422	0	84,862	831,283
		2	310,874	0	453,930	764,804	1,492,817	0	1,349,534	2,842,351
		3	17,654,625	0	7,414,715	25,069,340	56,124,053	0	21,517,503	77,641,556
		4	0	5,920,157	4,690,180	10,610,337	0	17,576,946	9,722,743	27,299,689
		5	0	30,533,035	27,491,071	58,024,106	0	35,387,788	27,820,964	63,208,751
		6	0	0	9,276,232	9,276,232	0	0	11,827,196	11,827,196
(12) All Years, All Injury Types			199,803,500	190,919,148	258,739,390	649,462,038	350,645,061	249,692,431	393,152,515	993,490,007

Notes:  
 (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.  
 (8): (4) x Conversion Factors from Section X - B, Exhibit 1.  
 (9): (5) x Conversion Factors from Section X - B, Exhibit 1.  
 (10): (6) x Conversion Factors from Section X - B, Exhibit 1.  
 (11): (8) + (9) + (10)

# X 000043 R

Section X - Classification Pricing  
 Subsection C - Losses by Injury Type  
 9/1/2007

Section X - C  
 Exhibit 4  
 Page 2

## Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical Goods and Services Industry Group, Industry Code 9 All Classes

Composite Policy Year (1)	Report (2)	Injury Type (3)	Adjusted Converted Losses				Exposure (8)
			Serious (4)	Non-Serious (5)	Medical (6)	Total (7)	
1999/2000	5	1	1,299,464	0	23,751	1,323,215	108,357,226
		2	1,531,859	0	1,045,702	2,577,561	
		3	72,939,161	0	37,485,287	110,424,448	
		4	0	13,707,194	10,047,826	23,755,020	
		5	0	46,959,476	33,794,319	80,753,795	
		6	0	0	14,745,127	14,745,127	
2000/2001	4	1	1,060,792	0	132,897	1,193,690	111,488,974
		2	1,106,610	0	219,146	1,325,756	
		3	72,109,644	0	34,969,779	107,079,423	
		4	0	13,037,375	9,159,667	22,197,042	
		5	0	37,397,900	29,124,183	66,522,083	
		6	0	0	13,956,585	13,956,585	
2001/2002	3	1	1,726,805	0	146,311	1,873,116	117,579,238
		2	927,559	0	295,156	1,222,715	
		3	77,419,674	0	39,097,090	116,516,764	
		4	0	13,636,293	8,983,873	22,620,166	
		5	0	31,742,697	29,343,170	61,085,867	
		6	0	0	14,517,542	14,517,542	
2002/2003	2	1	1,292,058	0	82,541	1,374,599	118,074,043
		2	800,166	0	444,498	1,244,663	
		3	99,054,668	0	48,243,442	147,298,111	
		4	0	17,506,108	13,337,606	30,843,714	
		5	0	24,872,681	23,261,481	48,134,162	
		6	0	0	13,902,660	13,902,660	
2003/2004	1	1	822,553	0	96,371	918,924	116,461,847
		2	1,675,642	0	1,668,625	3,344,266	
		3	63,535,361	0	25,351,429	88,886,790	
		4	0	17,759,329	11,349,421	29,108,750	
		5	0	35,786,660	32,689,035	68,475,695	
		6	0	0	13,827,244	13,827,244	
(9) All Years, All Injury Types			397,302,017	252,405,712	461,341,764	1,111,049,494	571,961,327
(10) Pure Premium			0.695	0.441	0.807	1.943	

**Notes:**

(4), (5), (6): Converted Losses from Page 1 x Excess Loss Factors from Section X - B, Exhibit 4, Page 1.

(7): (4) + (5) + (6)

(8): From Unit Statistical Plan data, excluding Large Deductibles.

(10): Pure Premium calculated as the All Years, All Injury Types Adjusted Converted Losses divided by the All Years, All Injury Types Exposure.

Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical  
Miscellaneous Industry Group, Industry Code 0  
All Classes

Composite Policy Year (1)	Report Type (2)	Injury Type (3)	Serious			Limited Losses		Converted Limited Losses		Total (11)
			(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1999/2000	5	1	343,056	0	3,130	346,186	330,706	0	4,028	334,734
		2	360,663	0	39,337	400,000	310,892	0	46,024	356,916
		3	20,489,992	0	6,324,001	26,813,993	30,571,068	0	12,274,886	42,845,954
		4	0	3,117,088	1,807,369	4,924,457	0	4,420,031	2,505,013	6,925,044
		5	0	10,760,566	6,105,285	16,865,851	0	13,655,158	8,266,556	21,921,714
		6	0	0	2,248,596	2,248,596	0	0	2,893,943	2,893,943
2000/2001	4	1	616,530	0	4,848	621,378	576,456	0	6,356	582,811
		2	309,449	0	290,551	600,000	345,964	0	403,285	749,249
		3	18,631,268	0	5,669,052	24,300,320	27,984,165	0	11,139,687	39,123,852
		4	0	2,149,991	1,344,452	3,494,443	0	3,018,587	1,886,266	4,904,854
		5	0	9,747,670	5,384,030	15,131,700	0	11,833,671	7,042,311	18,875,983
		6	0	0	2,236,615	2,236,615	0	0	2,838,264	2,838,264
2001/2002	3	1	534,207	0	3,828	538,035	478,649	0	4,777	483,427
		2	302,691	0	297,309	600,000	589,945	0	470,343	1,060,288
		3	16,397,348	0	5,611,340	22,008,688	26,350,538	0	11,587,417	37,937,955
		4	0	2,613,062	1,762,442	4,375,504	0	3,922,206	2,599,602	6,521,808
		5	0	7,411,672	5,612,755	13,024,427	0	8,516,011	6,853,174	15,369,185
		6	0	0	2,414,797	2,414,797	0	0	3,042,644	3,042,644
2002/2003	2	1	439,982	0	12,518	452,500	395,104	0	16,511	411,615
		2	135,011	0	105,450	240,461	394,772	0	241,059	635,831
		3	20,629,507	0	7,547,262	28,176,769	40,289,427	0	16,973,792	57,263,219
		4	0	2,242,293	1,804,470	4,046,763	0	4,089,942	2,899,783	6,989,726
		5	0	7,707,379	5,960,180	13,667,559	0	8,308,555	6,448,915	14,757,469
		6	0	0	2,434,260	2,434,260	0	0	3,001,443	3,001,443
2003/2004	1	1	396,224	0	3,776	400,000	355,413	0	4,588	360,001
		2	116,401	0	83,599	200,000	558,958	0	248,540	807,497
		3	7,034,794	0	2,958,601	9,993,395	22,363,610	0	8,585,860	30,949,470
		4	0	1,393,995	870,256	2,264,251	0	4,138,771	1,804,041	5,942,812
		5	0	10,809,712	8,991,370	19,801,082	0	12,528,456	9,099,266	21,627,723
		6	0	0	2,342,758	2,342,758	0	0	2,987,016	2,987,016
(12) All Years, All Injury Types			86,737,123	57,953,428	80,274,237	224,964,788	151,895,666	74,431,389	126,175,392	352,502,447

Notes:  
 (4), (5), (6): From Unit Statistical Plan data, excluding Large Deductibles.  
 (8): (4) x Conversion Factors from Section X - B, Exhibit 1.  
 (9): (5) x Conversion Factors from Section X - B, Exhibit 1.  
 (10): (6) x Conversion Factors from Section X - B, Exhibit 1.  
 (11): (8) + (9) + (10)

# X 000045 R

Section X - Classification Pricing  
 Subsection C - Losses by Injury Type  
 9/1/2007

Section X - C  
 Exhibit 5  
 Page 2

## Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical Miscellaneous Industry Group, Industry Code 0 All Classes

Composite Policy Year (1)	Report (2)	Injury Type (3)	Adjusted Converted Losses				Exposure (8)
			Serious (4)	Non-Serious (5)	Medical (6)	Total (7)	
1999/2000	5	1	396,511	0	5,126	401,637	17,638,626
		2	372,754	0	58,566	431,320	
		3	36,503,100	0	15,516,010	52,019,109	
		4	0	4,488,577	3,157,030	7,645,607	
		5	0	13,866,276	10,407,421	24,273,697	
		6	0	0	3,583,983	3,583,983	
2000/2001	4	1	691,161	0	8,088	699,249	16,224,721
		2	414,806	0	513,178	927,983	
		3	33,383,596	0	14,131,979	47,515,575	
		4	0	3,065,539	2,384,438	5,449,976	
		5	0	12,016,626	8,869,123	20,885,748	
		6	0	0	3,500,416	3,500,416	
2001/2002	3	1	573,893	0	6,079	579,973	16,588,680
		2	707,335	0	598,509	1,305,843	
		3	31,450,851	0	14,661,129	46,111,980	
		4	0	3,983,813	3,282,395	7,266,208	
		5	0	8,647,142	8,604,316	17,251,458	
		6	0	0	3,749,495	3,749,495	
2002/2003	2	1	485,559	0	20,018	505,577	18,686,977
		2	463,685	0	304,722	768,408	
		3	48,054,422	0	21,487,847	69,542,270	
		4	0	4,154,091	3,670,370	7,824,460	
		5	0	8,434,546	8,097,470	16,532,016	
		6	0	0	3,712,422	3,712,422	
2003/2004	1	1	426,135	0	5,838	431,973	17,132,383
		2	670,182	0	316,265	986,447	
		3	26,663,551	0	10,859,431	37,522,982	
		4	0	4,204,308	2,282,119	6,486,427	
		5	0	12,718,553	11,427,307	24,145,860	
		6	0	0	3,701,051	3,701,051	
(9) All Years, All Injury Types			181,257,542	75,579,470	158,922,139	415,759,151	86,271,387
(10) Pure Premium			2.101	0.876	1.842	4.819	

**Notes:**

(4), (5), (6): Converted Losses from Page 1 x Excess Loss Factors from Section X - B, Exhibit 4, Page 1.

(7): (4) + (5) + (6)

(8): From Unit Statistical Plan data, excluding Large Deductibles.

(10): Pure Premium calculated as the All Years, All Injury Types Adjusted Converted Losses divided by the All Years, All Injury Types Exposure.

Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical  
All Industry Groups  
All Classes

Composite Policy Year (1)	Report Year (2)	Injury Type (3)	Serious			Limited Losses			Converted Limited Losses			Total (11)
			(4)	(5)	(6)	(7)	(8)	(9)	(10)			
1999/2000	5	1	3,041,330	0	198,753	3,240,083	2,931,842	0	255,795	3,187,637		
		2	4,001,815	0	1,940,805	5,942,620	3,449,565	0	2,270,742	5,720,306		
		3	178,666,432	0	56,188,670	234,855,102	266,570,317	0	109,062,208	375,632,525		
		4	0	29,414,262	18,715,230	48,129,492	0	41,709,424	25,939,309	67,648,732		
		5	0	105,497,379	58,615,099	164,112,478	0	133,876,174	79,364,844	213,241,018		
		6	0	26,940,477	26,940,477	26,940,477	0	0	34,672,394	34,672,394		
2000/2001	4	1	4,215,443	0	275,232	4,490,675	3,941,439	0	360,829	4,302,268		
		2	4,714,341	0	1,984,953	6,699,294	5,270,633	0	2,755,115	8,025,748		
		3	184,370,230	0	56,967,896	241,338,126	276,924,085	0	111,941,916	388,866,001		
		4	0	26,331,935	15,812,658	42,144,593	0	36,970,037	22,185,159	59,155,196		
		5	0	96,526,823	54,847,482	151,374,305	0	117,183,563	71,740,506	188,924,070		
		6	0	26,232,640	26,232,640	26,232,640	0	0	33,289,220	33,289,220		
2001/2002	3	1	4,885,022	0	315,312	5,200,334	4,376,980	0	393,509	4,770,489		
		2	1,692,083	0	714,074	2,406,157	3,297,870	0	1,129,665	4,427,535		
		3	169,415,016	0	56,114,458	225,529,474	272,249,931	0	115,876,356	388,126,286		
		4	0	24,209,265	15,556,582	39,765,847	0	36,338,107	22,945,958	59,284,065		
		5	0	81,923,476	54,446,584	136,370,060	0	94,130,074	66,479,279	160,609,353		
		6	0	26,794,417	26,794,417	26,794,417	0	0	33,760,965	33,760,965		
2002/2003	2	1	4,160,358	0	236,714	4,397,072	3,736,001	0	312,226	4,048,227		
		2	869,646	0	658,770	1,528,416	2,542,845	0	1,505,948	4,048,793		
		3	162,486,932	0	58,926,276	221,413,208	317,336,978	0	132,525,195	449,862,173		
		4	0	27,030,267	20,013,402	47,043,669	0	49,303,207	32,161,537	81,464,744		
		5	0	69,420,614	53,176,449	122,597,063	0	74,835,422	57,536,918	132,372,340		
		6	0	26,601,255	26,601,255	26,601,255	0	0	32,799,347	32,799,347		
2003/2004	1	1	3,060,373	0	161,316	3,221,689	2,745,155	0	195,999	2,941,154		
		2	656,505	0	916,662	1,573,167	3,152,537	0	2,725,236	5,877,773		
		3	66,929,422	0	29,123,284	96,052,706	212,768,633	0	84,515,770	297,284,403		
		4	0	15,973,588	12,076,216	28,049,804	0	47,425,583	25,033,996	72,459,579		
		5	0	100,776,360	82,313,719	183,090,079	0	116,799,801	83,301,484	200,101,285		
		6	0	25,597,487	25,597,487	25,597,487	0	0	32,636,796	32,636,796		
(12) All Years, All Injury Types			793,164,948	577,103,969	782,462,872	2,152,731,789	1,381,294,810	748,571,391	1,219,674,222	3,349,540,423		

Notes:  
(4) - (10): Total of Section X - C, Page 1 of Exhibits 1 through 5.

# X 000047 R

Section X - Classification Pricing  
 Subsection C - Losses by Injury Type  
 9/1/2007

Section X - C  
 Exhibit 6  
 Page 2

## Calculation of Adjusted Converted Losses by Serious/Non-Serious/Medical All Industry Groups All Classes

Composite Policy Year (1)	Report (2)	Injury Type (3)	Adjusted Converted Losses				Exposure (8)
			Serious (4)	Non-Serious (5)	Medical (6)	Total (7)	
1999/2000	5	1	3,449,930	0	320,496	3,770,427	663,698,862
		2	3,944,675	0	2,751,462	6,696,138	
		3	310,472,075	0	132,384,838	442,856,913	
		4	0	42,222,793	31,105,784	73,328,577	
		5	0	135,535,842	94,972,659	230,508,501	
		6	0	0	41,082,686	41,082,686	
2000/2001	4	1	4,618,419	0	441,352	5,059,772	695,393,646
		2	6,208,215	0	3,455,381	9,663,597	
		3	322,438,814	0	136,557,904	458,996,719	
		4	0	37,421,635	26,688,425	64,110,060	
		5	0	118,687,004	86,305,258	204,992,262	
		6	0	0	39,567,671	39,567,671	
2001/2002	3	1	5,101,628	0	482,305	5,583,934	685,127,809
		2	3,822,107	0	1,370,817	5,192,924	
		3	317,339,612	0	141,146,852	458,486,464	
		4	0	36,776,023	27,384,114	64,160,137	
		5	0	95,320,108	79,696,867	175,016,975	
		6	0	0	40,079,350	40,079,350	
2002/2003	2	1	4,411,900	0	380,069	4,791,969	697,056,346
		2	2,958,902	0	1,850,194	4,809,096	
		3	370,567,908	0	162,107,670	532,675,578	
		4	0	49,901,068	38,498,481	88,399,549	
		5	0	75,799,713	69,224,802	145,024,514	
		6	0	0	39,046,455	39,046,455	
2003/2004	1	1	3,207,458	0	238,543	3,446,001	679,615,342
		2	3,624,973	0	3,369,925	6,994,898	
		3	248,190,177	0	103,849,599	352,039,776	
		4	0	47,990,349	29,860,275	77,850,624	
		5	0	118,314,574	100,461,824	218,776,398	
		6	0	0	38,855,185	38,855,185	
(9) All Years, All Injury Types			1,610,356,795	757,969,109	1,473,537,244	3,841,863,148	3,420,892,005
(10) Pure Premium			0.471	0.222	0.431	1.123	

**Notes:**

(4) - (6), (8): Total of Section X - C, Page 2 of Exhibits 1 through 5.

(10): Pure Premium calculated as the All Years, All Injury Types Adjusted Converted Losses divided by the All Years, All Injury Types Exposure.



# X 000048 R

Section X - Classification Pricing  
Subsection D - Credibility/Countrywide Data  
9/1/2007

Section X - D  
Exhibit 1  
Page 1

## MA Full Credibility Standard and Partial Credibility

		Injury Type		
		Serious	Non-Serious	Medical
(1)	Average Claim Cost (See Pages 2 and 3)	150,000	8,000	12,000
(2)	Claims (See Section X - D, Exhibit 1, Page 4 of 9/1/01 Filing)	100	200	200
(3)	Full Credibility Standard =(1) x (2)	15,000,000	1,600,000	2,400,000

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

		Injury Type		
		Serious	Non-Serious	Medical
(4)	Number of Countrywide Claims	450	900	600

### 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.

# X 000049 R

Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
 9/1/2007

Section X - D  
 Exhibit 1  
 Page 2

## Selection of Average Massachusetts Indemnity Claim Costs

### Composite Policy Year 2003/2004 Indemnity Losses

	Serious			Non-Serious	
	Injury Type 1	Injury Type 2	Injury Type 3	Injury Type 4	Injury Type 5
(1) On-Level Losses Developed to Fifth Report	5,199,748	19,629,753	169,717,837	37,121,493	96,291,783
(2) Loss Development from Fifth Report to Ultimate	1.116	1.116	1.116	1.000	1.000
(3) On-Level Ultimate Losses = (1) x (2)	5,801,598	21,901,819	189,362,005	37,121,493	96,291,783
(4) Claim Count Developed to Fifth Report	28	51	1,362	2,153	14,716
<b>Summary:</b>		<b>Serious</b>		<b>Non-Serious</b>	
(5) Ultimate Losses		217,065,422		133,413,276	
(6) Ultimate Claim Count		1,441		16,870	
(7) Average Claim Cost = (5) / (6)		150,676		7,908	
(8) Previous Selected Average Claim Cost		140,000		10,000	
(9) Selected Average Claim Cost		150,000		8,000	

**Notes:**

- (1): From Section X - B, Exhibit 2, Pages 1 - 4.
- (2): From Section IV - I, Exhibit 3.
- (4): From Section X - B, Exhibit 2, Pages 1 - 4.
- (5): Sum of (3); Injury Types 1, 2, 3 for Serious, and Injury Types 4, 5 for Non-Serious
- (6): Sum of (4); Injury Types 1, 2, 3 for Serious, and Injury Types 4, 5 for Non-Serious
- (8): From Section X - E, Exhibit 1, Page 1 of 09/01/05 rate filing.

# X 000050 R

Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
 9/1/2007

Section X - D  
 Exhibit 1  
 Page 3

## Selection of Average Massachusetts Lost Time Medical Claim Costs

### Composite Policy Year 2003/2004 Medical Losses

	Lost Time Medical				
	Injury Type 1	Injury Type 2	Injury Type 3	Injury Type 4	Injury Type 5
(1) On-Level Losses Developed to Fifth Report	227,745	27,399,773	59,255,644	19,676,899	68,821,814
(2) Loss Development from Fifth Report to Ultimate	1.000	1.459	1.459	1.000	1.000
(3) On-Level Ultimate Losses = (1) x (2)	227,745	39,970,056	86,440,548	19,676,899	68,821,814
(4) Claim Count Developed to Fifth Report	28	51	1,362	2,153	14,716
<b>Summary:</b>			<u>Medical</u>		
(5) Ultimate Losses			215,137,062		
(6) Ultimate Claim Count			18,310		
(7) Average Claim Cost = (5) / (6)			11,750		
(8) Previous Selected Average Claim Cost			10,000		
(9) Selected Average Claim Cost			12,000		

**Notes:**

- (1): From Section X - B, Exhibit 2, Pages 1 - 4.
- (2): From Section IV - I, Exhibit 3.
- (4): From Section X - B, Exhibit 2, Pages 1 - 4.
- (5): Sum of (3).
- (6): Sum of (4).
- (8): From Section X - E, Exhibit 1, Page 1 of 09/01/05 rate filing.

# X 000051 R

Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
 9/1/2007

Section X - D  
 Exhibit 2

## Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Serious (5)	Non-Serious (6)	Medical (7)
Alabama	1	Manufacturing	1	1.639	0.777	0.215
		Construction	2	1.123	0.812	0.166
		Office and Clerical	3	0.529	0.464	0.119
		Goods and Services	9	0.921	0.759	0.203
		Miscellaneous	0	0.858	0.728	0.213
Arizona	2	Manufacturing	1	1.703	3.098	0.416
		Construction	2	1.162	3.071	0.337
		Office and Clerical	3	1.221	2.610	0.331
		Goods and Services	9	1.081	3.239	0.377
		Miscellaneous	0	0.901	2.485	0.328
Arkansas	3	Manufacturing	1	1.838	1.397	0.458
		Construction	2	1.539	1.273	0.392
		Office and Clerical	3	0.850	0.774	0.260
		Goods and Services	9	1.528	1.154	0.419
		Miscellaneous	0	1.975	1.057	0.471
California	4	Manufacturing	1	0.424	0.563	0.302
		Construction	2	0.752	0.985	0.411
		Office and Clerical	3	0.284	0.344	0.198
		Goods and Services	9	0.367	0.562	0.293
		Miscellaneous	0	0.479	0.629	0.321
Colorado	5	Manufacturing	1	1.108	0.435	0.352
		Construction	2	1.005	0.441	0.385
		Office and Clerical	3	0.865	0.379	0.274
		Goods and Services	9	0.860	0.475	0.354
		Miscellaneous	0	0.851	0.455	0.374
Connecticut	6	Manufacturing	1	0.467	0.713	0.350
		Construction	2	0.391	0.794	0.331
		Office and Clerical	3	0.264	0.719	0.428
		Goods and Services	9	0.494	0.715	0.361
		Miscellaneous	0	0.486	0.691	0.370
Delaware	7	Manufacturing	1	1.538	0.849	0.516
		Construction	2	1.704	0.220	0.200
		Office and Clerical	3	1.143	0.134	0.124
		Goods and Services	9	1.493	0.132	0.109
		Miscellaneous	0	1.562	0.204	0.235
District of Columbia	8	Manufacturing	1	2.156	0.599	0.487
		Construction	2	0.502	1.648	0.644
		Office and Clerical	3	0.398	2.042	0.752
		Goods and Services	9	0.804	1.493	0.708
		Miscellaneous	0	0.785	1.260	0.631
Florida	9	Manufacturing	1	0.921	0.667	0.213
		Construction	2	0.938	0.621	0.185
		Office and Clerical	3	0.659	0.505	0.173
		Goods and Services	9	0.806	0.649	0.226
		Miscellaneous	0	0.818	0.689	0.229

**X 000052 R**

Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
 9/1/2007

Section X - D  
 Exhibit 2

Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Serious (5)	Non-Serious (6)	Medical (7)
Georgia	10	Manufacturing	1	0.673	1.039	0.380
		Construction	2	0.582	0.972	0.294
		Office and Clerical	3	0.426	0.916	0.331
		Goods and Services	9	0.547	1.037	0.384
		Miscellaneous	0	0.987	1.522	0.533
Idaho	11	Manufacturing	1	1.676	0.688	0.360
		Construction	2	1.359	0.606	0.306
		Office and Clerical	3	1.268	0.725	0.298
		Goods and Services	9	1.143	0.556	0.292
		Miscellaneous	0	1.159	0.703	0.361
Illinois	12	Manufacturing	1	0.753	0.397	0.279
		Construction	2	0.406	0.454	0.290
		Office and Clerical	3	0.365	0.298	0.242
		Goods and Services	9	0.742	0.473	0.317
		Miscellaneous	0	0.519	0.464	0.317
Indiana	13	Manufacturing	1	5.605	1.415	0.509
		Construction	2	3.630	1.289	0.503
		Office and Clerical	3	2.521	1.213	0.391
		Goods and Services	9	3.614	1.304	0.465
		Miscellaneous	0	3.782	1.343	0.522
Iowa	14	Manufacturing	1	0.901	0.676	0.346
		Construction	2	0.926	0.872	0.406
		Office and Clerical	3	0.471	0.426	0.196
		Goods and Services	9	0.927	0.797	0.395
		Miscellaneous	0	1.090	0.910	0.498
Kansas	15	Manufacturing	1	1.369	0.703	0.426
		Construction	2	0.936	0.917	0.403
		Office and Clerical	3	1.055	0.434	0.274
		Goods and Services	9	0.940	0.844	0.388
		Miscellaneous	0	1.308	0.998	0.428
Kentucky	16	Manufacturing	1	1.054	1.477	0.309
		Construction	2	0.753	1.361	0.228
		Office and Clerical	3	0.538	0.954	0.229
		Goods and Services	9	0.604	1.191	0.224
		Miscellaneous	0	0.784	1.330	0.284
Louisiana	17	Manufacturing	1	0.504	1.038	0.289
		Construction	2	0.476	1.097	0.258
		Office and Clerical	3	0.297	0.901	0.224
		Goods and Services	9	0.491	0.956	0.263
		Miscellaneous	0	0.429	1.048	0.286
Maine	18	Manufacturing	1	0.499	0.674	0.372
		Construction	2	0.397	0.647	0.278
		Office and Clerical	3	0.453	0.363	0.172
		Goods and Services	9	0.301	0.609	0.275
		Miscellaneous	0	0.381	0.638	0.352

**X 000053 R**

Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
 9/1/2007

Section X - D  
 Exhibit 2

Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Serious (5)	Non-Serious (6)	Medical (7)
Maryland	19	Manufacturing	1	0.904	1.080	0.554
		Construction	2	0.799	1.048	0.382
		Office and Clerical	3	0.471	0.634	0.385
		Goods and Services	9	0.849	0.980	0.576
		Miscellaneous	0	1.122	0.910	0.616
Michigan	21	Manufacturing	1	0.621	0.705	0.482
		Construction	2	0.576	0.909	0.471
		Office and Clerical	3	0.603	0.571	0.396
		Goods and Services	9	0.705	0.806	0.551
		Miscellaneous	0	0.653	0.897	0.560
Minnesota	22	Manufacturing	1	1.184	1.869	0.619
		Construction	2	1.016	2.204	0.543
		Office and Clerical	3	0.666	1.725	0.474
		Goods and Services	9	0.925	1.857	0.562
		Miscellaneous	0	1.084	2.051	0.604
Mississippi	23	Manufacturing	1	0.910	0.932	0.349
		Construction	2	0.730	0.933	0.278
		Office and Clerical	3	0.481	0.690	0.212
		Goods and Services	9	0.617	0.854	0.298
		Miscellaneous	0	0.691	1.156	0.355
Missouri	24	Manufacturing	1	1.471	0.385	0.330
		Construction	2	0.945	0.495	0.313
		Office and Clerical	3	0.481	0.284	0.242
		Goods and Services	9	1.176	0.526	0.370
		Miscellaneous	0	1.190	0.463	0.392
Montana	25	Manufacturing	1	0.167	0.456	0.071
		Construction	2	0.298	0.487	0.111
		Office and Clerical	3	0.283	0.313	0.091
		Goods and Services	9	0.428	0.384	0.125
		Miscellaneous	0	0.437	0.556	0.174
Nebraska	26	Manufacturing	1	1.376	0.835	0.313
		Construction	2	0.857	0.756	0.231
		Office and Clerical	3	0.346	0.367	0.147
		Goods and Services	9	0.876	0.929	0.296
		Miscellaneous	0	1.079	0.907	0.309
Nevada	27	Manufacturing	1	0.483	0.873	0.356
		Construction	2	0.542	1.036	0.394
		Office and Clerical	3	0.291	0.583	0.239
		Goods and Services	9	0.532	0.844	0.372
		Miscellaneous	0	0.357	0.695	0.357
New Hampshire	28	Manufacturing	1	0.862	1.453	0.272
		Construction	2	0.625	1.254	0.177
		Office and Clerical	3	0.698	1.092	0.230
		Goods and Services	9	0.615	1.244	0.223
		Miscellaneous	0	0.789	1.250	0.245

**X 000054 R**

Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
 9/1/2007

Section X - D  
 Exhibit 2

Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Serious (5)	Non-Serious (6)	Medical (7)
New Jersey	29	Manufacturing	1	1.783	0.549	0.561
		Construction	2	2.470	0.653	0.622
		Office and Clerical	3	1.644	0.504	0.516
		Goods and Services	9	1.807	0.551	0.561
		Miscellaneous	0	1.994	0.477	0.559
New Mexico	30	Manufacturing	1	1.064	1.257	0.362
		Construction	2	1.040	1.170	0.364
		Office and Clerical	3	0.391	0.471	0.150
		Goods and Services	9	0.692	1.046	0.330
		Miscellaneous	0	0.597	1.082	0.325
New York	31	Manufacturing	1	0.504	1.120	0.693
		Construction	2	0.682	1.805	0.744
		Office and Clerical	3	0.528	1.113	0.618
		Goods and Services	9	0.561	1.337	0.783
		Miscellaneous	0	0.002	0.004	0.002
North Carolina	32	Manufacturing	1	0.378	0.880	0.436
		Construction	2	0.429	0.946	0.337
		Office and Clerical	3	0.247	0.556	0.297
		Goods and Services	9	0.380	0.962	0.425
		Miscellaneous	0	0.296	0.923	0.340
Oklahoma	35	Manufacturing	1	0.475	0.720	0.262
		Construction	2	0.638	0.694	0.266
		Office and Clerical	3	0.339	0.527	0.225
		Goods and Services	9	0.471	0.694	0.281
		Miscellaneous	0	0.619	1.011	0.394
Oregon	36	Manufacturing	1	2.015	0.952	0.483
		Construction	2	1.178	0.872	0.322
		Office and Clerical	3	1.511	0.754	0.348
		Goods and Services	9	1.107	0.787	0.333
		Miscellaneous	0	1.063	0.901	0.327
Pennsylvania	37	Manufacturing	1	1.188	0.099	0.116
		Construction	2	1.253	0.097	0.116
		Office and Clerical	3	0.688	0.055	0.063
		Goods and Services	9	1.003	0.061	0.076
		Miscellaneous	0	1.021	0.080	0.105
Rhode Island	38	Manufacturing	1	0.371	0.570	0.432
		Construction	2	0.472	0.770	0.474
		Office and Clerical	3	0.302	0.423	0.348
		Goods and Services	9	0.348	0.614	0.437
		Miscellaneous	0	0.498	0.739	0.562
South Carolina	39	Manufacturing	1	0.943	0.429	0.449
		Construction	2	0.641	0.579	0.353
		Office and Clerical	3	0.238	0.371	0.255
		Goods and Services	9	0.576	0.594	0.396
		Miscellaneous	0	0.582	0.632	0.414

# X 000055 R

Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
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Section X - D  
 Exhibit 2

## Countrywide Classification Experience: Pitch Factors

State (1)	State Code (2)	Industry Group (3)	Industry Code (4)	Serious (5)	Non-Serious (6)	Medical (7)
South Dakota	40	Manufacturing	1	3.962	1.101	0.396
		Construction	2	1.438	0.910	0.245
		Office and Clerical	3	1.962	0.595	0.219
		Goods and Services	9	2.783	1.173	0.343
		Miscellaneous	0	2.089	1.240	0.402
Tennessee	41	Manufacturing	1	0.620	0.444	0.261
		Construction	2	0.787	0.631	0.205
		Office and Clerical	3	0.303	0.352	0.186
		Goods and Services	9	0.985	0.693	0.342
		Miscellaneous	0	0.801	0.718	0.348
Utah	43	Manufacturing	1	2.720	1.792	0.461
		Construction	2	1.657	1.305	0.327
		Office and Clerical	3	1.538	1.400	0.392
		Goods and Services	9	1.870	1.368	0.400
		Miscellaneous	0	1.410	1.398	0.356
Vermont	44	Manufacturing	1	0.717	0.486	0.224
		Construction	2	0.520	0.682	0.263
		Office and Clerical	3	0.105	0.236	0.115
		Goods and Services	9	0.530	0.561	0.244
		Miscellaneous	0	0.523	0.721	0.358
Virginia	45	Manufacturing	1	1.503	2.716	0.633
		Construction	2	1.040	2.007	0.364
		Office and Clerical	3	1.099	2.378	0.495
		Goods and Services	9	1.192	2.276	0.493
		Miscellaneous	0	1.053	2.147	0.499
Wisconsin	48	Manufacturing	1	1.333	0.709	0.300
		Construction	2	0.645	0.626	0.212
		Office and Clerical	3	1.357	0.667	0.325
		Goods and Services	9	1.136	0.752	0.333
		Miscellaneous	0	1.157	0.871	0.365
Hawaii	52	Manufacturing	1	0.423	0.477	0.384
		Construction	2	0.754	0.879	0.596
		Office and Clerical	3	0.325	0.349	0.288
		Goods and Services	9	0.655	0.516	0.467
		Miscellaneous	0	0.480	0.476	0.327
Alaska	54	Manufacturing	1	0.512	0.501	0.149
		Construction	2	0.608	0.812	0.168
		Office and Clerical	3	0.558	0.268	0.094
		Goods and Services	9	0.599	0.585	0.155
		Miscellaneous	0	0.708	0.768	0.223

**Notes:**

Factor to adjust statewide data to the same payroll distribution and loss level as MA.

Pitch Factor = (MA Limited Losses) / [(Countrywide State Pure Premium) x (MA Exposure)]

For a sample countrywide pure premium calculation, see Section X - L, Exhibit 2.



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Section X - Classification Pricing  
 Subsection D - Credibility/Countrywide Data  
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Section X - 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	5/1/2003	- 4/30/2004	5/1/2002	- 4/30/2003	5/1/2001	- 4/30/2002
Arizona	2	3/1/2003	- 2/28/2004	3/1/2002	- 2/28/2003	3/1/2001	- 2/28/2002
Arkansas	3	2/1/2003	- 1/31/2004	2/1/2002	- 1/31/2003	2/1/2001	- 1/31/2002
California	4	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Colorado	5	3/1/2002	- 2/28/2003	3/1/2001	- 2/28/2002	3/1/2000	- 2/28/2001
Connecticut	6	8/1/2003	- 7/31/2004	8/1/2002	- 7/31/2003	8/1/2001	- 7/31/2002
Delaware	7	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
District of Columbia	8	2/1/2003	- 1/31/2004	2/1/2002	- 1/31/2003	2/1/2001	- 1/31/2002
Florida	9	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Georgia	10	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
Idaho	11	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
Illinois	12	4/1/2003	- 3/31/2004	4/1/2002	- 3/31/2003	4/1/2001	- 3/31/2002
Indiana	13	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
Iowa	14	3/1/2003	- 2/29/2004	3/1/2002	- 2/28/2003	3/1/2001	- 2/28/2002
Kansas	15	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
Kentucky	16	5/1/2003	- 4/30/2004	5/1/2002	- 4/30/2003	5/1/2001	- 4/30/2002
Louisiana	17	9/1/2002	- 8/31/2003	9/1/2001	- 8/31/2002	9/1/2000	- 8/31/2001
Maine	18	6/1/2002	- 5/31/2003	6/1/2001	- 5/31/2002	6/1/2000	- 5/31/2001
Maryland	19	4/1/2003	- 3/31/2004	4/1/2002	- 3/31/2003	4/1/2001	- 3/31/2002
Michigan	21	4/1/2003	- 3/31/2004	4/1/2002	- 3/31/2003	4/1/2001	- 3/31/2002
Minnesota	22	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Mississippi	23	9/1/2003	- 8/31/2004	9/1/2002	- 8/31/2003	9/1/2001	- 8/31/2002
Missouri	24	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
Montana	25	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Nebraska	26	8/1/2003	- 7/31/2004	8/1/2002	- 7/31/2003	8/1/2001	- 7/31/2002
Nevada	27	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
New Hampshire	28	4/1/2003	- 3/31/2004	4/1/2002	- 3/31/2003	4/1/2001	- 3/31/2002
New Jersey	29	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
New Mexico	30	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
New York	31	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
North Carolina	32	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Oklahoma	35	6/1/2003	- 5/31/2004	6/1/2002	- 5/31/2003	6/1/2001	- 5/31/2002
Oregon	36	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Pennsylvania	37	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Rhode Island	38	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
South Carolina	39	5/1/2002	- 4/30/2003	5/1/2001	- 4/30/2002	5/1/2000	- 4/30/2001
South Dakota	40	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Tennessee	41	6/1/2003	- 5/31/2004	6/1/2002	- 5/31/2003	6/1/2001	- 5/31/2002
Utah	43	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
Vermont	44	7/1/2003	- 6/30/2004	7/1/2002	- 6/30/2003	7/1/2001	- 6/30/2002
Virginia	45	2/1/2003	- 1/31/2004	2/1/2002	- 1/31/2003	2/1/2001	- 1/31/2002
Wisconsin	48	1/1/2003	- 12/31/2003	1/1/2002	- 12/31/2002	1/1/2001	- 12/31/2001
Hawaii	52	6/1/2003	- 5/31/2004	6/1/2002	- 5/31/2003	6/1/2001	- 5/31/2002
Alaska	54	4/1/2003	- 3/31/2004	4/1/2002	- 3/31/2003	4/1/2001	- 3/31/2002

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)	Pure Premium Underlying Present Rate Factor = (3) x (5) x (6) x (7) (8)
Manufacturing	Serious	2.672	0.672	0.298	0.763	1.024	0.623
	Non-Serious	2.672	0.705	0.313	0.763	1.010	0.645
	Medical Total	2.672	0.874 2.250	0.388	0.763	1.000	0.792
Construction	Serious	7.429	2.402	0.408	0.763	1.024	2.371
	Non-Serious	7.429	1.400	0.238	0.763	1.010	1.363
	Medical Total	7.429	2.079 5.881	0.354	0.763	1.000	2.004
Office and Clerical	Serious	0.252	0.057	0.279	0.763	1.024	0.055
	Non-Serious	0.252	0.062	0.304	0.763	1.010	0.059
	Medical Total	0.252	0.085 0.205	0.417	0.763	1.000	0.080
Goods and Services	Serious	2.389	0.500	0.254	0.763	1.024	0.473
	Non-Serious	2.389	0.647	0.328	0.763	1.010	0.605
	Medical Total	2.389	0.824 1.971	0.418	0.763	1.000	0.762
Miscellaneous	Serious	5.810	1.567	0.331	0.763	1.024	1.504
	Non-Serious	5.810	1.311	0.277	0.763	1.010	1.242
	Medical Total	5.810	1.852 4.730	0.391	0.763	1.000	1.735

Notes:

- (3): Uncapped rate level factors from Section X - I, Exhibit 1 of 09/01/05 decision.
- (4): Industry Group Pure Premiums from Section X - M of 09/01/05 decision.
- (6): Expected Loss and Loss Adjustment Expense Ratio from Section VI - A of 09/01/05 decision.
- (7): From Section IV - A, Exhibit 7.

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Section X - Classification Pricing  
Subsection F - Underlying Pure Premiums  
9/1/2007

Section X - F  
Exhibit 1

## Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1430	4.945	21.008	2.673	3.081	13.550	2.117	18.748
1438	1.602	0.970	1.565	0.998	0.626	1.239	2.863
1463	2.715	2.301	1.889	1.691	1.484	1.496	4.672
1701	1.305	3.258	1.491	0.813	2.101	1.181	4.095
1747	1.258	1.579	1.097	0.784	1.018	0.869	2.671
1748	1.438	2.572	1.691	0.896	1.659	1.339	3.894
1852	8.310	1.404	1.615	5.177	0.906	1.279	7.362
1853	1.428	0.939	1.050	0.890	0.606	0.832	2.327
1860	1.975	0.685	0.742	1.230	0.442	0.588	2.260
1924	1.225	1.051	1.118	0.763	0.678	0.885	2.327
1925	2.245	1.589	1.415	1.399	1.025	1.121	3.544
2001	1.314	1.374	1.574	0.819	0.886	1.247	2.951
2002	2.587	1.549	1.620	1.612	0.999	1.283	3.894
2003	1.314	1.374	1.574	0.819	0.886	1.247	2.951
2014	1.772	1.205	1.145	1.104	0.777	0.907	2.788
2021	1.142	0.623	0.604	0.711	0.402	0.478	1.592
2039	1.853	1.333	1.354	1.154	0.860	1.072	3.087
2041	0.965	0.826	1.178	0.601	0.533	0.933	2.067
2070	2.463	1.610	1.722	1.534	1.038	1.364	3.937
2081	1.807	2.184	2.138	1.126	1.409	1.693	4.228
2089	1.463	1.430	1.516	0.911	0.922	1.201	3.034
2095	2.014	2.338	1.505	1.255	1.508	1.192	3.955
2101	1.463	1.430	1.516	0.911	0.922	1.201	3.034
2111	1.230	1.345	1.299	0.766	0.868	1.029	2.663
2114	1.463	1.430	1.516	0.911	0.922	1.201	3.034
2115	1.059	1.537	1.085	0.660	0.991	0.859	2.510
2121	0.997	0.634	0.776	0.621	0.409	0.615	1.645
2130	1.834	1.341	1.488	1.143	0.865	1.178	3.186
2131	1.048	1.212	1.100	0.653	0.782	0.871	2.306
2143	0.722	1.178	1.342	0.450	0.760	1.063	2.272
2150	2.583	2.155	1.608	1.609	1.390	1.274	4.273
2156	2.068	2.979	2.523	1.288	1.921	1.998	5.208
2157	2.933	1.686	1.792	1.827	1.087	1.419	4.334
2172	0.481	0.392	0.347	0.300	0.253	0.275	0.827
2174	4.135	2.753	3.675	2.576	1.776	2.911	7.262
2211	2.901	1.937	1.798	1.807	1.249	1.424	4.481
2220	1.238	1.128	1.550	0.771	0.728	1.228	2.726
2260	4.820	1.236	1.729	3.003	0.797	1.369	5.169
2286	1.238	1.128	1.550	0.771	0.728	1.228	2.726
2288	1.245	1.179	0.903	0.776	0.760	0.715	2.251
2302	1.238	1.128	1.550	0.771	0.728	1.228	2.726
2305	1.161	1.349	1.166	0.723	0.870	0.923	2.517
2362	1.449	0.908	0.957	0.903	0.586	0.758	2.246
2380	0.828	1.189	1.060	0.516	0.767	0.840	2.122
2402	1.260	0.906	1.235	0.785	0.584	0.978	2.347
2413	3.001	1.436	1.824	1.870	0.926	1.445	4.240
2416	1.573	2.819	1.488	0.980	1.818	1.178	3.977
2417	1.408	0.859	1.377	0.877	0.554	1.091	2.522

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Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
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Section X - F  
 Exhibit 1

## Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
2501	1.323	1.175	1.049	0.824	0.758	0.831	2.413
2503	0.424	0.468	0.307	0.264	0.302	0.243	0.809
2534	1.323	1.175	1.049	0.824	0.758	0.831	2.413
2570	2.544	3.089	2.201	1.585	1.992	1.743	5.321
2576	0.943	1.173	1.210	0.587	0.757	0.958	2.302
2578	0.943	1.173	1.210	0.587	0.757	0.958	2.302
2585	1.775	1.388	1.688	1.106	0.895	1.337	3.338
2586	0.857	0.560	0.675	0.534	0.361	0.535	1.430
2623	1.802	1.157	0.707	1.123	0.746	0.560	2.429
2640	1.368	1.337	1.496	0.852	0.862	1.185	2.899
2651	1.368	1.337	1.496	0.852	0.862	1.185	2.899
2660	0.471	0.694	0.926	0.293	0.448	0.733	1.474
2683	0.975	0.745	0.934	0.607	0.481	0.740	1.828
2688	1.394	1.134	1.376	0.868	0.731	1.090	2.690
2710	2.254	3.133	4.768	1.404	2.021	3.776	7.201
2731	1.914	2.281	1.951	1.192	1.471	1.545	4.209
2741	2.739	4.233	2.384	1.706	2.730	1.888	6.325
2747	4.386	2.462	2.487	2.732	1.588	1.970	6.290
2790	0.712	0.945	0.899	0.444	0.610	0.712	1.765
2802	2.268	1.827	2.509	1.413	1.178	1.987	4.579
2835	1.139	1.851	1.451	0.710	1.194	1.149	3.053
2836	2.766	1.239	2.075	1.723	0.799	1.643	4.166
2841	0.770	0.830	0.949	0.480	0.535	0.752	1.767
2883	1.322	1.360	1.426	0.824	0.877	1.129	2.830
2923	0.867	0.905	0.969	0.540	0.584	0.767	1.891
2942	0.802	0.456	1.072	0.500	0.294	0.849	1.643
3018	1.325	2.024	1.184	0.825	1.305	0.938	3.069
3022	1.273	1.921	2.432	0.793	1.239	1.926	3.958
3027	1.779	1.483	2.221	1.108	0.957	1.759	3.824
3028	1.094	2.543	1.634	0.682	1.640	1.294	3.616
3030	3.739	3.350	2.726	2.329	2.161	2.159	6.649
3040	5.344	5.367	5.018	3.329	3.462	3.974	10.765
3041	1.903	1.700	1.662	1.186	1.097	1.316	3.598
3042	1.696	0.955	0.988	1.057	0.616	0.782	2.455
3064	1.386	1.303	1.346	0.863	0.840	1.066	2.770
3066	1.386	1.303	1.346	0.863	0.840	1.066	2.770
3076	1.076	1.365	1.212	0.670	0.880	0.960	2.511
3081	3.545	2.530	3.828	2.209	1.632	3.032	6.872
3082	3.545	2.530	3.828	2.209	1.632	3.032	6.872
3085	2.262	1.545	2.132	1.409	0.997	1.689	4.094
3110	3.737	4.558	2.865	2.328	2.940	2.269	7.537
3111	1.047	0.989	1.117	0.652	0.638	0.885	2.175
3113	0.690	0.779	0.639	0.430	0.502	0.506	1.438
3114	1.655	1.512	1.700	1.031	0.975	1.346	3.353
3118	0.690	0.779	0.639	0.430	0.502	0.506	1.438
3119	0.496	0.359	0.345	0.309	0.232	0.273	0.814
3120	0.523	1.610	0.610	0.326	1.038	0.483	1.847
3122	1.383	0.651	1.240	0.862	0.420	0.982	2.264

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Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
 9/1/2007

Section X - F  
 Exhibit 1

## Calculation of Pure Premiums Underlying Present Rate Manufacturing Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
3127	0.230	0.292	0.264	0.143	0.188	0.209	0.541
3131	1.679	1.456	1.050	1.046	0.939	0.832	2.817
3132	0.678	1.125	0.883	0.422	0.726	0.699	1.847
3145	0.619	0.540	0.660	0.386	0.348	0.523	1.257
3146	1.656	0.820	1.083	1.032	0.529	0.858	2.418
3169	1.762	1.969	2.235	1.098	1.270	1.770	4.138
3179	0.866	0.864	0.969	0.540	0.557	0.767	1.864
3180	1.119	2.136	1.607	0.697	1.378	1.273	3.348
3188	0.870	1.613	1.776	0.542	1.040	1.407	2.989
3200	1.177	0.882	1.301	0.733	0.569	1.030	2.333
3220	1.222	0.755	0.781	0.761	0.487	0.619	1.867
3227	1.762	1.969	2.235	1.098	1.270	1.770	4.138
3241	1.225	1.051	1.118	0.763	0.678	0.885	2.327
3255	1.671	1.457	1.734	1.041	0.940	1.373	3.354
3257	1.314	1.315	1.344	0.819	0.848	1.064	2.731
3270	1.340	1.077	1.009	0.835	0.695	0.799	2.329
3300	3.826	2.661	3.366	2.384	1.716	2.666	6.766
3315	0.668	0.846	0.715	0.416	0.546	0.566	1.528
3336	0.776	1.826	1.401	0.483	1.178	1.110	2.771
3372	1.338	0.944	1.186	0.834	0.609	0.939	2.382
3373	3.444	1.771	2.068	2.146	1.142	1.638	4.926
3381	1.261	1.256	1.359	0.786	0.810	1.076	2.672
3383	0.606	0.688	0.822	0.378	0.444	0.651	1.472
3385	0.448	0.378	0.348	0.279	0.244	0.276	0.799
3400	1.762	1.969	2.235	1.098	1.270	1.770	4.138
3507	1.659	1.759	1.692	1.034	1.135	1.340	3.508
3515	1.610	0.952	1.377	1.003	0.614	1.091	2.708
3548	0.962	0.977	0.855	0.599	0.630	0.677	1.907
3558	0.271	0.198	0.312	0.169	0.128	0.247	0.544
3559	0.962	0.977	0.855	0.599	0.630	0.677	1.907
3571	0.778	0.483	0.499	0.485	0.312	0.395	1.191
3574	0.962	0.977	0.855	0.599	0.630	0.677	1.907
3612	0.949	1.023	0.905	0.591	0.660	0.717	1.968
3620	1.949	2.363	2.610	1.214	1.524	2.067	4.805
3629	0.962	0.977	0.855	0.599	0.630	0.677	1.907
3632	0.962	0.977	0.855	0.599	0.630	0.677	1.907
3634	1.367	0.823	1.324	0.852	0.531	1.049	2.431
3635	1.094	1.649	1.586	0.682	1.064	1.256	3.001
3638	0.962	0.977	0.855	0.599	0.630	0.677	1.907
3642	0.463	0.817	0.421	0.288	0.527	0.333	1.149
3643	0.866	0.864	0.969	0.540	0.557	0.767	1.864
3647	0.875	1.355	1.109	0.545	0.874	0.878	2.297
3648	0.785	0.800	1.188	0.489	0.516	0.941	1.946
3681	0.355	0.354	0.377	0.221	0.228	0.299	0.748
3685	0.355	0.354	0.377	0.221	0.228	0.299	0.748
3807	1.762	1.969	2.235	1.098	1.270	1.770	4.138
3808	0.668	1.338	1.253	0.416	0.863	0.992	2.272
3826	0.934	1.473	0.616	0.582	0.950	0.488	2.020

**X 000061 R**

Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
 9/1/2007

Section X - F  
 Exhibit 1

Calculation of Pure Premiums Underlying Present Rate  
 Manufacturing Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
3830	0.962	0.977	0.855	0.599	0.630	0.677	1.907
3841	0.802	1.034	0.889	0.500	0.667	0.704	1.871
4021	1.724	1.215	1.261	1.074	0.784	0.999	2.856
4024	2.466	1.839	1.764	1.536	1.186	1.397	4.120
4034	3.801	2.379	3.353	2.368	1.534	2.656	6.558
4036	1.321	1.032	0.938	0.823	0.666	0.743	2.232
4038	0.900	1.123	0.836	0.561	0.724	0.662	1.947
4053	0.629	0.573	0.543	0.392	0.370	0.430	1.192
4061	1.109	0.764	0.909	0.691	0.493	0.720	1.904
4062	1.109	0.764	0.909	0.691	0.493	0.720	1.904
4112	0.288	0.468	0.332	0.179	0.302	0.263	0.744
4113	0.629	0.573	0.543	0.392	0.370	0.430	1.192
4114	1.242	0.945	0.966	0.774	0.610	0.765	2.148
4130	2.399	1.474	2.033	1.495	0.951	1.610	4.055
4133	1.156	0.719	1.084	0.720	0.464	0.859	2.042
4150	0.410	0.460	0.331	0.255	0.297	0.262	0.814
4239	1.738	2.068	2.269	1.083	1.334	1.797	4.214
4243	1.270	1.582	1.882	0.791	1.020	1.491	3.302
4244	1.516	2.124	1.377	0.944	1.370	1.091	3.405
4250	1.144	1.175	1.072	0.713	0.758	0.849	2.320
4251	1.366	0.965	1.350	0.851	0.622	1.069	2.543
4273	1.043	1.928	1.728	0.650	1.244	1.369	3.262
4279	1.443	1.642	1.791	0.899	1.059	1.418	3.377
4282	0.184	0.235	0.204	0.115	0.152	0.162	0.428
4283	1.640	1.190	1.085	1.022	0.768	0.859	2.649
4299	0.930	0.850	0.912	0.579	0.548	0.722	1.850
4301	2.132	0.886	1.834	1.328	0.571	1.453	3.352
4304	1.223	1.493	1.743	0.762	0.963	1.380	3.105
4307	0.934	1.280	0.857	0.582	0.826	0.679	2.086
4308	0.323	0.419	0.389	0.201	0.270	0.308	0.780
4350	0.248	0.405	0.248	0.155	0.261	0.196	0.612
4351	0.495	0.412	0.333	0.308	0.266	0.264	0.838
4352	0.638	0.295	0.542	0.397	0.190	0.429	1.017
4360	0.499	0.330	0.347	0.311	0.213	0.275	0.799
4410	1.045	2.181	1.608	0.651	1.407	1.274	3.331
4417	1.276	1.596	1.720	0.795	1.029	1.362	3.187
4432	0.571	1.024	0.807	0.356	0.660	0.639	1.655
4439	1.119	1.040	1.388	0.697	0.671	1.099	2.467
4452	1.271	1.331	1.665	0.792	0.858	1.319	2.969
4459	1.194	1.501	1.209	0.744	0.968	0.958	2.670
4470	1.315	1.142	1.066	0.819	0.737	0.844	2.400
4484	0.822	1.246	1.095	0.512	0.804	0.867	2.183
4493	1.703	1.530	1.893	1.061	0.987	1.499	3.547
4557	0.936	0.673	0.845	0.583	0.434	0.669	1.686
4558	0.765	1.383	1.027	0.477	0.892	0.813	2.182
4561	1.119	1.040	1.388	0.697	0.671	1.099	2.467
4583	2.284	0.629	0.973	1.423	0.406	0.771	2.599
4611	0.516	0.674	0.599	0.321	0.435	0.474	1.231

**X 000062 R**

Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
 9/1/2007

Section X - F  
 Exhibit 1

Calculation of Pure Premiums Underlying Present Rate  
 Manufacturing Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
4635	0.928	1.196	0.776	0.578	0.771	0.615	1.964
4653	1.001	4.433	2.023	0.624	2.859	1.602	5.085
4665	2.529	1.926	2.639	1.576	1.242	2.090	4.908
4692	0.269	0.244	0.222	0.168	0.157	0.176	0.501
4693	0.403	0.467	0.459	0.251	0.301	0.364	0.916
4720	1.392	1.060	1.841	0.867	0.684	1.458	3.009
4740	0.861	0.499	0.645	0.536	0.322	0.511	1.369
4741	1.369	1.791	0.844	0.853	1.155	0.668	2.677
4770	12.282	2.173	1.286	7.652	1.402	1.019	10.072
4773	25.279	3.958	2.414	15.749	2.553	1.912	20.214
4774	20.241	4.016	2.243	12.610	2.590	1.776	16.977
4775	11.204	2.059	2.307	6.980	1.328	1.827	10.135
4776	18.988	2.418	1.233	11.830	1.560	0.977	14.366
4777	2.284	0.629	0.973	1.423	0.406	0.771	2.599
4779	14.977	2.576	2.722	9.331	1.662	2.156	13.148
4799	45.182	8.076	4.742	28.148	5.209	3.756	37.113
4825	0.288	0.197	0.334	0.179	0.127	0.265	0.571
4828	0.520	0.276	0.278	0.324	0.178	0.220	0.722
4829	0.520	0.276	0.278	0.324	0.178	0.220	0.722
4902	0.802	0.456	1.072	0.500	0.294	0.849	1.643
4923	0.499	0.330	0.347	0.311	0.213	0.275	0.799
6504	1.463	1.430	1.516	0.911	0.922	1.201	3.034
9501	1.282	0.847	1.151	0.799	0.546	0.912	2.257
9505	1.282	0.847	1.151	0.799	0.546	0.912	2.257
9521	2.727	2.974	1.780	1.699	1.918	1.410	5.027
9522	0.837	0.767	0.748	0.521	0.495	0.592	1.609

## Notes:

(2), (3), (4): From Section X - J of 09/01/2005 decision.

(5): (2) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(6): (3) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(7): (4) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(Serious = 0.623, Non-Serious = 0.645, Medical = 0.792).

# X 000063 R

Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
 9/1/2007

Section X - F  
 Exhibit 2

## Calculation of Pure Premiums Underlying Present Rate Construction Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
0050	0.741	0.637	0.699	1.757	0.868	1.401	4.026
3365	1.867	1.854	2.771	4.427	2.527	5.553	12.507
3724	0.838	0.956	1.018	1.987	1.303	2.040	5.330
3726	2.034	0.998	1.398	4.823	1.360	2.802	8.984
5020	0.711	0.834	0.634	1.686	1.137	1.271	4.093
5022	2.129	2.469	1.863	5.048	3.365	3.733	12.147
5037	4.897	2.358	2.949	11.611	3.214	5.910	20.735
5040	7.121	5.544	5.637	16.884	7.556	11.297	35.737
5057	7.076	4.645	5.215	16.777	6.331	10.451	33.559
5059	7.076	4.645	5.215	16.777	6.331	10.451	33.559
5069	7.076	4.645	5.215	16.777	6.331	10.451	33.559
5102	1.341	2.040	1.292	3.180	2.781	2.589	8.549
5146	0.702	1.078	0.984	1.664	1.469	1.972	5.106
5160	0.446	0.657	0.423	1.057	0.895	0.848	2.801
5183	0.520	0.849	0.658	1.233	1.157	1.319	3.709
5188	0.591	0.928	0.773	1.401	1.265	1.549	4.215
5190	0.504	0.663	0.567	1.195	0.904	1.136	3.235
5213	4.666	1.741	2.762	11.063	2.373	5.535	18.971
5215	0.715	1.156	1.114	1.695	1.576	2.232	5.503
5221	1.408	1.085	1.147	3.338	1.479	2.299	7.116
5222	1.578	0.571	1.080	3.741	0.778	2.164	6.684
5223	0.715	1.156	1.114	1.695	1.576	2.232	5.503
5348	1.041	1.874	0.889	2.468	2.554	1.782	6.804
5402	1.847	1.310	5.928	4.379	1.786	11.880	18.044
5403	2.325	2.154	2.157	5.513	2.936	4.323	12.771
5437	0.771	1.185	0.941	1.828	1.615	1.886	5.329
5443	0.831	0.837	0.727	1.970	1.141	1.457	4.568
5445	1.325	1.220	1.046	3.142	1.663	2.096	6.901
5462	1.103	1.300	1.383	2.615	1.772	2.772	7.159
5472	1.221	1.268	1.037	2.895	1.728	2.078	6.701
5473	2.775	1.428	2.954	6.580	1.946	5.920	14.446
5474	0.850	0.913	1.022	2.015	1.244	2.048	5.308
5479	1.719	1.657	2.468	4.076	2.258	4.946	11.280
5480	0.939	0.983	0.785	2.226	1.340	1.573	5.139
5506	1.036	0.962	0.931	2.456	1.311	1.866	5.633
5507	1.381	1.045	0.718	3.274	1.424	1.439	6.138
5508	0.741	0.637	0.699	1.757	0.868	1.401	4.026
5509	0.465	0.928	0.881	1.103	1.265	1.766	4.133
5538	0.696	1.178	0.970	1.650	1.606	1.944	5.200
5545	7.321	3.368	10.757	17.358	4.591	21.557	43.506
5547	2.832	1.977	2.924	6.715	2.695	5.860	15.269
5606	0.304	0.364	0.326	0.721	0.496	0.653	1.870
5610	0.730	0.677	0.533	1.731	0.923	1.068	3.722
5645	0.888	1.334	1.523	2.105	1.818	3.052	6.976
5651	0.888	1.334	1.523	2.105	1.818	3.052	6.976
5701	4.406	1.471	2.947	10.447	2.005	5.906	18.357
5703	2.893	1.464	2.711	6.859	1.995	5.433	14.288
5705	2.678	1.051	1.316	6.350	1.433	2.637	10.419



# X 000064 R

Section X - Classification Pricing  
Subsection F - Underlying Pure Premiums  
9/1/2007

Section X - F  
Exhibit 2

## Calculation of Pure Premiums Underlying Present Rate Construction Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
6003	2.652	1.674	1.887	6.288	2.282	3.782	12.351
6005	0.741	0.637	0.699	1.757	0.868	1.401	4.026
6204	2.085	1.296	1.345	4.944	1.766	2.695	9.405
6217	0.871	0.735	0.821	2.065	1.002	1.645	4.712
6229	0.871	0.735	0.821	2.065	1.002	1.645	4.712
6233	1.317	1.207	0.587	3.123	1.645	1.176	5.944
6251	1.204	0.428	0.672	2.855	0.583	1.347	4.785
6252	1.362	0.508	0.752	3.229	0.692	1.507	5.429
6306	1.304	0.866	0.984	3.092	1.180	1.972	6.244
6319	0.989	0.792	0.908	2.345	1.079	1.820	5.244
6325	0.481	0.513	0.413	1.140	0.699	0.828	2.667
6400	1.251	0.785	0.929	2.966	1.070	1.862	5.898
7538	0.579	0.736	0.770	1.373	1.003	1.543	3.919
7601	0.579	0.736	0.770	1.373	1.003	1.543	3.919
7855	0.928	1.413	0.811	2.200	1.926	1.625	5.751
8227	0.465	0.478	0.528	1.103	0.652	1.058	2.812
9534	0.992	0.874	1.050	2.352	1.191	2.104	5.647
9545	0.765	1.222	0.970	1.814	1.666	1.944	5.423
9549	0.822	0.537	0.539	1.949	0.732	1.080	3.761
9552	1.148	0.874	0.862	2.722	1.191	1.727	5.641
9553	1.148	0.874	0.862	2.722	1.191	1.727	5.641

### Notes:

- (2), (3), (4): From Section X - J of 09/01/2005 decision.
- (5): (2) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.
- (6): (3) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.
- (7): (4) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.  
(Serious = 2.371, Non-Serious = 1.363, Medical = 2.004).

# X 000065 R

Section X - Classification Pricing  
Subsection F - Underlying Pure Premiums  
9/1/2007

Section X - F  
Exhibit 3

## Calculation of Pure Premiums Underlying Present Rate Office and Clerical Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
4361	2.572	2.123	2.516	0.141	0.125	0.201	0.468
7610	0.940	0.994	0.988	0.052	0.059	0.079	0.189
8601	2.029	1.314	2.072	0.112	0.078	0.166	0.355
8742	1.181	1.149	1.219	0.065	0.068	0.098	0.230
8748	2.895	4.436	3.900	0.159	0.262	0.312	0.733
8800	4.026	2.973	2.939	0.221	0.175	0.235	0.632
8803	0.491	0.309	0.243	0.027	0.018	0.019	0.065
8810	0.675	0.657	0.609	0.037	0.039	0.049	0.125
8820	0.706	0.493	0.487	0.039	0.029	0.039	0.107
8832	2.025	1.314	1.463	0.111	0.078	0.117	0.306
8833	4.832	7.721	6.215	0.266	0.456	0.497	1.218
8868	1.856	2.464	3.168	0.102	0.145	0.253	0.501
8901	0.675	0.657	0.609	0.037	0.039	0.049	0.125
9156	3.570	6.887	5.938	0.196	0.406	0.475	1.078

Notes:

(2), (3), (4): From Section X - J of 09/01/2005 decision.

(5): (2) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(6): (3) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(7): (4) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(Serious = 0.055, Non-Serious = 0.059, Medical = 0.08).

**X 000066 R**

Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
 9/1/2007

Section X - F  
 Exhibit 4

Calculation of Pure Premiums Underlying Present Rate  
 Goods and Services Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
0005	1.237	1.602	1.964	0.585	0.969	1.497	3.051
0008	0.655	1.120	1.094	0.310	0.678	0.834	1.821
0016	1.898	1.035	1.250	0.898	0.626	0.953	2.476
0034	2.004	1.418	1.672	0.948	0.858	1.274	3.080
0035	0.778	1.024	0.944	0.368	0.620	0.719	1.707
0036	2.004	1.418	1.672	0.948	0.858	1.274	3.080
0037	0.655	1.120	1.094	0.310	0.678	0.834	1.821
0042	2.521	2.016	2.032	1.192	1.220	1.548	3.960
0079	2.425	1.783	3.151	1.147	1.079	2.401	4.627
0083	2.226	1.285	1.278	1.053	0.777	0.974	2.804
0113	2.004	1.418	1.672	0.948	0.858	1.274	3.080
0170	2.004	1.418	1.672	0.948	0.858	1.274	3.080
0908	45.411	32.055	30.922	21.479	19.393	23.563	64.435
0909	32.496	52.443	80.653	15.371	31.728	61.458	108.556
0912	64.992	104.886	161.306	30.741	63.456	122.915	217.112
0913	90.821	64.111	61.845	42.958	38.787	47.126	128.871
0917	1.011	1.756	1.304	0.478	1.062	0.994	2.534
2587	0.999	0.931	0.842	0.473	0.563	0.642	1.677
3821	2.507	1.896	2.533	1.186	1.147	1.930	4.263
4362	0.322	0.210	0.338	0.152	0.127	0.258	0.537
4511	0.310	0.176	0.243	0.147	0.106	0.185	0.438
4512	0.083	0.071	0.090	0.039	0.043	0.069	0.151
5191	0.649	0.434	0.572	0.307	0.263	0.436	1.005
5192	2.539	2.472	1.788	1.201	1.496	1.362	4.059
8001	0.389	0.713	0.565	0.184	0.431	0.431	1.046
8002	1.637	1.154	1.579	0.774	0.698	1.203	2.676
8006	0.789	0.542	0.729	0.373	0.328	0.555	1.257
8008	0.580	0.434	0.450	0.274	0.263	0.343	0.880
8010	0.851	0.713	0.802	0.403	0.431	0.611	1.445
8013	0.352	0.205	0.231	0.166	0.124	0.176	0.467
8017	0.686	0.511	0.717	0.324	0.309	0.546	1.180
8018	1.896	1.783	1.898	0.897	1.079	1.446	3.422
8021	3.056	2.310	2.140	1.445	1.398	1.631	4.474
8031	1.655	1.232	0.995	0.783	0.745	0.758	2.286
8032	0.971	0.914	0.973	0.459	0.553	0.741	1.754
8033	0.834	1.210	1.046	0.394	0.732	0.797	1.924
8034	3.130	2.696	2.286	1.480	1.631	1.742	4.854
8039	0.738	1.199	1.082	0.349	0.725	0.824	1.899
8044	1.719	1.613	1.788	0.813	0.976	1.362	3.151
8046	0.950	1.362	1.084	0.449	0.824	0.826	2.099
8048	2.068	1.241	1.139	0.978	0.751	0.868	2.597
8050	0.575	0.464	0.460	0.272	0.281	0.351	0.903
8058	1.406	1.323	1.522	0.665	0.800	1.160	2.625
8103	1.628	1.583	1.428	0.770	0.958	1.088	2.816
8105	3.068	1.100	2.006	1.451	0.666	1.529	3.645
8106	3.367	3.495	3.094	1.593	2.114	2.358	6.065

**X 000067 R**

Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
 9/1/2007

Section X - F  
 Exhibit 4

Calculation of Pure Premiums Underlying Present Rate  
 Goods and Services Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
8107	1.255	1.070	1.228	0.594	0.647	0.936	2.177
8111	1.360	1.874	1.329	0.643	1.134	1.013	2.790
8116	1.255	1.070	1.228	0.594	0.647	0.936	2.177
8203	1.797	2.645	1.475	0.850	1.600	1.124	3.574
8204	7.941	2.216	2.479	3.756	1.341	1.889	6.986
8215	1.669	1.662	2.321	0.789	1.006	1.769	3.564
8232	2.429	2.434	2.615	1.149	1.473	1.993	4.614
8233	4.249	2.463	4.907	2.010	1.490	3.739	7.239
8235	2.196	2.383	2.334	1.039	1.442	1.779	4.259
8263	3.719	1.781	2.658	1.759	1.078	2.025	4.862
8264	2.716	3.114	2.233	1.285	1.884	1.702	4.870
8265	4.249	2.463	4.907	2.010	1.490	3.739	7.239
8279	2.471	1.370	3.207	1.169	0.829	2.444	4.441
8291	1.639	1.586	1.627	0.775	0.960	1.240	2.975
8292	2.014	1.597	1.533	0.953	0.966	1.168	3.087
8293	6.030	2.946	3.588	2.852	1.782	2.734	7.369
8350	3.148	2.372	2.081	1.489	1.435	1.586	4.510
8380	1.210	1.365	1.289	0.572	0.826	0.982	2.380
8381	0.596	0.672	0.774	0.282	0.407	0.590	1.278
8385	2.327	1.464	1.375	1.101	0.886	1.048	3.034
8392	0.921	0.739	0.674	0.436	0.447	0.514	1.396
8393	0.962	1.210	0.888	0.455	0.732	0.677	1.864
8500	4.249	2.463	4.907	2.010	1.490	3.739	7.239
8710	1.240	0.877	0.955	0.587	0.531	0.728	1.845
8719	1.240	0.877	0.955	0.587	0.531	0.728	1.845
8720	0.608	0.337	0.409	0.288	0.204	0.312	0.803
8745	2.166	4.010	4.596	1.025	2.426	3.502	6.953
8829	0.686	1.582	1.168	0.324	0.957	0.890	2.172
8831	0.361	0.413	0.729	0.171	0.250	0.555	0.976
8835	1.082	1.551	1.119	0.512	0.938	0.853	2.303
9014	1.271	1.038	1.034	0.601	0.628	0.788	2.017
9015	1.816	1.069	1.350	0.859	0.647	1.029	2.534
9016	0.739	0.933	0.961	0.350	0.564	0.732	1.646
9033	2.663	1.768	1.119	1.260	1.070	0.853	3.182
9040	1.592	2.171	1.935	0.753	1.313	1.474	3.541
9052	0.699	0.899	0.888	0.331	0.544	0.677	1.551
9058	0.699	0.899	0.888	0.331	0.544	0.677	1.551
9060	0.713	0.558	0.705	0.337	0.338	0.537	1.212
9061	0.772	0.484	0.564	0.365	0.293	0.430	1.088
9063	0.232	0.356	0.463	0.110	0.215	0.353	0.678
9079	0.625	0.682	0.742	0.296	0.413	0.565	1.274
9089	0.462	0.369	0.369	0.219	0.223	0.281	0.723
9093	0.417	0.568	1.219	0.197	0.344	0.929	1.470
9101	1.062	1.100	1.472	0.502	0.666	1.122	2.289
9220	1.851	2.403	1.428	0.876	1.454	1.088	3.417
9410	1.353	0.883	1.040	0.640	0.534	0.792	1.967

# X 000068 R

Section X - Classification Pricing  
Subsection F - Underlying Pure Premiums  
9/1/2007

Section X - F  
Exhibit 4

## Calculation of Pure Premiums Underlying Present Rate Goods and Services Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
9519	1.615	0.934	0.997	0.764	0.565	0.760	2.089
9586	0.336	0.240	0.256	0.159	0.145	0.195	0.499
9620	0.431	0.228	0.407	0.204	0.138	0.310	0.652

Notes:

(2), (3), (4): From Section X - J of 09/01/2005 decision.

(5): (2) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(6): (3) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(7): (4) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.

(Serious = 0.473, Non-Serious = 0.605, Medical = 0.762).

# X 000069 R

Section X - Classification Pricing  
 Subsection F - Underlying Pure Premiums  
 9/1/2007

Section X - F  
 Exhibit 5

## Calculation of Pure Premiums Underlying Present Rate Miscellaneous Industry Group

Class (1)	Adopted Relativities			Pure Premiums Underlying Present Rate			
	Serious (2)	Non-Serious (3)	Medical (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
0106	2.806	1.984	3.586	4.220	2.464	6.222	12.906
0251	0.626	0.644	0.550	0.942	0.800	0.954	2.696
1624	0.839	0.620	0.770	1.262	0.770	1.336	3.368
1655	1.015	0.387	0.858	1.527	0.481	1.489	3.496
1710	0.839	0.620	0.770	1.262	0.770	1.336	3.368
2702	2.687	2.024	3.512	4.041	2.514	6.093	12.648
4000	0.923	0.825	0.879	1.388	1.025	1.525	3.938
6834	0.676	0.493	0.946	1.017	0.612	1.641	3.270
6836	0.606	0.463	0.512	0.911	0.575	0.888	2.375
7219	1.683	1.429	1.259	2.531	1.775	2.184	6.490
7230	1.638	1.138	1.645	2.464	1.413	2.854	6.731
7231	1.193	1.168	1.058	1.794	1.451	1.836	5.081
7360	1.059	1.267	0.879	1.593	1.574	1.525	4.691
7370	0.578	0.744	0.743	0.869	0.924	1.289	3.082
7380	1.077	1.466	1.253	1.620	1.821	2.174	5.615
7382	0.693	0.821	0.890	1.042	1.020	1.544	3.606
7403	0.620	0.630	0.702	0.932	0.782	1.218	2.933
7405	0.222	0.291	0.256	0.334	0.361	0.444	1.139
7409	2.816	0.484	0.693	4.235	0.601	1.202	6.039
7418	2.816	0.484	0.693	4.235	0.601	1.202	6.039
7420	2.816	0.484	0.693	4.235	0.601	1.202	6.039
7421	0.349	0.159	0.672	0.525	0.197	1.166	1.888
7422	0.349	0.159	0.672	0.525	0.197	1.166	1.888
7423	0.721	0.545	0.948	1.084	0.677	1.645	3.406
7431	0.349	0.159	0.672	0.525	0.197	1.166	1.888
7502	0.935	0.618	0.942	1.406	0.768	1.634	3.808
7515	0.296	0.203	0.207	0.445	0.252	0.359	1.056
7520	0.626	0.644	0.550	0.942	0.800	0.954	2.696
7539	0.334	0.421	0.395	0.502	0.523	0.685	1.711
7580	0.678	0.400	0.704	1.020	0.497	1.221	2.738
7590	1.522	1.612	1.663	2.289	2.002	2.885	7.176
7600	0.531	0.585	0.504	0.799	0.727	0.874	2.400
7704	0.186	0.202	0.351	0.280	0.251	0.609	1.140
7720	0.338	0.327	0.369	0.508	0.406	0.640	1.555
9019	1.655	0.833	1.129	2.489	1.035	1.959	5.483
9102	0.342	0.574	0.440	0.514	0.713	0.763	1.991
9154	0.216	0.302	0.249	0.325	0.375	0.432	1.132
9178	0.746	4.354	12.601	1.122	5.408	21.863	28.392
9179	4.414	4.408	4.021	6.639	5.475	6.976	19.090
9180	0.447	0.735	0.786	0.672	0.913	1.364	2.949
9182	0.686	0.344	0.608	1.032	0.427	1.055	2.514
9186	0.447	0.735	0.786	0.672	0.913	1.364	2.949
9402	1.466	1.065	1.150	2.205	1.323	1.995	5.523
9403	1.580	1.170	1.654	2.376	1.453	2.870	6.699

**Notes:**

- (2), (3), (4): From Section X - J of 09/01/2005 decision.
- (5): (2) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.
- (6): (3) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.
- (7): (4) x Pure Premium Underlying Present Rate Factors from Section X - E, Exhibit 1.  
 (Serious = 1.504, Non-Serious = 1.242, Medical = 1.735).

# X 000070 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 1

## 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 X - G, Exhibit 1
0008	FARM: GARDENING-MARKET OR TRUCK & DRIVERS	0008	Section X - G, Exhibit 2
0016	FARM: ORCHARDS & DRIVERS	0016	Section X - G, Exhibit 2
0034	FARM: POULTRY OR EGG PRODUCERS & DRIVERS	0034	Section X - G, Exhibit 3
0035	FARM: FLORIST & DRIVERS	0035	Section X - G, Exhibit 3
0036	FARM: DAIRY & DRIVERS	0034	Section X - G, Exhibit 3
0037	FARM: FIELD CROPS & DRIVERS	0008	Section X - G, Exhibit 2
0042	LANDSCAPE GARDENING & DRIVERS	0042	Section X - G, Exhibit 4
0050	FARM MACHINERY OPERATION-BY CONTRACTOR & DRIVERS	0050	Section X - G, Exhibit 4
0079	FARM: BERRY OR VINEYARD & DRIVERS	0079	Section X - G, Exhibit 5
0083	FARM: CATTLE OR LIVESTOCK RAISING NOC & DRIVERS	0083	Section X - G, Exhibit 5
0106	TREE PRUNING, SPRAYING, REPAIRING & DRIVERS	0106	Section X - G, Exhibit 6
0113	FARM: FISH HATCHERY & DRIVERS	0034	Section X - G, Exhibit 3
0170	FARM: ANIMAL RAISING & DRIVERS	0034	Section X - G, Exhibit 3
0251	IRRIGATION WORKS OPERATION & DRIVERS	0251	Section X - G, Exhibit 6
0908	DOMESTIC WORKERS-INSIDE-OCCASIONAL-NOC	0908	Section X - G, Exhibit 7
0909	DOMESTIC WORKERS-OUTSIDE-OCCASIONAL-INCL OCCASNL PRIV CHAUFF	0909	Section X - G, Exhibit 7
0912	DOMESTIC WORKERS-OUTSIDE-INCL PRIVATE CHAUFFERS	0909	Section X - G, Exhibit 7
0913	DOMESTIC WORKERS-INSIDE-NOC	0908	Section X - G, Exhibit 7
0917	DOMESTIC SERVICE CONTRACTOR-INSIDE	0917	Section X - G, Exhibit 8
0918	DOMESTIC WORKERS-INSIDE-PHYSICAL ASSISTANCE	0918	Section X - G, Exhibit 8
1430	SMELTING, SINTERING OR REFINING-LEAD & DRIVERS	1430	Section X - G, Exhibit 9
1438	SMELTING, SINTERING OR REFINING-METALS-NOT IRON OR LEAD-NOC & D	1438	Section X - G, Exhibit 9
1463	ASPHALT WORKS & DRIVERS	1463	Section X - G, Exhibit 10
1624	QUARRY NOC & DRIVERS	1624	Section X - G, Exhibit 10
1655	LIME MFG-QUARRY-SURFACE & DRIVERS	1655	Section X - G, Exhibit 11
1701	CEMENT MFG	1701	Section X - G, Exhibit 11
1710	STONE CRUSHING & DRIVERS	1624	Section X - G, Exhibit 10
1747	EMERY WORKS & DRIVERS	1747	Section X - G, Exhibit 12
1748	ABRASIVE WHEEL MFG & DRIVERS	1748	Section X - G, Exhibit 12
1852	ASBESTOS GOODS MFG	1852	Section X - G, Exhibit 13
1853	MICA GOODS MFG & MICA PREPARING	1853	Section X - G, Exhibit 13
1860	ABRASIVE PAPER OR CLOTH PREPARATION	1860	Section X - G, Exhibit 14
1924	WIRE DRAWING OR CABLE MFG-NOT IRON OR STEEL	1924	Section X - G, Exhibit 14
1925	DIE CASTING MFG	1925	Section X - G, Exhibit 15
2001	CRACKER MFG	2001	Section X - G, Exhibit 15
2002	MACARONI MFG	2002	Section X - G, Exhibit 16
2003	BAKERY & DRIVERS, ROUTE SUPERVISORS	2001	Section X - G, Exhibit 15
2014	GRAIN MILLING	2014	Section X - G, Exhibit 16
2021	SUGAR REFINING-ALL OPERATIONS & DRIVERS	2021	Section X - G, Exhibit 17
2039	ICE CREAM MFG & DRIVERS	2039	Section X - G, Exhibit 17
2041	CONFECTION MFG	2041	Section X - G, Exhibit 18
2070	CREAMERY OR DAIRY & ROUTE SUPERVISORS, DRIVERS	2070	Section X - G, Exhibit 18
2081	BUTCHERING	2081	Section X - G, Exhibit 19
2089	PACKING HOUSE- ALL OPERATIONS	2089	Section X - G, Exhibit 19
2095	MEAT PRODUCTS MFG-NOC	2095	Section X - G, Exhibit 20
2101	FISH CURING	2089	Section X - G, Exhibit 19
2111	CANNERY NOC	2111	Section X - G, Exhibit 20
2114	OYSTERMEN	2089	Section X - G, Exhibit 19
2115	SEAFOOD PRODUCTS MFG-NOC	2115	Section X - G, Exhibit 21
2121	BREWERY & DRIVERS	2121	Section X - G, Exhibit 21
2130	SPIRITUOUS LIQUOR DISTILLERY	2130	Section X - G, Exhibit 22
2131	SPIRITUOUS LIQUOR BOTTLING	2131	Section X - G, Exhibit 22
2143	FRUIT JUICE MFG	2143	Section X - G, Exhibit 23
2150	ICE MFG	2150	Section X - G, Exhibit 23
2156	BOTTLING-NOT CARBONATED LIQUIDS OR SPIRIT LIQRS & RTE SUP,DR	2156	Section X - G, Exhibit 24
2157	BOTTLING NOC & ROUTE SUPERVISORS, DRIVERS	2157	Section X - G, Exhibit 24
2172	CIGARETTE MFG	2172	Section X - G, Exhibit 25
2174	TOBACCO REHANDLING OR WAREHOUSING	2174	Section X - G, Exhibit 25
2211	COTTON BATTING,WADDING OR WASTE MFG	2211	Section X - G, Exhibit 26
2220	YARN OR THREAD MFG-COTTON	2220	Section X - G, Exhibit 26
2260	WOOL COMBING OR SCOURING	2260	Section X - G, Exhibit 27
2286	WOOL SPINNING & WEAVING	2220	Section X - G, Exhibit 26
2288	FELTING MFG	2288	Section X - G, Exhibit 27
2302	SILK THREAD OR YARN MFG	2220	Section X - G, Exhibit 26
2305	TEXTILE FIBER MFG-SYNTHETIC	2305	Section X - G, Exhibit 28
2362	KNIT GOODS MFG NOC	2362	Section X - G, Exhibit 28

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Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 1

## A-Sheet Table of Contents

Class	To find the A-Sheet for:		Class	Look at the A-Sheet for:	
	Description			Exhibit	
2380	WEBBING MFG		2380	Section X - G, Exhibit 29	
2402	CARPET OR RUG MFG NOC		2402	Section X - G, Exhibit 29	
2413	TEXTILE - BLEACHING, DYEING, MERCERZNG, FINISH		2413	Section X - G, Exhibit 30	
2416	YARN OR THREAD DYEING OR FINISHING		2416	Section X - G, Exhibit 30	
2417	CLOTH PRINTING		2417	Section X - G, Exhibit 31	
2501	CLOTHING MFG		2501	Section X - G, Exhibit 31	
2503	DRESSMAKING OR TAILORING-CUSTOM EXCLUSIVELY		2503	Section X - G, Exhibit 32	
2534	FEATHER OR FLOWER MFG-ARTIFICIAL		2501	Section X - G, Exhibit 31	
2570	MATTRESS OR BOX SPRING MFG		2570	Section X - G, Exhibit 32	
2576	CANVAS GOODS MFG NOC-SHOP		2576	Section X - G, Exhibit 33	
2578	BAG OR SACK MFG-CLOTH		2576	Section X - G, Exhibit 33	
2585	LAUNDRY NOC & ROUTE SUPERVISORS, DRIVERS		2585	Section X - G, Exhibit 33	
2586	CLEANING OR DYEING & ROUTE SUPERVISORS, DRIVERS		2586	Section X - G, Exhibit 34	
2587	TOWEL OR TOILET SUPPLY CO & RTE SUPERVISORS, DR		2587	Section X - G, Exhibit 34	
2623	TANNING		2623	Section X - G, Exhibit 35	
2640	LEATHER EMBOSsing		2640	Section X - G, Exhibit 35	
2651	SHOE STOCK MFG		2640	Section X - G, Exhibit 35	
2660	BOOT OR SHOE MFG NOC		2660	Section X - G, Exhibit 36	
2683	LUGGAGE MFG		2683	Section X - G, Exhibit 36	
2688	LEATHER GOODS MFG NOC		2688	Section X - G, Exhibit 37	
2702	LOGGING OR LUMBERING & DRIVERS		2702	Section X - G, Exhibit 37	
2710	SAWMILLS		2710	Section X - G, Exhibit 38	
2731	PLANING OR MOLDING MILL		2731	Section X - G, Exhibit 38	
2741	COOPERAGE STOCK MFG		2741	Section X - G, Exhibit 39	
2747	COOPERAGE ASSEMBLY		2747	Section X - G, Exhibit 39	
2790	PATTERN MAKING NOC		2790	Section X - G, Exhibit 40	
2802	CARPENTRY-SHOP ONLY & DRIVERS		2802	Section X - G, Exhibit 40	
2835	BRUSH OR BROOM ASSEMBLY		2835	Section X - G, Exhibit 41	
2836	BRUSH OR BROOM MFG NOC		2836	Section X - G, Exhibit 41	
2841	WOODENWARE MFG NOC		2841	Section X - G, Exhibit 42	
2883	FURNITURE MFG-WOOD-NOC		2883	Section X - G, Exhibit 42	
2923	PIANO MFG		2923	Section X - G, Exhibit 43	
2942	PENCIL, PENHOLDER OR CRAYON MFG		2942	Section X - G, Exhibit 43	
3018	IRON OR STEEL: MFG: ROLLING MILL & DRIVERS		3018	Section X - G, Exhibit 44	
3022	PIPE OR TUBE MFG NOC & DRIVERS		3022	Section X - G, Exhibit 44	
3027	ROLLING MILL NOC & DRIVERS		3027	Section X - G, Exhibit 45	
3028	PIPE OR TUBE MFG - IRON OR STEEL & DRIVERS		3028	Section X - G, Exhibit 45	
3030	IRON OR STEEL: FABRICATION: IRON/STEEL WORK-SHOP-STRUCT & DR		3030	Section X - G, Exhibit 46	
3040	IRON OR STEEL: FABRICATION: IRON WORKS-SHOP-ORNAMENTAL & DR		3040	Section X - G, Exhibit 46	
3041	IRON OR STEEL: FABRICATION: IRON WORKS-SHP-DEC/ART &FNDRS,DR		3041	Section X - G, Exhibit 47	
3042	ELEVATOR OR ESCALATOR MFG		3042	Section X - G, Exhibit 47	
3064	SIGN MFG-METAL		3064	Section X - G, Exhibit 48	
3066	SHEET METAL WORK - SHOP		3064	Section X - G, Exhibit 48	
3076	FIREPROOF EQUIPMENT MFG		3076	Section X - G, Exhibit 48	
3081	FOUNDRY-FERROUS-NOC		3081	Section X - G, Exhibit 49	
3082	FOUNDRY-STEEL CASTINGS		3081	Section X - G, Exhibit 49	
3085	FOUNDRY-NON FERROUS		3085	Section X - G, Exhibit 49	
3110	FORGING WORK - DROP OR MACHINE		3110	Section X - G, Exhibit 50	
3111	BLACKSMITH		3111	Section X - G, Exhibit 50	
3113	TOOL MFG-NOT DROP OR MACHINE FORGED-NOC		3113	Section X - G, Exhibit 51	
3114	TOOL MFG-DROP OR MACHINE FORGED-NOC: MACHINING OR FINISHING		3114	Section X - G, Exhibit 51	
3118	SAW MFG		3113	Section X - G, Exhibit 51	
3119	NEEDLE MFG		3119	Section X - G, Exhibit 52	
3120	RAZOR MFG-SAFETY		3120	Section X - G, Exhibit 52	
3122	CUTLERY MFG-NOC		3122	Section X - G, Exhibit 53	
3127	PRECISION MEASURING TOOL MFG-NOC		3127	Section X - G, Exhibit 53	
3131	BUTTON OR FASTENER MFG-METAL		3131	Section X - G, Exhibit 54	
3132	NUT OR BOLT MFG		3132	Section X - G, Exhibit 54	
3145	SCREW MFG		3145	Section X - G, Exhibit 55	
3146	HARDWARE MFG-NOC		3146	Section X - G, Exhibit 55	
3169	STOVE MFG		3169	Section X - G, Exhibit 56	
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8500	METAL SCRAP DEALER & DRIVERS		8233	Section X - G, Exhibit 160	
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8720	INSPECTION OF RISKS FOR INSURANCE OR VALUATION PURPOSES NOC		8720	Section X - G, Exhibit 168	
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8745	NEWS AGENT OR DISTRIB OF MAGAZINE-NOT RETAIL & SALES,DR		8745	Section X - G, Exhibit 169	
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8803	AUDITORS, ACCOUNTANT OR FACTORY COST OR OFF SYSTEMZTR-TRAV		8803	Section X - G, Exhibit 171	
8810	CLERICAL OFFICE EMPLOYEES NOC		8810	Section X - G, Exhibit 171	
8820	ATTORNEY-ALL EMP & CLERICAL, MESSENGERS, DR		8820	Section X - G, Exhibit 172	
8829	CONVALESCENT OR NURSING HOME-ALL EMPLOYEES		8829	Section X - G, Exhibit 172	
8831	PET GROOMING & DRIVERS		8831	Section X - G, Exhibit 173	
8832	PHYSICIAN & CLERICAL		8832	Section X - G, Exhibit 173	
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Section X - Classification Pricing  
Subsection G - Class Relativities  
9/1/2007

Section X - G  
Exhibit 1

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9014	BUILDINGS - OPERATION BY CONTRACTORS	9014	Section X - G, Exhibit 175
9015	BUILDINGS-OPERATION BY OWNER OR LESSEE	9015	Section X - G, Exhibit 176
9016	AMUSEMENT PARK OR EXHIBITION OPERATION & DR	9016	Section X - G, Exhibit 176
9019	BRIDGE OR VEHICULAR TUNNEL OPERATION & DRIVERS	9019	Section X - G, Exhibit 177
9033	HOUSING AUTHORITY & CLERICAL, SALES, DRIVERS	9033	Section X - G, Exhibit 177
9040	HOSPITAL: ALL OTHER EMPLOYEES	9040	Section X - G, Exhibit 178
9052	HOTEL: ALL OTHER EMPLOYEES & SALES, DRIVERS	9052	Section X - G, Exhibit 178
9058	HOTEL: RESTAURANT EMPLOYEES	9052	Section X - G, Exhibit 178
9060	CLUB-COUNTRY, GOLF, FISHING OR YACHT & CLERICAL	9060	Section X - G, Exhibit 179
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9063	YMCA, YWCA, YMHA OR YWHA, INSTITUTION-ALL EMPLOYEES & CLERICAL	9063	Section X - G, Exhibit 180
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9089	BILLIARD HALL	9089	Section X - G, Exhibit 181
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9101	COLLEGE: ALL OTHER EMPLOYEES	9101	Section X - G, Exhibit 182
9102	PARK NOC- ALL EMPLOYEES & DRIVERS	9102	Section X - G, Exhibit 182
9154	THEATER NOC: ALL OTHER EMPLOYEES	9154	Section X - G, Exhibit 183
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9178	ATHLETIC TEAM OR PARK: NON-CONTACT SPORTS	9178	Section X - G, Exhibit 184
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9180	AMUSEMENT DEVICE OPERATION NOC-NOT TRAV & DR	9180	Section X - G, Exhibit 185
9182	ATHLETIC TEAM OR PARK: OPERATIONS & DRIVERS	9182	Section X - G, Exhibit 185
9186	CARNIVAL, CIRCUS OR AMUSEMENT DEVICE OP-TRAV-ALL EMP & DR	9180	Section X - G, Exhibit 185
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9402	STREET CLEANING & DRIVERS	9402	Section X - G, Exhibit 186
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9505	PAINTING: AUTO OR CARRIAGE BODIES	9501	Section X - G, Exhibit 188
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9522	UPHOLSTERING	9522	Section X - G, Exhibit 189
9534	MOBILE CRANE & HOIST SERV CONTR-NOC-ALL OP -INCL YRD EMP &DR	9534	Section X - G, Exhibit 190
9545	BILL POSTING & DRIVERS	9545	Section X - G, Exhibit 190
9549	ADVERTISING CO & DRIVERS	9549	Section X - G, Exhibit 191
9552	SIGN MFG-ERECTION, REPAIR OR MAINT & SHOP, DR	9552	Section X - G, Exhibit 191
9553	SIGN PAINTING OR LETTERING-OUTSIDE OF BLDGS OR STRUCT & DR	9552	Section X - G, Exhibit 191
9586	BARBER SHOP, BEAUTY PARLOR, HAIR STYLING SALON	9586	Section X - G, Exhibit 192
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# X 000077 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 2

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
0005 FARM: NURSERY EMP & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	127,389	1	16	79,345	123,908	145,443	348,696		
2000/2001	149,320	4	32	268,761	163,880	378,774	811,415		
2001/2002	148,849	0	11	0	11,752	49,107	60,859		
2002/2003	142,877	3	22	292,656	79,397	350,613	722,665		
2003/2004	151,857	0	20	0	100,512	177,117	277,629		
<b>MA Total</b>	<b>720,292</b>	<b>8</b>	<b>101</b>	<b>640,761</b>	<b>479,449</b>	<b>1,101,053</b>	<b>2,221,264</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.623	0.973	1.142	2.737				
	2000/2001	1.800	1.098	2.537	5.434				
	2001/2002	0.000	0.079	0.330	0.409				
	2002/2003	2.048	0.556	2.454	5.058				
	2003/2004	0.000	0.662	1.166	1.828				
	<b>MA Total Pure Premium:</b>	<b>0.890</b>	<b>0.666</b>	<b>1.529</b>	<b>3.084</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.281	1.508	1.895					
	(14) Massachusetts Credibility:	0.24	0.72	0.73					
	(15) Countrywide Pure Premium:	0.966	0.524	1.143	2.633				
	(16) Countrywide Indicated Relativity:	1.356	1.140	1.366					
	(17) Countrywide Credibility:	0.38	0.14	0.14					
	(18) Countrywide Lost-time Claims:	549	4,728						
	(19) Pure Premium Underlying Present Rate:	0.585	0.969	1.497	3.051				
	(20) Relativity to Underlying Present Rate:	1.247	1.632	1.992					
	(21) Credibility to Underlying Relativity:	0.380	0.140	0.130					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.296	1.474	1.834					
	(24) Balanced Formula Relativity:	1.285	1.471	1.827	1.552				

Class(es):		Effective: 9/1/2007						Goods & Services	
0008 FARM: GARDENING-MARKET OR TRUCK & DRIVERS*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	168,486	0	12	0	21,566	51,311	72,877		
2000/2001	194,887	3	13	233,408	192,896	266,875	693,179		
2001/2002	195,115	0	20	0	108,283	159,397	267,680		
2002/2003	204,355	1	6	148,162	27,592	141,397	317,151		
2003/2004	250,631	0	15	0	9,629	47,307	56,937		
<b>MA Total</b>	<b>1,013,474</b>	<b>4</b>	<b>66</b>	<b>381,569</b>	<b>359,966</b>	<b>666,287</b>	<b>1,407,822</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.128	0.305	0.433				
	2000/2001	1.198	0.990	1.369	3.557				
	2001/2002	0.000	0.555	0.817	1.372				
	2002/2003	0.725	0.135	0.692	1.552				
	2003/2004	0.000	0.038	0.189	0.227				
	<b>MA Total Pure Premium:</b>	<b>0.376</b>	<b>0.355</b>	<b>0.657</b>	<b>1.389</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.542	0.805	0.815					
	(14) Massachusetts Credibility:	0.21	0.71	0.66					
	(15) Countrywide Pure Premium:	1.547	0.556	1.178	3.281				
	(16) Countrywide Indicated Relativity:	2.171	1.209	1.408					
	(17) Countrywide Credibility:	0.40	0.15	0.17					
	(18) Countrywide Lost-time Claims:	256	4,541						
	(19) Pure Premium Underlying Present Rate:	0.310	0.678	0.834	1.821				
	(20) Relativity to Underlying Present Rate:	0.660	1.141	1.110					
	(21) Credibility to Underlying Relativity:	0.390	0.140	0.170					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.240	0.912	0.966					
	(24) Balanced Formula Relativity:	1.229	0.911	0.963	1.046				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000078 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 3

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
0016 FARM: ORCHARDS & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	51,743	0	7	0	42,311	31,065	73,375		
2000/2001	49,270	0	4	0	12,758	27,339	40,097		
2001/2002	46,963	1	3	177,091	2,652	34,016	213,759		
2002/2003	50,801	0	3	0	2,069	9,842	11,911		
2003/2004	50,934	0	3	0	57,677	38,593	96,270		
<b>MA Total</b>	<b>249,711</b>	<b>1</b>	<b>20</b>	<b>177,091</b>	<b>117,467</b>	<b>140,855</b>	<b>435,412</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.818	0.600	1.418				
	2000/2001	0.000	0.259	0.555	0.814				
	2001/2002	3.771	0.056	0.724	4.552				
	2002/2003	0.000	0.041	0.194	0.234				
	2003/2004	0.000	1.132	0.758	1.890				
	<b>MA Total Pure Premium:</b>	<b>0.709</b>	<b>0.470</b>	<b>0.564</b>	<b>1.744</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.021	1.066	0.699					
	(14) Massachusetts Credibility:	0.19	0.39	0.40					
	(15) Countrywide Pure Premium:	1.966	0.738	1.728	4.432				
	(16) Countrywide Indicated Relativity:	2.759	1.605	2.066					
	(17) Countrywide Credibility:	0.41	0.31	0.30					
	(18) Countrywide Lost-time Claims:	897	4,835						
	(19) Pure Premium Underlying Present Rate:	0.898	0.626	0.953	2.476				
	(20) Relativity to Underlying Present Rate:	1.913	1.054	1.268					
	(21) Credibility to Underlying Relativity:	0.400	0.300	0.300					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	2.090	1.230	1.280					
	(24) Balanced Formula Relativity:	2.072	1.227	1.275	1.549				

Class(es):		Effective: 9/1/2007						Goods & Services	
0034 FARM: POULTRY OR EGG PRODUCERS & DRIVERS*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	98,653	0	9	0	31,183	63,021	94,204		
2000/2001	102,070	2	13	111,150	29,503	101,621	242,274		
2001/2002	99,087	1	13	60,546	66,493	87,078	214,117		
2002/2003	92,780	1	7	129,209	48,196	179,954	357,360		
2003/2004	95,721	0	8	0	60,797	140,027	200,825		
<b>MA Total</b>	<b>488,311</b>	<b>4</b>	<b>50</b>	<b>300,905</b>	<b>236,173</b>	<b>571,702</b>	<b>1,108,779</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.316	0.639	0.955				
	2000/2001	1.089	0.289	0.996	2.374				
	2001/2002	0.611	0.671	0.879	2.161				
	2002/2003	1.393	0.519	1.940	3.852				
	2003/2004	0.000	0.635	1.463	2.098				
	<b>MA Total Pure Premium:</b>	<b>0.616</b>	<b>0.484</b>	<b>1.171</b>	<b>2.271</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.887	1.096	1.451					
	(14) Massachusetts Credibility:	0.25	0.59	0.58					
	(15) Countrywide Pure Premium:	1.248	0.702	1.391	3.340				
	(16) Countrywide Indicated Relativity:	1.750	1.527	1.662					
	(17) Countrywide Credibility:	0.38	0.21	0.21					
	(18) Countrywide Lost-time Claims:	586	5,890						
	(19) Pure Premium Underlying Present Rate:	0.948	0.858	1.274	3.080				
	(20) Relativity to Underlying Present Rate:	2.020	1.444	1.696					
	(21) Credibility to Underlying Relativity:	0.370	0.200	0.210					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.634	1.256	1.547					
	(24) Balanced Formula Relativity:	1.620	1.254	1.542	1.504				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000079 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 4

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
0035 FARM: FLORIST & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	343,450	1	38	84,609	213,918	335,824	634,352		
2000/2001	381,617	0	26	0	192,174	124,687	316,861		
2001/2002	372,637	0	19	0	39,593	122,347	161,940		
2002/2003	365,493	2	34	346,809	212,991	529,805	1,089,605		
2003/2004	361,143	2	15	264,874	185,115	319,680	769,668		
<b>MA Total</b>	<b>1,824,340</b>	<b>5</b>	<b>132</b>	<b>696,292</b>	<b>843,792</b>	<b>1,432,342</b>	<b>2,972,426</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.246	0.623	0.978	1.847		
		2000/2001		0.000	0.504	0.327	0.830		
		2001/2002		0.000	0.106	0.328	0.435		
		2002/2003		0.949	0.583	1.450	2.981		
		2003/2004		0.733	0.513	0.885	2.131		
		<b>MA Total Pure Premium:</b>		<b>0.382</b>	<b>0.463</b>	<b>0.785</b>	<b>1.629</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.549	1.048	0.973			
		(14) Massachusetts Credibility:		0.29	0.87	0.79			
		(15) Countrywide Pure Premium:		0.669	0.522	0.946	2.137		
		(16) Countrywide Indicated Relativity:		0.939	1.135	1.131			
		(17) Countrywide Credibility:		0.36	0.07	0.11			
		(18) Countrywide Lost-time Claims:		302	3,114				
		(19) Pure Premium Underlying Present Rate:		0.368	0.620	0.719	1.707		
		(20) Relativity to Underlying Present Rate:		0.784	1.043	0.957			
		(21) Credibility to Underlying Relativity:		0.350	0.060	0.100			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.772	1.054	0.989			
		(24) Balanced Formula Relativity:		0.765	1.052	0.986	0.922		

Class(es):		Effective: 9/1/2007						Goods & Services	
0042 LANDSCAPE GARDENING & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,923,912	26	296	3,281,555	2,169,392	3,584,060	9,035,007		
2000/2001	2,230,072	18	308	1,811,337	1,564,429	2,362,017	5,737,783		
2001/2002	2,387,894	25	356	3,105,368	1,921,136	4,260,814	9,287,317		
2002/2003	2,645,493	46	327	6,443,768	1,978,839	5,832,897	14,255,504		
2003/2004	2,899,013	19	300	3,772,119	2,701,931	4,243,038	10,717,088		
<b>MA Total</b>	<b>12,086,384</b>	<b>134</b>	<b>1,587</b>	<b>18,414,147</b>	<b>10,335,727</b>	<b>20,282,825</b>	<b>49,032,699</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.706	1.128	1.863	4.696		
		2000/2001		0.812	0.702	1.059	2.573		
		2001/2002		1.300	0.805	1.784	3.889		
		2002/2003		2.436	0.748	2.205	5.389		
		2003/2004		1.301	0.932	1.464	3.697		
		<b>MA Total Pure Premium:</b>		<b>1.524</b>	<b>0.855</b>	<b>1.678</b>	<b>4.057</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.193	1.938	2.081			
		(14) Massachusetts Credibility:		0.98	1.00	1.00			
		(15) Countrywide Pure Premium:		1.622	0.891	1.714	4.227		
		(16) Countrywide Indicated Relativity:		2.276	1.937	2.049			
		(17) Countrywide Credibility:		0.01	0.00	0.00			
		(18) Countrywide Lost-time Claims:		1,772	15,638				
		(19) Pure Premium Underlying Present Rate:		1.192	1.220	1.548	3.960		
		(20) Relativity to Underlying Present Rate:		2.541	2.054	2.061			
		(21) Credibility to Underlying Relativity:		0.010	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		2.198	1.938	2.081			
		(24) Balanced Formula Relativity:		2.178	1.934	2.073	2.079		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000080 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 5

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction	
0050 FARM MACHINERY OPERATION-BY CONTRACTOR & DRIVERS*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	5,792	0	0	0	0	783	783		
2000/2001	4,166	0	0	0	0	0	0		
2001/2002	3,781	0	0	0	0	206	206		
2002/2003	9,391	0	0	0	0	0	0		
2003/2004	12,517	0	1	0	117	519	636		
<b>MA Total</b>	<b>35,647</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>117</b>	<b>1,509</b>	<b>1,626</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.135	0.135				
	2000/2001	0.000	0.000	0.000	0.000				
	2001/2002	0.000	0.000	0.054	0.054				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.009	0.041	0.051				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.003</b>	<b>0.042</b>	<b>0.046</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	0.004	0.021					
	(14) Massachusetts Credibility:	0.11	0.21	0.21					
	(15) Countrywide Pure Premium:	2.701	0.912	2.299	5.911				
	(16) Countrywide Indicated Relativity:	0.970	1.010	1.206					
	(17) Countrywide Credibility:	0.45	0.40	0.40					
	(18) Countrywide Lost-time Claims:	206	1,425						
	(19) Pure Premium Underlying Present Rate:	1.757	0.868	1.401	4.026				
	(20) Relativity to Underlying Present Rate:	0.752	0.629	0.697					
	(21) Credibility to Underlying Relativity:	0.440	0.390	0.390					
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876				
	(23) Formula Relativity:	0.768	0.650	0.759					
	(24) Balanced Formula Relativity:	0.777	0.651	0.762	0.752				

Class(es):		Effective: 9/1/2007						Goods & Services	
0079 FARM: BERRY OR VINEYARD & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	130,773	1	13	84,239	188,986	213,156	486,380		
2000/2001	109,964	1	9	58,781	49,876	90,608	199,265		
2001/2002	115,462	3	13	676,678	179,206	356,935	1,212,819		
2002/2003	109,348	2	5	314,186	29,956	211,864	556,006		
2003/2004	114,849	0	5	0	8,374	46,798	55,173		
<b>MA Total</b>	<b>580,396</b>	<b>7</b>	<b>45</b>	<b>1,133,883</b>	<b>456,399</b>	<b>919,361</b>	<b>2,509,643</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.644	1.445	1.630	3.719				
	2000/2001	0.535	0.454	0.824	1.812				
	2001/2002	5.861	1.552	3.091	10.504				
	2002/2003	2.873	0.274	1.938	5.085				
	2003/2004	0.000	0.073	0.407	0.480				
	<b>MA Total Pure Premium:</b>	<b>1.954</b>	<b>0.786</b>	<b>1.584</b>	<b>4.324</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	2.812	1.782	1.964					
	(14) Massachusetts Credibility:	0.29	0.69	0.80					
	(15) Countrywide Pure Premium:	0.803	0.454	0.798	2.055				
	(16) Countrywide Indicated Relativity:	1.127	0.986	0.954					
	(17) Countrywide Credibility:	0.36	0.16	0.10					
	(18) Countrywide Lost-time Claims:	250	823						
	(19) Pure Premium Underlying Present Rate:	1.147	1.079	2.401	4.627				
	(20) Relativity to Underlying Present Rate:	2.444	1.816	3.196					
	(21) Credibility to Underlying Relativity:	0.350	0.150	0.100					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	2.077	1.660	1.986					
	(24) Balanced Formula Relativity:	2.058	1.656	1.979	1.934				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000081 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 6

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
0083 FARM: CATTLE OR LIVESTOCK RAISING NOC & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	23,718	1	4	250,314	54,485	52,268	357,068		
2000/2001	23,048	0	0	0	0	6,597	6,597		
2001/2002	38,904	1	3	125,904	11,660	29,547	167,111		
2002/2003	57,544	1	5	126,973	10,116	52,031	189,120		
2003/2004	52,503	0	6	0	13,555	34,487	48,042		
<b>MA Total</b>	<b>195,717</b>	<b>3</b>	<b>18</b>	<b>503,192</b>	<b>89,816</b>	<b>174,931</b>	<b>767,939</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	10.554	2.297	2.204	15.055				
	2000/2001	0.000	0.000	0.286	0.286				
	2001/2002	3.236	0.300	0.759	4.295				
	2002/2003	2.207	0.176	0.904	3.287				
	2003/2004	0.000	0.258	0.657	0.915				
	<b>MA Total Pure Premium:</b>	<b>2.571</b>	<b>0.459</b>	<b>0.894</b>	<b>3.924</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	3.701	1.040	1.108					
	(14) Massachusetts Credibility:	0.18	0.39	0.36					
	(15) Countrywide Pure Premium:	2.875	1.050	2.443	6.368				
	(16) Countrywide Indicated Relativity:	4.034	2.282	2.921					
	(17) Countrywide Credibility:	0.41	0.31	0.32					
	(18) Countrywide Lost-time Claims:	204	3,592						
	(19) Pure Premium Underlying Present Rate:	1.053	0.777	0.974	2.804				
	(20) Relativity to Underlying Present Rate:	2.243	1.309	1.296					
	(21) Credibility to Underlying Relativity:	0.410	0.300	0.320					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	3.240	1.506	1.748					
	(24) Balanced Formula Relativity:	3.211	1.503	1.742	2.213				

Class(es):		Effective: 9/1/2007						Miscellaneous	
0106 TREE PRUNING, SPRAYING, REPAIRING & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	136,627	4	43	477,820	308,419	748,989	1,535,228		
2000/2001	155,394	7	44	864,517	227,947	1,149,754	2,242,218		
2001/2002	150,282	3	33	521,445	353,260	853,455	1,728,160		
2002/2003	156,395	13	38	2,326,111	269,025	1,458,234	4,053,370		
2003/2004	166,155	3	41	434,313	257,253	1,067,632	1,759,199		
<b>MA Total</b>	<b>764,853</b>	<b>30</b>	<b>199</b>	<b>4,624,207</b>	<b>1,415,904</b>	<b>5,278,064</b>	<b>11,318,175</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	3.497	2.257	5.482	11.237				
	2000/2001	5.563	1.467	7.399	14.429				
	2001/2002	3.470	2.351	5.679	11.499				
	2002/2003	14.873	1.720	9.324	25.917				
	2003/2004	2.614	1.548	6.426	10.588				
	<b>MA Total Pure Premium:</b>	<b>6.046</b>	<b>1.851</b>	<b>6.901</b>	<b>14.798</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	2.878	2.113	3.746					
	(14) Massachusetts Credibility:	0.54	1.00	1.00					
	(15) Countrywide Pure Premium:	5.953	1.871	5.162	12.987				
	(16) Countrywide Indicated Relativity:	3.128	2.397	3.101					
	(17) Countrywide Credibility:	0.23	0.00	0.00					
	(18) Countrywide Lost-time Claims:	606	4,583						
	(19) Pure Premium Underlying Present Rate:	4.220	2.464	6.222	12.906				
	(20) Relativity to Underlying Present Rate:	2.938	2.063	3.674					
	(21) Credibility to Underlying Relativity:	0.230	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819				
	(23) Formula Relativity:	2.949	2.113	3.746					
	(24) Balanced Formula Relativity:	2.955	2.118	3.756	3.109				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 00082 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 7

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
0251 IRRIGATION WORKS OPERATION & DRIVERS*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	116,986	1	14	239,419	81,477	185,067	505,962	
2000/2001	211,336	3	17	583,676	141,296	279,606	1,004,578	
2001/2002	219,046	2	11	274,407	53,539	197,275	525,220	
2002/2003	111,295	3	7	952,661	23,035	495,517	1,471,214	
2003/2004	126,363	1	11	445,188	97,993	427,759	970,939	
<b>MA Total</b>	<b>785,026</b>	<b>10</b>	<b>60</b>	<b>2,495,351</b>	<b>397,339</b>	<b>1,585,223</b>	<b>4,477,914</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	2.047	0.696	1.582	4.325		
		2000/2001	2.762	0.669	1.323	4.753		
		2001/2002	1.253	0.244	0.901	2.398		
		2002/2003	8.560	0.207	4.452	13.219		
		2003/2004	3.523	0.775	3.385	7.684		
		<b>MA Total Pure Premium:</b>	<b>3.179</b>	<b>0.506</b>	<b>2.019</b>	<b>5.704</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	1.513	0.578	1.096			
		(14) Massachusetts Credibility:	0.30	0.69	0.63			
		(15) Countrywide Pure Premium:	1.376	0.618	1.374	3.368		
		(16) Countrywide Indicated Relativity:	0.723	0.792	0.825			
		(17) Countrywide Credibility:	0.35	0.16	0.19			
		(18) Countrywide Lost-time Claims:	306	3,729				
		(19) Pure Premium Underlying Present Rate:	0.942	0.800	0.954	2.696		
		(20) Relativity to Underlying Present Rate:	0.655	0.670	0.563			
		(21) Credibility to Underlying Relativity:	0.350	0.150	0.180			
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819		
		(23) Formula Relativity:	0.936	0.626	0.949			
		(24) Balanced Formula Relativity:	0.938	0.627	0.951	0.887		

Class(es):		Effective: 9/1/2007						Goods & Services
0908 DOMESTIC WORKERS-INSIDE-OCCASIONAL-NOC*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	3,198	1	12	74,203	210,444	225,641	510,288	
2000/2001	3,002	3	9	415,416	36,695	143,521	595,633	
2001/2002	2,851	1	6	55,314	81,183	52,297	188,795	
2002/2003	2,799	0	10	0	81,921	83,418	165,339	
2003/2004	2,572	2	6	437,811	48,523	124,154	610,488	
<b>MA Total</b>	<b>14,422</b>	<b>7</b>	<b>43</b>	<b>982,744</b>	<b>458,766</b>	<b>629,032</b>	<b>2,070,542</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	23.204	65.807	70.559	159.570		
		2000/2001	138.403	12.226	47.817	198.445		
		2001/2002	19.405	28.480	18.346	66.231		
		2002/2003	0.000	29.272	29.807	59.079		
		2003/2004	170.205	18.864	48.267	237.336		
		<b>MA Total Pure Premium:</b>	<b>68.142</b>	<b>31.810</b>	<b>43.616</b>	<b>143.568</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	98.106	72.089	54.079			
		(14) Massachusetts Credibility:	0.28	0.66	0.60			
		(15) Countrywide Pure Premium:	0.159	0.076	0.138	0.374		
		(16) Countrywide Indicated Relativity:	91.299	65.169	62.585			
		(17) Countrywide Credibility:	0.36	0.17	0.20			
		(18) Countrywide Lost-time Claims:	97	816				
		(19) Pure Premium Underlying Present Rate:	42.958	38.787	47.126	128.871		
		(20) Relativity to Underlying Present Rate:	91.534	65.304	62.724			
		(21) Credibility to Underlying Relativity:	0.360	0.170	0.200			
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
		(23) Formula Relativity:	93.290	69.759	57.509			
		(24) Balanced Formula Relativity:	92.466	69.619	57.309	72.678		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000083 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 8

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
0909 DOMESTIC WORKERS-OUTSIDE-OCCASIONAL-INCL OCCASNL PRIV CHAUFF*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	471	1	2	128,369	5,932	278,704	413,005		
2000/2001	469	0	2	0	25,805	15,318	41,122		
2001/2002	470	0	0	0	0	3,862	3,862		
2002/2003	420	0	2	0	7,464	46,670	54,134		
2003/2004	431	0	3	0	81,619	80,902	162,521		
<b>MA Total</b>	<b>2,261</b>	<b>1</b>	<b>9</b>	<b>128,369</b>	<b>120,820</b>	<b>425,456</b>	<b>674,645</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	272.401	12.588	591.414	876.404				
	2000/2001	0.000	55.062	32.685	87.746				
	2001/2002	0.000	0.000	8.210	8.210				
	2002/2003	0.000	17.778	111.160	128.938				
	2003/2004	0.000	189.392	187.730	377.122				
	<b>MA Total Pure Premium:</b>	<b>56.775</b>	<b>53.436</b>	<b>188.172</b>	<b>298.383</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	81.731	121.080	233.280					
	(14) Massachusetts Credibility:	0.12	0.38	0.42					
	(15) Countrywide Pure Premium:	0.318	0.173	0.305	0.796				
	(16) Countrywide Indicated Relativity:	65.334	106.617	163.236					
	(17) Countrywide Credibility:	0.31	0.31	0.29					
	(18) Countrywide Lost-time Claims:	24	239						
	(19) Pure Premium Underlying Present Rate:	30.741	63.456	122.915	217.112				
	(20) Relativity to Underlying Present Rate:	65.502	106.837	163.600					
	(21) Credibility to Underlying Relativity:	0.570	0.310	0.290					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	67.397	112.182	192.760					
	(24) Balanced Formula Relativity:	66.803	111.958	192.089	129.084				

Class(es):		Effective: 9/1/2007						Goods & Services	
0917 DOMESTIC SERVICE CONTRACTOR-INSIDE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	88,832	0	17	0	102,812	107,198	210,010		
2000/2001	111,335	2	12	115,657	28,045	43,993	187,695		
2001/2002	110,295	0	10	0	16,413	47,740	64,153		
2002/2003	122,576	1	14	67,439	54,641	61,952	184,032		
2003/2004	149,025	1	17	170,734	97,333	111,835	379,902		
<b>MA Total</b>	<b>582,063</b>	<b>4</b>	<b>70</b>	<b>353,830</b>	<b>299,243</b>	<b>372,718</b>	<b>1,025,791</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	1.157	1.207	2.364				
	2000/2001	1.039	0.252	0.395	1.686				
	2001/2002	0.000	0.149	0.433	0.582				
	2002/2003	0.550	0.446	0.505	1.501				
	2003/2004	1.146	0.653	0.750	2.549				
	<b>MA Total Pure Premium:</b>	<b>0.608</b>	<b>0.514</b>	<b>0.640</b>	<b>1.762</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.875	1.165	0.794					
	(14) Massachusetts Credibility:	0.20	0.68	0.57					
	(15) Countrywide Pure Premium:	0.837	0.866	1.406	3.109				
	(16) Countrywide Indicated Relativity:	1.174	1.883	1.681					
	(17) Countrywide Credibility:	0.34	0.16	0.22					
	(18) Countrywide Lost-time Claims:	31	663						
	(19) Pure Premium Underlying Present Rate:	0.478	1.062	0.994	2.534				
	(20) Relativity to Underlying Present Rate:	1.019	1.789	1.323					
	(21) Credibility to Underlying Relativity:	0.460	0.160	0.210					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.043	1.380	1.100					
	(24) Balanced Formula Relativity:	1.034	1.377	1.096	1.138				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000084 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 9

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
0918 DOMESTIC WORKERS-INSIDE-PHYSICAL ASSISTANCE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,204,953	1	32	90,908	237,069	79,859	407,835		
2000/2001	1,424,229	1	41	121,213	251,412	117,451	490,077		
2001/2002	1,450,394	5	57	1,035,155	380,917	491,725	1,907,797		
2002/2003	1,693,911	2	40	205,188	280,609	195,094	680,891		
2003/2004	2,313,768	5	39	718,116	698,006	558,615	1,974,736		
<b>MA Total</b>	<b>8,087,255</b>	<b>14</b>	<b>209</b>	<b>2,170,581</b>	<b>1,848,013</b>	<b>1,442,744</b>	<b>5,461,337</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.075	0.197	0.066	0.338		
		2000/2001		0.085	0.177	0.082	0.344		
		2001/2002		0.714	0.263	0.339	1.315		
		2002/2003		0.121	0.166	0.115	0.402		
		2003/2004		0.310	0.302	0.241	0.853		
		<b>MA Total Pure Premium:</b>		<b>0.268</b>	<b>0.229</b>	<b>0.178</b>	<b>0.675</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.386	0.518	0.221			
		(14) Massachusetts Credibility:		0.41	0.96	0.89			
		(15) Countrywide Pure Premium:		0.981	0.674	1.133	2.788		
		(16) Countrywide Indicated Relativity:		1.377	1.464	1.354			
		(17) Countrywide Credibility:		0.30	0.02	0.06			
		(18) Countrywide Lost-time Claims:		51	1,283				
		(19) Pure Premium Underlying Present Rate:		0.201	0.181	0.220	0.602		
		(20) Relativity to Underlying Present Rate:		0.427	0.305	0.293			
		(21) Credibility to Underlying Relativity:		0.290	0.020	0.050			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.695	0.532	0.293			
		(24) Balanced Formula Relativity:		0.689	0.531	0.292	0.488		

Class(es):		Effective: 9/1/2007						Manufacturing	
1430 SMELTING, SINTERING OR REFINING-LEAD & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0		
2000/2001	0	0	0	0	0	0	0		
2001/2002	0	0	0	0	0	0	0		
2002/2003	0	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.000	0.000	0.000	0.000		
		2000/2001		0.000	0.000	0.000	0.000		
		2001/2002		0.000	0.000	0.000	0.000		
		2002/2003		0.000	0.000	0.000	0.000		
		2003/2004		0.000	0.000	0.000	0.000		
		<b>MA Total Pure Premium:</b>		<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.000	0.000	0.000			
		(14) Massachusetts Credibility:		0.00	0.00	0.00			
		(15) Countrywide Pure Premium:		2.480	0.792	1.509	4.781		
		(16) Countrywide Indicated Relativity:		2.977	1.720	1.792			
		(17) Countrywide Credibility:		0.26	0.47	0.50			
		(18) Countrywide Lost-time Claims:		16	137				
		(19) Pure Premium Underlying Present Rate:		3.081	13.550	2.117	18.748		
		(20) Relativity to Underlying Present Rate:		4.890	20.597	2.639			
		(21) Credibility to Underlying Relativity:		0.740	0.530	0.500			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		4.392	11.725	2.216			
		(24) Balanced Formula Relativity:		4.422	11.687	2.211	5.135		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000085 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 10

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
1438 SMELTING, SINTERING OR REFINING-METALS-NOT IRON OR LEAD-NOC & D								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	85,584	0	7	0	70,398	29,124	99,522	
2000/2001	81,611	0	3	0	35,545	32,195	67,741	
2001/2002	79,469	0	1	0	2,962	10,657	13,619	
2002/2003	79,357	0	5	0	6,153	50,754	56,907	
2003/2004	69,587	1	1	278,203	2,498	425,928	706,629	
<b>MA Total</b>	<b>395,608</b>	<b>1</b>	<b>17</b>	<b>278,203</b>	<b>117,556</b>	<b>548,659</b>	<b>944,418</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.823	0.340	1.163			
	2000/2001	0.000	0.436	0.394	0.830			
	2001/2002	0.000	0.037	0.134	0.171			
	2002/2003	0.000	0.078	0.640	0.717			
	2003/2004	3.998	0.036	6.121	10.155			
	<b>MA Total Pure Premium:</b>	<b>0.703</b>	<b>0.297</b>	<b>1.387</b>	<b>2.387</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.792	0.600	1.550				
	(14) Massachusetts Credibility:	0.23	0.47	0.53				
	(15) Countrywide Pure Premium:	1.815	0.704	1.242	3.761			
	(16) Countrywide Indicated Relativity:	2.179	1.529	1.475				
	(17) Countrywide Credibility:	0.39	0.27	0.24				
	(18) Countrywide Lost-time Claims:	152	1,487					
	(19) Pure Premium Underlying Present Rate:	0.998	0.626	1.239	2.863			
	(20) Relativity to Underlying Present Rate:	1.584	0.951	1.545				
	(21) Credibility to Underlying Relativity:	0.380	0.260	0.230				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.634	0.942	1.531				
	(24) Balanced Formula Relativity:	1.645	0.939	1.528	1.445			

Class(es):		Effective: 9/1/2007						Manufacturing
1463 ASPHALT WORKS & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	77,509	2	8	374,737	39,933	236,592	651,263	
2000/2001	81,997	1	13	130,183	110,603	173,520	414,307	
2001/2002	79,496	0	5	0	13,188	27,333	40,521	
2002/2003	130,384	1	12	134,828	60,031	92,911	287,771	
2003/2004	53,053	0	8	0	36,011	26,208	62,219	
<b>MA Total</b>	<b>422,439</b>	<b>4</b>	<b>46</b>	<b>639,749</b>	<b>259,767</b>	<b>556,564</b>	<b>1,456,080</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	4.835	0.515	3.052	8.402			
	2000/2001	1.588	1.349	2.116	5.053			
	2001/2002	0.000	0.166	0.344	0.510			
	2002/2003	1.034	0.460	0.713	2.207			
	2003/2004	0.000	0.679	0.494	1.173			
	<b>MA Total Pure Premium:</b>	<b>1.514</b>	<b>0.615</b>	<b>1.318</b>	<b>3.447</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.705	1.241	1.473				
	(14) Massachusetts Credibility:	0.30	0.69	0.59				
	(15) Countrywide Pure Premium:	6.655	1.794	3.862	12.312			
	(16) Countrywide Indicated Relativity:	7.989	3.896	4.588				
	(17) Countrywide Credibility:	0.35	0.16	0.21				
	(18) Countrywide Lost-time Claims:	257	1,781					
	(19) Pure Premium Underlying Present Rate:	1.691	1.484	1.496	4.672			
	(20) Relativity to Underlying Present Rate:	2.685	2.256	1.865				
	(21) Credibility to Underlying Relativity:	0.350	0.150	0.200				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	4.247	1.818	2.205				
	(24) Balanced Formula Relativity:	4.276	1.812	2.201	2.926			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000086 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 11

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous	
1624 QUARRY NOC & DRIVERS*									
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	305,496	5	29	896,686	150,298	551,052	1,598,035		
2000/2001	327,116	6	14	1,340,100	68,143	528,667	1,936,910		
2001/2002	374,216	2	31	345,304	163,039	500,269	1,008,612		
2002/2003	451,518	4	27	1,095,818	219,620	497,290	1,812,728		
2003/2004	425,432	3	20	1,093,228	189,561	697,143	1,979,932		
<b>MA Total</b>	<b>1,883,778</b>	<b>20</b>	<b>121</b>	<b>4,771,135</b>	<b>790,661</b>	<b>2,774,421</b>	<b>8,336,217</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	2.935	0.492	1.804	5.231			
		2000/2001	4.097	0.208	1.616	5.921			
		2001/2002	0.923	0.436	1.337	2.695			
		2002/2003	2.427	0.486	1.101	4.015			
		2003/2004	2.570	0.446	1.639	4.654			
		<b>MA Total Pure Premium:</b>	<b>2.533</b>	<b>0.420</b>	<b>1.473</b>	<b>4.425</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.205	0.479	0.800				
		(14) Massachusetts Credibility:	0.48	0.96	1.00				
		(15) Countrywide Pure Premium:	1.987	0.637	1.477	4.100			
		(16) Countrywide Indicated Relativity:	1.044	0.815	0.887				
		(17) Countrywide Credibility:	0.26	0.02	0.00				
		(18) Countrywide Lost-time Claims:	311	2.665					
		(19) Pure Premium Underlying Present Rate:	1.262	0.770	1.336	3.368			
		(20) Relativity to Underlying Present Rate:	0.879	0.645	0.789				
		(21) Credibility to Underlying Relativity:	0.260	0.020	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
		(23) Formula Relativity:	1.079	0.489	0.800				
		(24) Balanced Formula Relativity:	1.081	0.490	0.802	0.867			

Class(es):		Effective: 9/1/2007						Miscellaneous	
1655 LIME MFG-QUARRY-SURFACE & DRIVERS									
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	78,176	1	2	141,395	29,797	185,024	356,216		
2000/2001	0	0	0	0	0	0	0		
2001/2002	335	0	0	0	0	0	0		
2002/2003	404	0	0	0	0	0	0		
2003/2004	484	0	0	0	0	0	0		
<b>MA Total</b>	<b>79,399</b>	<b>1</b>	<b>2</b>	<b>141,395</b>	<b>29,797</b>	<b>185,024</b>	<b>356,216</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.809	0.381	2.367	4.557			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>1.781</b>	<b>0.375</b>	<b>2.330</b>	<b>4.486</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.848	0.428	1.265				
		(14) Massachusetts Credibility:	0.15	0.22	0.30				
		(15) Countrywide Pure Premium:	1.791	0.714	2.195	4.701			
		(16) Countrywide Indicated Relativity:	0.941	0.915	1.319				
		(17) Countrywide Credibility:	0.18	0.39	0.35				
		(18) Countrywide Lost-time Claims:	6	131					
		(19) Pure Premium Underlying Present Rate:	1.527	0.481	1.489	3.496			
		(20) Relativity to Underlying Present Rate:	1.063	0.403	0.879				
		(21) Credibility to Underlying Relativity:	0.670	0.390	0.350				
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
		(23) Formula Relativity:	1.009	0.608	1.149				
		(24) Balanced Formula Relativity:	1.011	0.610	1.152	0.992			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000087 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 12

## Calculation of Class Relativities

Class(es): 1701 CEMENT MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,949	0	0	0	0	0	0	0	
2000/2001	2,214	0	0	0	0	0	0	0	
2001/2002	6,916	0	0	0	0	0	0	0	
2002/2003	2,698	0	0	0	0	0	0	0	
2003/2004	596	0	1	0	17,665	6,439	24,104	24,104	
<b>MA Total</b>	<b>15,373</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>17,665</b>	<b>6,439</b>	<b>24,104</b>	<b>24,104</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000		0.000	
		2000/2001	0.000	0.000	0.000	0.000		0.000	
		2001/2002	0.000	0.000	0.000	0.000		0.000	
		2002/2003	0.000	0.000	0.000	0.000		0.000	
		2003/2004	0.000	29.628	10.799	40.428		40.428	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>1.149</b>	<b>0.419</b>	<b>1.568</b>		<b>1.568</b>	
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	2.318	0.468				
		(14) Massachusetts Credibility:	0.06	0.21	0.14				
		(15) Countrywide Pure Premium:	1.954	0.784	1.487	4.225			
		(16) Countrywide Indicated Relativity:	2.346	1.702	1.766				
		(17) Countrywide Credibility:	0.47	0.40	0.43				
		(18) Countrywide Lost-time Claims:	217	1,395					
		(19) Pure Premium Underlying Present Rate:	0.813	2.101	1.181	4.095			
		(20) Relativity to Underlying Present Rate:	1.290	3.194	1.472				
		(21) Credibility to Underlying Relativity:	0.470	0.390	0.430				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.709	2.413	1.458				
		(24) Balanced Formula Relativity:	1.721	2.406	1.455	1.765			

Class(es): 1747 EMERY WORKS & DRIVERS		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	46,242	0	14	0	63,808	80,948	144,756	144,756	
2000/2001	38,979	1	2	225,392	3,290	167,527	396,209	396,209	
2001/2002	40,526	0	1	0	372	11,607	11,980	11,980	
2002/2003	42,709	0	8	0	7,061	18,928	25,989	25,989	
2003/2004	42,214	1	10	413,346	31,118	403,076	847,539	847,539	
<b>MA Total</b>	<b>210,670</b>	<b>2</b>	<b>35</b>	<b>638,738</b>	<b>105,648</b>	<b>682,086</b>	<b>1,426,473</b>	<b>1,426,473</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	1.380	1.751	3.130		3.130	
		2000/2001	5.782	0.084	4.298	10.165		10.165	
		2001/2002	0.000	0.009	0.286	0.296		0.296	
		2002/2003	0.000	0.165	0.443	0.609		0.609	
		2003/2004	9.792	0.737	9.548	20.077		20.077	
		<b>MA Total Pure Premium:</b>	<b>3.032</b>	<b>0.501</b>	<b>3.238</b>	<b>6.771</b>		<b>6.771</b>	
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	3.413	1.012	3.619				
		(14) Massachusetts Credibility:	0.16	0.45	0.36				
		(15) Countrywide Pure Premium:	1.975	0.562	0.840	3.377			
		(16) Countrywide Indicated Relativity:	2.370	1.221	0.998				
		(17) Countrywide Credibility:	0.30	0.28	0.32				
		(18) Countrywide Lost-time Claims:	22	188					
		(19) Pure Premium Underlying Present Rate:	0.784	1.018	0.869	2.671			
		(20) Relativity to Underlying Present Rate:	1.244	1.548	1.083				
		(21) Credibility to Underlying Relativity:	0.540	0.270	0.320				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.929	1.215	1.969				
		(24) Balanced Formula Relativity:	1.942	1.211	1.965	1.792			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000088 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 13

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
1748 ABRASIVE WHEEL MFG & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense							
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	171,806	0	15	0	131,196	119,472	250,668		
2000/2001	125,206	3	10	421,223	41,426	158,059	620,708		
2001/2002	94,969	2	10	312,938	17,567	103,375	433,880		
2002/2003	72,014	1	6	98,348	18,657	79,229	196,234		
2003/2004	87,968	0	5	0	20,059	30,174	50,233		
<b>MA Total</b>	<b>551,963</b>	<b>6</b>	<b>46</b>	<b>832,509</b>	<b>228,906</b>	<b>490,308</b>	<b>1,551,723</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.764	0.695	1.459				
	2000/2001	3.364	0.331	1.262	4.957				
	2001/2002	3.295	0.185	1.089	4.569				
	2002/2003	1.366	0.259	1.100	2.725				
	2003/2004	0.000	0.228	0.343	0.571				
	<b>MA Total Pure Premium:</b>	<b>1.508</b>	<b>0.415</b>	<b>0.888</b>	<b>2.811</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.698	0.837	0.993					
	(14) Massachusetts Credibility:	0.26	0.80	0.62					
	(15) Countrywide Pure Premium:	2.373	0.724	1.956	5.053				
	(16) Countrywide Indicated Relativity:	2.849	1.572	2.324					
	(17) Countrywide Credibility:	0.22	0.10	0.19					
	(18) Countrywide Lost-time Claims:	10	93						
	(19) Pure Premium Underlying Present Rate:	0.896	1.659	1.339	3.894				
	(20) Relativity to Underlying Present Rate:	1.422	2.522	1.670					
	(21) Credibility to Underlying Relativity:	0.520	0.100	0.190					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.808	1.079	1.374					
	(24) Balanced Formula Relativity:	1.820	1.075	1.372	1.482				

Class(es):		Effective: 9/1/2007						Manufacturing	
1852 ASBESTOS GOODS MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense							
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	0	0	0	0	0	0	0		
2000/2001	0	0	0	0	0	0	0		
2001/2002	0	0	0	0	0	0	0		
2002/2003	0	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.000	0.000				
	2000/2001	0.000	0.000	0.000	0.000				
	2001/2002	0.000	0.000	0.000	0.000				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.000	0.000	0.000				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000					
	(14) Massachusetts Credibility:	0.00	0.00	0.00					
	(15) Countrywide Pure Premium:	2.560	0.065	1.730	4.356				
	(16) Countrywide Indicated Relativity:	3.074	0.142	2.055					
	(17) Countrywide Credibility:	0.09	0.18	0.22					
	(18) Countrywide Lost-time Claims:	1	13						
	(19) Pure Premium Underlying Present Rate:	5.177	0.906	1.279	7.362				
	(20) Relativity to Underlying Present Rate:	8.217	1.377	1.595					
	(21) Credibility to Underlying Relativity:	0.910	0.820	0.780					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	7.754	1.154	1.696					
	(24) Balanced Formula Relativity:	7.807	1.151	1.693	3.958				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000089 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 14

## Calculation of Class Relativities

Class(es): 1853 MICA GOODS MFG & MICA PREPARING		Effective: 9/1/2007				Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	836	0	0	0	0	0	0
2000/2001	1,089	0	0	0	0	0	0
2001/2002	848	0	0	0	0	0	0
2002/2003	969	0	0	0	0	0	0
2003/2004	1,042	0	0	0	0	0	0
<b>MA Total</b>	<b>4,784</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.000	0.000	0.000	0.000		
	2000/2001	0.000	0.000	0.000	0.000		
	2001/2002	0.000	0.000	0.000	0.000		
	2002/2003	0.000	0.000	0.000	0.000		
	2003/2004	0.000	0.000	0.000	0.000		
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000			
	(14) Massachusetts Credibility:	0.04	0.08	0.08			
	(15) Countrywide Pure Premium:	0.276	0.256	0.286	0.818		
	(16) Countrywide Indicated Relativity:	0.332	0.556	0.339			
	(17) Countrywide Credibility:	0.09	0.17	0.21			
	(18) Countrywide Lost-time Claims:	1	11				
	(19) Pure Premium Underlying Present Rate:	0.890	0.606	0.832	2.327		
	(20) Relativity to Underlying Present Rate:	1.412	0.921	1.037			
	(21) Credibility to Underlying Relativity:	0.870	0.750	0.710			
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
	(23) Formula Relativity:	1.258	0.785	0.807			
	(24) Balanced Formula Relativity:	1.267	0.783	0.806	0.980		

Class(es): 1860 ABRASIVE PAPER OR CLOTH PREPARATION		Effective: 9/1/2007				Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	25,866	0	1	0	1,844	5,307	7,151
2000/2001	24,083	0	0	0	0	790	790
2001/2002	22,331	0	0	0	0	1,514	1,514
2002/2003	40,063	0	1	0	209	2,545	2,753
2003/2004	16,269	0	0	0	0	4,884	4,884
<b>MA Total</b>	<b>128,612</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2,052</b>	<b>15,039</b>	<b>17,092</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.000	0.071	0.205	0.276		
	2000/2001	0.000	0.000	0.033	0.033		
	2001/2002	0.000	0.000	0.068	0.068		
	2002/2003	0.000	0.005	0.064	0.069		
	2003/2004	0.000	0.000	0.300	0.300		
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.016</b>	<b>0.117</b>	<b>0.133</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.000	0.032	0.131			
	(14) Massachusetts Credibility:	0.16	0.26	0.25			
	(15) Countrywide Pure Premium:	1.554	0.388	0.822	2.765		
	(16) Countrywide Indicated Relativity:	1.866	0.843	0.977			
	(17) Countrywide Credibility:	0.42	0.37	0.38			
	(18) Countrywide Lost-time Claims:	70	288				
	(19) Pure Premium Underlying Present Rate:	1.230	0.442	0.588	2.260		
	(20) Relativity to Underlying Present Rate:	1.953	0.672	0.733			
	(21) Credibility to Underlying Relativity:	0.420	0.370	0.370			
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
	(23) Formula Relativity:	1.604	0.569	0.675			
	(24) Balanced Formula Relativity:	1.615	0.567	0.674	1.017		

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000090 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 15

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
1924 WIRE DRAWING OR CABLE MFG-NOT IRON OR STEEL*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	143,388	2	22	218,075	175,021	140,325	533,422	
2000/2001	104,338	1	11	69,753	25,546	93,330	188,630	
2001/2002	83,379	0	6	0	40,655	37,620	78,274	
2002/2003	141,373	0	6	0	25,199	35,620	60,818	
2003/2004	136,118	0	8	0	84,631	90,427	175,058	
<b>MA Total</b>	<b>608,596</b>	<b>3</b>	<b>53</b>	<b>287,829</b>	<b>351,051</b>	<b>397,322</b>	<b>1,036,202</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.521	1.221	0.979	3.720			
	2000/2001	0.669	0.245	0.894	1.808			
	2001/2002	0.000	0.488	0.451	0.939			
	2002/2003	0.000	0.178	0.252	0.430			
	2003/2004	0.000	0.622	0.664	1.286			
	<b>MA Total Pure Premium:</b>	<b>0.473</b>	<b>0.577</b>	<b>0.653</b>	<b>1.703</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.532	1.164	0.730				
	(14) Massachusetts Credibility:	0.25	0.58	0.55				
	(15) Countrywide Pure Premium:	1.666	0.617	1.339	3.621			
	(16) Countrywide Indicated Relativity:	2.000	1.339	1.590				
	(17) Countrywide Credibility:	0.38	0.21	0.23				
	(18) Countrywide Lost-time Claims:	148	1,523					
	(19) Pure Premium Underlying Present Rate:	0.763	0.678	0.885	2.327			
	(20) Relativity to Underlying Present Rate:	1.211	1.030	1.104				
	(21) Credibility to Underlying Relativity:	0.370	0.210	0.220				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.341	1.173	1.010				
	(24) Balanced Formula Relativity:	1.350	1.169	1.008	1.177			

Class(es):		Effective: 9/1/2007						Manufacturing
1925 DIE CASTING MFG								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	27,773	1	0	82,839	0	17,860	100,699	
2000/2001	29,826	1	3	194,042	18,166	24,419	236,627	
2001/2002	29,871	0	2	0	949	2,444	3,393	
2002/2003	38,050	0	5	0	17,049	19,477	36,525	
2003/2004	39,455	2	7	423,076	75,919	193,597	692,592	
<b>MA Total</b>	<b>164,975</b>	<b>4</b>	<b>17</b>	<b>699,957</b>	<b>112,083</b>	<b>257,796</b>	<b>1,069,836</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.983	0.000	0.643	3.626			
	2000/2001	6.506	0.609	0.819	7.934			
	2001/2002	0.000	0.032	0.082	0.114			
	2002/2003	0.000	0.448	0.512	0.960			
	2003/2004	10.723	1.924	4.907	17.554			
	<b>MA Total Pure Premium:</b>	<b>4.243</b>	<b>0.679</b>	<b>1.563</b>	<b>6.485</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	4.777	1.371	1.747				
	(14) Massachusetts Credibility:	0.19	0.41	0.36				
	(15) Countrywide Pure Premium:	1.124	0.834	1.495	3.452			
	(16) Countrywide Indicated Relativity:	1.349	1.811	1.775				
	(17) Countrywide Credibility:	0.41	0.30	0.32				
	(18) Countrywide Lost-time Claims:	131	2,153					
	(19) Pure Premium Underlying Present Rate:	1.399	1.025	1.121	3.544			
	(20) Relativity to Underlying Present Rate:	2.220	1.558	1.397				
	(21) Credibility to Underlying Relativity:	0.400	0.290	0.320				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	2.349	1.557	1.644				
	(24) Balanced Formula Relativity:	2.365	1.552	1.641	1.904			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000091 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 16

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2001 CRACKER MFG*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	880,304	4	156	385,460	913,802	1,018,561	2,317,823		
2000/2001	973,162	7	107	715,218	641,719	863,643	2,220,580		
2001/2002	1,174,292	12	126	1,237,673	730,464	1,692,000	3,660,138		
2002/2003	1,249,951	8	156	1,366,163	1,003,714	1,783,513	4,153,390		
2003/2004	1,250,389	4	120	1,130,783	949,089	1,464,585	3,544,458		
<b>MA Total</b>	<b>5,528,098</b>	<b>35</b>	<b>665</b>	<b>4,835,297</b>	<b>4,238,789</b>	<b>6,822,303</b>	<b>15,896,388</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.438	1.038	1.157	2.633			
		2000/2001	0.735	0.659	0.887	2.282			
		2001/2002	1.054	0.622	1.441	3.117			
		2002/2003	1.093	0.803	1.427	3.323			
		2003/2004	0.904	0.759	1.171	2.835			
		<b>MA Total Pure Premium:</b>	<b>0.875</b>	<b>0.767</b>	<b>1.234</b>	<b>2.876</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.985	1.547	1.380				
		(14) Massachusetts Credibility:	0.62	1.00	1.00				
		(15) Countrywide Pure Premium:	1.182	0.675	1.201	3.058			
		(16) Countrywide Indicated Relativity:	1.419	1.466	1.426				
		(17) Countrywide Credibility:	0.19	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,527	13,587					
		(19) Pure Premium Underlying Present Rate:	0.819	0.886	1.247	2.951			
		(20) Relativity to Underlying Present Rate:	1.299	1.347	1.554				
		(21) Credibility to Underlying Relativity:	0.190	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.127	1.547	1.380				
		(24) Balanced Formula Relativity:	1.135	1.542	1.377	1.318			

Class(es):		Effective: 9/1/2007						Manufacturing	
2002 MACARONI MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	6,450	0	1	0	8,096	6,458	14,554		
2000/2001	9,420	0	0	0	0	0	0		
2001/2002	8,284	0	0	0	0	697	697		
2002/2003	10,917	0	0	0	0	263	263		
2003/2004	11,272	0	1	0	6,166	7,711	13,877		
<b>MA Total</b>	<b>46,343</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>14,262</b>	<b>15,129</b>	<b>29,391</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	1.255	1.001	2.257			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.084	0.084			
		2002/2003	0.000	0.000	0.024	0.024			
		2003/2004	0.000	0.547	0.684	1.231			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.308</b>	<b>0.326</b>	<b>0.634</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.621	0.365				
		(14) Massachusetts Credibility:	0.12	0.24	0.23				
		(15) Countrywide Pure Premium:	0.860	0.864	1.230	2.955			
		(16) Countrywide Indicated Relativity:	1.033	1.876	1.462				
		(17) Countrywide Credibility:	0.41	0.38	0.39				
		(18) Countrywide Lost-time Claims:	49	574					
		(19) Pure Premium Underlying Present Rate:	1.612	0.999	1.283	3.894			
		(20) Relativity to Underlying Present Rate:	2.558	1.519	1.599				
		(21) Credibility to Underlying Relativity:	0.470	0.380	0.380				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.626	1.439	1.262				
		(24) Balanced Formula Relativity:	1.637	1.434	1.259	1.445			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000092 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 17

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2014 GRAIN MILLING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	26,946	1	1	125,279	199	6,835	132,313		
2000/2001	27,984	0	2	0	40,837	29,606	70,443		
2001/2002	28,760	0	3	0	1,582	8,530	10,112		
2002/2003	26,459	0	2	0	170	6,525	6,695		
2003/2004	15,953	0	0	0	0	4,664	4,664		
<b>MA Total</b>	<b>126,102</b>	<b>1</b>	<b>8</b>	<b>125,279</b>	<b>42,787</b>	<b>56,161</b>	<b>224,227</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
	1999/2000	4.649	0.007	0.254			4.910		
	2000/2001	0.000	1.459	1.058			2.517		
	2001/2002	0.000	0.055	0.297			0.352		
	2002/2003	0.000	0.006	0.247			0.253		
	2003/2004	0.000	0.000	0.292			0.292		
	<b>MA Total Pure Premium:</b>	<b>0.993</b>	<b>0.339</b>	<b>0.445</b>			<b>1.778</b>		
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
	(13) Massachusetts Indicated Relativity:	1.118	0.685	0.498					
	(14) Massachusetts Credibility:	0.15	0.33	0.30					
	(15) Countrywide Pure Premium:	2.074	0.834	1.804			4.713		
	(16) Countrywide Indicated Relativity:	2.490	1.812	2.143					
	(17) Countrywide Credibility:	0.43	0.34	0.35					
	(18) Countrywide Lost-time Claims:	245	2,489						
	(19) Pure Premium Underlying Present Rate:	1.104	0.777	0.907			2.788		
	(20) Relativity to Underlying Present Rate:	1.752	1.181	1.130					
	(21) Credibility to Underlying Relativity:	0.420	0.330	0.350					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278		
	(23) Formula Relativity:	1.974	1.232	1.295					
	(24) Balanced Formula Relativity:	1.988	1.228	1.293			1.550		

Class(es):		Effective: 9/1/2007						Manufacturing	
2021 SUGAR REFINING-ALL OPERATIONS & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	8,294	0	0	0	0	0	0		
2000/2001	3,459	0	0	0	0	398	398		
2001/2002	2,093	0	1	0	2,860	4,308	7,168		
2002/2003	1,405	0	0	0	0	136	136		
2003/2004	1,279	0	0	0	0	0	0		
<b>MA Total</b>	<b>16,530</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2,860</b>	<b>4,842</b>	<b>7,702</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
	1999/2000	0.000	0.000	0.000			0.000		
	2000/2001	0.000	0.000	0.115			0.115		
	2001/2002	0.000	1.366	2.058			3.425		
	2002/2003	0.000	0.000	0.097			0.097		
	2003/2004	0.000	0.000	0.000			0.000		
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.173</b>	<b>0.293</b>			<b>0.466</b>		
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
	(13) Massachusetts Indicated Relativity:	0.000	0.349	0.327					
	(14) Massachusetts Credibility:	0.06	0.11	0.10					
	(15) Countrywide Pure Premium:	2.706	0.647	1.238			4.590		
	(16) Countrywide Indicated Relativity:	3.248	1.404	1.470					
	(17) Countrywide Credibility:	0.38	0.45	0.45					
	(18) Countrywide Lost-time Claims:	40	470						
	(19) Pure Premium Underlying Present Rate:	0.711	0.402	0.478			1.592		
	(20) Relativity to Underlying Present Rate:	1.129	0.611	0.596					
	(21) Credibility to Underlying Relativity:	0.560	0.440	0.450					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278		
	(23) Formula Relativity:	1.867	0.939	0.963					
	(24) Balanced Formula Relativity:	1.879	0.936	0.961			1.314		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000093 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 18

## Calculation of Class Relativities

Class(es): 2039 ICE CREAM MFG & DRIVERS		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	170,691	1	13	60,983	51,220	202,140	314,343		
2000/2001	32,052	1	4	81,896	45,136	65,854	192,886		
2001/2002	48,210	0	3	0	119,754	54,268	174,023		
2002/2003	27,465	0	1	0	13,327	14,726	28,053		
2003/2004	34,551	1	2	256,767	1,839	22,885	281,491		
<b>MA Total</b>	<b>312,969</b>	<b>3</b>	<b>23</b>	<b>399,645</b>	<b>231,276</b>	<b>359,873</b>	<b>990,795</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.357	0.300	1.184	1.842			
		2000/2001	2.555	1.408	2.055	6.018			
		2001/2002	0.000	2.484	1.126	3.610			
		2002/2003	0.000	0.485	0.536	1.021			
		2003/2004	7.432	0.053	0.662	8.147			
		<b>MA Total Pure Premium:</b>	<b>1.277</b>	<b>0.739</b>	<b>1.150</b>	<b>3.166</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	1.438	1.491	1.285				
		(14) Massachusetts Credibility:	0.23	0.49	0.46				
		(15) Countrywide Pure Premium:	1.584	0.622	1.065	3.270			
		(16) Countrywide Indicated Relativity:	1.901	1.350	1.265				
		(17) Countrywide Credibility:	0.39	0.26	0.27				
		(18) Countrywide Lost-time Claims:	81	891					
		(19) Pure Premium Underlying Present Rate:	1.154	0.860	1.072	3.087			
		(20) Relativity to Underlying Present Rate:	1.832	1.307	1.337				
		(21) Credibility to Underlying Relativity:	0.380	0.250	0.270				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.768	1.408	1.294				
		(24) Balanced Formula Relativity:	1.780	1.404	1.292	1.506			

Class(es): 2041 CONFECTION MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	73,305	1	10	156,443	63,948	199,406	419,798		
2000/2001	75,635	0	5	0	20,800	14,519	35,319		
2001/2002	90,051	0	8	0	23,989	37,904	61,893		
2002/2003	66,993	0	4	0	15,761	11,026	26,787		
2003/2004	184,941	0	10	0	145,215	132,444	277,659		
<b>MA Total</b>	<b>490,925</b>	<b>1</b>	<b>37</b>	<b>156,443</b>	<b>269,713</b>	<b>395,298</b>	<b>821,454</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	2.134	0.872	2.720	5.727			
		2000/2001	0.000	0.275	0.192	0.467			
		2001/2002	0.000	0.266	0.421	0.687			
		2002/2003	0.000	0.235	0.165	0.400			
		2003/2004	0.000	0.785	0.716	1.501			
		<b>MA Total Pure Premium:</b>	<b>0.319</b>	<b>0.549</b>	<b>0.805</b>	<b>1.673</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.359	1.108	0.900				
		(14) Massachusetts Credibility:	0.21	0.48	0.52				
		(15) Countrywide Pure Premium:	0.946	0.631	1.058	2.635			
		(16) Countrywide Indicated Relativity:	1.136	1.369	1.257				
		(17) Countrywide Credibility:	0.40	0.26	0.24				
		(18) Countrywide Lost-time Claims:	104	2,023					
		(19) Pure Premium Underlying Present Rate:	0.601	0.533	0.933	2.067			
		(20) Relativity to Underlying Present Rate:	0.954	0.810	1.163				
		(21) Credibility to Underlying Relativity:	0.390	0.260	0.240				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.902	1.099	1.049				
		(24) Balanced Formula Relativity:	0.908	1.095	1.047	1.003			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000094 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 19

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
2070 CREAMERY OR DAIRY & ROUTE SUPERVISORS, DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	220,143	1	49	113,419	266,413	236,353	616,185	
2000/2001	248,019	4	42	485,774	264,172	286,741	1,036,687	
2001/2002	245,132	3	39	564,740	159,842	429,504	1,154,086	
2002/2003	227,894	3	39	434,015	179,484	471,659	1,085,158	
2003/2004	288,894	2	29	423,553	176,851	622,778	1,223,182	
<b>MA Total</b>	<b>1,230,082</b>	<b>13</b>	<b>198</b>	<b>2,021,501</b>	<b>1,046,762</b>	<b>2,047,035</b>	<b>5,115,297</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.515	1.210	1.074	2.799			
	2000/2001	1.959	1.065	1.156	4.180			
	2001/2002	2.304	0.652	1.752	4.708			
	2002/2003	1.904	0.788	2.070	4.762			
	2003/2004	1.466	0.612	2.156	4.234			
	<b>MA Total Pure Premium:</b>	<b>1.643</b>	<b>0.851</b>	<b>1.664</b>	<b>4.159</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.850	1.717	1.860				
	(14) Massachusetts Credibility:	0.44	0.91	0.87				
	(15) Countrywide Pure Premium:	1.699	0.799	1.475	3.972			
	(16) Countrywide Indicated Relativity:	2.040	1.734	1.752				
	(17) Countrywide Credibility:	0.28	0.05	0.07				
	(18) Countrywide Lost-time Claims:	372	5,657					
	(19) Pure Premium Underlying Present Rate:	1.534	1.038	1.364	3.937			
	(20) Relativity to Underlying Present Rate:	2.435	1.579	1.700				
	(21) Credibility to Underlying Relativity:	0.280	0.040	0.060				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	2.067	1.712	1.843				
	(24) Balanced Formula Relativity:	2.081	1.707	1.840	1.905			

Class(es):		Effective: 9/1/2007						Manufacturing
2081 BUTCHERING								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	6,269	0	3	0	6,639	10,735	17,374	
2000/2001	5,063	0	2	0	7,678	6,785	14,464	
2001/2002	5,603	0	1	0	284	598	882	
2002/2003	6,323	0	3	0	6,216	3,315	9,530	
2003/2004	4,956	0	2	0	4,159	13,118	17,277	
<b>MA Total</b>	<b>28,214</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>24,976</b>	<b>34,551</b>	<b>59,527</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	1.059	1.712	2.771			
	2000/2001	0.000	1.517	1.340	2.857			
	2001/2002	0.000	0.051	0.107	0.157			
	2002/2003	0.000	0.983	0.524	1.507			
	2003/2004	0.000	0.839	2.647	3.486			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.885</b>	<b>1.225</b>	<b>2.110</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	1.786	1.369				
	(14) Massachusetts Credibility:	0.09	0.23	0.21				
	(15) Countrywide Pure Premium:	1.830	0.846	1.693	4.368			
	(16) Countrywide Indicated Relativity:	2.196	1.838	2.010				
	(17) Countrywide Credibility:	0.46	0.39	0.40				
	(18) Countrywide Lost-time Claims:	158	1,630					
	(19) Pure Premium Underlying Present Rate:	1.126	1.409	1.693	4.228			
	(20) Relativity to Underlying Present Rate:	1.787	2.141	2.111				
	(21) Credibility to Underlying Relativity:	0.450	0.380	0.390				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.814	1.941	1.915				
	(24) Balanced Formula Relativity:	1.827	1.935	1.911	1.883			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000095 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 20

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2089 PACKING HOUSE- ALL OPERATIONS*									
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	676,776	6	106	720,755	353,256	530,667	1,604,677		
2000/2001	621,138	10	80	998,092	393,150	669,291	2,060,533		
2001/2002	653,806	8	56	1,009,249	290,284	1,317,992	2,617,524		
2002/2003	689,494	9	71	1,329,287	361,472	905,360	2,596,119		
2003/2004	674,361	3	44	546,481	337,432	714,895	1,598,808		
<b>MA Total</b>	<b>3,315,575</b>	<b>36</b>	<b>357</b>	<b>4,603,864</b>	<b>1,735,593</b>	<b>4,138,205</b>	<b>10,477,662</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.065	0.522	0.784	2.371			
		2000/2001	1.607	0.633	1.078	3.317			
		2001/2002	1.544	0.444	2.016	4.004			
		2002/2003	1.928	0.524	1.313	3.765			
		2003/2004	0.810	0.500	1.060	2.371			
		<b>MA Total Pure Premium:</b>	<b>1.389</b>	<b>0.523</b>	<b>1.248</b>	<b>3.160</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.563	1.056	1.395				
		(14) Massachusetts Credibility:	0.53	1.00	1.00				
		(15) Countrywide Pure Premium:	1.017	0.589	1.069	2.675			
		(16) Countrywide Indicated Relativity:	1.220	1.279	1.270				
		(17) Countrywide Credibility:	0.24	0.00	0.00				
		(18) Countrywide Lost-time Claims:	997	13,050					
		(19) Pure Premium Underlying Present Rate:	0.911	0.922	1.201	3.034			
		(20) Relativity to Underlying Present Rate:	1.447	1.402	1.497				
		(21) Credibility to Underlying Relativity:	0.230	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.454	1.056	1.395				
		(24) Balanced Formula Relativity:	1.464	1.053	1.393	1.347			

Class(es):		Effective: 9/1/2007						Manufacturing	
2095 MEAT PRODUCTS MFG-NOC									
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	242,791	2	44	105,040	231,479	212,422	548,942		
2000/2001	240,445	7	63	1,127,186	278,853	630,453	2,036,492		
2001/2002	285,610	6	71	675,342	189,232	555,012	1,419,586		
2002/2003	361,351	13	38	1,713,788	184,909	1,121,027	3,019,725		
2003/2004	401,891	1	52	200,561	583,549	425,241	1,209,350		
<b>MA Total</b>	<b>1,532,088</b>	<b>29</b>	<b>268</b>	<b>3,821,917</b>	<b>1,468,022</b>	<b>2,944,156</b>	<b>8,234,095</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.433	0.953	0.875	2.261			
		2000/2001	4.688	1.160	2.622	8.470			
		2001/2002	2.365	0.663	1.943	4.970			
		2002/2003	4.743	0.512	3.102	8.357			
		2003/2004	0.499	1.452	1.058	3.009			
		<b>MA Total Pure Premium:</b>	<b>2.495</b>	<b>0.958</b>	<b>1.922</b>	<b>5.374</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	2.808	1.933	2.148				
		(14) Massachusetts Credibility:	0.44	1.00	0.90				
		(15) Countrywide Pure Premium:	1.210	0.791	1.472	3.474			
		(16) Countrywide Indicated Relativity:	1.453	1.719	1.749				
		(17) Countrywide Credibility:	0.28	0.00	0.05				
		(18) Countrywide Lost-time Claims:	409	4,606					
		(19) Pure Premium Underlying Present Rate:	1.255	1.508	1.192	3.955			
		(20) Relativity to Underlying Present Rate:	1.991	2.292	1.486				
		(21) Credibility to Underlying Relativity:	0.280	0.000	0.050				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	2.200	1.933	2.095				
		(24) Balanced Formula Relativity:	2.215	1.927	2.091	2.104			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000096 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 21

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2111 CANNERY NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,442	0	0	0	0	0	0	0	
2000/2001	776	0	0	0	0	0	0	0	
2001/2002	430	0	0	0	0	0	0	0	
2002/2003	33	0	0	0	0	0	0	0	
2003/2004	20,658	0	0	0	0	1,323	1,323	1,323	
<b>MA Total</b>	<b>24,339</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,323</b>	<b>1,323</b>	<b>1,323</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	0.000			0.000	
		2000/2001	0.000	0.000	0.000			0.000	
		2001/2002	0.000	0.000	0.000			0.000	
		2002/2003	0.000	0.000	0.000			0.000	
		2003/2004	0.000	0.000	0.064			0.064	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.054</b>			<b>0.054</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.061				
		(14) Massachusetts Credibility:	0.07	0.18	0.16				
		(15) Countrywide Pure Premium:	0.936	0.653	1.201			2.789	
		(16) Countrywide Indicated Relativity:	1.123	1.417	1.426				
		(17) Countrywide Credibility:	0.47	0.41	0.42				
		(18) Countrywide Lost-time Claims:	411	3,284					
		(19) Pure Premium Underlying Present Rate:	0.766	0.868	1.029			2.663	
		(20) Relativity to Underlying Present Rate:	1.216	1.319	1.283				
		(21) Credibility to Underlying Relativity:	0.460	0.410	0.420				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	1.087	1.122	1.147				
		(24) Balanced Formula Relativity:	1.095	1.118	1.145			1.120	

Class(es):		Effective: 9/1/2007						Manufacturing	
2115 SEAFOOD PRODUCTS MFG-NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	237,017	3	17	358,099	145,586	334,234	837,919		
2000/2001	201,646	1	10	68,385	86,631	79,581	234,596		
2001/2002	220,886	4	10	652,406	32,343	106,145	790,894		
2002/2003	227,541	2	16	516,556	212,456	271,075	1,000,087		
2003/2004	225,391	1	15	218,975	256,206	334,040	809,221		
<b>MA Total</b>	<b>1,112,481</b>	<b>11</b>	<b>68</b>	<b>1,814,420</b>	<b>733,222</b>	<b>1,125,076</b>	<b>3,672,718</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	1.511	0.614	1.410			3.535	
		2000/2001	0.339	0.430	0.395			1.163	
		2001/2002	2.954	0.146	0.481			3.581	
		2002/2003	2.270	0.934	1.191			4.395	
		2003/2004	0.972	1.137	1.482			3.590	
		<b>MA Total Pure Premium:</b>	<b>1.631</b>	<b>0.659</b>	<b>1.011</b>			<b>3.301</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	1.836	1.330	1.131				
		(14) Massachusetts Credibility:	0.30	0.86	0.69				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000			0.000	
		(16) Countrywide Indicated Relativity:	1.040	1.494	1.063				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	0.660	0.991	0.859			2.510	
		(20) Relativity to Underlying Present Rate:	1.047	1.507	1.071				
		(21) Credibility to Underlying Relativity:	0.700	0.140	0.310				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	1.284	1.355	1.112				
		(24) Balanced Formula Relativity:	1.293	1.350	1.110			1.233	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000097 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 22

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
2121 BREWERY & DRIVERS								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	22,034	0	1	0	329	761	1,091	
2000/2001	27,506	0	2	0	16,372	17,550	33,922	
2001/2002	28,132	1	0	248,747	0	142,769	391,515	
2002/2003	23,428	0	5	0	13,931	27,041	40,971	
2003/2004	30,081	0	0	0	0	3,246	3,246	
<b>MA Total</b>	<b>131,181</b>	<b>1</b>	<b>8</b>	<b>248,747</b>	<b>30,632</b>	<b>191,367</b>	<b>470,746</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
1999/2000		0.000	0.015	0.035	0.049			
2000/2001		0.000	0.595	0.638	1.233			
2001/2002		8.842	0.000	5.075	13.917			
2002/2003		0.000	0.595	1.154	1.749			
2003/2004		0.000	0.000	0.108	0.108			
<b>MA Total Pure Premium:</b>		<b>1.896</b>	<b>0.234</b>	<b>1.459</b>	<b>3.589</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
(13) Massachusetts Indicated Relativity:		2.135	0.471	1.631				
(14) Massachusetts Credibility:		0.12	0.26	0.26				
(15) Countrywide Pure Premium:		1.019	0.524	1.069	2.611			
(16) Countrywide Indicated Relativity:		1.223	1.137	1.269				
(17) Countrywide Credibility:		0.44	0.37	0.37				
(18) Countrywide Lost-time Claims:		81	875					
(19) Pure Premium Underlying Present Rate:		0.621	0.409	0.615	1.645			
(20) Relativity to Underlying Present Rate:		0.986	0.622	0.766				
(21) Credibility to Underlying Relativity:		0.440	0.370	0.370				
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278			
(23) Formula Relativity:		1.228	0.773	1.177				
(24) Balanced Formula Relativity:		1.236	0.771	1.175	1.111			

Class(es):		Effective: 9/1/2007						Manufacturing
2130 SPIRITUOUS LIQUOR DISTILLERY								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
1999/2000		0.000	0.000	0.000	0.000			
2000/2001		0.000	0.000	0.000	0.000			
2001/2002		0.000	0.000	0.000	0.000			
2002/2003		0.000	0.000	0.000	0.000			
2003/2004		0.000	0.000	0.000	0.000			
<b>MA Total Pure Premium:</b>		<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
(13) Massachusetts Indicated Relativity:		0.000	0.000	0.000				
(14) Massachusetts Credibility:		0.00	0.00	0.00				
(15) Countrywide Pure Premium:		0.875	0.504	1.058	2.437			
(16) Countrywide Indicated Relativity:		1.051	1.094	1.257				
(17) Countrywide Credibility:		0.23	0.49	0.50				
(18) Countrywide Lost-time Claims:		11	148					
(19) Pure Premium Underlying Present Rate:		1.143	0.865	1.178	3.186			
(20) Relativity to Underlying Present Rate:		1.813	1.315	1.469				
(21) Credibility to Underlying Relativity:		0.770	0.510	0.500				
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278			
(23) Formula Relativity:		1.638	1.206	1.363				
(24) Balanced Formula Relativity:		1.649	1.203	1.361	1.439			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000098 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 23

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2131 SPIRITUOUS LIQUOR BOTTLING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	27,885	0	0	0	0	6,653	6,653		
2000/2001	29,728	0	0	0	0	4,060	4,060		
2001/2002	31,719	0	4	0	45,942	23,370	69,312		
2002/2003	31,980	1	2	90,745	7,362	34,293	132,400		
2003/2004	33,717	0	1	0	420	5,070	5,490		
<b>MA Total</b>	<b>155,029</b>	<b>1</b>	<b>7</b>	<b>90,745</b>	<b>53,724</b>	<b>73,446</b>	<b>217,915</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
1999/2000		0.000	0.000	0.239	0.239				
2000/2001		0.000	0.000	0.137	0.137				
2001/2002		0.000	1.448	0.737	2.185				
2002/2003		2.838	0.230	1.072	4.140				
2003/2004		0.000	0.012	0.150	0.163				
<b>MA Total Pure Premium:</b>		<b>0.585</b>	<b>0.347</b>	<b>0.474</b>	<b>1.406</b>				
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
(13) Massachusetts Indicated Relativity:		0.659	0.699	0.530					
(14) Massachusetts Credibility:		0.14	0.36	0.32					
(15) Countrywide Pure Premium:		0.746	0.517	0.948	2.211				
(16) Countrywide Indicated Relativity:		0.895	1.122	1.126					
(17) Countrywide Credibility:		0.20	0.32	0.34					
(18) Countrywide Lost-time Claims:		8	168						
(19) Pure Premium Underlying Present Rate:		0.653	0.782	0.871	2.306				
(20) Relativity to Underlying Present Rate:		1.036	1.188	1.086					
(21) Credibility to Underlying Relativity:		0.660	0.320	0.340					
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278				
(23) Formula Relativity:		0.955	0.991	0.922					
(24) Balanced Formula Relativity:		0.962	0.988	0.920	0.951				

Class(es):		Effective: 9/1/2007						Manufacturing	
2143 FRUIT JUICE MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	136,631	0	12	0	115,293	86,110	201,403		
2000/2001	156,572	1	9	59,865	18,382	119,231	197,479		
2001/2002	166,464	1	20	193,957	88,842	473,068	755,866		
2002/2003	108,034	4	11	623,143	13,116	421,565	1,057,823		
2003/2004	89,752	0	1	0	3,302	24,690	27,993		
<b>MA Total</b>	<b>657,453</b>	<b>6</b>	<b>53</b>	<b>876,965</b>	<b>238,935</b>	<b>1,124,663</b>	<b>2,240,563</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
1999/2000		0.000	0.844	0.630	1.474				
2000/2001		0.382	0.117	0.762	1.261				
2001/2002		1.165	0.534	2.842	4.541				
2002/2003		5.768	0.121	3.902	9.792				
2003/2004		0.000	0.037	0.275	0.312				
<b>MA Total Pure Premium:</b>		<b>1.334</b>	<b>0.363</b>	<b>1.711</b>	<b>3.408</b>				
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
(13) Massachusetts Indicated Relativity:		1.502	0.733	1.912					
(14) Massachusetts Credibility:		0.21	0.63	0.61					
(15) Countrywide Pure Premium:		1.052	0.398	1.034	2.484				
(16) Countrywide Indicated Relativity:		1.263	0.864	1.228					
(17) Countrywide Credibility:		0.22	0.19	0.20					
(18) Countrywide Lost-time Claims:		10	225						
(19) Pure Premium Underlying Present Rate:		0.450	0.760	1.063	2.272				
(20) Relativity to Underlying Present Rate:		0.714	1.155	1.325					
(21) Credibility to Underlying Relativity:		0.570	0.180	0.190					
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278				
(23) Formula Relativity:		1.000	0.834	1.664					
(24) Balanced Formula Relativity:		1.007	0.831	1.661	1.225				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000099 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 24

## Calculation of Class Relativities

Class(es): 2150 ICE MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	4,425	0	0	0	0	0	0	0	
2000/2001	5,623	0	0	0	0	2,523	2,523	2,523	
2001/2002	5,738	0	2	0	41,896	8,611	50,507	50,507	
2002/2003	6,702	0	0	0	0	0	0	0	
2003/2004	6,586	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>29,074</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>41,896</b>	<b>11,134</b>	<b>53,031</b>	<b>53,031</b>	
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.000	0.000				
	2000/2001	0.000	0.000	0.449	0.449				
	2001/2002	0.000	7.302	1.501	8.802				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.000	0.000	0.000				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>1.441</b>	<b>0.383</b>	<b>1.824</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	2.907	0.428					
	(14) Massachusetts Credibility:	0.10	0.23	0.19					
	(15) Countrywide Pure Premium:	1.214	0.874	1.333	3.421				
	(16) Countrywide Indicated Relativity:	1.457	1.898	1.584					
	(17) Countrywide Credibility:	0.28	0.39	0.41					
	(18) Countrywide Lost-time Claims:	19	106						
	(19) Pure Premium Underlying Present Rate:	1.609	1.390	1.274	4.273				
	(20) Relativity to Underlying Present Rate:	2.554	2.113	1.588					
	(21) Credibility to Underlying Relativity:	0.620	0.380	0.400					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.991	2.212	1.366					
	(24) Balanced Formula Relativity:	2.005	2.205	1.363	1.796				

Class(es): 2156 BOTTLING-NOT CARBONATED LIQUIDS OR SPIRIT LIQRS & RTE SUP,DR		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	44,192	1	9	169,186	70,898	201,821	441,905	441,905	
2000/2001	53,470	2	5	304,771	23,709	186,503	514,983	514,983	
2001/2002	50,902	4	9	688,994	50,136	211,395	950,525	950,525	
2002/2003	60,811	1	10	70,002	23,632	176,362	269,996	269,996	
2003/2004	47,129	0	5	0	41,127	19,147	60,274	60,274	
<b>MA Total</b>	<b>256,504</b>	<b>8</b>	<b>38</b>	<b>1,232,954</b>	<b>209,502</b>	<b>795,228</b>	<b>2,237,684</b>	<b>2,237,684</b>	
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	3.828	1.604	4.567	10.000				
	2000/2001	5.700	0.443	3.488	9.631				
	2001/2002	13.536	0.985	4.153	18.674				
	2002/2003	1.151	0.389	2.900	4.440				
	2003/2004	0.000	0.873	0.406	1.279				
	<b>MA Total Pure Premium:</b>	<b>4.807</b>	<b>0.817</b>	<b>3.100</b>	<b>8.724</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	5.412	1.648	3.466					
	(14) Massachusetts Credibility:	0.22	0.62	0.54					
	(15) Countrywide Pure Premium:	1.783	0.855	1.343	3.981				
	(16) Countrywide Indicated Relativity:	2.141	1.857	1.595					
	(17) Countrywide Credibility:	0.39	0.19	0.23					
	(18) Countrywide Lost-time Claims:	49	943						
	(19) Pure Premium Underlying Present Rate:	1.288	1.921	1.998	5.208				
	(20) Relativity to Underlying Present Rate:	2.045	2.921	2.491					
	(21) Credibility to Underlying Relativity:	0.390	0.190	0.230					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	2.823	1.929	2.811					
	(24) Balanced Formula Relativity:	2.842	1.923	2.806	2.628				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000100 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 25

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
2157 BOTTLING NOC & ROUTE SUPERVISORS, DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	100,844	3	10	199,835	24,730	156,980	381,545	
2000/2001	86,823	1	9	62,686	35,304	74,184	172,174	
2001/2002	91,931	0	10	0	69,581	44,143	113,724	
2002/2003	197,721	1	34	75,833	266,794	257,790	600,417	
2003/2004	93,273	1	9	395,867	152,719	164,582	713,168	
<b>MA Total</b>	<b>570,592</b>	<b>6</b>	<b>72</b>	<b>734,220</b>	<b>549,127</b>	<b>697,680</b>	<b>1,981,027</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.982	0.245	1.557	3.784			
	2000/2001	0.722	0.407	0.854	1.983			
	2001/2002	0.000	0.757	0.480	1.237			
	2002/2003	0.384	1.349	1.304	3.037			
	2003/2004	4.244	1.637	1.765	7.646			
	<b>MA Total Pure Premium:</b>	<b>1.287</b>	<b>0.962</b>	<b>1.223</b>	<b>3.472</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.449	1.942	1.367				
	(14) Massachusetts Credibility:	0.34	0.68	0.65				
	(15) Countrywide Pure Premium:	2.607	1.234	2.087	5.929			
	(16) Countrywide Indicated Relativity:	3.130	2.680	2.479				
	(17) Countrywide Credibility:	0.33	0.16	0.18				
	(18) Countrywide Lost-time Claims:	598	10,002					
	(19) Pure Premium Underlying Present Rate:	1.827	1.087	1.419	4.334			
	(20) Relativity to Underlying Present Rate:	2.900	1.653	1.769				
	(21) Credibility to Underlying Relativity:	0.330	0.160	0.170				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	2.482	2.014	1.636				
	(24) Balanced Formula Relativity:	2.499	2.007	1.632	2.052			

Class(es):		Effective: 9/1/2007						Manufacturing
2172 CIGARETTE MFG								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	
2002/2003	265	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>265</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.000	0.000			
	2000/2001	0.000	0.000	0.000	0.000			
	2001/2002	0.000	0.000	0.000	0.000			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
	(14) Massachusetts Credibility:	0.01	0.02	0.02				
	(15) Countrywide Pure Premium:	1.415	0.474	0.717	2.607			
	(16) Countrywide Indicated Relativity:	1.699	1.030	0.852				
	(17) Countrywide Credibility:	0.50	0.49	0.49				
	(18) Countrywide Lost-time Claims:	81	688					
	(19) Pure Premium Underlying Present Rate:	0.300	0.253	0.275	0.827			
	(20) Relativity to Underlying Present Rate:	0.476	0.384	0.343				
	(21) Credibility to Underlying Relativity:	0.490	0.490	0.490				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.082	0.693	0.585				
	(24) Balanced Formula Relativity:	1.090	0.691	0.584	0.805			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000101 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 26

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2174 TOBACCO REHANDLING OR WAREHOUSING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	51	0	0	0	0	0	0	0	
2000/2001	921	0	0	0	0	0	0	0	
2001/2002	940	0	0	0	0	0	0	0	
2002/2003	1,015	0	0	0	0	0	0	0	
2003/2004	1,873	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>4,800</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	0.000			0.000	
		2000/2001	0.000	0.000	0.000			0.000	
		2001/2002	0.000	0.000	0.000			0.000	
		2002/2003	0.000	0.000	0.000			0.000	
		2003/2004	0.000	0.000	0.000			0.000	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			<b>0.000</b>	
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.06	0.12	0.13				
		(15) Countrywide Pure Premium:	0.926	0.525	1.212			2.662	
		(16) Countrywide Indicated Relativity:	1.111	1.139	1.439				
		(17) Countrywide Credibility:	0.20	0.40	0.44				
		(18) Countrywide Lost-time Claims:	8	92					
		(19) Pure Premium Underlying Present Rate:	2.576	1.776	2.911			7.262	
		(20) Relativity to Underlying Present Rate:	4.089	2.699	3.628				
		(21) Credibility to Underlying Relativity:	0.740	0.480	0.430				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	3.248	1.751	2.194				
		(24) Balanced Formula Relativity:	3.270	1.746	2.189			2.514	

Class(es):		Effective: 9/1/2007						Manufacturing	
2211 COTTON BATTING,WADDING OR WASTE MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,708	0	2	0	4,441	4,766	9,207		
2000/2001	3,089	0	0	0	0	0	0		
2001/2002	1,518	0	1	0	234	558	791		
2002/2003	1,533	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>7,848</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4,674</b>	<b>5,324</b>	<b>9,998</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	2.600	2.790			5.390	
		2000/2001	0.000	0.000	0.000			0.000	
		2001/2002	0.000	0.154	0.367			0.521	
		2002/2003	0.000	0.000	0.000			0.000	
		2003/2004	0.000	0.000	0.000			0.000	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.596</b>	<b>0.678</b>			<b>1.274</b>	
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	1.202	0.758				
		(14) Massachusetts Credibility:	0.06	0.13	0.12				
		(15) Countrywide Pure Premium:	2.795	0.962	2.016			5.773	
		(16) Countrywide Indicated Relativity:	3.356	2.090	2.394				
		(17) Countrywide Credibility:	0.33	0.44	0.44				
		(18) Countrywide Lost-time Claims:	29	169					
		(19) Pure Premium Underlying Present Rate:	1.807	1.249	1.424			4.481	
		(20) Relativity to Underlying Present Rate:	2.869	1.899	1.775				
		(21) Credibility to Underlying Relativity:	0.610	0.430	0.440				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	2.857	1.892	1.926				
		(24) Balanced Formula Relativity:	2.877	1.886	1.922			2.286	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000102 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 27

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2220 YARN OR THREAD MFG-COTTON*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	171,047	5	19	440,228	213,596	522,885	1,176,710		
2000/2001	135,608	4	10	285,599	28,501	113,043	427,143		
2001/2002	127,170	2	10	184,821	27,108	231,159	443,087		
2002/2003	126,712	3	6	534,210	11,795	281,089	827,094		
2003/2004	131,272	0	8	0	96,509	112,511	209,020		
<b>MA Total</b>	<b>691,809</b>	<b>14</b>	<b>53</b>	<b>1,444,858</b>	<b>377,509</b>	<b>1,260,688</b>	<b>3,083,054</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	2.574	1.249	3.057	6.879		
			2000/2001	2.106	0.210	0.834	3.150		
			2001/2002	1.453	0.213	1.818	3.484		
			2002/2003	4.216	0.093	2.218	6.527		
			2003/2004	0.000	0.735	0.857	1.592		
			<b>MA Total Pure Premium:</b>	<b>2.089</b>	<b>0.546</b>	<b>1.822</b>	<b>4.457</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	2.351	1.101	2.037			
			(14) Massachusetts Credibility:	0.26	0.63	0.66			
			(15) Countrywide Pure Premium:	0.684	0.417	0.800	1.901		
			(16) Countrywide Indicated Relativity:	0.822	0.906	0.950			
			(17) Countrywide Credibility:	0.37	0.19	0.17			
			(18) Countrywide Lost-time Claims:	136	1,957				
			(19) Pure Premium Underlying Present Rate:	0.771	0.728	1.228	2.726		
			(20) Relativity to Underlying Present Rate:	1.224	1.106	1.530			
			(21) Credibility to Underlying Relativity:	0.370	0.180	0.170			
			(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
			(23) Formula Relativity:	1.368	1.065	1.766			
			(24) Balanced Formula Relativity:	1.378	1.061	1.763	1.460		

Class(es):		Effective: 9/1/2007						Manufacturing	
2260 WOOL COMBING OR SCOURING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,652	0	1	0	28,817	1,122	29,938		
2000/2001	3,512	0	0	0	0	0	0		
2001/2002	3,108	0	0	0	0	2,249	2,249		
2002/2003	1,882	0	0	0	0	0	0		
2003/2004	1,604	0	0	0	0	0	0		
<b>MA Total</b>	<b>12,758</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>28,817</b>	<b>3,371</b>	<b>32,188</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.000	10.866	0.423	11.289		
			2000/2001	0.000	0.000	0.000	0.000		
			2001/2002	0.000	0.000	0.724	0.724		
			2002/2003	0.000	0.000	0.000	0.000		
			2003/2004	0.000	0.000	0.000	0.000		
			<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>2.259</b>	<b>0.264</b>	<b>2.523</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	0.000	4.557	0.295			
			(14) Massachusetts Credibility:	0.09	0.13	0.14			
			(15) Countrywide Pure Premium:	0.000	1.248	1.497	2.745		
			(16) Countrywide Indicated Relativity:	0.000	2.709	1.778			
			(17) Countrywide Credibility:	0.00	0.14	0.17			
			(18) Countrywide Lost-time Claims:	0	7				
			(19) Pure Premium Underlying Present Rate:	3.003	0.797	1.369	5.169		
			(20) Relativity to Underlying Present Rate:	4.766	1.212	1.707			
			(21) Credibility to Underlying Relativity:	0.910	0.730	0.690			
			(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
			(23) Formula Relativity:	4.337	1.856	1.522			
			(24) Balanced Formula Relativity:	4.367	1.850	1.519	2.701		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000103 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 28

## Calculation of Class Relativities

Class(es): 2288 FELTING MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	123,069	1	14	165,120	135,549	152,293	452,962		
2000/2001	109,522	1	8	83,801	65,265	72,148	221,214		
2001/2002	114,637	0	6	0	107,045	107,489	214,535		
2002/2003	112,354	1	12	127,582	37,596	51,888	217,066		
2003/2004	144,824	0	11	0	97,417	73,323	170,740		
<b>MA Total</b>	<b>604,406</b>	<b>3</b>	<b>51</b>	<b>376,503</b>	<b>442,872</b>	<b>457,142</b>	<b>1,276,518</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.342	1.101	1.237	3.681			
		2000/2001	0.765	0.596	0.659	2.020			
		2001/2002	0.000	0.934	0.938	1.871			
		2002/2003	1.136	0.335	0.462	1.932			
		2003/2004	0.000	0.673	0.506	1.179			
		<b>MA Total Pure Premium:</b>	<b>0.623</b>	<b>0.733</b>	<b>0.756</b>	<b>2.112</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.701	1.478	0.846				
		(14) Massachusetts Credibility:	0.25	0.61	0.50				
		(15) Countrywide Pure Premium:	1.302	0.668	1.264	3.234			
		(16) Countrywide Indicated Relativity:	1.563	1.451	1.502				
		(17) Countrywide Credibility:	0.21	0.20	0.25				
		(18) Countrywide Lost-time Claims:	9	239					
		(19) Pure Premium Underlying Present Rate:	0.776	0.760	0.715	2.251			
		(20) Relativity to Underlying Present Rate:	1.231	1.156	0.892				
		(21) Credibility to Underlying Relativity:	0.540	0.190	0.250				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.168	1.412	1.021				
		(24) Balanced Formula Relativity:	1.176	1.407	1.019	1.165			

Class(es): 2305 TEXTILE FIBER MFG-SYNTHETIC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	6,103	0	0	0	0	570	570		
2000/2001	24,603	0	0	0	0	2,107	2,107		
2001/2002	4,808	0	1	0	1,701	1,569	3,270		
2002/2003	25,775	0	0	0	0	1,456	1,456		
2003/2004	20,398	0	0	0	0	533	533		
<b>MA Total</b>	<b>81,687</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1,701</b>	<b>6,235</b>	<b>7,936</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.093	0.093			
		2000/2001	0.000	0.000	0.086	0.086			
		2001/2002	0.000	0.354	0.326	0.680			
		2002/2003	0.000	0.000	0.056	0.056			
		2003/2004	0.000	0.000	0.026	0.026			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.021</b>	<b>0.076</b>	<b>0.097</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.042	0.085				
		(14) Massachusetts Credibility:	0.11	0.29	0.25				
		(15) Countrywide Pure Premium:	0.967	0.360	0.696	2.023			
		(16) Countrywide Indicated Relativity:	1.161	0.782	0.827				
		(17) Countrywide Credibility:	0.45	0.36	0.38				
		(18) Countrywide Lost-time Claims:	103	992					
		(19) Pure Premium Underlying Present Rate:	0.723	0.870	0.923	2.517			
		(20) Relativity to Underlying Present Rate:	1.148	1.323	1.151				
		(21) Credibility to Underlying Relativity:	0.440	0.350	0.370				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.028	0.756	0.761				
		(24) Balanced Formula Relativity:	1.035	0.754	0.760	0.866			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000104 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 29

## Calculation of Class Relativities

Class(es): 2362 KNIT GOODS MFG NOC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	76,826	1	6	75,930	5,023	43,577	124,530		
2000/2001	64,574	1	4	155,186	53,957	126,037	335,181		
2001/2002	61,458	0	7	0	46,831	22,742	69,574		
2002/2003	38,225	0	2	0	3,149	3,611	6,760		
2003/2004	34,547	0	2	0	4,891	12,671	17,562		
<b>MA Total</b>	<b>275,630</b>	<b>2</b>	<b>21</b>	<b>231,116</b>	<b>113,851</b>	<b>208,639</b>	<b>553,606</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.988	0.065	0.567	1.621				
	2000/2001	2.403	0.836	1.952	5.191				
	2001/2002	0.000	0.762	0.370	1.132				
	2002/2003	0.000	0.082	0.094	0.177				
	2003/2004	0.000	0.142	0.367	0.508				
	<b>MA Total Pure Premium:</b>	<b>0.839</b>	<b>0.413</b>	<b>0.757</b>	<b>2.009</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.944	0.833	0.846					
	(14) Massachusetts Credibility:	0.19	0.40	0.38					
	(15) Countrywide Pure Premium:	0.745	0.468	0.754	1.967				
	(16) Countrywide Indicated Relativity:	0.895	1.016	0.895					
	(17) Countrywide Credibility:	0.41	0.30	0.31					
	(18) Countrywide Lost-time Claims:	105	732						
	(19) Pure Premium Underlying Present Rate:	0.903	0.586	0.758	2.246				
	(20) Relativity to Underlying Present Rate:	1.433	0.890	0.945					
	(21) Credibility to Underlying Relativity:	0.400	0.300	0.310					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.119	0.905	0.892					
	(24) Balanced Formula Relativity:	1.127	0.902	0.890	0.985				

Class(es): 2380 WEBBING MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	114,307	0	18	0	98,525	120,278	218,803		
2000/2001	103,630	0	13	0	97,533	74,196	171,729		
2001/2002	102,854	1	18	91,609	70,441	135,885	297,935		
2002/2003	94,512	0	13	0	153,421	73,094	226,515		
2003/2004	93,405	1	8	140,186	60,837	98,712	299,735		
<b>MA Total</b>	<b>508,708</b>	<b>2</b>	<b>70</b>	<b>231,795</b>	<b>480,757</b>	<b>502,165</b>	<b>1,214,717</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.862	1.052	1.914				
	2000/2001	0.000	0.941	0.716	1.657				
	2001/2002	0.891	0.685	1.321	2.897				
	2002/2003	0.000	1.623	0.773	2.397				
	2003/2004	1.501	0.651	1.057	3.209				
	<b>MA Total Pure Premium:</b>	<b>0.456</b>	<b>0.945</b>	<b>0.987</b>	<b>2.388</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.513	1.907	1.104					
	(14) Massachusetts Credibility:	0.20	0.57	0.50					
	(15) Countrywide Pure Premium:	1.225	0.483	0.854	2.562				
	(16) Countrywide Indicated Relativity:	1.471	1.050	1.014					
	(17) Countrywide Credibility:	0.37	0.22	0.25					
	(18) Countrywide Lost-time Claims:	37	432						
	(19) Pure Premium Underlying Present Rate:	0.516	0.767	0.840	2.122				
	(20) Relativity to Underlying Present Rate:	0.819	1.166	1.047					
	(21) Credibility to Underlying Relativity:	0.430	0.210	0.250					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.999	1.563	1.067					
	(24) Balanced Formula Relativity:	1.006	1.557	1.065	1.149				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000105 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 30

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2402 CARPET OR RUG MFG NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	8,024	0	0	0	0	14,194	14,194		
2000/2001	5,928	0	1	0	4,595	4,718	9,313		
2001/2002	5,136	0	1	0	2,766	8,361	11,126		
2002/2003	4,470	1	0	126,600	0	6,250	132,850		
2003/2004	4,297	0	0	0	0	0	0		
<b>MA Total</b>	<b>27,855</b>	<b>1</b>	<b>2</b>	<b>126,600</b>	<b>7,361</b>	<b>33,523</b>	<b>167,483</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	1.769	1.769			
		2000/2001	0.000	0.775	0.796	1.571			
		2001/2002	0.000	0.538	1.628	2.166			
		2002/2003	28.325	0.000	1.398	29.723			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>4.545</b>	<b>0.264</b>	<b>1.203</b>	<b>6.013</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	5.117	0.533	1.345				
		(14) Massachusetts Credibility:	0.07	0.16	0.17				
		(15) Countrywide Pure Premium:	0.871	0.508	1.001	2.380			
		(16) Countrywide Indicated Relativity:	1.045	1.104	1.189				
		(17) Countrywide Credibility:	0.47	0.42	0.42				
		(18) Countrywide Lost-time Claims:	89	549					
		(19) Pure Premium Underlying Present Rate:	0.785	0.584	0.978	2.347			
		(20) Relativity to Underlying Present Rate:	1.246	0.888	1.219				
		(21) Credibility to Underlying Relativity:	0.460	0.420	0.410				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.423	0.922	1.228				
		(24) Balanced Formula Relativity:	1.432	0.919	1.226	1.239			

Class(es):		Effective: 9/1/2007						Manufacturing	
2413 TEXTILE - BLEACHING, DYEING, MERCERZNG, FINISH									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	257,035	5	15	802,580	66,002	508,651	1,377,233		
2000/2001	250,726	5	29	731,324	250,148	253,306	1,234,778		
2001/2002	212,751	2	15	264,871	43,294	78,322	386,487		
2002/2003	218,506	6	21	563,693	158,877	395,254	1,117,824		
2003/2004	144,660	2	11	494,658	110,754	198,317	803,729		
<b>MA Total</b>	<b>1,083,678</b>	<b>20</b>	<b>91</b>	<b>2,857,126</b>	<b>629,075</b>	<b>1,433,850</b>	<b>4,920,051</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	3.122	0.257	1.979	5.358			
		2000/2001	2.917	0.998	1.010	4.925			
		2001/2002	1.245	0.203	0.368	1.817			
		2002/2003	2.580	0.727	1.809	5.116			
		2003/2004	3.419	0.766	1.371	5.556			
		<b>MA Total Pure Premium:</b>	<b>2.637</b>	<b>0.580</b>	<b>1.323</b>	<b>4.540</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	2.968	1.171	1.479				
		(14) Massachusetts Credibility:	0.45	0.83	0.84				
		(15) Countrywide Pure Premium:	1.089	0.579	0.967	2.635			
		(16) Countrywide Indicated Relativity:	1.307	1.257	1.149				
		(17) Countrywide Credibility:	0.28	0.09	0.08				
		(18) Countrywide Lost-time Claims:	155	980					
		(19) Pure Premium Underlying Present Rate:	1.870	0.926	1.445	4.240			
		(20) Relativity to Underlying Present Rate:	2.967	1.408	1.801				
		(21) Credibility to Underlying Relativity:	0.270	0.080	0.080				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	2.503	1.198	1.478				
		(24) Balanced Formula Relativity:	2.520	1.194	1.476	1.822			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000106 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 31

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2416 YARN OR THREAD DYEING OR FINISHING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	53,996	1	14	49,352	337,341	158,395	545,088		
2000/2001	36,267	1	5	105,509	10,382	66,612	182,503		
2001/2002	32,627	1	2	188,695	3,555	21,259	213,509		
2002/2003	27,669	0	3	0	3,864	21,930	25,794		
2003/2004	27,916	0	1	0	472	13,341	13,813		
<b>MA Total</b>	<b>178,475</b>	<b>3</b>	<b>25</b>	<b>343,556</b>	<b>355,615</b>	<b>281,536</b>	<b>980,707</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.914	6.248	2.933	10.095		
			2000/2001	2.909	0.286	1.837	5.032		
			2001/2002	5.783	0.109	0.652	6.544		
			2002/2003	0.000	0.140	0.793	0.932		
			2003/2004	0.000	0.017	0.478	0.495		
			<b>MA Total Pure Premium:</b>	<b>1.925</b>	<b>1.993</b>	<b>1.577</b>	<b>5.495</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	2.167	4.020	1.763			
			(14) Massachusetts Credibility:	0.17	0.53	0.38			
			(15) Countrywide Pure Premium:	0.447	0.529	0.714	1.689		
			(16) Countrywide Indicated Relativity:	0.536	1.148	0.848			
			(17) Countrywide Credibility:	0.17	0.24	0.31			
			(18) Countrywide Lost-time Claims:	5	99				
			(19) Pure Premium Underlying Present Rate:	0.980	1.818	1.178	3.977		
			(20) Relativity to Underlying Present Rate:	1.555	2.764	1.469			
			(21) Credibility to Underlying Relativity:	0.660	0.230	0.310			
			(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
			(23) Formula Relativity:	1.486	3.042	1.388			
			(24) Balanced Formula Relativity:	1.496	3.032	1.386	1.787		

Class(es):		Effective: 9/1/2007						Manufacturing	
2417 CLOTH PRINTING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	157,862	2	24	328,610	73,108	218,513	620,231		
2000/2001	151,921	1	16	124,279	171,398	136,705	432,381		
2001/2002	123,143	4	17	523,067	40,967	236,974	801,008		
2002/2003	132,414	1	13	280,881	69,505	245,795	596,181		
2003/2004	131,720	0	12	0	125,930	72,797	198,726		
<b>MA Total</b>	<b>697,060</b>	<b>8</b>	<b>82</b>	<b>1,256,837</b>	<b>480,907</b>	<b>910,784</b>	<b>2,648,528</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	2.082	0.463	1.384	3.929		
			2000/2001	0.818	1.128	0.900	2.846		
			2001/2002	4.248	0.333	1.924	6.505		
			2002/2003	2.121	0.525	1.856	4.502		
			2003/2004	0.000	0.956	0.553	1.509		
			<b>MA Total Pure Premium:</b>	<b>1.803</b>	<b>0.690</b>	<b>1.307</b>	<b>3.800</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	2.030	1.392	1.461			
			(14) Massachusetts Credibility:	0.28	0.57	0.63			
			(15) Countrywide Pure Premium:	0.632	0.363	0.659	1.655		
			(16) Countrywide Indicated Relativity:	0.759	0.789	0.783			
			(17) Countrywide Credibility:	0.18	0.22	0.19			
			(18) Countrywide Lost-time Claims:	6	91				
			(19) Pure Premium Underlying Present Rate:	0.877	0.554	1.091	2.522		
			(20) Relativity to Underlying Present Rate:	1.392	0.842	1.360			
			(21) Credibility to Underlying Relativity:	0.540	0.210	0.180			
			(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
			(23) Formula Relativity:	1.457	1.144	1.314			
			(24) Balanced Formula Relativity:	1.467	1.140	1.311	1.335		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000107 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 32

## Calculation of Class Relativities

Class(es): 2501 CLOTHING MFG*		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,798,087	23	114	2,165,434	1,324,728	1,745,736	5,235,898		
2000/2001	1,518,427	16	95	1,803,624	605,772	1,161,996	3,571,392		
2001/2002	1,344,228	15	90	2,160,913	737,546	1,791,239	4,689,699		
2002/2003	1,331,190	9	98	1,294,342	783,750	1,385,901	3,463,993		
2003/2004	1,363,125	1	80	192,226	978,569	801,511	1,972,306		
<b>MA Total</b>	<b>7,355,057</b>	<b>64</b>	<b>477</b>	<b>7,616,540</b>	<b>4,430,366</b>	<b>6,886,383</b>	<b>18,933,288</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.204	0.737	0.971	2.912			
		2000/2001	1.188	0.399	0.765	2.352			
		2001/2002	1.608	0.549	1.333	3.489			
		2002/2003	0.972	0.589	1.041	2.602			
		2003/2004	0.141	0.718	0.588	1.447			
		<b>MA Total Pure Premium:</b>	<b>1.036</b>	<b>0.602</b>	<b>0.936</b>	<b>2.574</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.166	1.215	1.047				
		(14) Massachusetts Credibility:	0.70	1.00	1.00				
		(15) Countrywide Pure Premium:	0.618	0.498	0.811	1.928			
		(16) Countrywide Indicated Relativity:	0.742	1.082	0.963				
		(17) Countrywide Credibility:	0.15	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,365	11,139					
		(19) Pure Premium Underlying Present Rate:	0.824	0.758	0.831	2.413			
		(20) Relativity to Underlying Present Rate:	1.308	1.152	1.036				
		(21) Credibility to Underlying Relativity:	0.150	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.124	1.215	1.047				
		(24) Balanced Formula Relativity:	1.131	1.211	1.045	1.115			

Class(es): 2503 DRESSMAKING OR TAILORING-CUSTOM EXCLUSIVELY		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	60,007	0	4	0	30,093	13,367	43,460		
2000/2001	58,013	1	1	208,174	1,759	12,484	222,417		
2001/2002	62,727	0	1	0	30,517	10,740	41,257		
2002/2003	67,660	0	3	0	21,552	10,884	32,437		
2003/2004	69,334	0	2	0	3,267	10,383	13,651		
<b>MA Total</b>	<b>317,741</b>	<b>1</b>	<b>11</b>	<b>208,174</b>	<b>87,189</b>	<b>57,858</b>	<b>353,221</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.501	0.223	0.724			
		2000/2001	3.588	0.030	0.215	3.834			
		2001/2002	0.000	0.487	0.171	0.658			
		2002/2003	0.000	0.319	0.161	0.479			
		2003/2004	0.000	0.047	0.150	0.197			
		<b>MA Total Pure Premium:</b>	<b>0.655</b>	<b>0.274</b>	<b>0.182</b>	<b>1.112</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.738	0.554	0.204				
		(14) Massachusetts Credibility:	0.13	0.32	0.25				
		(15) Countrywide Pure Premium:	0.184	0.230	0.346	0.761			
		(16) Countrywide Indicated Relativity:	0.221	0.500	0.411				
		(17) Countrywide Credibility:	0.18	0.34	0.38				
		(18) Countrywide Lost-time Claims:	6	122					
		(19) Pure Premium Underlying Present Rate:	0.264	0.302	0.243	0.809			
		(20) Relativity to Underlying Present Rate:	0.419	0.459	0.303				
		(21) Credibility to Underlying Relativity:	0.690	0.340	0.370				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.425	0.503	0.319				
		(24) Balanced Formula Relativity:	0.428	0.501	0.319	0.401			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000108 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 33

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2570 MATTRESS OR BOX SPRING MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	73,506	1	18	135,049	113,056	168,704	416,810		
2000/2001	58,483	3	4	425,240	3,044	114,423	542,707		
2001/2002	73,252	3	14	264,641	58,909	210,400	533,950		
2002/2003	33,203	0	3	0	6,078	10,543	16,621		
2003/2004	14,970	0	3	0	2,925	2,755	5,679		
<b>MA Total</b>	<b>253,414</b>	<b>7</b>	<b>42</b>	<b>824,930</b>	<b>184,011</b>	<b>506,825</b>	<b>1,515,767</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	1.837	1.538	2.295	5.670				
	2000/2001	7.271	0.052	1.957	9.280				
	2001/2002	3.613	0.804	2.872	7.289				
	2002/2003	0.000	0.183	0.318	0.501				
	2003/2004	0.000	0.195	0.184	0.379				
	<b>MA Total Pure Premium:</b>	<b>3.255</b>	<b>0.726</b>	<b>2.000</b>	<b>5.981</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	3.665	1.465	2.236					
	(14) Massachusetts Credibility:	0.24	0.63	0.51					
	(15) Countrywide Pure Premium:	1.259	0.829	1.291	3.378				
	(16) Countrywide Indicated Relativity:	1.511	1.800	1.533					
	(17) Countrywide Credibility:	0.38	0.19	0.25					
	(18) Countrywide Lost-time Claims:	129	1,399						
	(19) Pure Premium Underlying Present Rate:	1.585	1.992	1.743	5.321				
	(20) Relativity to Underlying Present Rate:	2.516	3.029	2.173					
	(21) Credibility to Underlying Relativity:	0.380	0.180	0.240					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	2.410	1.810	2.045					
	(24) Balanced Formula Relativity:	2.426	1.804	2.041	2.140				

Class(es):		Effective: 9/1/2007						Manufacturing	
2576 CANVAS GOODS MFG NOC-SHOP*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	71,511	0	15	0	30,934	95,976	126,910		
2000/2001	69,940	1	8	101,884	60,782	113,651	276,318		
2001/2002	68,201	1	5	71,883	11,417	68,648	151,948		
2002/2003	75,834	0	7	0	34,202	32,146	66,348		
2003/2004	68,874	1	5	245,511	17,065	245,424	508,000		
<b>MA Total</b>	<b>354,360</b>	<b>3</b>	<b>40</b>	<b>419,278</b>	<b>154,401</b>	<b>555,845</b>	<b>1,129,524</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.433	1.342	1.775				
	2000/2001	1.457	0.869	1.625	3.951				
	2001/2002	1.054	0.167	1.007	2.228				
	2002/2003	0.000	0.451	0.424	0.875				
	2003/2004	3.565	0.248	3.563	7.376				
	<b>MA Total Pure Premium:</b>	<b>1.183</b>	<b>0.436</b>	<b>1.569</b>	<b>3.188</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.332	0.879	1.754					
	(14) Massachusetts Credibility:	0.18	0.49	0.46					
	(15) Countrywide Pure Premium:	1.119	0.693	1.105	2.916				
	(16) Countrywide Indicated Relativity:	1.343	1.505	1.312					
	(17) Countrywide Credibility:	0.40	0.26	0.27					
	(18) Countrywide Lost-time Claims:	46	400						
	(19) Pure Premium Underlying Present Rate:	0.587	0.757	0.958	2.302				
	(20) Relativity to Underlying Present Rate:	0.932	1.150	1.195					
	(21) Credibility to Underlying Relativity:	0.420	0.250	0.270					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.169	1.109	1.483					
	(24) Balanced Formula Relativity:	1.177	1.106	1.481	1.281				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000109 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 34

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
2585 LAUNDRY NOC & ROUTE SUPERVISORS, DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	552,700	2	78	112,525	593,231	783,882	1,489,639	
2000/2001	600,596	6	59	567,232	223,997	820,810	1,612,039	
2001/2002	607,669	6	66	892,955	413,569	618,170	1,924,694	
2002/2003	525,396	4	51	581,442	478,874	755,708	1,816,024	
2003/2004	604,792	2	41	320,081	481,647	644,176	1,445,904	
<b>MA Total</b>	<b>2,891,153</b>	<b>20</b>	<b>295</b>	<b>2,474,235</b>	<b>2,191,318</b>	<b>3,622,747</b>	<b>8,288,299</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.204	1.073	1.418	2.695			
	2000/2001	0.944	0.373	1.367	2.684			
	2001/2002	1.469	0.681	1.017	3.167			
	2002/2003	1.107	0.911	1.438	3.456			
	2003/2004	0.529	0.796	1.065	2.391			
	<b>MA Total Pure Premium:</b>	<b>0.856</b>	<b>0.758</b>	<b>1.253</b>	<b>2.867</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.963	1.529	1.401				
	(14) Massachusetts Credibility:	0.54	1.00	1.00				
	(15) Countrywide Pure Premium:	1.261	0.761	1.357	3.379			
	(16) Countrywide Indicated Relativity:	1.514	1.653	1.611				
	(17) Countrywide Credibility:	0.23	0.00	0.00				
	(18) Countrywide Lost-time Claims:	525	5,883					
	(19) Pure Premium Underlying Present Rate:	1.106	0.895	1.337	3.338			
	(20) Relativity to Underlying Present Rate:	1.755	1.361	1.667				
	(21) Credibility to Underlying Relativity:	0.230	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.272	1.529	1.401				
	(24) Balanced Formula Relativity:	1.281	1.524	1.398	1.380			

Class(es):		Effective: 9/1/2007						Manufacturing
2586 CLEANING OR DYEING & ROUTE SUPERVISORS, DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	482,617	0	14	0	127,432	78,231	205,663	
2000/2001	493,012	1	16	152,881	158,994	134,113	445,988	
2001/2002	486,952	4	14	457,827	51,457	204,715	713,999	
2002/2003	466,102	3	10	310,687	72,252	287,979	670,918	
2003/2004	478,589	0	11	0	157,286	105,044	262,330	
<b>MA Total</b>	<b>2,407,272</b>	<b>8</b>	<b>65</b>	<b>921,395</b>	<b>567,420</b>	<b>810,082</b>	<b>2,298,897</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.264	0.162	0.426			
	2000/2001	0.310	0.322	0.272	0.905			
	2001/2002	0.940	0.106	0.420	1.466			
	2002/2003	0.667	0.155	0.618	1.439			
	2003/2004	0.000	0.329	0.219	0.548			
	<b>MA Total Pure Premium:</b>	<b>0.383</b>	<b>0.236</b>	<b>0.337</b>	<b>0.955</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.431	0.476	0.376				
	(14) Massachusetts Credibility:	0.37	0.78	0.78				
	(15) Countrywide Pure Premium:	0.509	0.426	0.782	1.717			
	(16) Countrywide Indicated Relativity:	0.611	0.926	0.929				
	(17) Countrywide Credibility:	0.32	0.11	0.11				
	(18) Countrywide Lost-time Claims:	86	881					
	(19) Pure Premium Underlying Present Rate:	0.534	0.361	0.535	1.430			
	(20) Relativity to Underlying Present Rate:	0.847	0.549	0.666				
	(21) Credibility to Underlying Relativity:	0.310	0.110	0.110				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	0.618	0.533	0.469				
	(24) Balanced Formula Relativity:	0.622	0.531	0.468	0.542			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000110 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 35

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007					Goods & Services	
2587 TOWEL OR TOILET SUPPLY CO & RTE SUPERVISORS, DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	7,660	0	0	0	0	364	364	
2000/2001	9,103	0	1	0	4,585	10,116	14,701	
2001/2002	13,572	0	1	0	1,739	4,623	6,362	
2002/2003	6,910	0	0	0	0	0	0	
2003/2004	12,482	0	0	0	0	0	0	
<b>MA Total</b>	<b>49,727</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>6,324</b>	<b>15,103</b>	<b>21,427</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.048	0.048			
	2000/2001	0.000	0.504	1.111	1.615			
	2001/2002	0.000	0.128	0.341	0.469			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.127</b>	<b>0.304</b>	<b>0.431</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.288	0.377				
	(14) Massachusetts Credibility:	0.08	0.20	0.18				
	(15) Countrywide Pure Premium:	0.613	0.724	1.536	2.873			
	(16) Countrywide Indicated Relativity:	0.860	1.573	1.836				
	(17) Countrywide Credibility:	0.23	0.40	0.41				
	(18) Countrywide Lost-time Claims:	11	187					
	(19) Pure Premium Underlying Present Rate:	0.473	0.563	0.642	1.677			
	(20) Relativity to Underlying Present Rate:	1.007	0.948	0.854				
	(21) Credibility to Underlying Relativity:	0.690	0.400	0.410				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	0.893	1.066	1.171				
	(24) Balanced Formula Relativity:	0.885	1.064	1.167	1.043			

Class(es):		Effective: 9/1/2007					Manufacturing	
2623 TANNING								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	14,115	0	0	0	0	1,887	1,887	
2000/2001	10,567	0	0	0	0	646	646	
2001/2002	8,558	0	0	0	0	2,770	2,770	
2002/2003	5,763	0	0	0	0	0	0	
2003/2004	5,648	0	0	0	0	0	0	
<b>MA Total</b>	<b>44,651</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,303</b>	<b>5,303</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.134	0.134			
	2000/2001	0.000	0.000	0.061	0.061			
	2001/2002	0.000	0.000	0.324	0.324			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.119</b>	<b>0.119</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.133				
	(14) Massachusetts Credibility:	0.10	0.21	0.16				
	(15) Countrywide Pure Premium:	1.216	0.665	1.038	2.920			
	(16) Countrywide Indicated Relativity:	1.460	1.444	1.233				
	(17) Countrywide Credibility:	0.28	0.40	0.42				
	(18) Countrywide Lost-time Claims:	18	311					
	(19) Pure Premium Underlying Present Rate:	1.123	0.746	0.560	2.429			
	(20) Relativity to Underlying Present Rate:	1.782	1.134	0.698				
	(21) Credibility to Underlying Relativity:	0.620	0.390	0.420				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.514	1.020	0.832				
	(24) Balanced Formula Relativity:	1.524	1.017	0.831	1.141			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000111 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 36

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2640 LEATHER EMBOSSING*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	83,012	2	13	324,955	70,607	173,745	569,307		
2000/2001	71,767	2	4	306,496	21,672	150,262	478,430		
2001/2002	65,009	0	5	0	58,884	55,827	114,710		
2002/2003	63,340	0	5	0	11,606	20,797	32,403		
2003/2004	69,324	1	3	169,077	21,340	87,854	278,271		
<b>MA Total</b>	<b>352,452</b>	<b>5</b>	<b>30</b>	<b>800,528</b>	<b>184,109</b>	<b>488,485</b>	<b>1,473,122</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	3.915	0.851	2.093	6.858				
	2000/2001	4.271	0.302	2.094	6.666				
	2001/2002	0.000	0.906	0.859	1.765				
	2002/2003	0.000	0.183	0.328	0.512				
	2003/2004	2.439	0.308	1.267	4.014				
	<b>MA Total Pure Premium:</b>	<b>2.271</b>	<b>0.522</b>	<b>1.386</b>	<b>4.180</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	2.557	1.054	1.549					
	(14) Massachusetts Credibility:	0.21	0.51	0.50					
	(15) Countrywide Pure Premium:	1.056	0.377	0.932	2.365				
	(16) Countrywide Indicated Relativity:	1.268	0.818	1.107					
	(17) Countrywide Credibility:	0.18	0.25	0.25					
	(18) Countrywide Lost-time Claims:	6	215						
	(19) Pure Premium Underlying Present Rate:	0.852	0.862	1.185	2.899				
	(20) Relativity to Underlying Present Rate:	1.353	1.311	1.477					
	(21) Credibility to Underlying Relativity:	0.610	0.240	0.250					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.590	1.057	1.421					
	(24) Balanced Formula Relativity:	1.601	1.053	1.418	1.410				

Class(es):		Effective: 9/1/2007						Manufacturing	
2660 BOOT OR SHOE MFG NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	410,795	1	18	72,244	78,251	277,817	428,311		
2000/2001	213,100	1	27	103,006	254,819	561,054	918,879		
2001/2002	160,701	1	13	126,466	61,752	150,974	339,192		
2002/2003	252,181	0	11	0	117,434	235,465	352,899		
2003/2004	182,653	0	9	0	116,304	182,867	299,171		
<b>MA Total</b>	<b>1,219,430</b>	<b>3</b>	<b>78</b>	<b>301,715</b>	<b>628,559</b>	<b>1,408,176</b>	<b>2,338,451</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.176	0.190	0.676	1.043				
	2000/2001	0.483	1.196	2.633	4.312				
	2001/2002	0.787	0.384	0.939	2.111				
	2002/2003	0.000	0.466	0.934	1.399				
	2003/2004	0.000	0.637	1.001	1.638				
	<b>MA Total Pure Premium:</b>	<b>0.247</b>	<b>0.515</b>	<b>1.155</b>	<b>1.918</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.279	1.040	1.291					
	(14) Massachusetts Credibility:	0.22	0.65	0.67					
	(15) Countrywide Pure Premium:	0.555	0.622	1.073	2.251				
	(16) Countrywide Indicated Relativity:	0.667	1.352	1.274					
	(17) Countrywide Credibility:	0.35	0.18	0.17					
	(18) Countrywide Lost-time Claims:	32	742						
	(19) Pure Premium Underlying Present Rate:	0.293	0.448	0.733	1.474				
	(20) Relativity to Underlying Present Rate:	0.466	0.680	0.914					
	(21) Credibility to Underlying Relativity:	0.430	0.170	0.160					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.495	1.035	1.228					
	(24) Balanced Formula Relativity:	0.498	1.032	1.226	0.900				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000112 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 37

## Calculation of Class Relativities

Class(es): 2683 LUGGAGE MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	6,308	0	0	0	0	0	0	0	
2000/2001	5,875	0	0	0	0	0	0	0	
2001/2002	5,245	0	0	0	0	0	0	0	
2002/2003	4,219	0	0	0	0	0	0	0	
2003/2004	4,081	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>25,728</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.06	0.14	0.14				
		(15) Countrywide Pure Premium:	1.341	0.683	1.271	3.295			
		(16) Countrywide Indicated Relativity:	1.610	1.483	1.510				
		(17) Countrywide Credibility:	0.29	0.43	0.43				
		(18) Countrywide Lost-time Claims:	21	148					
		(19) Pure Premium Underlying Present Rate:	0.607	0.481	0.740	1.828			
		(20) Relativity to Underlying Present Rate:	0.964	0.730	0.922				
		(21) Credibility to Underlying Relativity:	0.650	0.430	0.430				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.094	0.952	1.046				
		(24) Balanced Formula Relativity:	1.101	0.949	1.044	1.045			

Class(es): 2688 LEATHER GOODS MFG NOC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	200,135	3	17	302,749	33,943	144,609	481,300		
2000/2001	181,752	3	22	390,693	77,191	286,778	754,662		
2001/2002	157,770	0	20	287,782	0	266,792	554,574		
2002/2003	116,916	1	2	144,197	1,494	95,333	241,025		
2003/2004	116,153	0	6	22,119	0	24,228	46,348		
<b>MA Total</b>	<b>772,726</b>	<b>7</b>	<b>67</b>	<b>837,639</b>	<b>422,529</b>	<b>817,740</b>	<b>2,077,908</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.513	0.170	0.723	2.405			
		2000/2001	2.150	0.425	1.578	4.152			
		2001/2002	0.000	1.824	1.691	3.515			
		2002/2003	1.233	0.013	0.815	2.062			
		2003/2004	0.000	0.190	0.209	0.399			
		<b>MA Total Pure Premium:</b>	<b>1.084</b>	<b>0.547</b>	<b>1.058</b>	<b>2.689</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.220	1.103	1.183				
		(14) Massachusetts Credibility:	0.29	0.66	0.66				
		(15) Countrywide Pure Premium:	1.045	0.638	1.030	2.712			
		(16) Countrywide Indicated Relativity:	1.254	1.385	1.223				
		(17) Countrywide Credibility:	0.36	0.17	0.17				
		(18) Countrywide Lost-time Claims:	99	656					
		(19) Pure Premium Underlying Present Rate:	0.868	0.731	1.090	2.690			
		(20) Relativity to Underlying Present Rate:	1.378	1.112	1.359				
		(21) Credibility to Underlying Relativity:	0.350	0.170	0.170				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.288	1.153	1.220				
		(24) Balanced Formula Relativity:	1.297	1.149	1.217	1.233			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000113 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 38

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
2702 LOGGING OR LUMBERING & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	15,137	0	1	0	1,857	6,297	8,154	
2000/2001	19,546	2	5	320,154	13,317	579,783	913,254	
2001/2002	19,812	1	2	124,681	1,306	23,522	149,509	
2002/2003	22,267	0	5	0	42,161	21,811	63,971	
2003/2004	30,134	0	4	0	166,616	256,108	422,724	
<b>MA Total</b>	<b>106,896</b>	<b>3</b>	<b>17</b>	<b>444,835</b>	<b>225,256</b>	<b>887,521</b>	<b>1,557,613</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.123	0.416	0.539			
	2000/2001	16.380	0.681	29.663	46.724			
	2001/2002	6.293	0.066	1.187	7.546			
	2002/2003	0.000	1.893	0.980	2.873			
	2003/2004	0.000	5.529	8.499	14.028			
	<b>MA Total Pure Premium:</b>	<b>4.161</b>	<b>2.107</b>	<b>8.303</b>	<b>14.571</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.981	2.405	4.507				
	(14) Massachusetts Credibility:	0.24	0.49	0.59				
	(15) Countrywide Pure Premium:	12.191	2.510	7.553	22.254			
	(16) Countrywide Indicated Relativity:	6.407	3.215	4.536				
	(17) Countrywide Credibility:	0.38	0.26	0.21				
	(18) Countrywide Lost-time Claims:	668	4,503					
	(19) Pure Premium Underlying Present Rate:	4.041	2.514	6.093	12.648			
	(20) Relativity to Underlying Present Rate:	2.814	2.105	3.598				
	(21) Credibility to Underlying Relativity:	0.380	0.250	0.200				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	3.979	2.541	4.331				
	(24) Balanced Formula Relativity:	3.987	2.547	4.342	3.861			

Class(es):		Effective: 9/1/2007						Manufacturing
2710 SAWMILLS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	28,336	0	3	0	86,156	59,226	145,382	
2000/2001	29,435	0	10	0	51,844	43,552	95,396	
2001/2002	30,030	1	5	219,896	26,382	75,208	321,487	
2002/2003	29,358	0	7	0	52,638	41,292	93,930	
2003/2004	27,803	0	1	0	1,485	18,669	20,154	
<b>MA Total</b>	<b>144,962</b>	<b>1</b>	<b>26</b>	<b>219,896</b>	<b>218,506</b>	<b>237,947</b>	<b>676,349</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	3.041	2.090	5.131			
	2000/2001	0.000	1.761	1.480	3.241			
	2001/2002	7.323	0.879	2.504	10.706			
	2002/2003	0.000	1.793	1.407	3.200			
	2003/2004	0.000	0.053	0.671	0.725			
	<b>MA Total Pure Premium:</b>	<b>1.517</b>	<b>1.507</b>	<b>1.641</b>	<b>4.666</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.708	3.041	1.835				
	(14) Massachusetts Credibility:	0.18	0.51	0.55				
	(15) Countrywide Pure Premium:	4.475	1.339	3.154	8.968			
	(16) Countrywide Indicated Relativity:	5.372	2.907	3.746				
	(17) Countrywide Credibility:	0.41	0.25	0.23				
	(18) Countrywide Lost-time Claims:	298	3,678					
	(19) Pure Premium Underlying Present Rate:	1.404	2.021	3.776	7.201			
	(20) Relativity to Underlying Present Rate:	2.229	3.072	4.708				
	(21) Credibility to Underlying Relativity:	0.410	0.240	0.220				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	3.424	3.015	2.907				
	(24) Balanced Formula Relativity:	3.447	3.005	2.901	3.137			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000114 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 39

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2731 PLANING OR MOLDING MILL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	27,515	1	7	73,618	86,951	65,878	226,446		
2000/2001	33,784	0	9	0	18,040	20,980	39,020		
2001/2002	47,781	4	12	554,395	33,861	345,021	933,277		
2002/2003	48,507	0	12	0	43,402	46,315	89,717		
2003/2004	54,751	0	6	0	30,459	33,574	64,033		
<b>MA Total</b>	<b>212,338</b>	<b>5</b>	<b>46</b>	<b>628,013</b>	<b>212,713</b>	<b>511,767</b>	<b>1,352,493</b>		
		<b>MA Indicated Pure Premiums</b>							
				<b>Serious (9)</b>	<b>Non-Serious (10)</b>	<b>Medical (11)</b>	<b>Total (12)</b>		
		1999/2000		2.676	3.160	2.394	8.230		
		2000/2001		0.000	0.534	0.621	1.155		
		2001/2002		11.603	0.709	7.221	19.532		
		2002/2003		0.000	0.895	0.955	1.850		
		2003/2004		0.000	0.556	0.613	1.170		
		<b>MA Total Pure Premium:</b>		<b>2.958</b>	<b>1.002</b>	<b>2.410</b>	<b>6.370</b>		
		<b>Pure Premium Relativities</b>							
				<b>Serious</b>	<b>Non-Serious</b>	<b>Medical</b>	<b>Total</b>		
		(13) Massachusetts Indicated Relativity:		3.330	2.021	2.694			
		(14) Massachusetts Credibility:		0.20	0.52	0.45			
		(15) Countrywide Pure Premium:		1.457	0.803	1.780	4.041		
		(16) Countrywide Indicated Relativity:		1.749	1.745	2.115			
		(17) Countrywide Credibility:		0.40	0.24	0.28			
		(18) Countrywide Lost-time Claims:		223	2,899				
		(19) Pure Premium Underlying Present Rate:		1.192	1.471	1.545	4.209		
		(20) Relativity to Underlying Present Rate:		1.893	2.236	1.926			
		(21) Credibility to Underlying Relativity:		0.400	0.240	0.270			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		2.123	2.006	2.325			
		(24) Balanced Formula Relativity:		2.137	2.000	2.320	2.179		

Class(es):		Effective: 9/1/2007						Manufacturing	
2741 COOPERAGE STOCK MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0		
2000/2001	0	0	0	0	0	0	0		
2001/2002	0	0	0	0	0	0	0		
2002/2003	0	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
		<b>MA Indicated Pure Premiums</b>							
				<b>Serious (9)</b>	<b>Non-Serious (10)</b>	<b>Medical (11)</b>	<b>Total (12)</b>		
		1999/2000		0.000	0.000	0.000	0.000		
		2000/2001		0.000	0.000	0.000	0.000		
		2001/2002		0.000	0.000	0.000	0.000		
		2002/2003		0.000	0.000	0.000	0.000		
		2003/2004		0.000	0.000	0.000	0.000		
		<b>MA Total Pure Premium:</b>		<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
		<b>Pure Premium Relativities</b>							
				<b>Serious</b>	<b>Non-Serious</b>	<b>Medical</b>	<b>Total</b>		
		(13) Massachusetts Indicated Relativity:		0.000	0.000	0.000			
		(14) Massachusetts Credibility:		0.00	0.00	0.00			
		(15) Countrywide Pure Premium:		0.000	0.046	0.521	0.567		
		(16) Countrywide Indicated Relativity:		0.000	0.101	0.619			
		(17) Countrywide Credibility:		0.00	0.10	0.12			
		(18) Countrywide Lost-time Claims:		0	3				
		(19) Pure Premium Underlying Present Rate:		1.706	2.730	1.888	6.325		
		(20) Relativity to Underlying Present Rate:		2.708	4.150	2.354			
		(21) Credibility to Underlying Relativity:		1.000	0.900	0.880			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		2.708	3.745	2.146			
		(24) Balanced Formula Relativity:		2.727	3.733	2.142	2.716		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000115 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 40

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2747 COOPERAGE ASSEMBLY									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	38	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	0.000			0.000	
		2000/2001	0.000	0.000	0.000			0.000	
		2001/2002	0.000	0.000	0.000			0.000	
		2002/2003	0.000	0.000	0.000			0.000	
		2003/2004	0.000	0.000	0.000			0.000	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			<b>0.000</b>	
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.01	0.02	0.02				
		(15) Countrywide Pure Premium:	4.116	1.977	6.952			13.045	
		(16) Countrywide Indicated Relativity:	4.941	4.294	8.257				
		(17) Countrywide Credibility:	0.09	0.17	0.21				
		(18) Countrywide Lost-time Claims:	1	11					
		(19) Pure Premium Underlying Present Rate:	2.732	1.588	1.970			6.290	
		(20) Relativity to Underlying Present Rate:	4.337	2.414	2.455				
		(21) Credibility to Underlying Relativity:	0.900	0.810	0.770				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	4.348	2.685	3.625				
		(24) Balanced Formula Relativity:	4.377	2.676	3.618			3.709	

Class(es):		Effective: 9/1/2007						Manufacturing	
2790 PATTERN MAKING NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	86,615	1	10	58,434	41,171	47,249	146,854		
2000/2001	84,748	0	7	0	40,664	35,167	75,831		
2001/2002	72,698	1	9	162,752	96,221	169,511	428,483		
2002/2003	61,436	0	2	0	7,444	16,561	24,005		
2003/2004	64,494	0	6	0	35,287	63,638	98,925		
<b>MA Total</b>	<b>369,991</b>	<b>2</b>	<b>34</b>	<b>221,186</b>	<b>220,786</b>	<b>332,126</b>	<b>774,098</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.675	0.475	0.546			1.695	
		2000/2001	0.000	0.480	0.415			0.895	
		2001/2002	2.239	1.324	2.332			5.894	
		2002/2003	0.000	0.121	0.270			0.391	
		2003/2004	0.000	0.547	0.987			1.534	
		<b>MA Total Pure Premium:</b>	<b>0.598</b>	<b>0.597</b>	<b>0.898</b>			<b>2.092</b>	
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.673	1.204	1.004				
		(14) Massachusetts Credibility:	0.16	0.46	0.41				
		(15) Countrywide Pure Premium:	1.028	0.380	0.818			2.226	
		(16) Countrywide Indicated Relativity:	1.234	0.825	0.972				
		(17) Countrywide Credibility:	0.42	0.27	0.30				
		(18) Countrywide Lost-time Claims:	86	683					
		(19) Pure Premium Underlying Present Rate:	0.444	0.610	0.712			1.765	
		(20) Relativity to Underlying Present Rate:	0.704	0.927	0.888				
		(21) Credibility to Underlying Relativity:	0.420	0.270	0.290				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	0.922	1.027	0.960				
		(24) Balanced Formula Relativity:	0.928	1.023	0.959			0.961	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000116 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 41

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
2802 CARPENTRY-SHOP ONLY & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,105,573	13	177	1,541,289	1,204,948	2,603,577	5,349,814		
2000/2001	1,084,419	14	164	2,042,070	1,278,201	2,451,272	5,771,543		
2001/2002	1,118,688	12	133	1,822,991	534,385	1,755,508	4,112,884		
2002/2003	1,145,466	21	134	3,099,865	707,555	2,422,942	6,230,362		
2003/2004	1,102,833	6	134	1,464,026	1,103,033	1,668,954	4,236,014		
<b>MA Total</b>	<b>5,556,979</b>	<b>66</b>	<b>742</b>	<b>9,970,242</b>	<b>4,828,123</b>	<b>10,902,254</b>	<b>25,700,618</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.394	1.090	2.355	4.839			
		2000/2001	1.883	1.179	2.260	5.322			
		2001/2002	1.630	0.478	1.569	3.677			
		2002/2003	2.706	0.618	2.115	5.439			
		2003/2004	1.328	1.000	1.513	3.841			
		<b>MA Total Pure Premium:</b>	<b>1.794</b>	<b>0.869</b>	<b>1.962</b>	<b>4.625</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
(13) Massachusetts Indicated Relativity:		2.020	1.753	2.193					
(14) Massachusetts Credibility:		0.77	1.00	1.00					
(15) Countrywide Pure Premium:		1.589	0.945	1.816	4.351				
(16) Countrywide Indicated Relativity:		1.907	2.053	2.158					
(17) Countrywide Credibility:		0.12	0.00	0.00					
(18) Countrywide Lost-time Claims:		742	13,406						
(19) Pure Premium Underlying Present Rate:		1.413	1.178	1.987	4.579				
(20) Relativity to Underlying Present Rate:		2.243	1.791	2.477					
(21) Credibility to Underlying Relativity:		0.110	0.000	0.000					
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278				
(23) Formula Relativity:		2.031	1.753	2.193					
(24) Balanced Formula Relativity:		2.045	1.747	2.189	2.037				

Class(es):		Effective: 9/1/2007						Manufacturing	
2835 BRUSH OR BROOM ASSEMBLY									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	44,372	0	1	0	714	8,684	9,398		
2000/2001	38,987	0	0	0	0	7,031	7,031		
2001/2002	48,170	0	0	0	0	934	934		
2002/2003	15,473	0	1	0	1,507	1,984	3,491		
2003/2004	13,855	0	2	0	14,965	17,465	32,431		
<b>MA Total</b>	<b>160,857</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>17,187</b>	<b>36,098</b>	<b>53,284</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.016	0.196	0.212			
		2000/2001	0.000	0.000	0.180	0.180			
		2001/2002	0.000	0.000	0.019	0.019			
		2002/2003	0.000	0.097	0.128	0.226			
		2003/2004	0.000	1.080	1.261	2.341			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.107</b>	<b>0.224</b>	<b>0.331</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
(13) Massachusetts Indicated Relativity:		0.000	0.216	0.251					
(14) Massachusetts Credibility:		0.14	0.43	0.36					
(15) Countrywide Pure Premium:		0.109	0.507	0.846	1.463				
(16) Countrywide Indicated Relativity:		0.131	1.102	1.005					
(17) Countrywide Credibility:		0.11	0.29	0.32					
(18) Countrywide Lost-time Claims:		2	168						
(19) Pure Premium Underlying Present Rate:		0.710	1.194	1.149	3.053				
(20) Relativity to Underlying Present Rate:		1.126	1.815	1.433					
(21) Credibility to Underlying Relativity:		0.750	0.280	0.320					
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278				
(23) Formula Relativity:		0.859	0.920	0.870					
(24) Balanced Formula Relativity:		0.865	0.917	0.869	0.878				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000117 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 42

## Calculation of Class Relativities

Class(es): 2836 BRUSH OR BROOM MFG NOC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	21,156	1	4	121,215	16,299	53,000	190,513		
2000/2001	20,453	0	4	0	16,710	29,766	46,477		
2001/2002	12,642	0	8	0	12,147	22,723	34,870		
2002/2003	12,061	0	2	0	35,782	11,102	46,884		
2003/2004	10,465	0	2	0	5,933	3,487	9,420		
<b>MA Total</b>	<b>76,777</b>	<b>1</b>	<b>20</b>	<b>121,215</b>	<b>86,872</b>	<b>120,077</b>	<b>328,164</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	5.730	0.770	2.505	9.005				
	2000/2001	0.000	0.817	1.455	2.272				
	2001/2002	0.000	0.961	1.797	2.758				
	2002/2003	0.000	2.967	0.920	3.887				
	2003/2004	0.000	0.567	0.333	0.900				
	<b>MA Total Pure Premium:</b>	<b>1.579</b>	<b>1.131</b>	<b>1.564</b>	<b>4.274</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.777	2.283	1.748					
	(14) Massachusetts Credibility:	0.15	0.27	0.31					
	(15) Countrywide Pure Premium:	0.459	0.647	0.851	1.957				
	(16) Countrywide Indicated Relativity:	0.551	1.405	1.011					
	(17) Countrywide Credibility:	0.11	0.37	0.35					
	(18) Countrywide Lost-time Claims:	2	122						
	(19) Pure Premium Underlying Present Rate:	1.723	0.799	1.643	4.166				
	(20) Relativity to Underlying Present Rate:	2.735	1.215	2.049					
	(21) Credibility to Underlying Relativity:	0.740	0.360	0.340					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	2.351	1.574	1.592					
	(24) Balanced Formula Relativity:	2.367	1.568	1.589	1.888				

Class(es): 2841 WOODENWARE MFG NOC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	16,271	0	1	0	261	4,818	5,079		
2000/2001	13,596	1	0	253,626	0	105,233	358,859		
2001/2002	14,325	0	1	0	3,274	2,568	5,842		
2002/2003	15,276	0	3	0	15,908	4,911	20,820		
2003/2004	14,509	0	0	0	0	1,850	1,850		
<b>MA Total</b>	<b>73,977</b>	<b>1</b>	<b>5</b>	<b>253,626</b>	<b>19,443</b>	<b>119,381</b>	<b>392,450</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.016	0.296	0.312				
	2000/2001	18.654	0.000	7.740	26.394				
	2001/2002	0.000	0.229	0.179	0.408				
	2002/2003	0.000	1.041	0.322	1.363				
	2003/2004	0.000	0.000	0.128	0.128				
	<b>MA Total Pure Premium:</b>	<b>3.428</b>	<b>0.263</b>	<b>1.614</b>	<b>5.305</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	3.860	0.530	1.804					
	(14) Massachusetts Credibility:	0.09	0.23	0.22					
	(15) Countrywide Pure Premium:	0.692	0.771	1.587	3.050				
	(16) Countrywide Indicated Relativity:	0.830	1.675	1.885					
	(17) Countrywide Credibility:	0.24	0.39	0.39					
	(18) Countrywide Lost-time Claims:	13	459						
	(19) Pure Premium Underlying Present Rate:	0.480	0.535	0.752	1.767				
	(20) Relativity to Underlying Present Rate:	0.761	0.814	0.937					
	(21) Credibility to Underlying Relativity:	0.670	0.380	0.390					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.057	1.084	1.497					
	(24) Balanced Formula Relativity:	1.064	1.081	1.495	1.237				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000118 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 43

## Calculation of Class Relativities

Class(es): 2883 FURNITURE MFG-WOOD-NOC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	533,593	1	75	55,867	349,241	424,115	829,223		
2000/2001	549,999	9	65	1,025,385	314,823	769,897	2,110,105		
2001/2002	536,397	7	57	625,737	326,429	693,522	1,645,689		
2002/2003	498,642	4	58	518,621	335,499	649,017	1,503,137		
2003/2004	506,202	1	49	349,133	345,961	537,247	1,232,342		
<b>MA Total</b>	<b>2,624,833</b>	<b>22</b>	<b>304</b>	<b>2,574,744</b>	<b>1,671,953</b>	<b>3,073,799</b>	<b>7,320,496</b>		
				MA Indicated Pure Premiums					
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
1999/2000				0.105	0.655	0.795	1.554		
2000/2001				1.864	0.572	1.400	3.837		
2001/2002				1.167	0.609	1.293	3.068		
2002/2003				1.040	0.673	1.302	3.014		
2003/2004				0.690	0.683	1.061	2.434		
<b>MA Total Pure Premium:</b>				<b>0.981</b>	<b>0.637</b>	<b>1.171</b>	<b>2.789</b>		
				Pure Premium Relativities					
				Serious	Non-Serious	Medical	Total		
(13) Massachusetts Indicated Relativity:				1.104	1.285	1.309			
(14) Massachusetts Credibility:				0.46	1.00	1.00			
(15) Countrywide Pure Premium:				1.254	0.821	1.444	3.519		
(16) Countrywide Indicated Relativity:				1.506	1.782	1.715			
(17) Countrywide Credibility:				0.27	0.00	0.00			
(18) Countrywide Lost-time Claims:				640	6,804				
(19) Pure Premium Underlying Present Rate:				0.824	0.877	1.129	2.830		
(20) Relativity to Underlying Present Rate:				1.307	1.333	1.408			
(21) Credibility to Underlying Relativity:				0.270	0.000	0.000			
(22) Industry Group Adjusted Converted Pure Premium:				0.888	0.496	0.895	2.278		
(23) Formula Relativity:				1.268	1.285	1.309			
(24) Balanced Formula Relativity:				1.276	1.281	1.307	1.289		

Class(es): 2923 PIANO MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	54,715	0	5	0	5,249	12,332	17,582		
2000/2001	53,897	1	4	83,217	2,070	97,707	182,994		
2001/2002	62,108	0	3	0	17,639	37,463	55,103		
2002/2003	65,275	0	4	0	6,301	29,443	35,743		
2003/2004	68,028	0	4	0	19,033	18,619	37,652		
<b>MA Total</b>	<b>304,023</b>	<b>1</b>	<b>20</b>	<b>83,217</b>	<b>50,293</b>	<b>195,565</b>	<b>329,074</b>		
				MA Indicated Pure Premiums					
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
1999/2000				0.000	0.096	0.225	0.321		
2000/2001				1.544	0.038	1.813	3.395		
2001/2002				0.000	0.284	0.603	0.887		
2002/2003				0.000	0.097	0.451	0.548		
2003/2004				0.000	0.280	0.274	0.553		
<b>MA Total Pure Premium:</b>				<b>0.274</b>	<b>0.165</b>	<b>0.643</b>	<b>1.082</b>		
				Pure Premium Relativities					
				Serious	Non-Serious	Medical	Total		
(13) Massachusetts Indicated Relativity:				0.308	0.334	0.719			
(14) Massachusetts Credibility:				0.16	0.41	0.39			
(15) Countrywide Pure Premium:				0.610	0.601	0.963	2.174		
(16) Countrywide Indicated Relativity:				0.733	1.305	1.143			
(17) Countrywide Credibility:				0.39	0.30	0.31			
(18) Countrywide Lost-time Claims:				42	349				
(19) Pure Premium Underlying Present Rate:				0.540	0.584	0.767	1.891		
(20) Relativity to Underlying Present Rate:				0.857	0.887	0.957			
(21) Credibility to Underlying Relativity:				0.450	0.290	0.300			
(22) Industry Group Adjusted Converted Pure Premium:				0.888	0.496	0.895	2.278		
(23) Formula Relativity:				0.721	0.786	0.922			
(24) Balanced Formula Relativity:				0.726	0.783	0.920	0.815		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000119 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 44

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
2942 PENCIL, PENHOLDER OR CRAYON MFG*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	822,553	4	36	354,166	135,723	637,736	1,127,625	
2000/2001	848,835	1	27	168,845	141,432	414,435	724,712	
2001/2002	250,929	1	20	147,277	118,025	469,679	734,982	
2002/2003	964,652	8	37	974,547	263,955	896,148	2,134,650	
2003/2004	234,015	1	29	353,828	283,823	345,419	983,070	
<b>MA Total</b>	<b>3,120,984</b>	<b>15</b>	<b>149</b>	<b>1,998,663</b>	<b>942,958</b>	<b>2,763,418</b>	<b>5,705,039</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	0.431	0.165	0.775	1.371	
			2000/2001	0.199	0.167	0.488	0.854	
			2001/2002	0.587	0.470	1.872	2.929	
			2002/2003	1.010	0.274	0.929	2.213	
			2003/2004	1.512	1.213	1.476	4.201	
			<b>MA Total Pure Premium:</b>	<b>0.640</b>	<b>0.302</b>	<b>0.885</b>	<b>1.828</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	0.721	0.610	0.990		
			(14) Massachusetts Credibility:	0.40	0.80	1.00		
			(15) Countrywide Pure Premium:	0.599	0.494	0.889	1.981	
			(16) Countrywide Indicated Relativity:	0.719	1.072	1.056		
			(17) Countrywide Credibility:	0.30	0.10	0.00		
			(18) Countrywide Lost-time Claims:	38	1,060			
			(19) Pure Premium Underlying Present Rate:	0.500	0.294	0.849	1.643	
			(20) Relativity to Underlying Present Rate:	0.793	0.447	1.058		
			(21) Credibility to Underlying Relativity:	0.300	0.100	0.000		
			(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278	
			(23) Formula Relativity:	0.742	0.640	0.990		
			(24) Balanced Formula Relativity:	0.747	0.637	0.988	0.818	

Class(es):		Effective: 9/1/2007						Manufacturing
3018 IRON OR STEEL: MFG: ROLLING MILL & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	13,427	0	4	0	4,560	3,934	8,494	
2000/2001	163,417	2	14	277,630	40,173	593,333	911,136	
2001/2002	137,737	1	7	125,145	53,187	72,140	250,472	
2002/2003	162,134	0	5	0	29,703	48,123	77,825	
2003/2004	150,594	2	5	290,027	66,259	458,856	815,142	
<b>MA Total</b>	<b>627,309</b>	<b>5</b>	<b>35</b>	<b>692,801</b>	<b>193,884</b>	<b>1,176,385</b>	<b>2,063,069</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	0.000	0.340	0.293	0.633	
			2000/2001	1.699	0.246	3.631	5.576	
			2001/2002	0.909	0.386	0.524	1.818	
			2002/2003	0.000	0.183	0.297	0.480	
			2003/2004	1.926	0.440	3.047	5.413	
			<b>MA Total Pure Premium:</b>	<b>1.104</b>	<b>0.309</b>	<b>1.875</b>	<b>3.289</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	1.243	0.624	2.096		
			(14) Massachusetts Credibility:	0.26	0.76	0.57		
			(15) Countrywide Pure Premium:	1.580	0.702	1.330	3.612	
			(16) Countrywide Indicated Relativity:	1.897	1.525	1.579		
			(17) Countrywide Credibility:	0.37	0.12	0.22		
			(18) Countrywide Lost-time Claims:	120	1,276			
			(19) Pure Premium Underlying Present Rate:	0.825	1.305	0.938	3.069	
			(20) Relativity to Underlying Present Rate:	1.310	1.984	1.169		
			(21) Credibility to Underlying Relativity:	0.370	0.120	0.210		
			(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278	
			(23) Formula Relativity:	1.510	0.895	1.788		
			(24) Balanced Formula Relativity:	1.520	0.892	1.785	1.487	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000120 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 45

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3022 PIPE OR TUBE MFG NOC & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	5,918	0	0	0	0	7,322	7,322		
2000/2001	0	0	0	0	0	0	0		
2001/2002	5,687	1	2	68,129	261	82,975	151,364		
2002/2003	5,106	0	0	0	0	671	671		
2003/2004	5,426	0	0	0	0	934	934		
<b>MA Total</b>	<b>22,137</b>	<b>1</b>	<b>2</b>	<b>68,129</b>	<b>261</b>	<b>91,902</b>	<b>160,291</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	1.237	1.237			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	11.980	0.046	14.591	26.618			
		2002/2003	0.000	0.000	0.131	0.131			
		2003/2004	0.000	0.000	0.172	0.172			
		<b>MA Total Pure Premium:</b>	<b>3.078</b>	<b>0.012</b>	<b>4.152</b>	<b>7.241</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	3.465	0.024	4.641				
		(14) Massachusetts Credibility:	0.07	0.20	0.20				
		(15) Countrywide Pure Premium:	1.332	0.796	1.344	3.472			
		(16) Countrywide Indicated Relativity:	1.599	1.729	1.596				
		(17) Countrywide Credibility:	0.47	0.40	0.40				
		(18) Countrywide Lost-time Claims:	153	1,285					
		(19) Pure Premium Underlying Present Rate:	0.793	1.239	1.926	3.958			
		(20) Relativity to Underlying Present Rate:	1.259	1.883	2.401				
		(21) Credibility to Underlying Relativity:	0.460	0.400	0.400				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.573	1.450	2.527				
		(24) Balanced Formula Relativity:	1.584	1.445	2.522	1.922			

Class(es):		Effective: 9/1/2007						Manufacturing	
3027 ROLLING MILL NOC & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	78,807	0	11	0	75,019	109,741	184,760		
2000/2001	52,098	5	5	643,430	43,537	599,510	1,286,477		
2001/2002	54,032	1	12	69,235	25,863	66,065	161,163		
2002/2003	75,365	0	10	0	93,190	88,072	181,261		
2003/2004	74,700	0	8	0	45,345	56,046	101,391		
<b>MA Total</b>	<b>335,002</b>	<b>6</b>	<b>46</b>	<b>712,665</b>	<b>282,953</b>	<b>919,434</b>	<b>1,915,052</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.952	1.393	2.344			
		2000/2001	12.350	0.836	11.507	24.694			
		2001/2002	1.281	0.479	1.223	2.983			
		2002/2003	0.000	1.237	1.169	2.405			
		2003/2004	0.000	0.607	0.750	1.357			
		<b>MA Total Pure Premium:</b>	<b>2.127</b>	<b>0.845</b>	<b>2.745</b>	<b>5.717</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	2.395	1.704	3.068				
		(14) Massachusetts Credibility:	0.23	0.53	0.57				
		(15) Countrywide Pure Premium:	1.098	0.593	1.102	2.793			
		(16) Countrywide Indicated Relativity:	1.318	1.288	1.309				
		(17) Countrywide Credibility:	0.36	0.24	0.22				
		(18) Countrywide Lost-time Claims:	36	593					
		(19) Pure Premium Underlying Present Rate:	1.108	0.957	1.759	3.824			
		(20) Relativity to Underlying Present Rate:	1.759	1.454	2.193				
		(21) Credibility to Underlying Relativity:	0.410	0.230	0.210				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.747	1.547	2.497				
		(24) Balanced Formula Relativity:	1.759	1.542	2.493	2.000			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000121 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 46

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3028 PIPE OR TUBE MFG - IRON OR STEEL & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	12,889	0	6	0	9,204	18,908	28,112		
2000/2001	9,487	0	6	0	6,625	6,109	12,734		
2001/2002	8,802	0	7	0	19,792	8,943	28,734		
2002/2003	13,642	1	4	80,419	19,845	143,922	244,186		
2003/2004	13,013	0	3	0	59,425	46,378	105,803		
<b>MA Total</b>	<b>57,833</b>	<b>1</b>	<b>26</b>	<b>80,419</b>	<b>114,890</b>	<b>224,259</b>	<b>419,568</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.714	1.467	2.181				
	2000/2001	0.000	0.698	0.644	1.342				
	2001/2002	0.000	2.248	1.016	3.264				
	2002/2003	5.895	1.455	10.550	17.900				
	2003/2004	0.000	4.567	3.564	8.131				
	<b>MA Total Pure Premium:</b>	<b>1.391</b>	<b>1.987</b>	<b>3.878</b>	<b>7.255</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.566	4.008	4.335					
	(14) Massachusetts Credibility:	0.09	0.32	0.25					
	(15) Countrywide Pure Premium:	1.182	0.830	1.444	3.457				
	(16) Countrywide Indicated Relativity:	1.419	1.803	1.715					
	(17) Countrywide Credibility:	0.44	0.34	0.38					
	(18) Countrywide Lost-time Claims:	59	1,321						
	(19) Pure Premium Underlying Present Rate:	0.682	1.640	1.294	3.616				
	(20) Relativity to Underlying Present Rate:	1.082	2.493	1.613					
	(21) Credibility to Underlying Relativity:	0.470	0.340	0.370					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.274	2.743	2.333					
	(24) Balanced Formula Relativity:	1.282	2.734	2.328	2.009				

Class(es):		Effective: 9/1/2007						Manufacturing	
3030 IRON OR STEEL: FABRICATION: IRON/STEEL WORK-SHOP-STRUCT & DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	83,600	0	13	0	72,992	99,305	172,297		
2000/2001	91,016	4	11	643,768	72,946	558,992	1,275,707		
2001/2002	91,672	2	11	275,002	56,329	113,056	444,386		
2002/2003	79,691	2	13	353,498	298,076	474,808	1,126,381		
2003/2004	106,359	1	13	266,322	63,226	172,025	501,573		
<b>MA Total</b>	<b>452,338</b>	<b>9</b>	<b>61</b>	<b>1,538,590</b>	<b>563,569</b>	<b>1,418,185</b>	<b>3,520,344</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.873	1.188	2.061				
	2000/2001	7.073	0.801	6.142	14.016				
	2001/2002	3.000	0.614	1.233	4.848				
	2002/2003	4.436	3.740	5.958	14.134				
	2003/2004	2.504	0.594	1.617	4.716				
	<b>MA Total Pure Premium:</b>	<b>3.401</b>	<b>1.246</b>	<b>3.135</b>	<b>7.783</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	3.829	2.514	3.505					
	(14) Massachusetts Credibility:	0.35	0.82	0.70					
	(15) Countrywide Pure Premium:	3.252	1.037	2.212	6.501				
	(16) Countrywide Indicated Relativity:	3.904	2.252	2.627					
	(17) Countrywide Credibility:	0.33	0.09	0.15					
	(18) Countrywide Lost-time Claims:	489	4,756						
	(19) Pure Premium Underlying Present Rate:	2.329	2.161	2.159	6.649				
	(20) Relativity to Underlying Present Rate:	3.697	3.285	2.691					
	(21) Credibility to Underlying Relativity:	0.320	0.090	0.150					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	3.812	2.560	3.251					
	(24) Balanced Formula Relativity:	3.838	2.551	3.245	3.325				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000122 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 47

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
3040 IRON OR STEEL: FABRICATION: IRON WORKS-SHOP-ORNAMENTAL & DR								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	134,105	5	35	554,998	460,356	866,411	1,881,765	
2000/2001	143,727	7	34	1,344,708	233,955	683,959	2,262,622	
2001/2002	157,509	4	27	576,747	303,365	514,433	1,394,545	
2002/2003	136,365	3	19	356,094	144,725	437,900	938,719	
2003/2004	161,044	0	29	0	347,683	347,029	694,712	
<b>MA Total</b>	<b>732,750</b>	<b>19</b>	<b>144</b>	<b>2,832,547</b>	<b>1,490,084</b>	<b>2,849,732</b>	<b>7,172,363</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	4.139	3.433	6.461	14.032			
	2000/2001	9.356	1.628	4.759	15.743			
	2001/2002	3.662	1.926	3.266	8.854			
	2002/2003	2.611	1.061	3.211	6.884			
	2003/2004	0.000	2.159	2.155	4.314			
	<b>MA Total Pure Premium:</b>	<b>3.866</b>	<b>2.034</b>	<b>3.889</b>	<b>9.788</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	4.352	4.103	4.348				
	(14) Massachusetts Credibility:	0.48	1.00	1.00				
	(15) Countrywide Pure Premium:	2.262	1.031	1.867	5.161			
	(16) Countrywide Indicated Relativity:	2.716	2.239	2.218				
	(17) Countrywide Credibility:	0.26	0.00	0.00				
	(18) Countrywide Lost-time Claims:	362	3,379					
	(19) Pure Premium Underlying Present Rate:	3.329	3.462	3.974	10.765			
	(20) Relativity to Underlying Present Rate:	5.284	5.262	4.954				
	(21) Credibility to Underlying Relativity:	0.260	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	4.169	4.103	4.348				
	(24) Balanced Formula Relativity:	4.197	4.089	4.340	4.230			

Class(es):		Effective: 9/1/2007						Manufacturing
3041 IRON OR STEEL: FABRICATION: IRON WORKS-SHP-DEC/ART &FNDRS,DR								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	20,896	1	0	106,049	0	250,973	357,023	
2000/2001	26,004	0	3	0	2,851	12,562	15,414	
2001/2002	29,766	2	5	451,765	20,508	239,737	712,011	
2002/2003	36,064	0	0	0	0	22,229	22,229	
2003/2004	33,438	0	3	0	9,473	20,412	29,885	
<b>MA Total</b>	<b>146,168</b>	<b>3</b>	<b>11</b>	<b>557,815</b>	<b>32,832</b>	<b>545,913</b>	<b>1,136,560</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	5.075	0.000	12.011	17.086			
	2000/2001	0.000	0.110	0.483	0.593			
	2001/2002	15.177	0.689	8.054	23.921			
	2002/2003	0.000	0.000	0.616	0.616			
	2003/2004	0.000	0.283	0.610	0.894			
	<b>MA Total Pure Premium:</b>	<b>3.816</b>	<b>0.225</b>	<b>3.735</b>	<b>7.776</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	4.296	0.453	4.175				
	(14) Massachusetts Credibility:	0.17	0.40	0.36				
	(15) Countrywide Pure Premium:	2.429	0.751	1.378	4.558			
	(16) Countrywide Indicated Relativity:	2.915	1.632	1.637				
	(17) Countrywide Credibility:	0.26	0.30	0.32				
	(18) Countrywide Lost-time Claims:	15	264					
	(19) Pure Premium Underlying Present Rate:	1.186	1.097	1.316	3.598			
	(20) Relativity to Underlying Present Rate:	1.882	1.667	1.641				
	(21) Credibility to Underlying Relativity:	0.570	0.300	0.320				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	2.561	1.171	2.552				
	(24) Balanced Formula Relativity:	2.578	1.167	2.547	2.259			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000123 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 48

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3042 ELEVATOR OR ESCALATOR MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	7,167	0	0	0	0	538	538		
2000/2001	8,312	0	1	0	491	5,595	6,086		
2001/2002	7,092	0	0	0	0	3,081	3,081		
2002/2003	6,619	0	0	0	0	2,497	2,497		
2003/2004	7,207	0	2	0	65,076	32,828	97,904		
<b>MA Total</b>	<b>36,397</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>65,567</b>	<b>44,538</b>	<b>110,105</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.075	0.075			
		2000/2001	0.000	0.059	0.673	0.732			
		2001/2002	0.000	0.000	0.434	0.434			
		2002/2003	0.000	0.000	0.377	0.377			
		2003/2004	0.000	9.030	4.555	13.585			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>1.801</b>	<b>1.224</b>	<b>3.025</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	3.635	1.368				
		(14) Massachusetts Credibility:	0.09	0.18	0.17				
		(15) Countrywide Pure Premium:	1.364	0.818	1.383	3.565			
		(16) Countrywide Indicated Relativity:	1.637	1.776	1.643				
		(17) Countrywide Credibility:	0.32	0.41	0.42				
		(18) Countrywide Lost-time Claims:	27	406					
		(19) Pure Premium Underlying Present Rate:	1.057	0.616	0.782	2.455			
		(20) Relativity to Underlying Present Rate:	1.677	0.936	0.975				
		(21) Credibility to Underlying Relativity:	0.590	0.410	0.410				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.513	1.766	1.323				
		(24) Balanced Formula Relativity:	1.524	1.760	1.320	1.495			

Class(es):		Effective: 9/1/2007						Manufacturing	
3064 SIGN MFG-METAL*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,341,138	14	172	1,518,513	1,088,638	2,010,574	4,617,725		
2000/2001	1,258,548	11	123	1,420,540	635,524	1,497,793	3,553,856		
2001/2002	1,143,964	11	89	1,733,652	511,292	1,138,389	3,383,333		
2002/2003	1,144,419	11	86	1,811,838	486,799	1,403,633	3,702,269		
2003/2004	1,119,828	4	104	894,028	843,919	1,225,127	2,963,074		
<b>MA Total</b>	<b>6,007,897</b>	<b>51</b>	<b>574</b>	<b>7,378,570</b>	<b>3,566,172</b>	<b>7,275,515</b>	<b>18,220,257</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.132	0.812	1.499	3.443			
		2000/2001	1.129	0.505	1.190	2.824			
		2001/2002	1.515	0.447	0.995	2.958			
		2002/2003	1.583	0.425	1.227	3.235			
		2003/2004	0.798	0.754	1.094	2.646			
		<b>MA Total Pure Premium:</b>	<b>1.228</b>	<b>0.594</b>	<b>1.211</b>	<b>3.033</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.383	1.198	1.354				
		(14) Massachusetts Credibility:	0.65	1.00	1.00				
		(15) Countrywide Pure Premium:	1.585	0.735	1.424	3.745			
		(16) Countrywide Indicated Relativity:	1.903	1.596	1.692				
		(17) Countrywide Credibility:	0.18	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,008	10,005					
		(19) Pure Premium Underlying Present Rate:	0.863	0.840	1.066	2.770			
		(20) Relativity to Underlying Present Rate:	1.370	1.278	1.329				
		(21) Credibility to Underlying Relativity:	0.170	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.474	1.198	1.354				
		(24) Balanced Formula Relativity:	1.484	1.194	1.351	1.369			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000124 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 49

## Calculation of Class Relativities

Class(es): 3076 FIREPROOF EQUIPMENT MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	240,227	1	24	103,499	133,895	243,785		481,178	
2000/2001	274,547	6	30	544,184	170,285	384,427		1,098,896	
2001/2002	338,389	3	25	314,272	93,959	319,935		728,167	
2002/2003	374,361	5	29	656,523	264,648	437,984		1,359,156	
2003/2004	415,753	1	30	149,175	278,732	335,290		763,198	
<b>MA Total</b>	<b>1,643,277</b>	<b>16</b>	<b>138</b>	<b>1,767,653</b>	<b>941,519</b>	<b>1,721,422</b>		<b>4,430,594</b>	
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)		Total (12)	
			1999/2000	0.431	0.557	1.015		2.003	
			2000/2001	1.982	0.620	1.400		4.003	
			2001/2002	0.929	0.278	0.945		2.152	
			2002/2003	1.754	0.707	1.170		3.631	
			2003/2004	0.359	0.670	0.806		1.836	
			<b>MA Total Pure Premium:</b>	<b>1.076</b>	<b>0.573</b>	<b>1.048</b>		<b>2.696</b>	
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical		Total	
		(13) Massachusetts Indicated Relativity:		1.211	1.156	1.171			
		(14) Massachusetts Credibility:		0.35	0.96	0.85			
		(15) Countrywide Pure Premium:		1.016	0.618	1.135		2.769	
		(16) Countrywide Indicated Relativity:		1.220	1.343	1.348			
		(17) Countrywide Credibility:		0.33	0.02	0.08			
		(18) Countrywide Lost-time Claims:		879	10,599				
		(19) Pure Premium Underlying Present Rate:		0.670	0.880	0.960		2.511	
		(20) Relativity to Underlying Present Rate:		1.064	1.338	1.197			
		(21) Credibility to Underlying Relativity:		0.320	0.020	0.070			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895		2.278	
		(23) Formula Relativity:		1.167	1.163	1.187			
		(24) Balanced Formula Relativity:		1.175	1.160	1.185		1.175	

Class(es): 3081 FOUNDRY-FERROUS-NOC*		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	138,931	5	41	958,145	188,150	528,078		1,674,373	
2000/2001	144,778	3	39	371,517	311,882	376,460		1,059,859	
2001/2002	144,985	5	50	759,174	280,454	532,080		1,571,708	
2002/2003	107,147	4	19	647,366	113,799	453,704		1,214,869	
2003/2004	121,767	0	27	0	312,918	277,232		590,149	
<b>MA Total</b>	<b>657,608</b>	<b>17</b>	<b>176</b>	<b>2,736,201</b>	<b>1,207,203</b>	<b>2,167,555</b>		<b>6,110,959</b>	
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)		Total (12)	
			1999/2000	6.897	1.354	3.801		12.052	
			2000/2001	2.566	2.154	2.600		7.321	
			2001/2002	5.236	1.934	3.670		10.840	
			2002/2003	6.042	1.062	4.234		11.338	
			2003/2004	0.000	2.570	2.277		4.847	
			<b>MA Total Pure Premium:</b>	<b>4.161</b>	<b>1.836</b>	<b>3.296</b>		<b>9.293</b>	
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical		Total	
		(13) Massachusetts Indicated Relativity:		4.684	3.704	3.685			
		(14) Massachusetts Credibility:		0.39	0.85	0.93			
		(15) Countrywide Pure Premium:		2.058	0.926	1.768		4.751	
		(16) Countrywide Indicated Relativity:		2.471	2.010	2.100			
		(17) Countrywide Credibility:		0.31	0.08	0.04			
		(18) Countrywide Lost-time Claims:		238	4,428				
		(19) Pure Premium Underlying Present Rate:		2.209	1.632	3.032		6.872	
		(20) Relativity to Underlying Present Rate:		3.505	2.481	3.779			
		(21) Credibility to Underlying Relativity:		0.300	0.070	0.030			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895		2.278	
		(23) Formula Relativity:		3.644	3.483	3.624			
		(24) Balanced Formula Relativity:		3.669	3.471	3.617		3.606	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000125 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
3085 FOUNDRY-NON FERROUS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	169,701	4	21	489,403	60,466	245,799	795,668	
2000/2001	137,300	4	15	556,919	29,790	206,495	793,203	
2001/2002	125,132	2	17	146,107	377,792	263,253	787,151	
2002/2003	106,324	0	12	0	183,769	145,524	329,293	
2003/2004	114,038	1	10	373,534	139,688	388,895	902,117	
<b>MA Total</b>	<b>652,495</b>	<b>11</b>	<b>75</b>	<b>1,565,963</b>	<b>791,504</b>	<b>1,249,965</b>	<b>3,607,432</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.884	0.356	1.448	4.689			
	2000/2001	4.056	0.217	1.504	5.777			
	2001/2002	1.168	3.019	2.104	6.291			
	2002/2003	0.000	1.728	1.369	3.097			
	2003/2004	3.276	1.225	3.410	7.911			
	<b>MA Total Pure Premium:</b>	<b>2.400</b>	<b>1.213</b>	<b>1.916</b>	<b>5.529</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.702	2.447	2.142				
	(14) Massachusetts Credibility:	0.33	0.70	0.73				
	(15) Countrywide Pure Premium:	1.553	0.768	1.473	3.794			
	(16) Countrywide Indicated Relativity:	1.865	1.668	1.749				
	(17) Countrywide Credibility:	0.34	0.15	0.14				
	(18) Countrywide Lost-time Claims:	204	2,271					
	(19) Pure Premium Underlying Present Rate:	1.409	0.997	1.689	4.094			
	(20) Relativity to Underlying Present Rate:	2.237	1.515	2.105				
	(21) Credibility to Underlying Relativity:	0.330	0.150	0.130				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	2.264	2.191	2.082				
	(24) Balanced Formula Relativity:	2.279	2.184	2.078	2.179			

Class(es):		Effective: 9/1/2007						Manufacturing
3110 FORGING WORK - DROP OR MACHINE								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	42,379	0	5	0	26,360	19,211	45,572	
2000/2001	30,545	1	6	319,622	17,580	29,912	367,115	
2001/2002	108,034	0	30	0	564,707	289,571	854,278	
2002/2003	15,038	2	2	400,223	4,444	243,792	648,458	
2003/2004	10,699	0	0	0	0	11,664	11,664	
<b>MA Total</b>	<b>206,695</b>	<b>3</b>	<b>43</b>	<b>719,844</b>	<b>613,092</b>	<b>594,151</b>	<b>1,927,087</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.622	0.453	1.075			
	2000/2001	10.464	0.576	0.979	12.019			
	2001/2002	0.000	5.227	2.680	7.907			
	2002/2003	26.614	0.296	16.212	43.121			
	2003/2004	0.000	0.000	1.090	1.090			
	<b>MA Total Pure Premium:</b>	<b>3.483</b>	<b>2.966</b>	<b>2.875</b>	<b>9.323</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	3.921	5.985	3.213				
	(14) Massachusetts Credibility:	0.25	0.68	0.52				
	(15) Countrywide Pure Premium:	2.156	0.838	1.495	4.488			
	(16) Countrywide Indicated Relativity:	2.588	1.819	1.776				
	(17) Countrywide Credibility:	0.38	0.16	0.24				
	(18) Countrywide Lost-time Claims:	147	1,099					
	(19) Pure Premium Underlying Present Rate:	2.328	2.940	2.269	7.537			
	(20) Relativity to Underlying Present Rate:	3.695	4.469	2.829				
	(21) Credibility to Underlying Relativity:	0.370	0.160	0.240				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	3.331	5.076	2.776				
	(24) Balanced Formula Relativity:	3.353	5.059	2.771	3.496			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000126 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 51

## Calculation of Class Relativities

Class(es): 3111 BLACKSMITH		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	53,558	0	5	0	14,828	66,275	81,103		
2000/2001	38,928	0	2	0	8,228	20,575	28,803		
2001/2002	32,351	0	0	0	0	7,223	7,223		
2002/2003	45,207	0	2	0	623	11,451	12,074		
2003/2004	67,995	1	5	154,927	4,038	55,791	214,757		
<b>MA Total</b>	<b>238,039</b>	<b>1</b>	<b>14</b>	<b>154,927</b>	<b>27,717</b>	<b>161,315</b>	<b>343,959</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.277	1.237	1.514			
		2000/2001	0.000	0.211	0.529	0.740			
		2001/2002	0.000	0.000	0.223	0.223			
		2002/2003	0.000	0.014	0.253	0.267			
		2003/2004	2.279	0.059	0.821	3.158			
		<b>MA Total Pure Premium:</b>	<b>0.651</b>	<b>0.116</b>	<b>0.678</b>	<b>1.445</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.733	0.235	0.758				
		(14) Massachusetts Credibility:	0.16	0.39	0.38				
		(15) Countrywide Pure Premium:	1.171	0.562	1.156	2.888			
		(16) Countrywide Indicated Relativity:	1.406	1.220	1.372				
		(17) Countrywide Credibility:	0.40	0.31	0.31				
		(18) Countrywide Lost-time Claims:	46	463					
		(19) Pure Premium Underlying Present Rate:	0.652	0.638	0.885	2.175			
		(20) Relativity to Underlying Present Rate:	1.035	0.970	1.103				
		(21) Credibility to Underlying Relativity:	0.440	0.300	0.310				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.135	0.761	1.055				
		(24) Balanced Formula Relativity:	1.143	0.758	1.053	1.024			

Class(es): 3113 TOOL MFG-NOT DROP OR MACHINE FORGED-NOC*		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,628,151	10	104	1,582,544	666,212	862,443	3,111,200		
2000/2001	1,380,029	10	79	1,513,353	560,183	1,104,687	3,178,223		
2001/2002	1,046,109	1	83	165,459	643,004	774,310	1,582,773		
2002/2003	1,066,569	7	57	1,120,005	365,067	1,063,386	2,548,459		
2003/2004	1,141,513	1	71	596,911	746,770	751,852	2,095,532		
<b>MA Total</b>	<b>6,262,371</b>	<b>29</b>	<b>394</b>	<b>4,978,273</b>	<b>2,981,236</b>	<b>4,556,678</b>	<b>12,516,187</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.972	0.409	0.530	1.911			
		2000/2001	1.097	0.406	0.800	2.303			
		2001/2002	0.158	0.615	0.740	1.513			
		2002/2003	1.050	0.342	0.997	2.389			
		2003/2004	0.523	0.654	0.659	1.836			
		<b>MA Total Pure Premium:</b>	<b>0.795</b>	<b>0.476</b>	<b>0.728</b>	<b>1.999</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.895	0.960	0.813				
		(14) Massachusetts Credibility:	0.50	1.00	1.00				
		(15) Countrywide Pure Premium:	0.725	0.398	0.753	1.876			
		(16) Countrywide Indicated Relativity:	0.870	0.863	0.895				
		(17) Countrywide Credibility:	0.25	0.00	0.00				
		(18) Countrywide Lost-time Claims:	245	4,372					
		(19) Pure Premium Underlying Present Rate:	0.430	0.502	0.506	1.438			
		(20) Relativity to Underlying Present Rate:	0.682	0.764	0.631				
		(21) Credibility to Underlying Relativity:	0.250	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.836	0.960	0.813				
		(24) Balanced Formula Relativity:	0.841	0.957	0.812	0.855			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000127 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 52

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3114 TOOL MFG-DROP OR MACHINE FORGED-NOC: MACHINING OR FINISHING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	54,997	2	6	291,028	17,861	129,271	438,159		
2000/2001	40,247	1	5	86,992	88,529	88,180	263,702		
2001/2002	41,911	0	5	0	41,494	83,935	125,430		
2002/2003	37,068	1	0	103,841	0	21,747	125,589		
2003/2004	30,698	0	3	0	68,186	55,767	123,953		
<b>MA Total</b>	<b>204,921</b>	<b>4</b>	<b>19</b>	<b>481,861</b>	<b>216,070</b>	<b>378,902</b>	<b>1,076,833</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	5.292	0.325	2.350	7.967				
	2000/2001	2.161	2.200	2.191	6.552				
	2001/2002	0.000	0.990	2.003	2.993				
	2002/2003	2.801	0.000	0.587	3.388				
	2003/2004	0.000	2.221	1.817	4.038				
	<b>MA Total Pure Premium:</b>	<b>2.351</b>	<b>1.054</b>	<b>1.849</b>	<b>5.255</b>				
		Pure Premium Relativities							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	(13) Massachusetts Indicated Relativity:	2.647	2.127	2.067					
	(14) Massachusetts Credibility:	0.18	0.44	0.42					
	(15) Countrywide Pure Premium:	1.549	0.490	1.115	3.154				
	(16) Countrywide Indicated Relativity:	1.859	1.064	1.325					
	(17) Countrywide Credibility:	0.41	0.28	0.29					
	(18) Countrywide Lost-time Claims:	61	721						
	(19) Pure Premium Underlying Present Rate:	1.031	0.975	1.346	3.353				
	(20) Relativity to Underlying Present Rate:	1.636	1.482	1.678					
	(21) Credibility to Underlying Relativity:	0.410	0.280	0.290					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.910	1.649	1.739					
	(24) Balanced Formula Relativity:	1.923	1.644	1.736	1.789				

Class(es):		Effective: 9/1/2007						Manufacturing	
3119 NEEDLE MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	13,833	0	0	0	0	1,249	1,249		
2000/2001	14,997	0	1	0	4,949	639	5,588		
2001/2002	15,672	0	2	0	344	7,361	7,704		
2002/2003	16,469	0	1	0	103	2,135	2,238		
2003/2004	52,555	0	3	0	12,626	45,554	58,180		
<b>MA Total</b>	<b>113,526</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>18,022</b>	<b>56,936</b>	<b>74,959</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.090	0.090				
	2000/2001	0.000	0.330	0.043	0.373				
	2001/2002	0.000	0.022	0.470	0.492				
	2002/2003	0.000	0.006	0.130	0.136				
	2003/2004	0.000	0.240	0.867	1.107				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.159</b>	<b>0.502</b>	<b>0.660</b>				
		Pure Premium Relativities							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	(13) Massachusetts Indicated Relativity:	0.000	0.320	0.561					
	(14) Massachusetts Credibility:	0.09	0.19	0.18					
	(15) Countrywide Pure Premium:	0.000	0.204	0.309	0.514				
	(16) Countrywide Indicated Relativity:	0.000	0.443	0.368					
	(17) Countrywide Credibility:	0.00	0.21	0.25					
	(18) Countrywide Lost-time Claims:	0	19						
	(19) Pure Premium Underlying Present Rate:	0.309	0.232	0.273	0.814				
	(20) Relativity to Underlying Present Rate:	0.490	0.352	0.341					
	(21) Credibility to Underlying Relativity:	0.910	0.600	0.570					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.446	0.365	0.387					
	(24) Balanced Formula Relativity:	0.449	0.364	0.386	0.406				

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000128 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 53

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3120 RAZOR MFG-SAFETY									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.00	0.00	0.00				
		(15) Countrywide Pure Premium:	1.291	0.069	0.418	1.779			
		(16) Countrywide Indicated Relativity:	1.550	0.151	0.497				
		(17) Countrywide Credibility:	0.13	0.15	0.20				
		(18) Countrywide Lost-time Claims:	3	8					
		(19) Pure Premium Underlying Present Rate:	0.326	1.038	0.483	1.847			
		(20) Relativity to Underlying Present Rate:	0.517	1.579	0.602				
		(21) Credibility to Underlying Relativity:	0.870	0.850	0.800				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.651	1.364	0.581				
		(24) Balanced Formula Relativity:	0.656	1.360	0.580	0.779			

Class(es):		Effective: 9/1/2007						Manufacturing	
3122 CUTLERY MFG-NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	79,812	1	6	93,689	30,053	251,056	374,797		
2000/2001	74,858	1	6	278,993	26,067	73,459	378,520		
2001/2002	74,993	0	3	0	13,192	55,543	68,736		
2002/2003	65,868	0	3	0	7,882	15,452	23,334		
2003/2004	71,357	0	1	0	187	20,775	20,962		
<b>MA Total</b>	<b>366,888</b>	<b>2</b>	<b>19</b>	<b>372,682</b>	<b>77,381</b>	<b>416,285</b>	<b>866,348</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.174	0.377	3.146	4.696			
		2000/2001	3.727	0.348	0.981	5.057			
		2001/2002	0.000	0.176	0.741	0.917			
		2002/2003	0.000	0.120	0.235	0.354			
		2003/2004	0.000	0.003	0.291	0.294			
		<b>MA Total Pure Premium:</b>	<b>1.016</b>	<b>0.211</b>	<b>1.135</b>	<b>2.361</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.144	0.426	1.268				
		(14) Massachusetts Credibility:	0.21	0.39	0.47				
		(15) Countrywide Pure Premium:	0.931	0.222	0.707	1.860			
		(16) Countrywide Indicated Relativity:	1.118	0.481	0.840				
		(17) Countrywide Credibility:	0.13	0.31	0.27				
		(18) Countrywide Lost-time Claims:	3	116					
		(19) Pure Premium Underlying Present Rate:	0.862	0.420	0.982	2.264			
		(20) Relativity to Underlying Present Rate:	1.368	0.638	1.224				
		(21) Credibility to Underlying Relativity:	0.660	0.300	0.260				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.288	0.507	1.141				
		(24) Balanced Formula Relativity:	1.297	0.505	1.139	1.063			

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000129 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 54

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3127 PRECISION MEASURING TOOL MFG-NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	240,488	0	14	0	66,060	50,422	116,482		
2000/2001	221,187	1	9	274,152	50,989	97,717	422,858		
2001/2002	180,341	0	5	0	4,533	8,588	13,122		
2002/2003	153,894	0	4	0	15,598	28,653	44,251		
2003/2004	149,197	0	11	0	134,907	132,442	267,349		
<b>MA Total</b>	<b>945,107</b>	<b>1</b>	<b>43</b>	<b>274,152</b>	<b>272,087</b>	<b>317,822</b>	<b>864,061</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.275	0.210	0.484			
		2000/2001	1.239	0.231	0.442	1.912			
		2001/2002	0.000	0.025	0.048	0.073			
		2002/2003	0.000	0.101	0.186	0.288			
		2003/2004	0.000	0.904	0.888	1.792			
		<b>MA Total Pure Premium:</b>	<b>0.290</b>	<b>0.288</b>	<b>0.336</b>	<b>0.914</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.327	0.581	0.376				
		(14) Massachusetts Credibility:	0.15	0.42	0.37				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000			
		(16) Countrywide Indicated Relativity:	0.226	0.284	0.259				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	0.143	0.188	0.209	0.541			
		(20) Relativity to Underlying Present Rate:	0.227	0.286	0.261				
		(21) Credibility to Underlying Relativity:	0.850	0.580	0.630				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.242	0.410	0.303				
		(24) Balanced Formula Relativity:	0.244	0.409	0.303	0.303			

Class(es):		Effective: 9/1/2007						Manufacturing	
3131 BUTTON OR FASTENER MFG-METAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	59,983	1	4	34,642	29,012	13,492	77,147		
2000/2001	43,182	1	3	252,345	3,198	41,876	297,419		
2001/2002	54,049	1	8	250,328	86,644	78,513	415,485		
2002/2003	12,371	0	1	0	116	419	536		
2003/2004	12,982	0	1	0	301	2,313	2,614		
<b>MA Total</b>	<b>182,567</b>	<b>3</b>	<b>17</b>	<b>537,315</b>	<b>119,271</b>	<b>136,614</b>	<b>793,200</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.578	0.484	0.225	1.286			
		2000/2001	5.844	0.074	0.970	6.888			
		2001/2002	4.631	1.603	1.453	7.687			
		2002/2003	0.000	0.009	0.034	0.043			
		2003/2004	0.000	0.023	0.178	0.201			
		<b>MA Total Pure Premium:</b>	<b>2.943</b>	<b>0.653</b>	<b>0.748</b>	<b>4.345</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	3.313	1.318	0.837				
		(14) Massachusetts Credibility:	0.17	0.41	0.33				
		(15) Countrywide Pure Premium:	0.576	0.367	0.664	1.608			
		(16) Countrywide Indicated Relativity:	0.692	0.798	0.789				
		(17) Countrywide Credibility:	0.42	0.30	0.34				
		(18) Countrywide Lost-time Claims:	54	513					
		(19) Pure Premium Underlying Present Rate:	1.046	0.939	0.832	2.817			
		(20) Relativity to Underlying Present Rate:	1.660	1.428	1.037				
		(21) Credibility to Underlying Relativity:	0.410	0.290	0.330				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.534	1.194	0.886				
		(24) Balanced Formula Relativity:	1.545	1.190	0.885	1.208			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000130 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 55

## Calculation of Class Relativities

Class(es): 3132 NUT OR BOLT MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	46,866	0	7	0	42,330	43,092	85,421		
2000/2001	10,253	0	1	0	3,750	2,076	5,826		
2001/2002	27,787	0	1	0	280	2,783	3,063		
2002/2003	8,458	0	1	0	23,594	18,159	41,752		
2003/2004	6,034	0	0	0	0	0	0		
<b>MA Total</b>	<b>99,398</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>69,953</b>	<b>66,109</b>	<b>136,063</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.903	0.919	1.823			
		2000/2001	0.000	0.366	0.202	0.568			
		2001/2002	0.000	0.010	0.100	0.110			
		2002/2003	0.000	2.789	2.147	4.936			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.704</b>	<b>0.665</b>	<b>1.369</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	1.420	0.744				
		(14) Massachusetts Credibility:	0.10	0.29	0.24				
		(15) Countrywide Pure Premium:	1.075	0.671	1.240	2.986			
		(16) Countrywide Indicated Relativity:	1.291	1.457	1.473				
		(17) Countrywide Credibility:	0.30	0.36	0.38				
		(18) Countrywide Lost-time Claims:	22	407					
		(19) Pure Premium Underlying Present Rate:	0.422	0.726	0.699	1.847			
		(20) Relativity to Underlying Present Rate:	0.670	1.103	0.872				
		(21) Credibility to Underlying Relativity:	0.600	0.350	0.380				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.789	1.322	1.069				
		(24) Balanced Formula Relativity:	0.795	1.318	1.067	1.016			

Class(es): 3145 SCREW MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	305,206	2	15	202,094	108,187	345,123	655,404		
2000/2001	268,761	0	9	0	45,578	72,477	118,055		
2001/2002	223,460	0	11	0	39,867	70,030	109,897		
2002/2003	237,876	1	10	181,097	29,435	119,664	330,196		
2003/2004	234,659	1	15	146,733	239,258	195,748	581,740		
<b>MA Total</b>	<b>1,269,962</b>	<b>4</b>	<b>60</b>	<b>529,924</b>	<b>462,326</b>	<b>803,041</b>	<b>1,795,291</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.662	0.354	1.131	2.147			
		2000/2001	0.000	0.170	0.270	0.439			
		2001/2002	0.000	0.178	0.313	0.492			
		2002/2003	0.761	0.124	0.503	1.388			
		2003/2004	0.625	1.020	0.834	2.479			
		<b>MA Total Pure Premium:</b>	<b>0.417</b>	<b>0.364</b>	<b>0.632</b>	<b>1.414</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.470	0.734	0.707				
		(14) Massachusetts Credibility:	0.25	0.60	0.60				
		(15) Countrywide Pure Premium:	0.711	0.422	0.728	1.861			
		(16) Countrywide Indicated Relativity:	0.854	0.916	0.864				
		(17) Countrywide Credibility:	0.38	0.20	0.20				
		(18) Countrywide Lost-time Claims:	71	1,342					
		(19) Pure Premium Underlying Present Rate:	0.386	0.348	0.523	1.257			
		(20) Relativity to Underlying Present Rate:	0.612	0.529	0.652				
		(21) Credibility to Underlying Relativity:	0.370	0.200	0.200				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.668	0.730	0.727				
		(24) Balanced Formula Relativity:	0.673	0.727	0.726	0.706			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000131 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 56

## Calculation of Class Relativities

Class(es): 3146 HARDWARE MFG-NOC		Effective: 9/1/2007						Manufacturing
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	292,866	0	29	0	179,188	168,013	347,201	
2000/2001	203,699	3	24	861,772	173,869	298,202	1,333,843	
2001/2002	174,853	1	11	70,652	22,741	96,122	189,515	
2002/2003	160,925	0	9	0	60,317	67,306	127,623	
2003/2004	113,936	0	9	0	141,625	87,546	229,172	
<b>MA Total</b>	<b>946,279</b>	<b>4</b>	<b>82</b>	<b>932,424</b>	<b>577,740</b>	<b>717,190</b>	<b>2,227,354</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.612	0.574	1.186			
	2000/2001	4.231	0.854	1.464	6.548			
	2001/2002	0.404	0.130	0.550	1.084			
	2002/2003	0.000	0.375	0.418	0.793			
	2003/2004	0.000	1.243	0.768	2.011			
	<b>MA Total Pure Premium:</b>	<b>0.985</b>	<b>0.611</b>	<b>0.758</b>	<b>2.354</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.109	1.232	0.847				
	(14) Massachusetts Credibility:	0.34	0.63	0.65				
	(15) Countrywide Pure Premium:	0.739	0.596	1.004	2.339			
	(16) Countrywide Indicated Relativity:	0.887	1.294	1.193				
	(17) Countrywide Credibility:	0.33	0.19	0.18				
	(18) Countrywide Lost-time Claims:	377	4,789					
	(19) Pure Premium Underlying Present Rate:	1.032	0.529	0.858	2.418			
	(20) Relativity to Underlying Present Rate:	1.637	0.804	1.069				
	(21) Credibility to Underlying Relativity:	0.330	0.180	0.170				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.210	1.167	0.947				
	(24) Balanced Formula Relativity:	1.218	1.163	0.945	1.099			

Class(es): 3169 STOVE MFG*		Effective: 9/1/2007						Manufacturing
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	448,347	3	86	258,443	576,435	661,038	1,495,916	
2000/2001	480,078	5	73	546,592	578,097	1,174,767	2,299,456	
2001/2002	398,274	6	38	932,909	432,069	771,167	2,136,145	
2002/2003	447,680	4	37	721,744	337,382	580,943	1,640,069	
2003/2004	381,887	3	31	930,442	476,621	853,439	2,260,502	
<b>MA Total</b>	<b>2,156,266</b>	<b>21</b>	<b>265</b>	<b>3,390,130</b>	<b>2,400,605</b>	<b>4,041,354</b>	<b>9,832,088</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.576	1.286	1.474	3.337			
	2000/2001	1.139	1.204	2.447	4.790			
	2001/2002	2.342	1.085	1.936	5.364			
	2002/2003	1.612	0.754	1.298	3.663			
	2003/2004	2.436	1.248	2.235	5.919			
	<b>MA Total Pure Premium:</b>	<b>1.572</b>	<b>1.113</b>	<b>1.874</b>	<b>4.560</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.770	2.246	2.095				
	(14) Massachusetts Credibility:	0.48	1.00	1.00				
	(15) Countrywide Pure Premium:	1.070	0.645	1.187	2.902			
	(16) Countrywide Indicated Relativity:	1.284	1.401	1.410				
	(17) Countrywide Credibility:	0.26	0.00	0.00				
	(18) Countrywide Lost-time Claims:	908	12,785					
	(19) Pure Premium Underlying Present Rate:	1.098	1.270	1.770	4.138			
	(20) Relativity to Underlying Present Rate:	1.742	1.931	2.207				
	(21) Credibility to Underlying Relativity:	0.260	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.636	2.246	2.095				
	(24) Balanced Formula Relativity:	1.648	2.239	2.091	1.950			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000132 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 57

## Calculation of Class Relativities

Class(es): 3179 ELECTRICAL APPARATUS MFG-NOC*		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,593,380	13	141	1,726,491	988,364	1,379,511	4,094,367		
2000/2001	1,318,257	6	93	715,689	745,387	1,135,676	2,596,752		
2001/2002	1,287,849	6	77	742,508	641,842	1,087,395	2,471,745		
2002/2003	1,452,106	13	67	1,666,014	447,675	1,120,320	3,234,009		
2003/2004	1,620,174	6	75	1,811,980	960,748	1,229,008	4,001,736		
<b>MA Total</b>	<b>7,271,766</b>	<b>44</b>	<b>453</b>	<b>6,662,682</b>	<b>3,784,017</b>	<b>5,951,911</b>	<b>16,398,609</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.084	0.620	0.866	2.570		
		2000/2001		0.543	0.565	0.861	1.970		
		2001/2002		0.577	0.498	0.844	1.919		
		2002/2003		1.147	0.308	0.772	2.227		
		2003/2004		1.118	0.593	0.759	2.470		
		<b>MA Total Pure Premium:</b>		<b>0.916</b>	<b>0.520</b>	<b>0.818</b>	<b>2.255</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.032	1.050	0.915			
		(14) Massachusetts Credibility:		0.58	1.00	1.00			
		(15) Countrywide Pure Premium:		0.812	0.514	0.851	2.177		
		(16) Countrywide Indicated Relativity:		0.975	1.116	1.011			
		(17) Countrywide Credibility:		0.21	0.00	0.00			
		(18) Countrywide Lost-time Claims:		1,004	15,618				
		(19) Pure Premium Underlying Present Rate:		0.540	0.557	0.767	1.864		
		(20) Relativity to Underlying Present Rate:		0.856	0.847	0.957			
		(21) Credibility to Underlying Relativity:		0.210	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		0.983	1.050	0.915			
		(24) Balanced Formula Relativity:		0.989	1.046	0.913	0.972		

Class(es): 3180 ELECTRIC OR GAS LIGHTING FIXTURES MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	132,785	1	29	60,271	253,119	311,716	625,106		
2000/2001	119,896	4	13	498,097	16,538	307,044	821,679		
2001/2002	113,680	3	6	316,734	28,626	114,352	459,711		
2002/2003	306,134	3	29	510,189	168,102	287,939	966,230		
2003/2004	323,362	1	37	236,444	511,806	371,659	1,119,909		
<b>MA Total</b>	<b>995,857</b>	<b>12</b>	<b>114</b>	<b>1,621,735</b>	<b>978,190</b>	<b>1,392,710</b>	<b>3,992,635</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.454	1.906	2.348	4.708		
		2000/2001		4.154	0.138	2.561	6.853		
		2001/2002		2.786	0.252	1.006	4.044		
		2002/2003		1.667	0.549	0.941	3.156		
		2003/2004		0.731	1.583	1.149	3.463		
		<b>MA Total Pure Premium:</b>		<b>1.628</b>	<b>0.982</b>	<b>1.399</b>	<b>4.009</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.833	1.982	1.563			
		(14) Massachusetts Credibility:		0.29	0.94	0.77			
		(15) Countrywide Pure Premium:		0.859	0.569	1.069	2.497		
		(16) Countrywide Indicated Relativity:		1.031	1.236	1.270			
		(17) Countrywide Credibility:		0.36	0.03	0.12			
		(18) Countrywide Lost-time Claims:		119	793				
		(19) Pure Premium Underlying Present Rate:		0.697	1.378	1.273	3.348		
		(20) Relativity to Underlying Present Rate:		1.106	2.094	1.587			
		(21) Credibility to Underlying Relativity:		0.350	0.030	0.110			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.290	1.963	1.531			
		(24) Balanced Formula Relativity:		1.299	1.956	1.528	1.532		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000133 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 58

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3188 PLUMBERS SUPPLIES MFG-NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	36,836	1	2	147,489	2,230	250,032	399,751		
2000/2001	30,966	0	1	0	1,064	7,781	8,846		
2001/2002	13,710	0	0	0	0	1,979	1,979		
2002/2003	18,899	0	0	0	0	7,990	7,990		
2003/2004	16,881	0	4	0	85,791	36,561	122,352		
<b>MA Total</b>	<b>117,292</b>	<b>1</b>	<b>7</b>	<b>147,489</b>	<b>89,085</b>	<b>304,343</b>	<b>540,917</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	4.004	0.061	6.788	10.852			
		2000/2001	0.000	0.034	0.251	0.286			
		2001/2002	0.000	0.000	0.144	0.144			
		2002/2003	0.000	0.000	0.423	0.423			
		2003/2004	0.000	5.082	2.166	7.248			
		<b>MA Total Pure Premium:</b>	<b>1.257</b>	<b>0.760</b>	<b>2.595</b>	<b>4.612</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.416	1.532	2.901				
		(14) Massachusetts Credibility:	0.11	0.36	0.34				
		(15) Countrywide Pure Premium:	0.800	0.514	0.848	2.162			
		(16) Countrywide Indicated Relativity:	0.960	1.116	1.007				
		(17) Countrywide Credibility:	0.45	0.32	0.33				
		(18) Countrywide Lost-time Claims:	67	905					
		(19) Pure Premium Underlying Present Rate:	0.542	1.040	1.407	2.989			
		(20) Relativity to Underlying Present Rate:	0.860	1.581	1.753				
		(21) Credibility to Underlying Relativity:	0.440	0.320	0.330				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.966	1.415	1.897				
		(24) Balanced Formula Relativity:	0.973	1.410	1.894	1.430			

Class(es):		Effective: 9/1/2007						Manufacturing	
3200 ARMS MFG-SMALL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	105,118	0	5	0	11,904	68,950	80,854		
2000/2001	97,037	0	6	0	17,660	75,547	93,206		
2001/2002	80,863	2	6	160,975	110,423	295,681	567,079		
2002/2003	39,863	1	7	104,547	17,681	101,236	223,465		
2003/2004	82,638	0	10	0	172,792	151,834	324,626		
<b>MA Total</b>	<b>405,519</b>	<b>3</b>	<b>34</b>	<b>265,523</b>	<b>330,460</b>	<b>693,247</b>	<b>1,289,230</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.113	0.656	0.769			
		2000/2001	0.000	0.182	0.779	0.961			
		2001/2002	1.991	1.366	3.657	7.013			
		2002/2003	2.623	0.444	2.540	5.606			
		2003/2004	0.000	2.091	1.837	3.928			
		<b>MA Total Pure Premium:</b>	<b>0.655</b>	<b>0.815</b>	<b>1.710</b>	<b>3.179</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.737	1.644	1.911				
		(14) Massachusetts Credibility:	0.21	0.46	0.50				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000			
		(16) Countrywide Indicated Relativity:	1.156	0.857	1.275				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	0.733	0.569	1.030	2.333			
		(20) Relativity to Underlying Present Rate:	1.164	0.865	1.284				
		(21) Credibility to Underlying Relativity:	0.790	0.540	0.500				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.074	1.223	1.598				
		(24) Balanced Formula Relativity:	1.082	1.219	1.595	1.313			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000134 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 59

## Calculation of Class Relativities

Class(es): 3220 CAN MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	62,512	0	0	0	0	6,641	6,641		
2000/2001	59,944	0	4	0	24,448	48,350	72,797		
2001/2002	0	0	0	0	0	0	0		
2002/2003	63,807	0	3	0	19,200	18,793	37,992		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>186,263</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>43,647</b>	<b>73,784</b>	<b>117,431</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
	1999/2000	0.000	0.000	0.106			0.106		
	2000/2001	0.000	0.408	0.807			1.214		
	2001/2002	0.000	0.000	0.000			0.000		
	2002/2003	0.000	0.301	0.295			0.595		
	2003/2004	0.000	0.000	0.000			0.000		
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.234</b>	<b>0.396</b>			<b>0.630</b>		
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical			Total		
	(13) Massachusetts Indicated Relativity:	0.000	0.473	0.443					
	(14) Massachusetts Credibility:	0.15	0.32	0.30					
	(15) Countrywide Pure Premium:	0.712	0.446	0.778			1.936		
	(16) Countrywide Indicated Relativity:	0.855	0.968	0.924					
	(17) Countrywide Credibility:	0.43	0.34	0.35					
	(18) Countrywide Lost-time Claims:	124	942						
	(19) Pure Premium Underlying Present Rate:	0.761	0.487	0.619			1.867		
	(20) Relativity to Underlying Present Rate:	1.208	0.740	0.771					
	(21) Credibility to Underlying Relativity:	0.420	0.340	0.350					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278		
	(23) Formula Relativity:	0.875	0.732	0.726					
	(24) Balanced Formula Relativity:	0.881	0.730	0.725			0.787		

Class(es): 3255 WIRE CLOTH MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	38,438	1	2	99,214	3,418	20,930	123,562		
2000/2001	31,840	0	0	0	0	1,292	1,292		
2001/2002	24,753	0	3	0	2,627	3,482	6,109		
2002/2003	26,045	0	1	0	47,764	18,422	66,186		
2003/2004	25,637	0	6	0	46,247	30,188	76,435		
<b>MA Total</b>	<b>146,713</b>	<b>1</b>	<b>12</b>	<b>99,214</b>	<b>100,056</b>	<b>74,314</b>	<b>273,584</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
	1999/2000	2.581	0.089	0.544			3.215		
	2000/2001	0.000	0.000	0.041			0.041		
	2001/2002	0.000	0.106	0.141			0.247		
	2002/2003	0.000	1.834	0.707			2.541		
	2003/2004	0.000	1.804	1.178			2.981		
	<b>MA Total Pure Premium:</b>	<b>0.676</b>	<b>0.682</b>	<b>0.507</b>			<b>1.865</b>		
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical			Total		
	(13) Massachusetts Indicated Relativity:	0.761	1.376	0.566					
	(14) Massachusetts Credibility:	0.16	0.38	0.37					
	(15) Countrywide Pure Premium:	0.986	0.701	1.077			2.765		
	(16) Countrywide Indicated Relativity:	1.184	1.523	1.280					
	(17) Countrywide Credibility:	0.23	0.31	0.32					
	(18) Countrywide Lost-time Claims:	12	163						
	(19) Pure Premium Underlying Present Rate:	1.041	0.940	1.373			3.354		
	(20) Relativity to Underlying Present Rate:	1.652	1.429	1.712					
	(21) Credibility to Underlying Relativity:	0.610	0.310	0.310					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278		
	(23) Formula Relativity:	1.402	1.438	1.150					
	(24) Balanced Formula Relativity:	1.411	1.433	1.148			1.313		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000135 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 60

## Calculation of Class Relativities

Class(es): 3257 WIRE GOODS MFG - NOC		Effective: 9/1/2007						Manufacturing
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	159,360	0	14	0	129,714	106,392	236,106	
2000/2001	177,990	2	23	391,270	142,831	123,773	657,874	
2001/2002	113,392	0	10	0	139,880	79,799	219,679	
2002/2003	115,393	1	16	101,782	80,928	115,595	298,305	
2003/2004	96,233	0	5	0	62,030	44,331	106,362	
<b>MA Total</b>	<b>662,368</b>	<b>3</b>	<b>68</b>	<b>493,052</b>	<b>555,384</b>	<b>469,890</b>	<b>1,518,326</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.814	0.668	1.482			
	2000/2001	2.198	0.802	0.695	3.696			
	2001/2002	0.000	1.234	0.704	1.937			
	2002/2003	0.882	0.701	1.002	2.585			
	2003/2004	0.000	0.645	0.461	1.105			
	<b>MA Total Pure Premium:</b>	<b>0.744</b>	<b>0.838</b>	<b>0.709</b>	<b>2.292</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.838	1.692	0.793				
	(14) Massachusetts Credibility:	0.26	0.66	0.61				
	(15) Countrywide Pure Premium:	0.900	0.647	1.237	2.784			
	(16) Countrywide Indicated Relativity:	1.080	1.405	1.469				
	(17) Countrywide Credibility:	0.37	0.17	0.20				
	(18) Countrywide Lost-time Claims:	222	3,235					
	(19) Pure Premium Underlying Present Rate:	0.819	0.848	1.064	2.731			
	(20) Relativity to Underlying Present Rate:	1.299	1.289	1.327				
	(21) Credibility to Underlying Relativity:	0.370	0.170	0.190				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.098	1.574	1.030				
	(24) Balanced Formula Relativity:	1.106	1.569	1.028	1.176			

Class(es): 3270 EYELET MFG		Effective: 9/1/2007						Manufacturing
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	24,196	0	1	0	507	1,953	2,460	
2000/2001	20,038	0	1	0	708	4,179	4,887	
2001/2002	24,191	0	1	0	40,574	40,325	80,898	
2002/2003	26,798	0	1	0	109	7,950	8,059	
2003/2004	26,236	0	0	0	0	2,761	2,761	
<b>MA Total</b>	<b>121,459</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>41,898</b>	<b>57,168</b>	<b>99,066</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.021	0.081	0.102			
	2000/2001	0.000	0.035	0.209	0.244			
	2001/2002	0.000	1.677	1.667	3.344			
	2002/2003	0.000	0.004	0.297	0.301			
	2003/2004	0.000	0.000	0.105	0.105			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.345</b>	<b>0.471</b>	<b>0.816</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.696	0.526				
	(14) Massachusetts Credibility:	0.14	0.31	0.28				
	(15) Countrywide Pure Premium:	0.398	0.320	0.505	1.223			
	(16) Countrywide Indicated Relativity:	0.478	0.695	0.600				
	(17) Countrywide Credibility:	0.24	0.35	0.36				
	(18) Countrywide Lost-time Claims:	13	356					
	(19) Pure Premium Underlying Present Rate:	0.835	0.695	0.799	2.329			
	(20) Relativity to Underlying Present Rate:	1.325	1.056	0.996				
	(21) Credibility to Underlying Relativity:	0.620	0.340	0.360				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	0.936	0.818	0.722				
	(24) Balanced Formula Relativity:	0.942	0.815	0.721	0.828			

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000136 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 61

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
3300 BED SPRING OR WIRE MATTRESS MFG								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.000	0.000			
	2000/2001	0.000	0.000	0.000	0.000			
	2001/2002	0.000	0.000	0.000	0.000			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
	(14) Massachusetts Credibility:	0.00	0.00	0.00				
	(15) Countrywide Pure Premium:	3.694	1.259	2.086	7.039			
	(16) Countrywide Indicated Relativity:	4.434	2.734	2.478				
	(17) Countrywide Credibility:	0.50	0.50	0.50				
	(18) Countrywide Lost-time Claims:	83	989					
	(19) Pure Premium Underlying Present Rate:	2.384	1.716	2.666	6.766			
	(20) Relativity to Underlying Present Rate:	3.783	2.609	3.323				
	(21) Credibility to Underlying Relativity:	0.500	0.500	0.500				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	4.109	2.671	2.901				
	(24) Balanced Formula Relativity:	4.137	2.663	2.895	3.329			

Class(es):		Effective: 9/1/2007						Manufacturing
3315 BRASS OR COPPER GOODS MFG								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	209,338	1	15	73,123	69,593	192,427	335,143	
2000/2001	204,001	0	20	0	159,627	153,740	313,367	
2001/2002	193,601	0	10	0	55,710	81,759	137,469	
2002/2003	184,037	0	9	0	32,330	39,895	72,225	
2003/2004	174,659	1	7	110,135	67,410	116,100	293,645	
<b>MA Total</b>	<b>965,636</b>	<b>2</b>	<b>61</b>	<b>183,258</b>	<b>384,672</b>	<b>583,920</b>	<b>1,151,849</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.349	0.332	0.919	1.601			
	2000/2001	0.000	0.782	0.754	1.536			
	2001/2002	0.000	0.288	0.422	0.710			
	2002/2003	0.000	0.176	0.217	0.392			
	2003/2004	0.631	0.386	0.665	1.681			
	<b>MA Total Pure Premium:</b>	<b>0.190</b>	<b>0.398</b>	<b>0.605</b>	<b>1.193</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.214	0.804	0.676				
	(14) Massachusetts Credibility:	0.24	0.64	0.55				
	(15) Countrywide Pure Premium:	1.349	0.784	1.425	3.558			
	(16) Countrywide Indicated Relativity:	1.619	1.703	1.693				
	(17) Countrywide Credibility:	0.32	0.18	0.23				
	(18) Countrywide Lost-time Claims:	26	427					
	(19) Pure Premium Underlying Present Rate:	0.416	0.546	0.566	1.528			
	(20) Relativity to Underlying Present Rate:	0.661	0.829	0.706				
	(21) Credibility to Underlying Relativity:	0.440	0.180	0.220				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	0.860	0.970	0.917				
	(24) Balanced Formula Relativity:	0.866	0.967	0.915	0.907			

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000137 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 62

## Calculation of Class Relativities

Class(es): 3336 TYPE FOUNDRY		Effective: 9/1/2007				Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	4,306	0	2	0	6,017	4,889	10,907
2000/2001	4,508	0	0	0	0	5,247	5,247
2001/2002	5,266	1	2	66,866	26,703	69,282	162,851
2002/2003	5,044	0	0	0	0	1,416	1,416
2003/2004	6,425	0	0	0	0	1,572	1,572
<b>MA Total</b>	<b>25,549</b>	<b>1</b>	<b>4</b>	<b>66,866</b>	<b>32,721</b>	<b>82,406</b>	<b>181,993</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.000	1.397	1.135	2.533		
	2000/2001	0.000	0.000	1.164	1.164		
	2001/2002	12.697	5.071	13.155	30.923		
	2002/2003	0.000	0.000	0.281	0.281		
	2003/2004	0.000	0.000	0.245	0.245		
	<b>MA Total Pure Premium:</b>	<b>2.617</b>	<b>1.281</b>	<b>3.225</b>	<b>7.123</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	2.946	2.584	3.606			
	(14) Massachusetts Credibility:	0.06	0.20	0.17			
	(15) Countrywide Pure Premium:	1.437	0.730	1.175	3.342		
	(16) Countrywide Indicated Relativity:	1.725	1.584	1.396			
	(17) Countrywide Credibility:	0.31	0.40	0.42			
	(18) Countrywide Lost-time Claims:	24	546				
	(19) Pure Premium Underlying Present Rate:	0.483	1.178	1.110	2.771		
	(20) Relativity to Underlying Present Rate:	0.767	1.790	1.383			
	(21) Credibility to Underlying Relativity:	0.630	0.400	0.410			
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
	(23) Formula Relativity:	1.195	1.867	1.766			
	(24) Balanced Formula Relativity:	1.203	1.861	1.763	1.566		

Class(es): 3365 WELDING OR CUTTING - NOC & DRIVERS		Effective: 9/1/2007				Construction	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	105,284	3	28	599,423	174,636	464,787	1,238,846
2000/2001	127,758	6	13	847,034	135,127	728,273	1,710,434
2001/2002	139,681	2	15	424,779	155,246	334,507	914,532
2002/2003	123,049	4	18	827,389	160,442	684,230	1,672,021
2003/2004	109,889	0	12	0	239,045	287,176	526,220
<b>MA Total</b>	<b>605,661</b>	<b>15</b>	<b>86</b>	<b>2,698,626</b>	<b>864,495</b>	<b>2,498,973</b>	<b>6,062,094</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	5.693	1.659	4.415	11.767		
	2000/2001	6.630	1.058	5.700	13.388		
	2001/2002	3.041	1.111	2.395	6.547		
	2002/2003	6.724	1.304	5.561	13.589		
	2003/2004	0.000	2.175	2.613	4.789		
	<b>MA Total Pure Premium:</b>	<b>4.456</b>	<b>1.427</b>	<b>4.126</b>	<b>10.009</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	1.497	1.561	2.078			
	(14) Massachusetts Credibility:	0.50	0.98	1.00			
	(15) Countrywide Pure Premium:	4.138	1.208	2.822	8.168		
	(16) Countrywide Indicated Relativity:	1.486	1.339	1.481			
	(17) Countrywide Credibility:	0.25	0.01	0.00			
	(18) Countrywide Lost-time Claims:	256	1,749				
	(19) Pure Premium Underlying Present Rate:	4.427	2.527	5.553	12.507		
	(20) Relativity to Underlying Present Rate:	1.896	1.831	2.763			
	(21) Credibility to Underlying Relativity:	0.250	0.010	0.000			
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876		
	(23) Formula Relativity:	1.594	1.562	2.078			
	(24) Balanced Formula Relativity:	1.614	1.562	2.087	1.766		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000138 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 63

## Calculation of Class Relativities

Class(es): 3372 ELECTROPLATING		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	485,140	4	40	641,954	409,069	701,325	1,752,347		
2000/2001	450,942	3	32	332,256	210,501	328,222	870,979		
2001/2002	383,826	2	20	318,510	166,838	423,481	908,829		
2002/2003	418,948	0	19	0	94,356	133,156	227,513		
2003/2004	461,307	2	20	573,901	49,004	467,513	1,090,418		
<b>MA Total</b>	<b>2,200,163</b>	<b>11</b>	<b>131</b>	<b>1,866,621</b>	<b>929,769</b>	<b>2,053,696</b>	<b>4,850,086</b>		
				MA Indicated Pure Premiums					
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
1999/2000				1.323	0.843	1.446	3.612		
2000/2001				0.737	0.467	0.728	1.931		
2001/2002				0.830	0.435	1.103	2.368		
2002/2003				0.000	0.225	0.318	0.543		
2003/2004				1.244	0.106	1.013	2.364		
<b>MA Total Pure Premium:</b>				<b>0.848</b>	<b>0.423</b>	<b>0.933</b>	<b>2.204</b>		
				Pure Premium Relativities					
				Serious	Non-Serious	Medical	Total		
(13) Massachusetts Indicated Relativity:				0.955	0.853	1.043			
(14) Massachusetts Credibility:				0.43	0.93	0.94			
(15) Countrywide Pure Premium:				1.319	0.647	1.373	3.339		
(16) Countrywide Indicated Relativity:				1.584	1.405	1.631			
(17) Countrywide Credibility:				0.29	0.04	0.03			
(18) Countrywide Lost-time Claims:				320	2,820				
(19) Pure Premium Underlying Present Rate:				0.834	0.609	0.939	2.382		
(20) Relativity to Underlying Present Rate:				1.323	0.926	1.171			
(21) Credibility to Underlying Relativity:				0.280	0.030	0.030			
(22) Industry Group Adjusted Converted Pure Premium:				0.888	0.496	0.895	2.278		
(23) Formula Relativity:				1.240	0.877	1.065			
(24) Balanced Formula Relativity:				1.249	0.874	1.063	1.094		

Class(es): 3373 GALVANIZING OR TINNING - NOT ELECTROLYTIC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,499	0	1	0	221	784	1,006		
2000/2001	2,751	0	0	0	0	0	0		
2001/2002	2,623	0	0	0	0	0	0		
2002/2003	2,877	0	0	0	0	332	332		
2003/2004	4,355	0	1	0	1,977	4,835	6,812		
<b>MA Total</b>	<b>15,105</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2,199</b>	<b>5,951</b>	<b>8,150</b>		
				MA Indicated Pure Premiums					
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
1999/2000				0.000	0.089	0.314	0.402		
2000/2001				0.000	0.000	0.000	0.000		
2001/2002				0.000	0.000	0.000	0.000		
2002/2003				0.000	0.000	0.115	0.115		
2003/2004				0.000	0.454	1.110	1.564		
<b>MA Total Pure Premium:</b>				<b>0.000</b>	<b>0.146</b>	<b>0.394</b>	<b>0.540</b>		
				Pure Premium Relativities					
				Serious	Non-Serious	Medical	Total		
(13) Massachusetts Indicated Relativity:				0.000	0.294	0.440			
(14) Massachusetts Credibility:				0.09	0.16	0.16			
(15) Countrywide Pure Premium:				1.648	0.894	1.441	3.983		
(16) Countrywide Indicated Relativity:				1.978	1.942	1.712			
(17) Countrywide Credibility:				0.22	0.42	0.42			
(18) Countrywide Lost-time Claims:				10	221				
(19) Pure Premium Underlying Present Rate:				2.146	1.142	1.638	4.926		
(20) Relativity to Underlying Present Rate:				3.405	1.736	2.042			
(21) Credibility to Underlying Relativity:				0.690	0.420	0.420			
(22) Industry Group Adjusted Converted Pure Premium:				0.888	0.496	0.895	2.278		
(23) Formula Relativity:				2.785	1.592	1.647			
(24) Balanced Formula Relativity:				2.804	1.587	1.644	2.084		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000139 R

Section X - Classification Pricing  
Subsection G - Class Relativities  
9/1/2007

Section X - G  
Exhibit 64

## Calculation of Class Relativities

Class(es): 3381 SILVERWARE MFG		Effective: 9/1/2007						Manufacturing	
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount				Total (8)	
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	110,776	1	18	82,209	61,807	199,128	343,144		
2000/2001	108,514	0	6	0	26,089	74,019	100,108		
2001/2002	78,762	1	11	98,597	95,165	261,513	455,275		
2002/2003	78,193	0	12	0	72,528	130,664	203,191		
2003/2004	68,464	0	6	0	93,586	65,805	159,390		
<b>MA Total</b>	<b>444,709</b>	<b>2</b>	<b>53</b>	<b>180,806</b>	<b>349,174</b>	<b>731,129</b>	<b>1,261,109</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.742	0.558	1.798	3.098			
		2000/2001	0.000	0.240	0.682	0.923			
		2001/2002	1.252	1.208	3.320	5.780			
		2002/2003	0.000	0.928	1.671	2.599			
		2003/2004	0.000	1.367	0.961	2.328			
		<b>MA Total Pure Premium:</b>	<b>0.407</b>	<b>0.785</b>	<b>1.644</b>	<b>2.836</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.458	1.584	1.838				
		(14) Massachusetts Credibility:	0.22	0.55	0.52				
		(15) Countrywide Pure Premium:	0.000	1.246	1.415	2.661			
		(16) Countrywide Indicated Relativity:	0.000	2.706	1.681				
		(17) Countrywide Credibility:	0.00	0.21	0.24				
		(18) Countrywide Lost-time Claims:	0	19					
		(19) Pure Premium Underlying Present Rate:	0.786	0.810	1.076	2.672			
		(20) Relativity to Underlying Present Rate:	1.247	1.231	1.342				
		(21) Credibility to Underlying Relativity:	0.780	0.240	0.240				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.073	1.735	1.681				
		(24) Balanced Formula Relativity:	1.081	1.729	1.678	1.456			

Class(es): 3383 JEWELRY MFG		Effective: 9/1/2007						Manufacturing	
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount				Total (8)	
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	777,126	9	31	790,708	183,341	578,093	1,552,142		
2000/2001	738,704	4	30	443,323	165,440	465,092	1,073,855		
2001/2002	696,864	1	29	61,999	260,784	245,741	568,524		
2002/2003	624,343	7	32	972,567	278,691	536,586	1,787,844		
2003/2004	613,233	0	28	0	381,276	306,214	687,489		
<b>MA Total</b>	<b>3,450,270</b>	<b>21</b>	<b>150</b>	<b>2,268,597</b>	<b>1,269,531</b>	<b>2,131,726</b>	<b>5,669,854</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.017	0.236	0.744	1.997			
		2000/2001	0.600	0.224	0.630	1.454			
		2001/2002	0.089	0.374	0.353	0.816			
		2002/2003	1.558	0.446	0.859	2.864			
		2003/2004	0.000	0.622	0.499	1.121			
		<b>MA Total Pure Premium:</b>	<b>0.658</b>	<b>0.368</b>	<b>0.618</b>	<b>1.643</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.740	0.742	0.691				
		(14) Massachusetts Credibility:	0.38	0.98	0.97				
		(15) Countrywide Pure Premium:	0.373	0.273	0.435	1.081			
		(16) Countrywide Indicated Relativity:	0.448	0.592	0.517				
		(17) Countrywide Credibility:	0.31	0.01	0.02				
		(18) Countrywide Lost-time Claims:	118	1,093					
		(19) Pure Premium Underlying Present Rate:	0.378	0.444	0.651	1.472			
		(20) Relativity to Underlying Present Rate:	0.599	0.675	0.812				
		(21) Credibility to Underlying Relativity:	0.310	0.010	0.010				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.606	0.740	0.688				
		(24) Balanced Formula Relativity:	0.610	0.738	0.687	0.668			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000140 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 65

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3385 WATCH MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	37,291	0	1	0	76	2,551	2,627		
2000/2001	38,017	0	2	0	21,096	4,529	25,626		
2001/2002	37,120	0	0	0	0	366	366		
2002/2003	39,910	0	1	0	10,368	21,264	31,632		
2003/2004	27,725	0	1	0	3,080	406	3,486		
<b>MA Total</b>	<b>180,063</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>34,620</b>	<b>29,116</b>	<b>63,736</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.002	0.068	0.070			
		2000/2001	0.000	0.555	0.119	0.674			
		2001/2002	0.000	0.000	0.010	0.010			
		2002/2003	0.000	0.260	0.533	0.793			
		2003/2004	0.000	0.111	0.015	0.126			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.192</b>	<b>0.162</b>	<b>0.354</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.388	0.181				
		(14) Massachusetts Credibility:	0.10	0.24	0.21				
		(15) Countrywide Pure Premium:	0.261	0.167	0.358	0.785			
		(16) Countrywide Indicated Relativity:	0.313	0.362	0.425				
		(17) Countrywide Credibility:	0.15	0.33	0.40				
		(18) Countrywide Lost-time Claims:	4	55					
		(19) Pure Premium Underlying Present Rate:	0.279	0.244	0.276	0.799			
		(20) Relativity to Underlying Present Rate:	0.443	0.371	0.344				
		(21) Credibility to Underlying Relativity:	0.750	0.430	0.390				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.379	0.372	0.342				
		(24) Balanced Formula Relativity:	0.382	0.371	0.341	0.363			

Class(es):		Effective: 9/1/2007						Manufacturing	
3507 CONSTRUCTION OR AGRICULTURAL MACHINERY MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	44,224	0	10	0	26,345	36,850	63,195		
2000/2001	37,419	1	4	102,723	26,067	58,946	187,736		
2001/2002	57,499	0	4	0	12,540	16,074	28,613		
2002/2003	68,766	1	5	87,993	89,156	51,411	228,560		
2003/2004	55,212	0	1	0	110	10,741	10,851		
<b>MA Total</b>	<b>263,120</b>	<b>2</b>	<b>24</b>	<b>190,716</b>	<b>154,218</b>	<b>174,022</b>	<b>518,956</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.596	0.833	1.429			
		2000/2001	2.745	0.697	1.575	5.017			
		2001/2002	0.000	0.218	0.280	0.498			
		2002/2003	1.280	1.297	0.748	3.324			
		2003/2004	0.000	0.002	0.195	0.197			
		<b>MA Total Pure Premium:</b>	<b>0.725</b>	<b>0.586</b>	<b>0.661</b>	<b>1.972</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.816	1.183	0.739				
		(14) Massachusetts Credibility:	0.20	0.51	0.46				
		(15) Countrywide Pure Premium:	1.517	0.627	1.226	3.370			
		(16) Countrywide Indicated Relativity:	1.821	1.361	1.457				
		(17) Countrywide Credibility:	0.40	0.25	0.27				
		(18) Countrywide Lost-time Claims:	517	6,829					
		(19) Pure Premium Underlying Present Rate:	1.034	1.135	1.340	3.508			
		(20) Relativity to Underlying Present Rate:	1.640	1.725	1.671				
		(21) Credibility to Underlying Relativity:	0.400	0.240	0.270				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.548	1.357	1.184				
		(24) Balanced Formula Relativity:	1.558	1.353	1.182	1.366			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000141 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 66

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3515 TEXTILE MACHINERY MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	29,221	0	7	0	27,932	18,570	46,502		
2000/2001	22,964	0	5	0	57,598	48,114	105,712		
2001/2002	21,287	0	4	0	20,549	28,034	48,583		
2002/2003	19,171	0	1	0	7,940	35,227	43,166		
2003/2004	22,512	0	3	0	28,374	22,531	50,905		
<b>MA Total</b>	<b>115,155</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>142,392</b>	<b>152,476</b>	<b>294,868</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.956	0.636	1.591			
		2000/2001	0.000	2.508	2.095	4.603			
		2001/2002	0.000	0.965	1.317	2.282			
		2002/2003	0.000	0.414	1.838	2.252			
		2003/2004	0.000	1.260	1.001	2.261			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>1.237</b>	<b>1.324</b>	<b>2.561</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	2.495	1.480				
		(14) Massachusetts Credibility:	0.14	0.29	0.31				
		(15) Countrywide Pure Premium:	0.873	0.345	0.863	2.081			
		(16) Countrywide Indicated Relativity:	1.048	0.750	1.025				
		(17) Countrywide Credibility:	0.23	0.36	0.35				
		(18) Countrywide Lost-time Claims:	11	103					
		(19) Pure Premium Underlying Present Rate:	1.003	0.614	1.091	2.708			
		(20) Relativity to Underlying Present Rate:	1.592	0.933	1.360				
		(21) Credibility to Underlying Relativity:	0.630	0.350	0.340				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.244	1.320	1.280				
		(24) Balanced Formula Relativity:	1.252	1.316	1.277	1.276			

Class(es):		Effective: 9/1/2007						Manufacturing	
3548 PRINTING OR BOOKBINDING MACHINE MFG*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	5,462,817	29	371	4,395,390	2,904,852	3,936,343	11,236,585		
2000/2001	5,101,019	35	297	4,417,855	1,935,142	4,273,909	10,626,906		
2001/2002	4,753,551	24	274	3,590,262	2,100,910	4,339,502	10,030,675		
2002/2003	4,495,015	22	217	3,031,573	1,506,107	3,151,639	7,689,318		
2003/2004	4,768,832	17	266	4,170,527	2,567,928	4,202,993	10,941,448		
<b>MA Total</b>	<b>24,581,234</b>	<b>127</b>	<b>1,425</b>	<b>19,605,607</b>	<b>11,014,939</b>	<b>19,904,385</b>	<b>50,524,932</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.805	0.532	0.721	2.057			
		2000/2001	0.866	0.379	0.838	2.083			
		2001/2002	0.755	0.442	0.913	2.110			
		2002/2003	0.674	0.335	0.701	1.711			
		2003/2004	0.875	0.538	0.881	2.294			
		<b>MA Total Pure Premium:</b>	<b>0.798</b>	<b>0.448</b>	<b>0.810</b>	<b>2.055</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.898	0.904	0.905				
		(14) Massachusetts Credibility:	0.99	1.00	1.00				
		(15) Countrywide Pure Premium:	0.936	0.475	0.852	2.263			
		(16) Countrywide Indicated Relativity:	1.123	1.032	1.012				
		(17) Countrywide Credibility:	0.01	0.00	0.00				
		(18) Countrywide Lost-time Claims:	4,002	40,868					
		(19) Pure Premium Underlying Present Rate:	0.599	0.630	0.677	1.907			
		(20) Relativity to Underlying Present Rate:	0.951	0.958	0.844				
		(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.900	0.904	0.905				
		(24) Balanced Formula Relativity:	0.906	0.901	0.904	0.904			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000142 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 67

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3558 BOOT OR SHOE MACHINERY MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	13,372	0	0	0	0	1,267	1,267		
2000/2001	3,779	0	0	0	0	0	0		
2001/2002	3,831	0	0	0	0	270	270		
2002/2003	12,668	0	0	0	0	0	0		
2003/2004	12,577	0	1	0	1,615	973	2,588		
<b>MA Total</b>	<b>46,227</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1,615</b>	<b>2,511</b>	<b>4,126</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
	1999/2000	0.000	0.000	0.095			0.095		
	2000/2001	0.000	0.000	0.000			0.000		
	2001/2002	0.000	0.000	0.071			0.071		
	2002/2003	0.000	0.000	0.000			0.000		
	2003/2004	0.000	0.128	0.077			0.206		
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.035</b>	<b>0.054</b>			<b>0.089</b>		
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
	(13) Massachusetts Indicated Relativity:	0.000	0.070	0.061					
	(14) Massachusetts Credibility:	0.05	0.11	0.12					
	(15) Countrywide Pure Premium:	0.000	0.000	0.000			0.000		
	(16) Countrywide Indicated Relativity:	0.266	0.192	0.306					
	(17) Countrywide Credibility:	0.00	0.00	0.00					
	(18) Countrywide Lost-time Claims:	0	0						
	(19) Pure Premium Underlying Present Rate:	0.169	0.128	0.247			0.544		
	(20) Relativity to Underlying Present Rate:	0.268	0.194	0.308					
	(21) Credibility to Underlying Relativity:	0.950	0.890	0.880					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278		
	(23) Formula Relativity:	0.255	0.181	0.278					
	(24) Balanced Formula Relativity:	0.256	0.180	0.278			0.248		

Class(es):		Effective: 9/1/2007						Manufacturing	
3571 STEAM OR AIR PRESSURE GAUGE MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	13,407	0	0	0	0	1,481	1,481		
2000/2001	9,934	0	0	0	0	0	0		
2001/2002	7,262	0	0	0	0	0	0		
2002/2003	10,290	0	0	0	0	0	0		
2003/2004	7,672	0	0	0	0	0	0		
<b>MA Total</b>	<b>48,565</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,481</b>	<b>1,481</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
	1999/2000	0.000	0.000	0.110			0.110		
	2000/2001	0.000	0.000	0.000			0.000		
	2001/2002	0.000	0.000	0.000			0.000		
	2002/2003	0.000	0.000	0.000			0.000		
	2003/2004	0.000	0.000	0.000			0.000		
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.030</b>			<b>0.030</b>		
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical			Total		
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.034					
	(14) Massachusetts Credibility:	0.08	0.15	0.14					
	(15) Countrywide Pure Premium:	0.062	0.371	0.513			0.945		
	(16) Countrywide Indicated Relativity:	0.074	0.805	0.609					
	(17) Countrywide Credibility:	0.11	0.43	0.43					
	(18) Countrywide Lost-time Claims:	2	266						
	(19) Pure Premium Underlying Present Rate:	0.485	0.312	0.395			1.191		
	(20) Relativity to Underlying Present Rate:	0.769	0.474	0.493					
	(21) Credibility to Underlying Relativity:	0.810	0.420	0.430					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278		
	(23) Formula Relativity:	0.631	0.545	0.478					
	(24) Balanced Formula Relativity:	0.636	0.543	0.478			0.553		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000143 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 68

## Calculation of Class Relativities

Class(es): 3612 PUMP MFG		Effective: 9/1/2007						Manufacturing
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	165,520	0	16	0	110,120	87,423	197,543	
2000/2001	148,447	0	16	0	71,389	90,533	161,923	
2001/2002	158,008	1	9	91,558	56,913	83,833	232,303	
2002/2003	156,517	0	7	0	13,405	32,814	46,219	
2003/2004	150,037	1	7	219,138	12,374	197,635	429,147	
<b>MA Total</b>	<b>778,529</b>	<b>2</b>	<b>55</b>	<b>310,696</b>	<b>264,201</b>	<b>492,239</b>	<b>1,067,136</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.665	0.528	1.193			
	2000/2001	0.000	0.481	0.610	1.091			
	2001/2002	0.579	0.360	0.531	1.470			
	2002/2003	0.000	0.086	0.210	0.295			
	2003/2004	1.461	0.082	1.317	2.860			
	<b>MA Total Pure Premium:</b>	<b>0.399</b>	<b>0.339</b>	<b>0.632</b>	<b>1.371</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
(13)	Massachusetts Indicated Relativity:	0.449	0.685	0.707				
(14)	Massachusetts Credibility:	0.25	0.63	0.56				
(15)	Countrywide Pure Premium:	0.625	0.443	0.769	1.837			
(16)	Countrywide Indicated Relativity:	0.751	0.962	0.913				
(17)	Countrywide Credibility:	0.38	0.19	0.22				
(18)	Countrywide Lost-time Claims:	162	2,465					
(19)	Pure Premium Underlying Present Rate:	0.591	0.660	0.717	1.968			
(20)	Relativity to Underlying Present Rate:	0.938	1.003	0.894				
(21)	Credibility to Underlying Relativity:	0.370	0.180	0.220				
(22)	Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
(23)	Formula Relativity:	0.745	0.795	0.793				
(24)	Balanced Formula Relativity:	0.750	0.792	0.792	0.776			

Class(es): 3620 BOILERMAKING		Effective: 9/1/2007						Manufacturing
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	155,136	2	28	181,890	191,485	187,646	561,021	
2000/2001	164,179	3	20	307,633	128,957	285,227	721,816	
2001/2002	150,791	2	9	242,256	79,797	309,325	631,379	
2002/2003	117,467	1	19	253,911	223,976	328,627	806,514	
2003/2004	125,247	0	15	0	94,902	112,883	207,784	
<b>MA Total</b>	<b>712,820</b>	<b>8</b>	<b>91</b>	<b>985,690</b>	<b>719,117</b>	<b>1,223,708</b>	<b>2,928,515</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.172	1.234	1.210	3.616			
	2000/2001	1.874	0.785	1.737	4.397			
	2001/2002	1.607	0.529	2.051	4.187			
	2002/2003	2.162	1.907	2.798	6.866			
	2003/2004	0.000	0.758	0.901	1.659			
	<b>MA Total Pure Premium:</b>	<b>1.383</b>	<b>1.009</b>	<b>1.717</b>	<b>4.108</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
(13)	Massachusetts Indicated Relativity:	1.557	2.035	1.919				
(14)	Massachusetts Credibility:	0.32	0.86	0.82				
(15)	Countrywide Pure Premium:	2.014	0.701	1.367	4.083			
(16)	Countrywide Indicated Relativity:	2.417	1.523	1.624				
(17)	Countrywide Credibility:	0.34	0.07	0.09				
(18)	Countrywide Lost-time Claims:	302	2,682					
(19)	Pure Premium Underlying Present Rate:	1.214	1.524	2.067	4.805			
(20)	Relativity to Underlying Present Rate:	1.927	2.317	2.577				
(21)	Credibility to Underlying Relativity:	0.340	0.070	0.090				
(22)	Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
(23)	Formula Relativity:	1.975	2.019	1.952				
(24)	Balanced Formula Relativity:	1.989	2.013	1.948	1.978			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000144 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 69

## Calculation of Class Relativities

Class(es): 3634 VALVE MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	314,077	4	36	651,750	183,907	421,869	1,257,526		
2000/2001	196,093	3	14	515,862	213,173	464,464	1,193,499		
2001/2002	198,968	1	10	67,116	83,944	284,922	435,982		
2002/2003	204,052	1	11	101,160	107,533	136,462	345,155		
2003/2004	192,284	1	7	155,299	106,131	122,121	383,551		
<b>MA Total</b>	<b>1,105,474</b>	<b>10</b>	<b>78</b>	<b>1,491,186</b>	<b>694,688</b>	<b>1,429,838</b>	<b>3,615,712</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	2.075	0.586	1.343	4.004			
		2000/2001	2.631	1.087	2.369	6.086			
		2001/2002	0.337	0.422	1.432	2.191			
		2002/2003	0.496	0.527	0.669	1.692			
		2003/2004	0.808	0.552	0.635	1.995			
		<b>MA Total Pure Premium:</b>	<b>1.349</b>	<b>0.628</b>	<b>1.293</b>	<b>3.271</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.519	1.268	1.446				
		(14) Massachusetts Credibility:	0.33	0.67	0.75				
		(15) Countrywide Pure Premium:	0.629	0.424	0.711	1.764			
		(16) Countrywide Indicated Relativity:	0.755	0.921	0.845				
		(17) Countrywide Credibility:	0.34	0.17	0.13				
		(18) Countrywide Lost-time Claims:	404	3,045					
		(19) Pure Premium Underlying Present Rate:	0.852	0.531	1.049	2.431			
		(20) Relativity to Underlying Present Rate:	1.352	0.807	1.307				
		(21) Credibility to Underlying Relativity:	0.330	0.160	0.120				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.204	1.135	1.351				
		(24) Balanced Formula Relativity:	1.212	1.131	1.349	1.248			

Class(es): 3635 GEAR MFG OR GRINDING		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	146,435	3	16	344,628	132,610	310,564	787,802		
2000/2001	143,617	1	13	74,399	234,307	200,449	509,155		
2001/2002	89,802	3	12	427,676	75,224	291,082	793,981		
2002/2003	145,129	1	11	85,229	77,903	233,501	396,633		
2003/2004	174,177	0	10	0	77,090	167,488	244,577		
<b>MA Total</b>	<b>699,160</b>	<b>8</b>	<b>62</b>	<b>931,932</b>	<b>597,133</b>	<b>1,203,084</b>	<b>2,732,149</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	2.353	0.906	2.121	5.380			
		2000/2001	0.518	1.631	1.396	3.545			
		2001/2002	4.762	0.838	3.241	8.842			
		2002/2003	0.587	0.537	1.609	2.733			
		2003/2004	0.000	0.443	0.962	1.404			
		<b>MA Total Pure Premium:</b>	<b>1.333</b>	<b>0.854</b>	<b>1.721</b>	<b>3.908</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.501	1.723	1.924				
		(14) Massachusetts Credibility:	0.25	0.74	0.67				
		(15) Countrywide Pure Premium:	0.938	0.443	0.835	2.217			
		(16) Countrywide Indicated Relativity:	1.127	0.963	0.992				
		(17) Countrywide Credibility:	0.38	0.13	0.17				
		(18) Countrywide Lost-time Claims:	46	738					
		(19) Pure Premium Underlying Present Rate:	0.682	1.064	1.256	3.001			
		(20) Relativity to Underlying Present Rate:	1.082	1.617	1.566				
		(21) Credibility to Underlying Relativity:	0.370	0.130	0.160				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.204	1.611	1.708				
		(24) Balanced Formula Relativity:	1.212	1.605	1.705	1.491			

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000145 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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 Exhibit 70

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3642 BATTERY MFG-DRY									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	18,842	0	0	0	0	5,454	5,454		
2000/2001	28,826	0	0	0	0	0	0		
2001/2002	27,793	0	1	0	1,600	67	1,667		
2002/2003	44,528	1	0	78,146	0	18,496	96,643		
2003/2004	48,961	0	0	0	0	0	0		
<b>MA Total</b>	<b>168,950</b>	<b>1</b>	<b>1</b>	<b>78,146</b>	<b>1,600</b>	<b>24,018</b>	<b>103,764</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.289	0.289			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.058	0.002	0.060			
		2002/2003	1.755	0.000	0.415	2.170			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.463</b>	<b>0.009</b>	<b>0.142</b>	<b>0.614</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.521	0.019	0.159				
		(14) Massachusetts Credibility:	0.10	0.31	0.22				
		(15) Countrywide Pure Premium:	0.408	0.261	0.347	1.016			
		(16) Countrywide Indicated Relativity:	0.490	0.566	0.412				
		(17) Countrywide Credibility:	0.23	0.35	0.39				
		(18) Countrywide Lost-time Claims:	12	241					
		(19) Pure Premium Underlying Present Rate:	0.288	0.527	0.333	1.149			
		(20) Relativity to Underlying Present Rate:	0.458	0.801	0.416				
		(21) Credibility to Underlying Relativity:	0.670	0.340	0.390				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.471	0.476	0.358				
		(24) Balanced Formula Relativity:	0.475	0.475	0.357	0.429			

Class(es):		Effective: 9/1/2007						Manufacturing	
3647 BATTERY MFG-STORAGE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	230	0	2	0	1,768	5,513	7,282		
2000/2001	25	0	0	0	0	0	0		
2001/2002	0	0	0	0	0	0	0		
2002/2003	0	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>255</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1,768</b>	<b>5,513</b>	<b>7,282</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	7.695	23.996	31.691			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>6.934</b>	<b>21.621</b>	<b>28.555</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	14.024	24.230				
		(14) Massachusetts Credibility:	0.01	0.03	0.02				
		(15) Countrywide Pure Premium:	0.736	0.647	0.949	2.331			
		(16) Countrywide Indicated Relativity:	0.883	1.405	1.127				
		(17) Countrywide Credibility:	0.49	0.49	0.49				
		(18) Countrywide Lost-time Claims:	74	1,069					
		(19) Pure Premium Underlying Present Rate:	0.545	0.874	0.878	2.297			
		(20) Relativity to Underlying Present Rate:	0.865	1.329	1.095				
		(21) Credibility to Underlying Relativity:	0.500	0.480	0.490				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.865	1.747	1.573				
		(24) Balanced Formula Relativity:	0.871	1.741	1.570	1.335			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000146 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
3648 AUTOMOTIVE LIGHTING, IGNITION APPARATUS MFG NOC								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				Total (8)
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	2,946	0	3	0	279	3,892	4,171	
2000/2001	1,725	0	0	0	0	0	0	
2001/2002	1,609	0	0	0	0	816	816	
2002/2003	3,997	0	0	0	0	1,775	1,775	
2003/2004	1,185	0	0	0	0	0	0	
<b>MA Total</b>	<b>11,462</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>279</b>	<b>6,483</b>	<b>6,762</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	0.000	0.095	1.321	1.416		
		2000/2001	0.000	0.000	0.000	0.000		
		2001/2002	0.000	0.000	0.507	0.507		
		2002/2003	0.000	0.000	0.444	0.444		
		2003/2004	0.000	0.000	0.000	0.000		
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.024</b>	<b>0.566</b>	<b>0.590</b>		
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.000	0.049	0.632			
		(14) Massachusetts Credibility:	0.04	0.11	0.12			
		(15) Countrywide Pure Premium:	0.431	0.458	0.777	1.666		
		(16) Countrywide Indicated Relativity:	0.517	0.995	0.923			
		(17) Countrywide Credibility:	0.42	0.45	0.44			
		(18) Countrywide Lost-time Claims:	51	1,399				
		(19) Pure Premium Underlying Present Rate:	0.489	0.516	0.941	1.946		
		(20) Relativity to Underlying Present Rate:	0.776	0.784	1.173			
		(21) Credibility to Underlying Relativity:	0.540	0.440	0.440			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	0.636	0.798	0.998			
		(24) Balanced Formula Relativity:	0.641	0.795	0.996	0.814		

Class(es):		Effective: 9/1/2007						Manufacturing
3681 TELEVISION, RADIO, TELEPHONE OR TELECOMMUNCTN DEVICE MFG NOC*								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				Total (8)
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	13,167,530	29	419	3,907,791	2,577,460	5,223,376	11,708,627	
2000/2001	11,188,812	33	262	3,971,106	2,773,062	3,804,697	10,548,866	
2001/2002	9,109,239	21	179	2,966,543	1,320,088	2,624,515	6,911,147	
2002/2003	9,821,844	19	177	2,655,350	1,225,320	2,765,577	6,646,247	
2003/2004	8,308,806	9	169	1,567,530	1,388,245	3,047,673	6,003,448	
<b>MA Total</b>	<b>51,596,231</b>	<b>111</b>	<b>1,206</b>	<b>15,068,321</b>	<b>9,284,175</b>	<b>17,465,839</b>	<b>41,818,335</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	0.297	0.196	0.397	0.889		
		2000/2001	0.355	0.248	0.340	0.943		
		2001/2002	0.326	0.145	0.288	0.759		
		2002/2003	0.270	0.125	0.282	0.677		
		2003/2004	0.189	0.167	0.367	0.723		
		<b>MA Total Pure Premium:</b>	<b>0.292</b>	<b>0.180</b>	<b>0.339</b>	<b>0.810</b>		
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.329	0.363	0.378			
		(14) Massachusetts Credibility:	0.90	1.00	1.00			
		(15) Countrywide Pure Premium:	0.385	0.256	0.461	1.102		
		(16) Countrywide Indicated Relativity:	0.462	0.556	0.547			
		(17) Countrywide Credibility:	0.05	0.00	0.00			
		(18) Countrywide Lost-time Claims:	1,578	14,862				
		(19) Pure Premium Underlying Present Rate:	0.221	0.228	0.299	0.748		
		(20) Relativity to Underlying Present Rate:	0.351	0.347	0.372			
		(21) Credibility to Underlying Relativity:	0.050	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	0.337	0.363	0.378			
		(24) Balanced Formula Relativity:	0.339	0.362	0.378	0.359		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000147 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 72

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
3724 MACHINERY OR EQUIPMENT ERECT OR REPAIR NOC &DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,571,171	22	161	4,163,779	1,442,531	3,218,051	8,824,361	
2000/2001	1,693,363	34	154	5,218,203	1,457,743	4,202,221	10,878,167	
2001/2002	1,908,374	26	145	4,934,840	1,368,758	3,841,445	10,145,042	
2002/2003	1,818,283	29	141	6,316,177	1,255,098	3,490,622	11,061,897	
2003/2004	1,742,408	16	169	4,357,805	2,488,628	3,351,503	10,197,936	
<b>MA Total</b>	<b>8,733,599</b>	<b>127</b>	<b>770</b>	<b>24,990,805</b>	<b>8,012,758</b>	<b>18,103,841</b>	<b>51,107,404</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.650	0.918	2.048	5.616			
	2000/2001	3.082	0.861	2.482	6.424			
	2001/2002	2.586	0.717	2.013	5.316			
	2002/2003	3.474	0.690	1.920	6.084			
	2003/2004	2.501	1.428	1.923	5.853			
	<b>MA Total Pure Premium:</b>	<b>2.861</b>	<b>0.917</b>	<b>2.073</b>	<b>5.852</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.962	1.003	1.044				
	(14) Massachusetts Credibility:	1.00	1.00	1.00				
	(15) Countrywide Pure Premium:	2.390	0.790	1.611	4.790			
	(16) Countrywide Indicated Relativity:	0.858	0.875	0.845				
	(17) Countrywide Credibility:	0.00	0.00	0.00				
	(18) Countrywide Lost-time Claims:	1,964	15,610					
	(19) Pure Premium Underlying Present Rate:	1.987	1.303	2.040	5.330			
	(20) Relativity to Underlying Present Rate:	0.851	0.944	1.015				
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.962	1.003	1.044				
	(24) Balanced Formula Relativity:	0.973	1.004	1.048	1.004			

Class(es):		Effective: 9/1/2007						Construction
3726 BOILER INSTALLATION OR REPAIR-STEAM								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	36,636	3	5	708,937	22,727	283,758	1,015,421	
2000/2001	46,033	4	4	1,106,573	258,020	345,107	1,709,700	
2001/2002	108,282	1	5	164,609	98,260	219,181	482,050	
2002/2003	222,544	13	10	4,682,930	112,695	1,261,602	6,057,226	
2003/2004	50,167	0	8	67,808	0	61,010	128,817	
<b>MA Total</b>	<b>463,662</b>	<b>21</b>	<b>32</b>	<b>6,663,048</b>	<b>559,510</b>	<b>2,170,657</b>	<b>9,393,215</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	19.351	0.620	7.745	27.716			
	2000/2001	24.039	5.605	7.497	37.141			
	2001/2002	1.520	0.907	2.024	4.452			
	2002/2003	21.043	0.506	5.669	27.218			
	2003/2004	0.000	1.352	1.216	2.568			
	<b>MA Total Pure Premium:</b>	<b>14.370</b>	<b>1.207</b>	<b>4.682</b>	<b>20.259</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	4.829	1.320	2.358				
	(14) Massachusetts Credibility:	0.47	0.69	0.78				
	(15) Countrywide Pure Premium:	2.566	0.858	1.353	4.777			
	(16) Countrywide Indicated Relativity:	0.922	0.950	0.710				
	(17) Countrywide Credibility:	0.27	0.16	0.11				
	(18) Countrywide Lost-time Claims:	350	1,931					
	(19) Pure Premium Underlying Present Rate:	4.823	1.360	2.802	8.984			
	(20) Relativity to Underlying Present Rate:	2.066	0.986	1.394				
	(21) Credibility to Underlying Relativity:	0.260	0.150	0.110				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	3.055	1.211	2.071				
	(24) Balanced Formula Relativity:	3.093	1.211	2.079	2.458			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000148 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 73

## Calculation of Class Relativities

Class(es): 3808 AUTOMOBILE MFG OR ASSEMBLY		Effective: 9/1/2007						Manufacturing
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	50,404	1	9	145,825	63,476	123,532	332,833	
2000/2001	50,696	0	10	0	44,149	45,394	89,543	
2001/2002	58,681	1	5	194,800	37,254	173,273	405,327	
2002/2003	68,358	1	14	174,309	16,518	64,038	254,864	
2003/2004	82,266	1	5	108,166	81,434	46,497	236,096	
<b>MA Total</b>	<b>310,405</b>	<b>4</b>	<b>43</b>	<b>623,100</b>	<b>242,831</b>	<b>452,733</b>	<b>1,318,664</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.893	1.259	2.451	6.603			
	2000/2001	0.000	0.871	0.895	1.766			
	2001/2002	3.320	0.635	2.953	6.907			
	2002/2003	2.550	0.242	0.937	3.728			
	2003/2004	1.315	0.990	0.565	2.870			
	<b>MA Total Pure Premium:</b>	<b>2.007</b>	<b>0.782</b>	<b>1.459</b>	<b>4.248</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.260	1.578	1.631				
	(14) Massachusetts Credibility:	0.15	0.49	0.44	2.606			
	(15) Countrywide Pure Premium:	0.812	0.703	1.091				
	(16) Countrywide Indicated Relativity:	0.974	1.528	1.296				
	(17) Countrywide Credibility:	0.43	0.26	0.28				
	(18) Countrywide Lost-time Claims:	264	5,032					
	(19) Pure Premium Underlying Present Rate:	0.416	0.863	0.992	2.272			
	(20) Relativity to Underlying Present Rate:	0.661	1.312	1.237				
	(21) Credibility to Underlying Relativity:	0.420	0.250	0.280				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.035	1.499	1.427				
	(24) Balanced Formula Relativity:	1.042	1.494	1.424	1.290			

Class(es): 3821 AUTOMOBILE DISMANTLING & DRIVERS		Effective: 9/1/2007						Goods & Services
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	148,252	2	21	111,489	118,634	183,074	413,197	
2000/2001	139,029	4	18	301,539	85,575	584,249	971,362	
2001/2002	159,774	2	14	247,274	164,623	370,856	782,753	
2002/2003	171,323	1	15	109,260	158,006	260,609	527,874	
2003/2004	176,909	2	10	379,591	70,320	218,587	668,497	
<b>MA Total</b>	<b>795,287</b>	<b>11</b>	<b>78</b>	<b>1,149,152</b>	<b>597,158</b>	<b>1,617,375</b>	<b>3,363,684</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.752	0.800	1.235	2.787			
	2000/2001	2.169	0.616	4.202	6.987			
	2001/2002	1.548	1.030	2.321	4.899			
	2002/2003	0.638	0.922	1.521	3.081			
	2003/2004	2.146	0.397	1.236	3.779			
	<b>MA Total Pure Premium:</b>	<b>1.445</b>	<b>0.751</b>	<b>2.034</b>	<b>4.230</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.080	1.701	2.521				
	(14) Massachusetts Credibility:	0.33	0.80	0.84	5.278			
	(15) Countrywide Pure Premium:	2.205	0.929	2.144				
	(16) Countrywide Indicated Relativity:	3.094	2.020	2.563				
	(17) Countrywide Credibility:	0.34	0.10	0.08				
	(18) Countrywide Lost-time Claims:	209	1,706					
	(19) Pure Premium Underlying Present Rate:	1.186	1.147	1.930	4.263			
	(20) Relativity to Underlying Present Rate:	2.527	1.931	2.569				
	(21) Credibility to Underlying Relativity:	0.330	0.100	0.080				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	2.572	1.756	2.529				
	(24) Balanced Formula Relativity:	2.549	1.753	2.520	2.356			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000149 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 74

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
3826 AIRCRAFT ENGINE MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,578,482	7	136	1,293,109	1,314,114	1,747,086	4,354,309		
2000/2001	1,771,807	19	97	2,650,417	989,056	1,735,649	5,375,122		
2001/2002	1,775,489	12	84	2,032,587	929,169	1,419,127	4,380,883		
2002/2003	1,766,073	13	93	2,055,787	1,369,327	1,644,657	5,069,771		
2003/2004	1,260,136	2	24	576,872	524,841	547,113	1,648,826		
<b>MA Total</b>	<b>8,151,987</b>	<b>53</b>	<b>434</b>	<b>8,608,772</b>	<b>5,126,508</b>	<b>7,093,632</b>	<b>20,828,912</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.819	0.833	1.107	2.759			
		2000/2001	1.496	0.558	0.980	3.034			
		2001/2002	1.145	0.523	0.799	2.467			
		2002/2003	1.164	0.775	0.931	2.871			
		2003/2004	0.458	0.416	0.434	1.308			
		<b>MA Total Pure Premium:</b>	<b>1.056</b>	<b>0.629</b>	<b>0.870</b>	<b>2.555</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.189	1.269	0.973				
		(14) Massachusetts Credibility:	0.63	1.00	1.00	1.265			
		(15) Countrywide Pure Premium:	0.619	0.202	0.444	1.265			
		(16) Countrywide Indicated Relativity:	0.743	0.439	0.527				
		(17) Countrywide Credibility:	0.19	0.00	0.00				
		(18) Countrywide Lost-time Claims:	44	456					
		(19) Pure Premium Underlying Present Rate:	0.582	0.950	0.488	2.020			
		(20) Relativity to Underlying Present Rate:	0.924	1.444	0.608				
		(21) Credibility to Underlying Relativity:	0.180	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.056	1.269	0.973				
		(24) Balanced Formula Relativity:	1.064	1.265	0.971	1.071			

Class(es):		Effective: 9/1/2007						Manufacturing	
3841 TUBULAR METAL PRODUCTS MFG OR ASSEMBLY									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	62,455	1	9	147,976	43,475	172,661	364,112		
2000/2001	63,744	0	1	0	1,752	15,118	16,870		
2001/2002	71,686	0	4	0	4,339	16,334	20,673		
2002/2003	75,158	0	3	0	8,719	16,285	25,005		
2003/2004	78,314	0	4	0	47,695	31,882	79,577		
<b>MA Total</b>	<b>351,357</b>	<b>1</b>	<b>21</b>	<b>147,976</b>	<b>105,979</b>	<b>252,281</b>	<b>506,236</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	2.369	0.696	2.765	5.830			
		2000/2001	0.000	0.027	0.237	0.265			
		2001/2002	0.000	0.061	0.228	0.288			
		2002/2003	0.000	0.116	0.217	0.333			
		2003/2004	0.000	0.609	0.407	1.016			
		<b>MA Total Pure Premium:</b>	<b>0.421</b>	<b>0.302</b>	<b>0.718</b>	<b>1.441</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.474	0.609	0.803				
		(14) Massachusetts Credibility:	0.17	0.46	0.40	1.655			
		(15) Countrywide Pure Premium:	0.380	0.501	0.774	1.655			
		(16) Countrywide Indicated Relativity:	0.456	1.087	0.919				
		(17) Countrywide Credibility:	0.15	0.27	0.30				
		(18) Countrywide Lost-time Claims:	4	98					
		(19) Pure Premium Underlying Present Rate:	0.500	0.667	0.704	1.871			
		(20) Relativity to Underlying Present Rate:	0.793	1.014	0.878				
		(21) Credibility to Underlying Relativity:	0.680	0.270	0.300				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.688	0.847	0.860				
		(24) Balanced Formula Relativity:	0.693	0.844	0.859	0.791			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000150 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 75

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
4000 SAND OR GRAVEL DIGGING & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	412,783	3	31	564,672	268,639	607,835	1,441,147	
2000/2001	383,856	9	52	1,186,847	704,583	1,256,669	3,148,098	
2001/2002	374,259	6	31	927,922	339,766	1,109,256	2,376,944	
2002/2003	379,785	7	40	1,324,871	343,882	816,025	2,484,778	
2003/2004	408,781	2	35	459,721	399,883	532,313	1,391,917	
<b>MA Total</b>	<b>1,959,464</b>	<b>27</b>	<b>189</b>	<b>4,464,033</b>	<b>2,056,753</b>	<b>4,322,097</b>	<b>10,842,883</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.368	0.651	1.473	3.491			
	2000/2001	3.092	1.836	3.274	8.201			
	2001/2002	2.479	0.908	2.964	6.351			
	2002/2003	3.488	0.905	2.149	6.543			
	2003/2004	1.125	0.978	1.302	3.405			
	<b>MA Total Pure Premium:</b>	<b>2.278</b>	<b>1.050</b>	<b>2.206</b>	<b>5.534</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.084	1.198	1.197				
	(14) Massachusetts Credibility:	0.51	1.00	1.00				
	(15) Countrywide Pure Premium:	2.774	0.872	2.124	5.770			
	(16) Countrywide Indicated Relativity:	1.458	1.117	1.276				
	(17) Countrywide Credibility:	0.25	0.00	0.00				
	(18) Countrywide Lost-time Claims:	375	2,733					
	(19) Pure Premium Underlying Present Rate:	1.388	1.025	1.525	3.938			
	(20) Relativity to Underlying Present Rate:	0.966	0.858	0.900				
	(21) Credibility to Underlying Relativity:	0.240	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	1.149	1.198	1.197				
	(24) Balanced Formula Relativity:	1.152	1.201	1.200	1.179			

Class(es):		Effective: 9/1/2007						Manufacturing
4021 BRICK OR CLAY PRODUCTS MFG NOC & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	12,671	0	1	0	594	2,338	2,932	
2000/2001	12,717	0	2	0	2,615	5,470	8,085	
2001/2002	15,251	0	1	0	446	34,059	34,506	
2002/2003	11,369	0	3	0	15,190	10,237	25,427	
2003/2004	14,781	0	2	0	7,560	8,351	15,911	
<b>MA Total</b>	<b>66,789</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>26,405</b>	<b>60,456</b>	<b>86,860</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.047	0.185	0.231			
	2000/2001	0.000	0.206	0.430	0.636			
	2001/2002	0.000	0.029	2.233	2.262			
	2002/2003	0.000	1.336	0.900	2.237			
	2003/2004	0.000	0.511	0.565	1.076			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.395</b>	<b>0.905</b>	<b>1.301</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.798	1.012				
	(14) Massachusetts Credibility:	0.12	0.25	0.24				
	(15) Countrywide Pure Premium:	1.785	0.660	1.599	4.045			
	(16) Countrywide Indicated Relativity:	2.143	1.434	1.900				
	(17) Countrywide Credibility:	0.44	0.38	0.38				
	(18) Countrywide Lost-time Claims:	59	679					
	(19) Pure Premium Underlying Present Rate:	1.074	0.784	0.999	2.856			
	(20) Relativity to Underlying Present Rate:	1.705	1.191	1.245				
	(21) Credibility to Underlying Relativity:	0.440	0.370	0.380				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.693	1.185	1.438				
	(24) Balanced Formula Relativity:	1.705	1.181	1.435	1.485			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000151 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 76

## Calculation of Class Relativities

Class(es):			Effective: 9/1/2007				Manufacturing	
4024 REFRACTORY PRODUCTS MFG & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	215	0	0	0	0	0	0	0
2000/2001	322	0	0	0	0	0	0	0
2001/2002	356	0	0	0	0	0	0	0
2002/2003	153	0	0	0	0	0	0	0
2003/2004	262	0	0	0	0	0	0	0
MA Total	1,308	0	0	0	0	0	0	0
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.000	0.000			
	2000/2001	0.000	0.000	0.000	0.000			
	2001/2002	0.000	0.000	0.000	0.000			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	MA Total Pure Premium:	0.000	0.000	0.000	0.000			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
	(14) Massachusetts Credibility:	0.03	0.06	0.06				
	(15) Countrywide Pure Premium:	1.792	0.583	0.813	3.187			
	(16) Countrywide Indicated Relativity:	2.151	1.266	0.965				
	(17) Countrywide Credibility:	0.29	0.47	0.47				
	(18) Countrywide Lost-time Claims:	20	323					
	(19) Pure Premium Underlying Present Rate:	1.536	1.186	1.397	4.120			
	(20) Relativity to Underlying Present Rate:	2.438	1.803	1.742				
	(21) Credibility to Underlying Relativity:	0.680	0.470	0.470				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	2.282	1.442	1.272				
	(24) Balanced Formula Relativity:	2.297	1.438	1.270	1.707			
-----								
Class(es):			Effective: 9/1/2007				Manufacturing	
4034 CONCRETE PRODUCTS MFG & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	305,122	5	61	691,974	448,686	1,024,361	2,165,021	
2000/2001	270,057	4	36	324,088	303,828	329,712	957,628	
2001/2002	283,370	11	53	1,749,672	377,806	1,232,115	3,359,593	
2002/2003	252,623	4	27	684,642	111,444	395,771	1,191,857	
2003/2004	246,210	3	31	530,815	239,198	697,801	1,467,813	
MA Total	1,357,382	27	208	3,981,191	1,480,962	3,679,760	9,141,913	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.268	1.471	3.357	7.096			
	2000/2001	1.200	1.125	1.221	3.546			
	2001/2002	6.175	1.333	4.348	11.856			
	2002/2003	2.710	0.441	1.567	4.718			
	2003/2004	2.156	0.972	2.834	5.962			
	MA Total Pure Premium:	2.933	1.091	2.711	6.735			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	3.302	2.201	3.031				
	(14) Massachusetts Credibility:	0.54	1.00	1.00				
	(15) Countrywide Pure Premium:	2.584	1.014	2.046	5.645			
	(16) Countrywide Indicated Relativity:	3.102	2.202	2.431				
	(17) Countrywide Credibility:	0.23	0.00	0.00				
	(18) Countrywide Lost-time Claims:	589	6,062					
	(19) Pure Premium Underlying Present Rate:	2.368	1.534	2.656	6.558			
	(20) Relativity to Underlying Present Rate:	3.758	2.332	3.310				
	(21) Credibility to Underlying Relativity:	0.230	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	3.361	2.201	3.031				
	(24) Balanced Formula Relativity:	3.384	2.194	3.025	2.984			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000152 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 77

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4036 PLASTERBOARD OR PLASTER BLOCK MFG & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	11,064	0	0	0	0	0	0	0	
2000/2001	8,933	0	2	0	4,127	4,313	8,440		
2001/2002	16,017	0	3	0	29,148	14,731	43,879		
2002/2003	16,773	0	0	0	0	1,571	1,571		
2003/2004	9,776	0	1	0	15,215	28,408	43,623		
<b>MA Total</b>	<b>62,563</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>48,491</b>	<b>49,021</b>	<b>97,512</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.000	0.000				
	2000/2001	0.000	0.462	0.483	0.945				
	2001/2002	0.000	1.820	0.920	2.740				
	2002/2003	0.000	0.000	0.094	0.094				
	2003/2004	0.000	1.556	2.906	4.462				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.775</b>	<b>0.784</b>	<b>1.559</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	1.564	0.876					
	(14) Massachusetts Credibility:	0.10	0.23	0.21					
	(15) Countrywide Pure Premium:	1.354	0.567	1.017	2.938				
	(16) Countrywide Indicated Relativity:	1.626	1.231	1.208					
	(17) Countrywide Credibility:	0.45	0.39	0.40					
	(18) Countrywide Lost-time Claims:	93	909						
	(19) Pure Premium Underlying Present Rate:	0.823	0.666	0.743	2.232				
	(20) Relativity to Underlying Present Rate:	1.306	1.012	0.926					
	(21) Credibility to Underlying Relativity:	0.450	0.380	0.390					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.319	1.224	1.028					
	(24) Balanced Formula Relativity:	1.328	1.220	1.026	1.186				

Class(es):		Effective: 9/1/2007						Manufacturing	
4038 PLASTER STATUARY OR ORNAMENT MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	34,423	0	0	0	0	588	588		
2000/2001	34,450	0	0	0	0	0	0		
2001/2002	30,598	1	0	174,299	0	20,659	194,958		
2002/2003	29,942	0	0	0	0	0	0		
2003/2004	28,094	0	1	0	2,602	4,419	7,021		
<b>MA Total</b>	<b>157,507</b>	<b>1</b>	<b>1</b>	<b>174,299</b>	<b>2,602</b>	<b>25,666</b>	<b>202,566</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.017	0.017				
	2000/2001	0.000	0.000	0.000	0.000				
	2001/2002	5.696	0.000	0.675	6.372				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.093	0.157	0.250				
	<b>MA Total Pure Premium:</b>	<b>1.107</b>	<b>0.017</b>	<b>0.163</b>	<b>1.286</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.246	0.033	0.182					
	(14) Massachusetts Credibility:	0.13	0.35	0.29					
	(15) Countrywide Pure Premium:	0.723	0.554	0.975	2.252				
	(16) Countrywide Indicated Relativity:	0.868	1.203	1.158					
	(17) Countrywide Credibility:	0.39	0.33	0.36					
	(18) Countrywide Lost-time Claims:	43	261						
	(19) Pure Premium Underlying Present Rate:	0.561	0.724	0.662	1.947				
	(20) Relativity to Underlying Present Rate:	0.890	1.101	0.825					
	(21) Credibility to Underlying Relativity:	0.480	0.320	0.350					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.928	0.761	0.759					
	(24) Balanced Formula Relativity:	0.934	0.758	0.757	0.826				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000153 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4053 POTTERY MFG: CHINA OR TABLEWARE*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	43,316	0	0	0	0	2,891	2,891		
2000/2001	41,726	0	4	0	12,951	8,666	21,617		
2001/2002	32,495	0	2	0	2,988	7,127	10,115		
2002/2003	108,522	0	0	0	0	2,238	2,238		
2003/2004	48,956	0	1	0	2,803	1,580	4,383		
<b>MA Total</b>	<b>275,015</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>18,743</b>	<b>22,502</b>	<b>41,244</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.067	0.067			
		2000/2001	0.000	0.310	0.208	0.518			
		2001/2002	0.000	0.092	0.219	0.311			
		2002/2003	0.000	0.000	0.021	0.021			
		2003/2004	0.000	0.057	0.032	0.090			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.068</b>	<b>0.082</b>	<b>0.150</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.138	0.091				
		(14) Massachusetts Credibility:	0.14	0.33	0.30				
		(15) Countrywide Pure Premium:	1.268	0.568	1.157	2.992			
		(16) Countrywide Indicated Relativity:	1.522	1.233	1.374				
		(17) Countrywide Credibility:	0.31	0.34	0.35				
		(18) Countrywide Lost-time Claims:	25	325					
		(19) Pure Premium Underlying Present Rate:	0.392	0.370	0.430	1.192			
		(20) Relativity to Underlying Present Rate:	0.622	0.562	0.536				
		(21) Credibility to Underlying Relativity:	0.550	0.330	0.350				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.814	0.650	0.696				
		(24) Balanced Formula Relativity:	0.819	0.648	0.695	0.733			

Class(es):		Effective: 9/1/2007						Manufacturing	
4061 POTTERY MFG: EARTHENWARE-GLAZD OR PORCELN-HAND MOLDED OR CAST*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	25,090	0	1	0	2,009	10,853	12,861		
2000/2001	26,447	0	3	0	3,346	6,380	9,727		
2001/2002	14,891	0	2	0	2,194	1,768	3,962		
2002/2003	12,248	0	1	0	505	66	571		
2003/2004	8,480	0	1	0	44,102	43,786	87,888		
<b>MA Total</b>	<b>87,156</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>52,157</b>	<b>62,853</b>	<b>115,009</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.080	0.433	0.513			
		2000/2001	0.000	0.127	0.241	0.368			
		2001/2002	0.000	0.147	0.119	0.266			
		2002/2003	0.000	0.041	0.005	0.047			
		2003/2004	0.000	5.200	5.163	10.364			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.598</b>	<b>0.721</b>	<b>1.320</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	1.207	0.806				
		(14) Massachusetts Credibility:	0.11	0.24	0.23				
		(15) Countrywide Pure Premium:	0.994	0.601	0.954	2.548			
		(16) Countrywide Indicated Relativity:	1.193	1.305	1.133				
		(17) Countrywide Credibility:	0.42	0.38	0.39				
		(18) Countrywide Lost-time Claims:	52	811					
		(19) Pure Premium Underlying Present Rate:	0.691	0.493	0.720	1.904			
		(20) Relativity to Underlying Present Rate:	1.097	0.749	0.897				
		(21) Credibility to Underlying Relativity:	0.470	0.380	0.380				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.016	1.070	0.968				
		(24) Balanced Formula Relativity:	1.023	1.067	0.966	1.010			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000154 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 79

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4112 INCANDESCENT LAMP MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	264,126	0	4	0	48,215	46,750	94,965		
2000/2001	173,869	0	8	0	74,196	45,635	119,831		
2001/2002	137,779	0	2	0	4,290	11,203	15,494		
2002/2003	92,232	0	2	0	2,778	7,344	10,122		
2003/2004	95,806	0	0	0	0	8,347	8,347		
<b>MA Total</b>	<b>763,812</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>129,480</b>	<b>119,280</b>	<b>248,759</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.183	0.177	0.360			
		2000/2001	0.000	0.427	0.262	0.689			
		2001/2002	0.000	0.031	0.081	0.112			
		2002/2003	0.000	0.030	0.080	0.110			
		2003/2004	0.000	0.000	0.087	0.087			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.170</b>	<b>0.156</b>	<b>0.326</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.342	0.175				
		(14) Massachusetts Credibility:	0.15	0.46	0.37				
		(15) Countrywide Pure Premium:	0.324	0.185	0.287	0.795			
		(16) Countrywide Indicated Relativity:	0.389	0.401	0.340				
		(17) Countrywide Credibility:	0.43	0.27	0.32				
		(18) Countrywide Lost-time Claims:	208	1,171					
		(19) Pure Premium Underlying Present Rate:	0.179	0.302	0.263	0.744			
		(20) Relativity to Underlying Present Rate:	0.285	0.459	0.328				
		(21) Credibility to Underlying Relativity:	0.420	0.270	0.310				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.287	0.390	0.275				
		(24) Balanced Formula Relativity:	0.289	0.388	0.275	0.305			

Class(es):		Effective: 9/1/2007						Manufacturing	
4114 GLASSWARE MFG-NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	10,289	0	0	0	0	3,110	3,110		
2000/2001	18,387	0	0	0	0	1,794	1,794		
2001/2002	9,717	0	0	0	0	851	851		
2002/2003	9,642	0	2	0	4,402	3,615	8,017		
2003/2004	8,695	0	0	0	0	893	893		
<b>MA Total</b>	<b>56,730</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4,402</b>	<b>10,264</b>	<b>14,666</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.302	0.302			
		2000/2001	0.000	0.000	0.098	0.098			
		2001/2002	0.000	0.000	0.088	0.088			
		2002/2003	0.000	0.456	0.375	0.831			
		2003/2004	0.000	0.000	0.103	0.103			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.078</b>	<b>0.181</b>	<b>0.259</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.157	0.202				
		(14) Massachusetts Credibility:	0.10	0.22	0.20				
		(15) Countrywide Pure Premium:	0.864	0.464	0.826	2.154			
		(16) Countrywide Indicated Relativity:	1.037	1.007	0.981				
		(17) Countrywide Credibility:	0.45	0.39	0.40				
		(18) Countrywide Lost-time Claims:	181	1,446					
		(19) Pure Premium Underlying Present Rate:	0.774	0.610	0.765	2.148			
		(20) Relativity to Underlying Present Rate:	1.228	0.927	0.954				
		(21) Credibility to Underlying Relativity:	0.450	0.390	0.400				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.019	0.789	0.814				
		(24) Balanced Formula Relativity:	1.026	0.786	0.813	0.890			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000155 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 80

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
4130 GLASS MERCHANT								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	155,827	3	22	586,963	207,799	295,116	1,089,878	
2000/2001	172,008	0	18	0	120,602	107,194	227,796	
2001/2002	172,470	1	22	108,820	136,825	183,290	428,935	
2002/2003	203,180	2	15	150,406	304,530	308,277	763,213	
2003/2004	184,468	1	21	126,958	130,431	208,973	466,362	
<b>MA Total</b>	<b>887,953</b>	<b>7</b>	<b>98</b>	<b>973,147</b>	<b>900,186</b>	<b>1,102,850</b>	<b>2,976,184</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	3.767	1.334	1.894	6.994		
		2000/2001	0.000	0.701	0.623	1.324		
		2001/2002	0.631	0.793	1.063	2.487		
		2002/2003	0.740	1.499	1.517	3.756		
		2003/2004	0.688	0.707	1.133	2.528		
		<b>MA Total Pure Premium:</b>	<b>1.096</b>	<b>1.014</b>	<b>1.242</b>	<b>3.352</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	1.234	2.045	1.388			
		(14) Massachusetts Credibility:	0.38	0.77	0.81			
		(15) Countrywide Pure Premium:	1.652	0.698	1.333	3.683		
		(16) Countrywide Indicated Relativity:	1.984	1.515	1.584			
		(17) Countrywide Credibility:	0.31	0.12	0.10			
		(18) Countrywide Lost-time Claims:	198	1,890				
		(19) Pure Premium Underlying Present Rate:	1.495	0.951	1.610	4.055		
		(20) Relativity to Underlying Present Rate:	2.372	1.445	2.007			
		(21) Credibility to Underlying Relativity:	0.310	0.110	0.090			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	1.819	1.916	1.464			
		(24) Balanced Formula Relativity:	1.832	1.909	1.461	1.703		

Class(es):		Effective: 9/1/2007						Manufacturing
4133 CATHEDRAL OR ART GLASS WINDOW MFG								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	13,261	0	3	0	16,751	46,410	63,161	
2000/2001	17,597	0	0	0	0	1,480	1,480	
2001/2002	18,538	0	0	0	0	2,377	2,377	
2002/2003	17,429	0	1	0	905	1,941	2,846	
2003/2004	14,670	0	0	0	0	1,076	1,076	
<b>MA Total</b>	<b>81,495</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>17,656</b>	<b>53,283</b>	<b>70,939</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	0.000	1.263	3.500	4.763		
		2000/2001	0.000	0.000	0.084	0.084		
		2001/2002	0.000	0.000	0.128	0.128		
		2002/2003	0.000	0.052	0.111	0.163		
		2003/2004	0.000	0.000	0.073	0.073		
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.217</b>	<b>0.654</b>	<b>0.870</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.000	0.437	0.731			
		(14) Massachusetts Credibility:	0.11	0.22	0.24			
		(15) Countrywide Pure Premium:	0.272	0.516	0.666	1.454		
		(16) Countrywide Indicated Relativity:	0.326	1.121	0.792			
		(17) Countrywide Credibility:	0.15	0.33	0.38			
		(18) Countrywide Lost-time Claims:	4	55				
		(19) Pure Premium Underlying Present Rate:	0.720	0.464	0.859	2.042		
		(20) Relativity to Underlying Present Rate:	1.143	0.705	1.070			
		(21) Credibility to Underlying Relativity:	0.740	0.450	0.380			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	0.895	0.783	0.883			
		(24) Balanced Formula Relativity:	0.901	0.781	0.881	0.867		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000156 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 81

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4150 OPTICAL GOODS MFG-NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,314,276	1	52	87,268	209,117	235,166	531,552		
2000/2001	1,261,487	6	50	797,139	216,709	576,046	1,589,894		
2001/2002	1,180,366	6	36	721,380	223,479	515,109	1,459,968		
2002/2003	925,500	4	24	375,972	195,015	668,060	1,239,047		
2003/2004	1,299,329	0	32	0	274,901	277,783	552,684		
<b>MA Total</b>	<b>5,980,958</b>	<b>17</b>	<b>194</b>	<b>1,981,759</b>	<b>1,119,221</b>	<b>2,272,164</b>	<b>5,373,144</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.066	0.159	0.179	0.404		
		2000/2001		0.632	0.172	0.457	1.260		
		2001/2002		0.611	0.189	0.436	1.237		
		2002/2003		0.406	0.211	0.722	1.339		
		2003/2004		0.000	0.212	0.214	0.425		
		<b>MA Total Pure Premium:</b>		<b>0.331</b>	<b>0.187</b>	<b>0.380</b>	<b>0.898</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.373	0.378	0.425			
		(14) Massachusetts Credibility:		0.40	1.00	0.84			
		(15) Countrywide Pure Premium:		0.430	0.256	0.468	1.154		
		(16) Countrywide Indicated Relativity:		0.516	0.556	0.555			
		(17) Countrywide Credibility:		0.30	0.00	0.08			
		(18) Countrywide Lost-time Claims:		215	1,709				
		(19) Pure Premium Underlying Present Rate:		0.255	0.297	0.262	0.814		
		(20) Relativity to Underlying Present Rate:		0.405	0.451	0.327			
		(21) Credibility to Underlying Relativity:		0.300	0.000	0.080			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		0.426	0.378	0.427			
		(24) Balanced Formula Relativity:		0.428	0.376	0.427	0.416		

Class(es):		Effective: 9/1/2007						Manufacturing	
4239 PAPER MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	462,268	7	58	1,561,226	882,280	1,204,193	3,647,700		
2000/2001	714,615	6	63	977,998	318,970	1,244,431	2,541,399		
2001/2002	724,690	5	83	1,340,509	759,337	1,102,515	3,202,360		
2002/2003	596,219	10	53	1,802,692	475,380	1,177,761	3,455,833		
2003/2004	556,493	2	41	710,340	654,617	474,491	1,839,448		
<b>MA Total</b>	<b>3,054,285</b>	<b>30</b>	<b>298</b>	<b>6,392,765</b>	<b>3,090,585</b>	<b>5,203,391</b>	<b>14,686,740</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		3.377	1.909	2.605	7.891		
		2000/2001		1.369	0.446	1.741	3.556		
		2001/2002		1.850	1.048	1.521	4.419		
		2002/2003		3.024	0.797	1.975	5.796		
		2003/2004		1.276	1.176	0.853	3.305		
		<b>MA Total Pure Premium:</b>		<b>2.093</b>	<b>1.012</b>	<b>1.704</b>	<b>4.809</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.356	2.042	1.905			
		(14) Massachusetts Credibility:		0.55	1.00	1.00			
		(15) Countrywide Pure Premium:		1.240	0.489	0.795	2.525		
		(16) Countrywide Indicated Relativity:		1.489	1.062	0.944			
		(17) Countrywide Credibility:		0.23	0.00	0.00			
		(18) Countrywide Lost-time Claims:		363	3,126				
		(19) Pure Premium Underlying Present Rate:		1.083	1.334	1.797	4.214		
		(20) Relativity to Underlying Present Rate:		1.719	2.028	2.240			
		(21) Credibility to Underlying Relativity:		0.220	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		2.017	2.042	1.905			
		(24) Balanced Formula Relativity:		2.030	2.035	1.901	1.981		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000157 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 82

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
4243 BOX MFG-FOLDING PAPER-NOC								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	304,497	3	44	385,188	420,890	644,814	1,450,893	
2000/2001	282,582	6	35	906,575	195,131	647,787	1,749,492	
2001/2002	255,261	2	30	438,326	194,942	322,037	955,305	
2002/2003	312,065	1	24	223,910	220,072	407,822	851,804	
2003/2004	356,847	2	23	376,245	528,874	519,823	1,424,941	
<b>MA Total</b>	<b>1,511,252</b>	<b>14</b>	<b>156</b>	<b>2,330,244</b>	<b>1,559,909</b>	<b>2,542,283</b>	<b>6,432,436</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)	
		1999/2000	1.265	1.382	2.118	4.765		
		2000/2001	3.208	0.691	2.292	6.191		
		2001/2002	1.717	0.764	1.262	3.742		
		2002/2003	0.718	0.705	1.307	2.730		
		2003/2004	1.054	1.482	1.457	3.993		
		<b>MA Total Pure Premium:</b>	<b>1.542</b>	<b>1.032</b>	<b>1.682</b>	<b>4.256</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical			Total	
		(13) Massachusetts Indicated Relativity:	1.736	2.083	1.881			
		(14) Massachusetts Credibility:	0.36	0.99	0.97			
		(15) Countrywide Pure Premium:	0.787	0.515	0.906	2.208		
		(16) Countrywide Indicated Relativity:	0.945	1.119	1.076			
		(17) Countrywide Credibility:	0.32	0.01	0.02			
		(18) Countrywide Lost-time Claims:	144	1,980				
		(19) Pure Premium Underlying Present Rate:	0.791	1.020	1.491	3.302		
		(20) Relativity to Underlying Present Rate:	1.256	1.551	1.858			
		(21) Credibility to Underlying Relativity:	0.320	0.000	0.010			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	1.329	2.073	1.864			
		(24) Balanced Formula Relativity:	1.338	2.066	1.861	1.702		

Class(es):		Effective: 9/1/2007						Manufacturing
4244 CORRUGATED OR FIBERBOARD CONTAINER MFG								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)		
1999/2000	327,343	5	52	513,681	473,734	510,603	1,498,019	
2000/2001	367,194	4	40	554,774	333,457	591,423	1,479,654	
2001/2002	304,836	1	28	247,780	172,626	305,017	725,424	
2002/2003	211,926	3	7	376,269	40,708	304,448	721,425	
2003/2004	173,653	1	21	589,557	207,769	261,062	1,058,388	
<b>MA Total</b>	<b>1,384,952</b>	<b>14</b>	<b>148</b>	<b>2,282,061</b>	<b>1,228,294</b>	<b>1,972,553</b>	<b>5,482,909</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)	
		1999/2000	1.569	1.447	1.560	4.576		
		2000/2001	1.511	0.908	1.611	4.030		
		2001/2002	0.813	0.566	1.001	2.380		
		2002/2003	1.775	0.192	1.437	3.404		
		2003/2004	3.395	1.196	1.503	6.095		
		<b>MA Total Pure Premium:</b>	<b>1.648</b>	<b>0.887</b>	<b>1.424</b>	<b>3.959</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical			Total	
		(13) Massachusetts Indicated Relativity:	1.855	1.789	1.592			
		(14) Massachusetts Credibility:	0.38	1.00	0.83			
		(15) Countrywide Pure Premium:	1.120	0.530	0.992	2.641		
		(16) Countrywide Indicated Relativity:	1.344	1.151	1.178			
		(17) Countrywide Credibility:	0.31	0.00	0.09			
		(18) Countrywide Lost-time Claims:	300	2,594				
		(19) Pure Premium Underlying Present Rate:	0.944	1.370	1.091	3.405		
		(20) Relativity to Underlying Present Rate:	1.499	2.082	1.360			
		(21) Credibility to Underlying Relativity:	0.310	0.000	0.080			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	1.586	1.789	1.536			
		(24) Balanced Formula Relativity:	1.597	1.784	1.533	1.613		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000158 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 83

## Calculation of Class Relativities

Class(es): 4250 PAPER COATING		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	684,153	8	70	1,169,154	522,897	1,035,268	2,727,319		
2000/2001	851,795	13	63	2,026,115	395,997	774,851	3,196,964		
2001/2002	849,326	7	57	1,523,139	335,451	1,028,707	2,887,298		
2002/2003	777,034	4	39	761,822	311,934	743,691	1,817,447		
2003/2004	576,839	2	24	368,387	255,618	364,724	988,729		
<b>MA Total</b>	<b>3,739,147</b>	<b>34</b>	<b>253</b>	<b>5,848,617</b>	<b>1,821,898</b>	<b>3,947,241</b>	<b>11,617,756</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.709	0.764	1.513	3.986		
		2000/2001		2.379	0.465	0.910	3.753		
		2001/2002		1.793	0.395	1.211	3.400		
		2002/2003		0.980	0.401	0.957	2.339		
		2003/2004		0.639	0.443	0.632	1.714		
		<b>MA Total Pure Premium:</b>		<b>1.564</b>	<b>0.487</b>	<b>1.056</b>	<b>3.107</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.761	0.983	1.180			
		(14) Massachusetts Credibility:		0.50	1.00	1.00			
		(15) Countrywide Pure Premium:		0.759	0.336	0.605	1.700		
		(16) Countrywide Indicated Relativity:		0.912	0.731	0.718			
		(17) Countrywide Credibility:		0.25	0.00	0.00			
		(18) Countrywide Lost-time Claims:		184	1,648				
		(19) Pure Premium Underlying Present Rate:		0.713	0.758	0.849	2.320		
		(20) Relativity to Underlying Present Rate:		1.131	1.152	1.058			
		(21) Credibility to Underlying Relativity:		0.250	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.391	0.983	1.180			
		(24) Balanced Formula Relativity:		1.401	0.980	1.178	1.222		

Class(es): 4251 STATIONERY MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	252,405	2	25	197,135	103,981	174,194	475,310		
2000/2001	161,140	1	10	168,535	55,692	271,233	495,461		
2001/2002	207,690	0	15	0	193,878	141,293	335,171		
2002/2003	246,952	2	10	411,259	27,117	211,940	650,316		
2003/2004	419,033	1	11	193,586	187,188	209,713	590,487		
<b>MA Total</b>	<b>1,287,220</b>	<b>6</b>	<b>71</b>	<b>970,515</b>	<b>567,856</b>	<b>1,008,372</b>	<b>2,546,744</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.781	0.412	0.690	1.883		
		2000/2001		1.046	0.346	1.683	3.075		
		2001/2002		0.000	0.933	0.680	1.614		
		2002/2003		1.665	0.110	0.858	2.633		
		2003/2004		0.462	0.447	0.500	1.409		
		<b>MA Total Pure Premium:</b>		<b>0.754</b>	<b>0.441</b>	<b>0.783</b>	<b>1.978</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.849	0.890	0.876			
		(14) Massachusetts Credibility:		0.35	0.76	0.80			
		(15) Countrywide Pure Premium:		0.868	0.464	0.835	2.166		
		(16) Countrywide Indicated Relativity:		1.041	1.008	0.992			
		(17) Countrywide Credibility:		0.33	0.12	0.10			
		(18) Countrywide Lost-time Claims:		88	1,145				
		(19) Pure Premium Underlying Present Rate:		0.851	0.622	1.069	2.543		
		(20) Relativity to Underlying Present Rate:		1.351	0.946	1.333			
		(21) Credibility to Underlying Relativity:		0.320	0.120	0.100			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.073	0.911	0.933			
		(24) Balanced Formula Relativity:		1.080	0.908	0.931	0.984		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000159 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es): 4273 BAG MFG-PAPER OR PLASTIC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	91,704	0	10	0	35,819	69,823	105,642		
2000/2001	78,763	3	13	462,891	136,088	508,640	1,107,619		
2001/2002	92,848	0	8	0	86,913	82,792	169,704		
2002/2003	109,197	1	13	140,582	42,102	157,818	340,501		
2003/2004	89,787	0	12	0	166,265	125,182	291,447		
<b>MA Total</b>	<b>462,299</b>	<b>4</b>	<b>56</b>	<b>603,472</b>	<b>467,187</b>	<b>944,254</b>	<b>2,014,913</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.391	0.761	1.152			
		2000/2001	5.877	1.728	6.458	14.063			
		2001/2002	0.000	0.936	0.892	1.828			
		2002/2003	1.287	0.386	1.445	3.118			
		2003/2004	0.000	1.852	1.394	3.246			
		<b>MA Total Pure Premium:</b>	<b>1.305</b>	<b>1.011</b>	<b>2.043</b>	<b>4.358</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.470	2.039	2.283				
		(14) Massachusetts Credibility:	0.21	0.66	0.59				
		(15) Countrywide Pure Premium:	0.857	0.565	0.921	2.343			
		(16) Countrywide Indicated Relativity:	1.029	1.228	1.094				
		(17) Countrywide Credibility:	0.40	0.17	0.21				
		(18) Countrywide Lost-time Claims:	77	1,432					
		(19) Pure Premium Underlying Present Rate:	0.650	1.244	1.369	3.262			
		(20) Relativity to Underlying Present Rate:	1.031	1.890	1.706				
		(21) Credibility to Underlying Relativity:	0.390	0.170	0.200				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.122	1.876	1.918				
		(24) Balanced Formula Relativity:	1.130	1.870	1.915	1.599			

Class(es): 4279 PAPER GOODS MFG NOC		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	429,257	10	65	1,117,745	332,212	1,163,286	2,613,242		
2000/2001	439,842	4	60	516,739	228,497	744,130	1,489,367		
2001/2002	378,493	5	34	644,327	202,380	594,637	1,441,344		
2002/2003	376,746	2	43	249,717	213,386	323,472	786,575		
2003/2004	341,626	2	43	524,908	291,796	1,199,661	2,016,365		
<b>MA Total</b>	<b>1,965,964</b>	<b>23</b>	<b>245</b>	<b>3,053,436</b>	<b>1,268,271</b>	<b>4,025,187</b>	<b>8,346,894</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	2.604	0.774	2.710	6.088			
		2000/2001	1.175	0.519	1.692	3.386			
		2001/2002	1.702	0.535	1.571	3.808			
		2002/2003	0.663	0.566	0.859	2.088			
		2003/2004	1.537	0.854	3.512	5.902			
		<b>MA Total Pure Premium:</b>	<b>1.553</b>	<b>0.645</b>	<b>2.047</b>	<b>4.246</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.749	1.302	2.289				
		(14) Massachusetts Credibility:	0.43	1.00	1.00				
		(15) Countrywide Pure Premium:	1.020	0.538	1.055	2.614			
		(16) Countrywide Indicated Relativity:	1.225	1.169	1.253				
		(17) Countrywide Credibility:	0.29	0.00	0.00				
		(18) Countrywide Lost-time Claims:	255	2,827					
		(19) Pure Premium Underlying Present Rate:	0.899	1.059	1.418	3.377			
		(20) Relativity to Underlying Present Rate:	1.427	1.610	1.768				
		(21) Credibility to Underlying Relativity:	0.280	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.507	1.302	2.289				
		(24) Balanced Formula Relativity:	1.517	1.297	2.285	1.771			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000160 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 85

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4282 DRESS PATTERN MFG-PAPER									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	421	0	0	0	0	0	0	0	
2000/2001	541	0	0	0	0	0	0	0	
2001/2002	1,287	0	0	0	0	0	0	0	
2002/2003	378	0	0	0	0	0	0	0	
2003/2004	197	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>2,824</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000		0.000	
		2000/2001	0.000	0.000	0.000	0.000		0.000	
		2001/2002	0.000	0.000	0.000	0.000		0.000	
		2002/2003	0.000	0.000	0.000	0.000		0.000	
		2003/2004	0.000	0.000	0.000	0.000		0.000	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		<b>0.000</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.01	0.04	0.03				
		(15) Countrywide Pure Premium:	1.003	0.410	0.651	2.064			
		(16) Countrywide Indicated Relativity:	1.204	0.890	0.773				
		(17) Countrywide Credibility:	0.09	0.22	0.27				
		(18) Countrywide Lost-time Claims:	1	21					
		(19) Pure Premium Underlying Present Rate:	0.115	0.152	0.162	0.428			
		(20) Relativity to Underlying Present Rate:	0.182	0.230	0.201				
		(21) Credibility to Underlying Relativity:	0.900	0.740	0.700				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.272	0.366	0.350				
		(24) Balanced Formula Relativity:	0.274	0.365	0.349	0.323			

Class(es):		Effective: 9/1/2007						Manufacturing	
4283 BUILDING OR ROOFING PAPER OR FELT PREPARATION-NO INSTALLATION									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,797	0	1	0	19,946	0	19,946		
2000/2001	1,501	0	0	0	0	735	735		
2001/2002	1,074	0	0	0	0	0	0		
2002/2003	0	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>4,372</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>19,946</b>	<b>735</b>	<b>20,681</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	11.102	0.000	11.102			
		2000/2001	0.000	0.000	0.490	0.490			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>4.562</b>	<b>0.168</b>	<b>4.730</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	9.206	0.188				
		(14) Massachusetts Credibility:	0.04	0.08	0.08				
		(15) Countrywide Pure Premium:	1.264	0.623	1.038	2.925			
		(16) Countrywide Indicated Relativity:	1.518	1.353	1.232				
		(17) Countrywide Credibility:	0.40	0.46	0.46				
		(18) Countrywide Lost-time Claims:	46	397					
		(19) Pure Premium Underlying Present Rate:	1.022	0.768	0.859	2.649			
		(20) Relativity to Underlying Present Rate:	1.622	1.167	1.071				
		(21) Credibility to Underlying Relativity:	0.560	0.460	0.460				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.515	1.896	1.075				
		(24) Balanced Formula Relativity:	1.526	1.889	1.073	1.427			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000161 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 86

## Calculation of Class Relativities

Class(es): 4299 PRINTING		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,393,275	10	190	1,616,077	1,350,216	1,988,470	4,954,762		
2000/2001	2,437,917	14	183	1,863,671	1,329,634	1,889,044	5,082,349		
2001/2002	2,579,683	14	147	1,928,767	650,514	1,477,463	4,056,745		
2002/2003	2,462,763	22	181	3,423,244	1,005,782	2,552,746	6,981,772		
2003/2004	2,356,101	4	121	795,797	1,063,231	1,420,026	3,279,054		
<b>MA Total</b>	<b>12,229,739</b>	<b>64</b>	<b>822</b>	<b>9,627,555</b>	<b>5,399,377</b>	<b>9,327,749</b>	<b>24,354,681</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.675	0.564	0.831	2.070			
		2000/2001	0.764	0.545	0.775	2.085			
		2001/2002	0.748	0.252	0.573	1.573			
		2002/2003	1.390	0.408	1.037	2.835			
		2003/2004	0.338	0.451	0.603	1.392			
		<b>MA Total Pure Premium:</b>	<b>0.787</b>	<b>0.441</b>	<b>0.763</b>	<b>1.991</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.886	0.891	0.853				
		(14) Massachusetts Credibility:	0.74	1.00	1.00				
		(15) Countrywide Pure Premium:	0.738	0.412	0.743	1.893			
		(16) Countrywide Indicated Relativity:	0.886	0.894	0.883				
		(17) Countrywide Credibility:	0.13	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,412	15,896					
		(19) Pure Premium Underlying Present Rate:	0.579	0.548	0.722	1.850			
		(20) Relativity to Underlying Present Rate:	0.920	0.833	0.900				
		(21) Credibility to Underlying Relativity:	0.130	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.891	0.891	0.853				
		(24) Balanced Formula Relativity:	0.897	0.888	0.851	0.877			

Class(es): 4301 WALLPAPER MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	27,585	0	1	0	4,289	6,976	11,265		
2000/2001	0	0	0	0	0	0	0		
2001/2002	0	0	0	0	0	0	0		
2002/2003	0	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>27,585</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4,289</b>	<b>6,976</b>	<b>11,265</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.155	0.253	0.408			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.155</b>	<b>0.253</b>	<b>0.408</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.314	0.283				
		(14) Massachusetts Credibility:	0.09	0.16	0.19				
		(15) Countrywide Pure Premium:	1.073	0.901	1.557	3.530			
		(16) Countrywide Indicated Relativity:	1.288	1.956	1.849				
		(17) Countrywide Credibility:	0.13	0.35	0.41				
		(18) Countrywide Lost-time Claims:	3	64					
		(19) Pure Premium Underlying Present Rate:	1.328	0.571	1.453	3.352			
		(20) Relativity to Underlying Present Rate:	2.108	0.869	1.811				
		(21) Credibility to Underlying Relativity:	0.780	0.490	0.400				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.812	1.160	1.536				
		(24) Balanced Formula Relativity:	1.824	1.157	1.533	1.565			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000162 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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 Exhibit 87

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4304 NEWSPAPER PUBLISHING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense							
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	199,244	0	34	0	214,270	321,012	535,283		
2000/2001	135,286	2	11	118,759	45,304	357,387	521,450		
2001/2002	156,771	3	17	413,013	101,570	431,806	946,388		
2002/2003	124,913	0	8	0	29,432	46,925	76,357		
2003/2004	171,535	0	21	0	174,436	279,118	453,554		
<b>MA Total</b>	<b>787,749</b>	<b>5</b>	<b>91</b>	<b>531,771</b>	<b>565,013</b>	<b>1,436,248</b>	<b>2,533,032</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	1.075	1.611	2.687				
	2000/2001	0.878	0.335	2.642	3.854				
	2001/2002	2.634	0.648	2.754	6.037				
	2002/2003	0.000	0.236	0.376	0.611				
	2003/2004	0.000	1.017	1.627	2.644				
	<b>MA Total Pure Premium:</b>	<b>0.675</b>	<b>0.717</b>	<b>1.823</b>	<b>3.216</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.760	1.447	2.038					
	(14) Massachusetts Credibility:	0.28	0.74	0.73					
	(15) Countrywide Pure Premium:	0.920	0.773	1.371	3.064				
	(16) Countrywide Indicated Relativity:	1.104	1.679	1.628					
	(17) Countrywide Credibility:	0.36	0.13	0.14					
	(18) Countrywide Lost-time Claims:	536	6,619						
	(19) Pure Premium Underlying Present Rate:	0.762	0.963	1.380	3.105				
	(20) Relativity to Underlying Present Rate:	1.209	1.464	1.721					
	(21) Credibility to Underlying Relativity:	0.360	0.130	0.130					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.046	1.479	1.940					
	(24) Balanced Formula Relativity:	1.053	1.475	1.936	1.491				

Class(es):		Effective: 9/1/2007						Manufacturing	
4307 BOOKBINDING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense							
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)		
1999/2000	162,713	3	20	412,228	105,323	207,183	724,734		
2000/2001	179,055	2	12	224,181	79,506	221,672	525,360		
2001/2002	256,223	1	14	164,402	71,042	135,973	371,417		
2002/2003	234,588	0	21	0	101,027	93,281	194,308		
2003/2004	232,835	0	8	0	13,857	58,875	72,732		
<b>MA Total</b>	<b>1,065,414</b>	<b>6</b>	<b>75</b>	<b>800,811</b>	<b>370,755</b>	<b>716,985</b>	<b>1,888,551</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	2.533	0.647	1.273	4.454				
	2000/2001	1.252	0.444	1.238	2.934				
	2001/2002	0.642	0.277	0.531	1.450				
	2002/2003	0.000	0.431	0.398	0.828				
	2003/2004	0.000	0.060	0.253	0.312				
	<b>MA Total Pure Premium:</b>	<b>0.752</b>	<b>0.348</b>	<b>0.673</b>	<b>1.773</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.846	0.702	0.752					
	(14) Massachusetts Credibility:	0.28	0.79	0.62					
	(15) Countrywide Pure Premium:	0.334	0.332	0.667	1.333				
	(16) Countrywide Indicated Relativity:	0.401	0.720	0.793					
	(17) Countrywide Credibility:	0.36	0.11	0.19					
	(18) Countrywide Lost-time Claims:	55	1,024						
	(19) Pure Premium Underlying Present Rate:	0.582	0.826	0.679	2.086				
	(20) Relativity to Underlying Present Rate:	0.924	1.255	0.846					
	(21) Credibility to Underlying Relativity:	0.360	0.100	0.190					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.714	0.759	0.778					
	(24) Balanced Formula Relativity:	0.719	0.757	0.776	0.750				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000163 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 88

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4308 LINOTYPE OR HAND COMPOSITION									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	400	0	0	0	0	0	0	0	
2000/2001	275	0	0	0	0	0	0	0	
2001/2002	177	0	0	0	0	239	0	239	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>852</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>239</b>	<b>0</b>	<b>239</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	1.352	1.352			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.280</b>	<b>0.280</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.314				
		(14) Massachusetts Credibility:	0.01	0.03	0.03				
		(15) Countrywide Pure Premium:	0.000	0.000	0.101	0.101			
		(16) Countrywide Indicated Relativity:	0.000	0.000	0.120				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	0.201	0.270	0.308	0.780			
		(20) Relativity to Underlying Present Rate:	0.319	0.411	0.384				
		(21) Credibility to Underlying Relativity:	0.990	0.970	0.970				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.316	0.398	0.382				
		(24) Balanced Formula Relativity:	0.318	0.397	0.381	0.360			

Class(es):		Effective: 9/1/2007						Manufacturing	
4350 ELECTROTYPING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	14	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.00	0.01	0.00				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000			
		(16) Countrywide Indicated Relativity:	0.244	0.394	0.243				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	0.155	0.261	0.196	0.612			
		(20) Relativity to Underlying Present Rate:	0.245	0.397	0.245				
		(21) Credibility to Underlying Relativity:	1.000	0.990	1.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.245	0.393	0.245				
		(24) Balanced Formula Relativity:	0.247	0.392	0.244	0.277			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000164 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 89

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4351 PHOTOENGRAVING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	755,587	1	24	270,290	244,788	110,994	626,071		
2000/2001	457,250	1	11	104,117	47,972	71,202	223,290		
2001/2002	373,295	1	10	120,657	89,116	130,644	340,417		
2002/2003	340,180	0	9	0	30,948	62,866	93,814		
2003/2004	343,650	0	6	0	55,032	58,833	113,865		
<b>MA Total</b>	<b>2,269,962</b>	<b>3</b>	<b>60</b>	<b>495,064</b>	<b>467,855</b>	<b>434,538</b>	<b>1,397,457</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.358	0.324	0.147	0.829				
	2000/2001	0.228	0.105	0.156	0.488				
	2001/2002	0.323	0.239	0.350	0.912				
	2002/2003	0.000	0.091	0.185	0.276				
	2003/2004	0.000	0.160	0.171	0.331				
	<b>MA Total Pure Premium:</b>	<b>0.218</b>	<b>0.206</b>	<b>0.191</b>	<b>0.616</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.246	0.416	0.214					
	(14) Massachusetts Credibility:	0.29	0.68	0.57					
	(15) Countrywide Pure Premium:	0.514	0.178	0.440	1.132				
	(16) Countrywide Indicated Relativity:	0.618	0.386	0.523					
	(17) Countrywide Credibility:	0.36	0.16	0.22					
	(18) Countrywide Lost-time Claims:	41	225						
	(19) Pure Premium Underlying Present Rate:	0.308	0.266	0.264	0.838				
	(20) Relativity to Underlying Present Rate:	0.489	0.404	0.329					
	(21) Credibility to Underlying Relativity:	0.350	0.160	0.210					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.465	0.409	0.306					
	(24) Balanced Formula Relativity:	0.468	0.408	0.305	0.391				

Class(es):		Effective: 9/1/2007						Manufacturing	
4352 ENGRAVING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	77,436	0	3	0	5,983	18,306	24,289		
2000/2001	74,986	0	5	0	15,742	17,567	33,308		
2001/2002	70,481	0	2	0	6,843	8,319	15,162		
2002/2003	72,684	0	4	0	4,297	16,514	20,811		
2003/2004	66,152	0	1	0	11,062	43,226	54,288		
<b>MA Total</b>	<b>361,739</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>43,927</b>	<b>103,931</b>	<b>147,859</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.077	0.236	0.314				
	2000/2001	0.000	0.210	0.234	0.444				
	2001/2002	0.000	0.097	0.118	0.215				
	2002/2003	0.000	0.059	0.227	0.286				
	2003/2004	0.000	0.167	0.653	0.821				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.121</b>	<b>0.287</b>	<b>0.409</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	0.245	0.321					
	(14) Massachusetts Credibility:	0.16	0.28	0.33					
	(15) Countrywide Pure Premium:	0.217	0.333	0.444	0.995				
	(16) Countrywide Indicated Relativity:	0.261	0.724	0.528					
	(17) Countrywide Credibility:	0.23	0.36	0.34					
	(18) Countrywide Lost-time Claims:	11	298						
	(19) Pure Premium Underlying Present Rate:	0.397	0.190	0.429	1.017				
	(20) Relativity to Underlying Present Rate:	0.631	0.289	0.535					
	(21) Credibility to Underlying Relativity:	0.610	0.360	0.330					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.445	0.433	0.462					
	(24) Balanced Formula Relativity:	0.448	0.432	0.461	0.450				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000165 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 90

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4360 MOTION PICTURE: DEVLPMNT OF NEGATIVES, PRINTING & ALL SUB OP*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	251,151	0	8	0	41,890	52,983	94,873		
2000/2001	183,674	2	3	268,951	9,916	241,267	520,134		
2001/2002	156,835	0	3	0	6,569	13,251	19,820		
2002/2003	186,366	1	6	134,969	33,933	59,259	228,160		
2003/2004	223,529	1	8	149,007	124,736	66,002	339,745		
<b>MA Total</b>	<b>1,001,555</b>	<b>4</b>	<b>28</b>	<b>552,927</b>	<b>217,045</b>	<b>432,761</b>	<b>1,202,732</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.167	0.211	0.378			
		2000/2001	1.464	0.054	1.314	2.832			
		2001/2002	0.000	0.042	0.084	0.126			
		2002/2003	0.724	0.182	0.318	1.224			
		2003/2004	0.667	0.558	0.295	1.520			
		<b>MA Total Pure Premium:</b>	<b>0.552</b>	<b>0.217</b>	<b>0.432</b>	<b>1.201</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.622	0.437	0.483				
		(14) Massachusetts Credibility:	0.21	0.45	0.42				
		(15) Countrywide Pure Premium:	0.739	0.256	0.530	1.525			
		(16) Countrywide Indicated Relativity:	0.887	0.556	0.630				
		(17) Countrywide Credibility:	0.40	0.28	0.29				
		(18) Countrywide Lost-time Claims:	189	1,047					
		(19) Pure Premium Underlying Present Rate:	0.311	0.213	0.275	0.799			
		(20) Relativity to Underlying Present Rate:	0.493	0.324	0.343				
		(21) Credibility to Underlying Relativity:	0.390	0.270	0.290				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.678	0.440	0.485				
		(24) Balanced Formula Relativity:	0.682	0.438	0.484	0.551			

Class(es):		Effective: 9/1/2007						Office & Clerical	
4361 PHOTOGRAPHER - ALL EMP & CLERICAL, SALES, DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	774,551	1	10	50,752	18,145	77,756	146,653		
2000/2001	766,724	2	6	139,793	9,562	137,551	286,906		
2001/2002	766,917	2	7	378,653	49,571	197,313	625,537		
2002/2003	1,139,257	1	9	74,524	58,959	109,253	242,736		
2003/2004	1,129,061	0	18	0	104,028	133,691	237,719		
<b>MA Total</b>	<b>4,576,510</b>	<b>6</b>	<b>50</b>	<b>643,723</b>	<b>240,264</b>	<b>655,564</b>	<b>1,539,552</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.066	0.023	0.100	0.189			
		2000/2001	0.182	0.012	0.179	0.374			
		2001/2002	0.494	0.065	0.257	0.816			
		2002/2003	0.065	0.052	0.096	0.213			
		2003/2004	0.000	0.092	0.118	0.211			
		<b>MA Total Pure Premium:</b>	<b>0.141</b>	<b>0.052</b>	<b>0.143</b>	<b>0.336</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.921	1.137	1.663				
		(14) Massachusetts Credibility:	0.28	0.66	0.68				
		(15) Countrywide Pure Premium:	0.251	0.172	0.318	0.741			
		(16) Countrywide Indicated Relativity:	3.619	4.070	4.004				
		(17) Countrywide Credibility:	0.36	0.17	0.16				
		(18) Countrywide Lost-time Claims:	246	2,401					
		(19) Pure Premium Underlying Present Rate:	0.141	0.125	0.201	0.468			
		(20) Relativity to Underlying Present Rate:	2.519	2.072	2.452				
		(21) Credibility to Underlying Relativity:	0.360	0.170	0.160				
		(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206			
		(23) Formula Relativity:	2.748	1.794	2.164				
		(24) Balanced Formula Relativity:	2.757	1.790	2.158	2.288			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000166 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 91

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
4362 MOTION PICTURE: FILM EXCH & PROJECTION RMS, CL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	6,407	0	0	0	0	0	0	0	
2000/2001	8,545	0	0	0	0	0	0	0	
2001/2002	5,221	0	0	0	0	0	0	0	
2002/2003	6,053	0	0	0	0	0	0	0	
2003/2004	5,842	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>32,068</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	0.000			0.000	
		2000/2001	0.000	0.000	0.000			0.000	
		2001/2002	0.000	0.000	0.000			0.000	
		2002/2003	0.000	0.000	0.000			0.000	
		2003/2004	0.000	0.000	0.000			0.000	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			<b>0.000</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.04	0.09	0.10				
		(15) Countrywide Pure Premium:	0.446	0.378	0.591			1.415	
		(16) Countrywide Indicated Relativity:	0.625	0.821	0.707				
		(17) Countrywide Credibility:	0.38	0.46	0.45				
		(18) Countrywide Lost-time Claims:	40	252					
		(19) Pure Premium Underlying Present Rate:	0.152	0.127	0.258			0.537	
		(20) Relativity to Underlying Present Rate:	0.325	0.214	0.343				
		(21) Credibility to Underlying Relativity:	0.580	0.450	0.450				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807			1.943	
		(23) Formula Relativity:	0.426	0.474	0.472				
		(24) Balanced Formula Relativity:	0.422	0.473	0.471			0.454	

Class(es):		Effective: 9/1/2007						Manufacturing	
4410 RUBBER GOODS MFG NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	470,178	5	88	686,594	658,434	922,550	2,267,578		
2000/2001	592,208	11	97	1,351,104	390,916	1,130,118	2,872,138		
2001/2002	530,524	10	64	1,545,130	313,363	830,390	2,688,884		
2002/2003	323,178	4	55	583,622	255,276	786,940	1,625,838		
2003/2004	368,339	0	53	0	522,594	466,676	989,271		
<b>MA Total</b>	<b>2,284,427</b>	<b>30</b>	<b>357</b>	<b>4,166,450</b>	<b>2,140,584</b>	<b>4,136,674</b>	<b>10,443,708</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	1.460	1.400	1.962			4.823	
		2000/2001	2.281	0.660	1.908			4.850	
		2001/2002	2.912	0.591	1.565			5.068	
		2002/2003	1.806	0.790	2.435			5.031	
		2003/2004	0.000	1.419	1.267			2.686	
		<b>MA Total Pure Premium:</b>	<b>1.824</b>	<b>0.937</b>	<b>1.811</b>			<b>4.572</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	2.053	1.891	2.024				
		(14) Massachusetts Credibility:	0.40	1.00	1.00				
		(15) Countrywide Pure Premium:	1.240	0.644	1.324			3.209	
		(16) Countrywide Indicated Relativity:	1.489	1.400	1.573				
		(17) Countrywide Credibility:	0.30	0.00	0.00				
		(18) Countrywide Lost-time Claims:	414	4,967					
		(19) Pure Premium Underlying Present Rate:	0.651	1.407	1.274			3.331	
		(20) Relativity to Underlying Present Rate:	1.033	2.138	1.588				
		(21) Credibility to Underlying Relativity:	0.300	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	1.578	1.891	2.024				
		(24) Balanced Formula Relativity:	1.589	1.884	2.021			1.823	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000167 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4417 BOOT OR SHOE MFG-RUBBER									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,000	0	0	0	0	1,485	1,485		
2000/2001	750	0	0	0	0	352	352		
2001/2002	54	0	0	0	0	0	0		
2002/2003	0	0	0	0	0	0	0		
2003/2004	0	0	0	0	0	0	0		
<b>MA Total</b>	<b>2,804</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,837</b>	<b>1,837</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
1999/2000		0.000	0.000	0.742			0.742		
2000/2001		0.000	0.000	0.469			0.469		
2001/2002		0.000	0.000	0.000			0.000		
2002/2003		0.000	0.000	0.000			0.000		
2003/2004		0.000	0.000	0.000			0.000		
<b>MA Total Pure Premium:</b>		<b>0.000</b>	<b>0.000</b>	<b>0.655</b>			<b>0.655</b>		
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
(13) Massachusetts Indicated Relativity:		0.000	0.000	0.732					
(14) Massachusetts Credibility:		0.03	0.08	0.08					
(15) Countrywide Pure Premium:		3.288	1.689	2.543			7.521		
(16) Countrywide Indicated Relativity:		3.947	3.668	3.021					
(17) Countrywide Credibility:		0.15	0.33	0.40					
(18) Countrywide Lost-time Claims:		4	55						
(19) Pure Premium Underlying Present Rate:		0.795	1.029	1.362			3.187		
(20) Relativity to Underlying Present Rate:		1.262	1.565	1.698					
(21) Credibility to Underlying Relativity:		0.820	0.590	0.520					
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895			2.278		
(23) Formula Relativity:		1.627	2.134	2.150					
(24) Balanced Formula Relativity:		1.638	2.127	2.146			1.944		

Class(es):		Effective: 9/1/2007						Manufacturing	
4432 FOUNTAIN PEN MFG									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	27,448	0	1	0	110	1,885	1,994		
2000/2001	24,800	0	2	0	11,730	9,694	21,424		
2001/2002	26,800	1	2	53,688	1,701	4,883	60,272		
2002/2003	28,346	0	1	0	29	0	29		
2003/2004	31,959	0	0	0	0	2,663	2,663		
<b>MA Total</b>	<b>139,353</b>	<b>1</b>	<b>6</b>	<b>53,688</b>	<b>13,570</b>	<b>19,124</b>	<b>86,383</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
1999/2000		0.000	0.004	0.069			0.073		
2000/2001		0.000	0.473	0.391			0.864		
2001/2002		2.003	0.063	0.182			2.249		
2002/2003		0.000	0.001	0.000			0.001		
2003/2004		0.000	0.000	0.083			0.083		
<b>MA Total Pure Premium:</b>		<b>0.385</b>	<b>0.097</b>	<b>0.137</b>			<b>0.620</b>		
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
(13) Massachusetts Indicated Relativity:		0.434	0.196	0.153					
(14) Massachusetts Credibility:		0.10	0.32	0.27					
(15) Countrywide Pure Premium:		0.643	0.380	0.747			1.769		
(16) Countrywide Indicated Relativity:		0.772	0.825	0.887					
(17) Countrywide Credibility:		0.25	0.34	0.37					
(18) Countrywide Lost-time Claims:		14	145						
(19) Pure Premium Underlying Present Rate:		0.356	0.660	0.639			1.655		
(20) Relativity to Underlying Present Rate:		0.565	1.004	0.797					
(21) Credibility to Underlying Relativity:		0.650	0.340	0.360					
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895			2.278		
(23) Formula Relativity:		0.603	0.685	0.656					
(24) Balanced Formula Relativity:		0.607	0.682	0.655			0.642		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000168 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 93

## Calculation of Class Relativities

Class(es): 4439 LACQUER OR SPIRIT VARNISH MFG*		Effective: 9/1/2007				Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	43,983	0	2	0	3,012	7,834	10,846
2000/2001	41,314	0	1	0	1,848	18,742	20,590
2001/2002	33,597	0	5	0	12,603	12,234	24,837
2002/2003	45,402	1	0	77,273	0	56,284	133,558
2003/2004	47,402	0	3	0	58,683	69,474	128,158
<b>MA Total</b>	<b>211,698</b>	<b>1</b>	<b>11</b>	<b>77,273</b>	<b>76,147</b>	<b>164,569</b>	<b>317,989</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.000	0.068	0.178	0.247		
	2000/2001	0.000	0.045	0.454	0.498		
	2001/2002	0.000	0.375	0.364	0.739		
	2002/2003	1.702	0.000	1.240	2.942		
	2003/2004	0.000	1.238	1.466	2.704		
	<b>MA Total Pure Premium:</b>	<b>0.365</b>	<b>0.360</b>	<b>0.777</b>	<b>1.502</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.411	0.726	0.869			
	(14) Massachusetts Credibility:	0.16	0.38	0.39			
	(15) Countrywide Pure Premium:	0.902	0.378	0.567	1.847		
	(16) Countrywide Indicated Relativity:	1.083	0.820	0.674			
	(17) Countrywide Credibility:	0.11	0.31	0.31			
	(18) Countrywide Lost-time Claims:	2	66				
	(19) Pure Premium Underlying Present Rate:	0.697	0.671	1.099	2.467		
	(20) Relativity to Underlying Present Rate:	1.106	1.020	1.370			
	(21) Credibility to Underlying Relativity:	0.730	0.310	0.300			
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
	(23) Formula Relativity:	0.993	0.846	0.959			
	(24) Balanced Formula Relativity:	0.999	0.843	0.957	0.949		

Class(es): 4452 PLASTICS MFG: FABRICATED PRODUCTS NOC		Effective: 9/1/2007				Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	661,125	8	96	1,064,906	588,404	1,385,556	3,038,866
2000/2001	636,283	6	54	592,479	383,786	711,688	1,687,954
2001/2002	527,265	3	33	311,586	260,091	526,034	1,097,711
2002/2003	545,699	2	35	267,264	320,679	576,221	1,164,164
2003/2004	526,551	3	30	411,890	309,228	475,836	1,196,954
<b>MA Total</b>	<b>2,896,923</b>	<b>22</b>	<b>248</b>	<b>2,648,125</b>	<b>1,862,188</b>	<b>3,675,335</b>	<b>8,185,649</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	1.611	0.890	2.096	4.597		
	2000/2001	0.931	0.603	1.119	2.653		
	2001/2002	0.591	0.493	0.998	2.082		
	2002/2003	0.490	0.588	1.056	2.133		
	2003/2004	0.782	0.587	0.904	2.273		
	<b>MA Total Pure Premium:</b>	<b>0.914</b>	<b>0.643</b>	<b>1.269</b>	<b>2.826</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	1.029	1.297	1.418			
	(14) Massachusetts Credibility:	0.47	1.00	1.00			
	(15) Countrywide Pure Premium:	1.037	0.664	1.188	2.890		
	(16) Countrywide Indicated Relativity:	1.245	1.443	1.411			
	(17) Countrywide Credibility:	0.27	0.00	0.00			
	(18) Countrywide Lost-time Claims:	252	4,864				
	(19) Pure Premium Underlying Present Rate:	0.792	0.858	1.319	2.969		
	(20) Relativity to Underlying Present Rate:	1.257	1.305	1.644			
	(21) Credibility to Underlying Relativity:	0.260	0.000	0.000			
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
	(23) Formula Relativity:	1.147	1.297	1.418			
	(24) Balanced Formula Relativity:	1.154	1.293	1.416	1.287		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000169 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4459 PLASTICS MFG: SHEETS, RODS OR TUBES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	823,629	2	93	265,956	633,310	694,678	1,593,943		
2000/2001	764,041	5	79	566,342	694,111	651,536	1,911,990		
2001/2002	650,893	2	55	389,778	355,256	569,528	1,314,562		
2002/2003	666,139	7	58	1,017,550	436,729	873,293	2,327,572		
2003/2004	775,826	2	55	861,770	698,183	719,993	2,279,945		
<b>MA Total</b>	<b>3,680,528</b>	<b>18</b>	<b>340</b>	<b>3,101,396</b>	<b>2,817,589</b>	<b>3,509,028</b>	<b>9,428,013</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.323	0.769	0.843	1.935		
		2000/2001		0.741	0.908	0.853	2.502		
		2001/2002		0.599	0.546	0.875	2.020		
		2002/2003		1.528	0.656	1.311	3.494		
		2003/2004		1.111	0.900	0.928	2.939		
		<b>MA Total Pure Premium:</b>		<b>0.843</b>	<b>0.766</b>	<b>0.953</b>	<b>2.562</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.949	1.545	1.066			
		(14) Massachusetts Credibility:		0.51	1.00	1.00			
		(15) Countrywide Pure Premium:		1.085	0.503	1.016	2.605		
		(16) Countrywide Indicated Relativity:		1.303	1.093	1.207			
		(17) Countrywide Credibility:		0.25	0.00	0.00			
		(18) Countrywide Lost-time Claims:		289	4,296				
		(19) Pure Premium Underlying Present Rate:		0.744	0.968	0.958	2.670		
		(20) Relativity to Underlying Present Rate:		1.181	1.472	1.194			
		(21) Credibility to Underlying Relativity:		0.240	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.093	1.545	1.066			
		(24) Balanced Formula Relativity:		1.100	1.539	1.064	1.182		

Class(es):		Effective: 9/1/2007						Manufacturing	
4470 CABLE MFG - INSULATED ELECTRICAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	393,197	6	26	745,505	272,512	531,792	1,549,809		
2000/2001	401,688	4	15	668,051	175,939	299,865	1,143,855		
2001/2002	300,775	2	30	157,845	214,432	299,223	671,499		
2002/2003	409,375	4	42	780,630	198,531	594,407	1,573,568		
2003/2004	428,813	1	31	287,778	385,611	397,066	1,070,454		
<b>MA Total</b>	<b>1,933,848</b>	<b>17</b>	<b>144</b>	<b>2,639,808</b>	<b>1,247,025</b>	<b>2,122,352</b>	<b>6,009,186</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.896	0.693	1.352	3.942		
		2000/2001		1.663	0.438	0.747	2.848		
		2001/2002		0.525	0.713	0.995	2.233		
		2002/2003		1.907	0.485	1.452	3.844		
		2003/2004		0.671	0.899	0.926	2.496		
		<b>MA Total Pure Premium:</b>		<b>1.365</b>	<b>0.645</b>	<b>1.097</b>	<b>3.107</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.537	1.301	1.227			
		(14) Massachusetts Credibility:		0.41	0.95	0.86			
		(15) Countrywide Pure Premium:		0.906	0.559	1.003	2.468		
		(16) Countrywide Indicated Relativity:		1.088	1.214	1.191			
		(17) Countrywide Credibility:		0.30	0.03	0.07			
		(18) Countrywide Lost-time Claims:		98	1,174				
		(19) Pure Premium Underlying Present Rate:		0.819	0.737	0.844	2.400		
		(20) Relativity to Underlying Present Rate:		1.300	1.120	1.052			
		(21) Credibility to Underlying Relativity:		0.290	0.020	0.070			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.334	1.295	1.212			
		(24) Balanced Formula Relativity:		1.343	1.291	1.210	1.279		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000170 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4484 PLASTICS MFG: MOLDED PRODUCTS NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,452,737	17	225	2,003,995	2,006,607	2,687,093	6,697,695		
2000/2001	2,039,968	17	160	2,396,365	1,540,703	2,266,902	6,203,970		
2001/2002	1,877,658	9	132	1,188,310	868,042	1,816,670	3,873,022		
2002/2003	2,053,799	12	123	1,575,841	979,909	1,438,362	3,994,112		
2003/2004	1,907,497	13	116	3,087,597	1,563,388	2,288,751	6,939,736		
<b>MA Total</b>	<b>10,331,659</b>	<b>68</b>	<b>756</b>	<b>10,252,108</b>	<b>6,958,649</b>	<b>10,497,778</b>	<b>27,708,535</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.817	0.818	1.096	2.731		
		2000/2001		1.175	0.755	1.111	3.041		
		2001/2002		0.633	0.462	0.968	2.063		
		2002/2003		0.767	0.477	0.700	1.945		
		2003/2004		1.619	0.820	1.200	3.638		
		<b>MA Total Pure Premium:</b>		<b>0.992</b>	<b>0.674</b>	<b>1.016</b>	<b>2.682</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.117	1.359	1.136			
		(14) Massachusetts Credibility:		0.66	1.00	1.00			
		(15) Countrywide Pure Premium:		0.786	0.550	0.985	2.320		
		(16) Countrywide Indicated Relativity:		0.943	1.195	1.170			
		(17) Countrywide Credibility:		0.17	0.00	0.00			
		(18) Countrywide Lost-time Claims:		763	15,596				
		(19) Pure Premium Underlying Present Rate:		0.512	0.804	0.867	2.183		
		(20) Relativity to Underlying Present Rate:		0.813	1.222	1.081			
		(21) Credibility to Underlying Relativity:		0.170	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.036	1.359	1.136			
		(24) Balanced Formula Relativity:		1.043	1.354	1.134	1.146		

Class(es):		Effective: 9/1/2007						Manufacturing	
4493 FABRIC COATING OR IMPREGNATING NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	341,558	3	31	471,616	245,879	487,004	1,204,498		
2000/2001	363,352	7	39	748,308	464,583	741,111	1,954,002		
2001/2002	345,999	1	28	65,233	185,244	178,386	428,862		
2002/2003	337,158	5	32	621,159	150,189	630,601	1,401,948		
2003/2004	371,209	0	27	0	210,093	357,446	567,539		
<b>MA Total</b>	<b>1,759,276</b>	<b>16</b>	<b>157</b>	<b>1,906,315</b>	<b>1,255,987</b>	<b>2,394,546</b>	<b>5,556,849</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.381	0.720	1.426	3.526		
		2000/2001		2.059	1.279	2.040	5.378		
		2001/2002		0.189	0.535	0.516	1.239		
		2002/2003		1.842	0.445	1.870	4.158		
		2003/2004		0.000	0.566	0.963	1.529		
		<b>MA Total Pure Premium:</b>		<b>1.084</b>	<b>0.714</b>	<b>1.361</b>	<b>3.159</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.220	1.440	1.522			
		(14) Massachusetts Credibility:		0.43	1.00	1.00			
		(15) Countrywide Pure Premium:		1.021	0.432	0.794	2.247		
		(16) Countrywide Indicated Relativity:		1.226	0.938	0.943			
		(17) Countrywide Credibility:		0.29	0.00	0.00			
		(18) Countrywide Lost-time Claims:		40	401				
		(19) Pure Premium Underlying Present Rate:		1.061	0.987	1.499	3.547		
		(20) Relativity to Underlying Present Rate:		1.684	1.500	1.869			
		(21) Credibility to Underlying Relativity:		0.280	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.352	1.440	1.522			
		(24) Balanced Formula Relativity:		1.361	1.436	1.519	1.439		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000171 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
4511 ANALYTICAL CHEMIST									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,660,863	4	18	439,107	300,153	406,391	1,145,650		
2000/2001	2,462,600	5	24	755,146	159,151	651,057	1,565,354		
2001/2002	2,319,082	4	26	622,426	86,594	511,179	1,220,199		
2002/2003	2,389,038	1	14	363,870	161,476	280,611	805,957		
2003/2004	2,774,367	0	17	0	142,849	292,311	435,160		
<b>MA Total</b>	<b>12,605,950</b>	<b>14</b>	<b>99</b>	<b>2,180,548</b>	<b>850,224</b>	<b>2,141,549</b>	<b>5,172,321</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.165	0.113	0.153	0.431			
		2000/2001	0.307	0.065	0.264	0.636			
		2001/2002	0.268	0.037	0.220	0.526			
		2002/2003	0.152	0.068	0.117	0.337			
		2003/2004	0.000	0.051	0.105	0.157			
		<b>MA Total Pure Premium:</b>	<b>0.173</b>	<b>0.067</b>	<b>0.170</b>	<b>0.410</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.249	0.153	0.211				
		(14) Massachusetts Credibility:	0.43	0.93	0.99				
		(15) Countrywide Pure Premium:	0.282	0.123	0.251	0.657			
		(16) Countrywide Indicated Relativity:	0.396	0.267	0.301				
		(17) Countrywide Credibility:	0.29	0.04	0.01				
		(18) Countrywide Lost-time Claims:	396	3,000					
		(19) Pure Premium Underlying Present Rate:	0.147	0.106	0.185	0.438			
		(20) Relativity to Underlying Present Rate:	0.312	0.179	0.246				
		(21) Credibility to Underlying Relativity:	0.280	0.030	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	0.309	0.158	0.212				
		(24) Balanced Formula Relativity:	0.307	0.158	0.211	0.233			

Class(es):		Effective: 9/1/2007						Goods & Services	
4512 BIOMEDICAL RESEARCH LABS-INCL OUTSIDE OPERATNS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,489,220	0	11	0	223,211	125,609	348,820		
2000/2001	3,512,295	0	25	0	144,378	206,884	351,262		
2001/2002	4,199,092	1	12	82,878	42,251	239,933	365,062		
2002/2003	4,755,768	2	17	235,336	116,532	239,845	591,713		
2003/2004	4,053,534	0	8	0	56,122	192,638	248,760		
<b>MA Total</b>	<b>19,009,909</b>	<b>3</b>	<b>73</b>	<b>318,215</b>	<b>582,494</b>	<b>1,004,909</b>	<b>1,905,618</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.090	0.050	0.140			
		2000/2001	0.000	0.041	0.059	0.100			
		2001/2002	0.020	0.010	0.057	0.087			
		2002/2003	0.049	0.025	0.050	0.124			
		2003/2004	0.000	0.014	0.048	0.061			
		<b>MA Total Pure Premium:</b>	<b>0.017</b>	<b>0.031</b>	<b>0.053</b>	<b>0.100</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.024	0.069	0.066				
		(14) Massachusetts Credibility:	0.30	0.76	0.78				
		(15) Countrywide Pure Premium:	0.101	0.098	0.170	0.368			
		(16) Countrywide Indicated Relativity:	0.141	0.212	0.203				
		(17) Countrywide Credibility:	0.35	0.12	0.11				
		(18) Countrywide Lost-time Claims:	81	527					
		(19) Pure Premium Underlying Present Rate:	0.039	0.043	0.069	0.151			
		(20) Relativity to Underlying Present Rate:	0.084	0.072	0.091				
		(21) Credibility to Underlying Relativity:	0.350	0.120	0.110				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	0.086	0.087	0.084				
		(24) Balanced Formula Relativity:	0.085	0.087	0.083	0.085			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000172 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es): 4557 INK MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	516,335	6	29	651,699	103,181	279,218	1,034,097		
2000/2001	549,686	2	31	297,469	323,796	413,901	1,035,165		
2001/2002	539,287	3	34	450,283	136,882	328,843	916,008		
2002/2003	513,819	1	19	197,558	47,476	98,909	343,943		
2003/2004	536,997	1	20	136,623	115,811	152,527	404,961		
<b>MA Total</b>	<b>2,656,124</b>	<b>13</b>	<b>133</b>	<b>1,733,632</b>	<b>727,145</b>	<b>1,273,397</b>	<b>3,734,174</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.262	0.200	0.541	2.003		
		2000/2001		0.541	0.589	0.753	1.883		
		2001/2002		0.835	0.254	0.610	1.699		
		2002/2003		0.384	0.092	0.192	0.669		
		2003/2004		0.254	0.216	0.284	0.754		
		<b>MA Total Pure Premium:</b>		<b>0.653</b>	<b>0.274</b>	<b>0.479</b>	<b>1.406</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.735	0.552	0.536			
		(14) Massachusetts Credibility:		0.40	0.88	0.89			
		(15) Countrywide Pure Premium:		0.440	0.274	0.490	1.204		
		(16) Countrywide Indicated Relativity:		0.528	0.596	0.582			
		(17) Countrywide Credibility:		0.30	0.06	0.06			
		(18) Countrywide Lost-time Claims:		114	1,190				
		(19) Pure Premium Underlying Present Rate:		0.583	0.434	0.669	1.686		
		(20) Relativity to Underlying Present Rate:		0.926	0.660	0.834			
		(21) Credibility to Underlying Relativity:		0.300	0.060	0.050			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		0.730	0.561	0.554			
		(24) Balanced Formula Relativity:		0.735	0.560	0.553	0.625		

Class(es): 4558 PAINT MFG		Effective: 9/1/2007						Manufacturing	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	160,581	1	8	258,692	293,718	158,578	710,987		
2000/2001	156,037	2	4	350,152	3,336	271,363	624,852		
2001/2002	115,824	2	5	175,187	46,201	155,198	376,586		
2002/2003	118,315	1	5	119,608	56,948	62,555	239,111		
2003/2004	120,458	1	4	316,238	32,052	58,812	407,102		
<b>MA Total</b>	<b>671,215</b>	<b>7</b>	<b>26</b>	<b>1,219,877</b>	<b>432,255</b>	<b>706,506</b>	<b>2,358,638</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.611	1.829	0.988	4.428		
		2000/2001		2.244	0.021	1.739	4.005		
		2001/2002		1.513	0.399	1.340	3.251		
		2002/2003		1.011	0.481	0.529	2.021		
		2003/2004		2.625	0.266	0.488	3.380		
		<b>MA Total Pure Premium:</b>		<b>1.817</b>	<b>0.644</b>	<b>1.053</b>	<b>3.514</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.046	1.299	1.177			
		(14) Massachusetts Credibility:		0.21	0.67	0.55			
		(15) Countrywide Pure Premium:		0.749	0.375	0.777	1.900		
		(16) Countrywide Indicated Relativity:		0.899	0.814	0.922			
		(17) Countrywide Credibility:		0.40	0.17	0.23			
		(18) Countrywide Lost-time Claims:		134	1,404				
		(19) Pure Premium Underlying Present Rate:		0.477	0.892	0.813	2.182		
		(20) Relativity to Underlying Present Rate:		0.756	1.356	1.014			
		(21) Credibility to Underlying Relativity:		0.390	0.160	0.220			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		1.084	1.226	1.082			
		(24) Balanced Formula Relativity:		1.092	1.222	1.080	1.116		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000173 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 98

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4583 FERTILIZER MFG & DRIVERS*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	41,952	0	3	0	4,033	5,244	9,277		
2000/2001	27,657	0	0	0	0	1,573	1,573		
2001/2002	36,336	1	2	153,082	13,447	42,406	208,935		
2002/2003	40,799	0	1	0	383	16,065	16,448		
2003/2004	39,024	0	3	0	50,669	66,147	116,816		
<b>MA Total</b>	<b>185,768</b>	<b>1</b>	<b>9</b>	<b>153,082</b>	<b>68,533</b>	<b>131,434</b>	<b>353,049</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.096	0.125			0.221	
		2000/2001	0.000	0.000	0.057			0.057	
		2001/2002	4.213	0.370	1.167			5.750	
		2002/2003	0.000	0.009	0.394			0.403	
		2003/2004	0.000	1.298	1.695			2.993	
		<b>MA Total Pure Premium:</b>	<b>0.824</b>	<b>0.369</b>	<b>0.708</b>			<b>1.900</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.928	0.744	0.791				
		(14) Massachusetts Credibility:	0.20	0.29	0.32				
		(15) Countrywide Pure Premium:	1.909	0.590	1.524			4.023	
		(16) Countrywide Indicated Relativity:	2.292	1.282	1.810				
		(17) Countrywide Credibility:	0.40	0.36	0.34				
		(18) Countrywide Lost-time Claims:	124	1,133					
		(19) Pure Premium Underlying Present Rate:	1.423	0.406	0.771			2.599	
		(20) Relativity to Underlying Present Rate:	2.258	0.617	0.961				
		(21) Credibility to Underlying Relativity:	0.400	0.350	0.340				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	2.006	0.893	1.195				
		(24) Balanced Formula Relativity:	2.019	0.890	1.193			1.449	

Class(es):		Effective: 9/1/2007						Manufacturing	
4611 DRUG MEDICINE OR PHARMACEUTICAL PREP-NO MFG OF INGREDIENTS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	378,139	0	21	0	105,750	181,153	286,903		
2000/2001	353,707	3	17	520,290	140,370	205,399	866,059		
2001/2002	661,539	0	26	0	222,374	216,599	438,973		
2002/2003	365,134	3	22	381,272	197,255	230,846	809,374		
2003/2004	458,948	3	22	687,739	171,577	402,531	1,261,848		
<b>MA Total</b>	<b>2,217,467</b>	<b>9</b>	<b>108</b>	<b>1,589,301</b>	<b>837,327</b>	<b>1,236,529</b>	<b>3,663,157</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.280	0.479			0.759	
		2000/2001	1.471	0.397	0.581			2.449	
		2001/2002	0.000	0.336	0.327			0.664	
		2002/2003	1.044	0.540	0.632			2.217	
		2003/2004	1.499	0.374	0.877			2.749	
		<b>MA Total Pure Premium:</b>	<b>0.717</b>	<b>0.378</b>	<b>0.558</b>			<b>1.652</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.807	0.762	0.623				
		(14) Massachusetts Credibility:	0.30	0.82	0.72				
		(15) Countrywide Pure Premium:	0.332	0.224	0.400			0.956	
		(16) Countrywide Indicated Relativity:	0.398	0.486	0.476				
		(17) Countrywide Credibility:	0.35	0.09	0.14				
		(18) Countrywide Lost-time Claims:	350	3,874					
		(19) Pure Premium Underlying Present Rate:	0.321	0.435	0.474			1.231	
		(20) Relativity to Underlying Present Rate:	0.510	0.661	0.591				
		(21) Credibility to Underlying Relativity:	0.350	0.090	0.140				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895			2.278	
		(23) Formula Relativity:	0.560	0.728	0.598				
		(24) Balanced Formula Relativity:	0.564	0.726	0.597			0.612	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000174 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 99

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
4635 OXYGEN OR HYDROGEN MFG & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	116,829	0	10	0	36,394	41,985	78,379	
2000/2001	128,358	0	7	0	216,099	113,903	330,001	
2001/2002	103,190	2	6	253,471	29,411	154,292	437,174	
2002/2003	120,222	2	8	382,539	60,324	159,499	602,362	
2003/2004	118,474	1	6	342,764	38,820	214,990	596,574	
<b>MA Total</b>	<b>587,073</b>	<b>5</b>	<b>37</b>	<b>978,773</b>	<b>381,049</b>	<b>684,668</b>	<b>2,044,490</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.312	0.359	0.671			
	2000/2001	0.000	1.684	0.887	2.571			
	2001/2002	2.456	0.285	1.495	4.237			
	2002/2003	3.182	0.502	1.327	5.010			
	2003/2004	2.893	0.328	1.815	5.035			
	<b>MA Total Pure Premium:</b>	<b>1.667</b>	<b>0.649</b>	<b>1.166</b>	<b>3.483</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.877	1.310	1.304				
	(14) Massachusetts Credibility:	0.22	0.60	0.47				
	(15) Countrywide Pure Premium:	1.175	0.373	0.808	2.356			
	(16) Countrywide Indicated Relativity:	1.410	0.811	0.959				
	(17) Countrywide Credibility:	0.39	0.20	0.27				
	(18) Countrywide Lost-time Claims:	144	1,120					
	(19) Pure Premium Underlying Present Rate:	0.578	0.771	0.615	1.964			
	(20) Relativity to Underlying Present Rate:	0.918	1.173	0.766				
	(21) Credibility to Underlying Relativity:	0.390	0.200	0.260				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	1.321	1.182	1.071				
	(24) Balanced Formula Relativity:	1.330	1.179	1.069	1.195			

Class(es):		Effective: 9/1/2007						Manufacturing
4653 GLUE MFG & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	16,569	0	3	0	52,055	17,714	69,769	
2000/2001	26,080	0	2	0	12,068	7,857	19,925	
2001/2002	12,558	0	0	0	0	0	0	
2002/2003	13,198	0	0	0	0	1,549	1,549	
2003/2004	15,106	0	0	0	0	5,134	5,134	
<b>MA Total</b>	<b>83,511</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>64,123</b>	<b>32,254</b>	<b>96,377</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	3.142	1.069	4.211			
	2000/2001	0.000	0.463	0.301	0.764			
	2001/2002	0.000	0.000	0.000	0.000			
	2002/2003	0.000	0.000	0.117	0.117			
	2003/2004	0.000	0.000	0.340	0.340			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.768</b>	<b>0.386</b>	<b>1.154</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	1.549	0.432				
	(14) Massachusetts Credibility:	0.10	0.47	0.32				
	(15) Countrywide Pure Premium:	0.260	0.295	0.435	0.990			
	(16) Countrywide Indicated Relativity:	0.312	0.641	0.517				
	(17) Countrywide Credibility:	0.15	0.27	0.34				
	(18) Countrywide Lost-time Claims:	4	96					
	(19) Pure Premium Underlying Present Rate:	0.624	2.859	1.602	5.085			
	(20) Relativity to Underlying Present Rate:	0.990	4.346	1.997				
	(21) Credibility to Underlying Relativity:	0.750	0.260	0.340				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	0.789	2.031	0.993				
	(24) Balanced Formula Relativity:	0.794	2.025	0.991	1.139			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000175 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 100

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4665 RENDERING WORKS NOC & DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	30,140	1	9	134,719	55,545	109,575	299,840		
2000/2001	7,561	0	1	0	15,803	6,042	21,845		
2001/2002	30,588	0	11	0	52,500	42,386	94,886		
2002/2003	32,400	1	5	175,621	40,058	331,457	547,136		
2003/2004	34,793	0	6	0	54,671	54,990	109,660		
<b>MA Total</b>	<b>135,482</b>	<b>2</b>	<b>32</b>	<b>310,340</b>	<b>218,577</b>	<b>544,449</b>	<b>1,073,367</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	4.470	1.843	3.636	9.948			
		2000/2001	0.000	2.090	0.799	2.889			
		2001/2002	0.000	1.716	1.386	3.102			
		2002/2003	5.420	1.236	10.230	16.887			
		2003/2004	0.000	1.571	1.580	3.152			
		<b>MA Total Pure Premium:</b>	<b>2.291</b>	<b>1.613</b>	<b>4.019</b>	<b>7.923</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	2.579	3.255	4.492				
		(14) Massachusetts Credibility:	0.18	0.41	0.43				
		(15) Countrywide Pure Premium:	3.128	0.905	1.966	5.998			
		(16) Countrywide Indicated Relativity:	3.755	1.965	2.335				
		(17) Countrywide Credibility:	0.41	0.30	0.29				
		(18) Countrywide Lost-time Claims:	96	624					
		(19) Pure Premium Underlying Present Rate:	1.576	1.242	2.090	4.908			
		(20) Relativity to Underlying Present Rate:	2.501	1.888	2.606				
		(21) Credibility to Underlying Relativity:	0.410	0.290	0.280				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	3.029	2.472	3.338				
		(24) Balanced Formula Relativity:	3.049	2.464	3.332	3.033			

Class(es):		Effective: 9/1/2007						Manufacturing	
4692 DENTAL LABORATORY									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	186,177	0	3	0	9,902	47,038	56,940		
2000/2001	188,385	0	5	0	30,213	48,044	78,257		
2001/2002	189,609	0	5	0	5,661	14,663	20,324		
2002/2003	193,141	0	2	0	10,517	18,366	28,884		
2003/2004	203,954	0	3	0	57,910	50,013	107,923		
<b>MA Total</b>	<b>961,266</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>114,203</b>	<b>178,125</b>	<b>292,327</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.053	0.253	0.306			
		2000/2001	0.000	0.160	0.255	0.415			
		2001/2002	0.000	0.030	0.077	0.107			
		2002/2003	0.000	0.054	0.095	0.150			
		2003/2004	0.000	0.284	0.245	0.529			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.119</b>	<b>0.185</b>	<b>0.304</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.240	0.207				
		(14) Massachusetts Credibility:	0.16	0.39	0.35				
		(15) Countrywide Pure Premium:	0.197	0.155	0.249	0.601			
		(16) Countrywide Indicated Relativity:	0.236	0.337	0.296				
		(17) Countrywide Credibility:	0.42	0.31	0.33				
		(18) Countrywide Lost-time Claims:	68	549					
		(19) Pure Premium Underlying Present Rate:	0.168	0.157	0.176	0.501			
		(20) Relativity to Underlying Present Rate:	0.266	0.239	0.219				
		(21) Credibility to Underlying Relativity:	0.420	0.300	0.320				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	0.211	0.270	0.240				
		(24) Balanced Formula Relativity:	0.212	0.269	0.240	0.235			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000176 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 101

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
4693 PHARMACEUTICAL OR SURGICAL GOODS MFG NOC								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	201,524	1	18	55,670	261,757	240,117	557,545	
2000/2001	174,223	0	4	0	59,512	34,054	93,566	
2001/2002	171,620	0	5	0	30,860	31,714	62,573	
2002/2003	192,915	0	6	0	60,757	16,119	76,875	
2003/2004	158,078	0	6	0	67,203	60,587	127,790	
<b>MA Total</b>	<b>898,360</b>	<b>1</b>	<b>39</b>	<b>55,670</b>	<b>480,089</b>	<b>382,591</b>	<b>918,350</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.276	1.299	1.192	2.767			
	2000/2001	0.000	0.342	0.195	0.537			
	2001/2002	0.000	0.180	0.185	0.365			
	2002/2003	0.000	0.315	0.084	0.398			
	2003/2004	0.000	0.425	0.383	0.808			
	<b>MA Total Pure Premium:</b>	<b>0.062</b>	<b>0.534</b>	<b>0.426</b>	<b>1.022</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.070	1.078	0.476				
	(14) Massachusetts Credibility:	0.19	0.49	0.45				
	(15) Countrywide Pure Premium:	0.259	0.173	0.331	0.764			
	(16) Countrywide Indicated Relativity:	0.311	0.377	0.393				
	(17) Countrywide Credibility:	0.41	0.26	0.28				
	(18) Countrywide Lost-time Claims:	90	1,408					
	(19) Pure Premium Underlying Present Rate:	0.251	0.301	0.364	0.916			
	(20) Relativity to Underlying Present Rate:	0.398	0.458	0.453				
	(21) Credibility to Underlying Relativity:	0.400	0.250	0.270				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	0.300	0.741	0.447				
	(24) Balanced Formula Relativity:	0.302	0.738	0.446	0.454			

Class(es):		Effective: 9/1/2007						Manufacturing
4720 SOAP OR SYNTHETIC DETERGENT MFG								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	104,758	1	12	88,419	53,619	105,621	247,659	
2000/2001	96,910	0	5	0	22,871	24,683	47,554	
2001/2002	107,852	0	3	0	3,963	28,798	32,761	
2002/2003	110,067	1	5	78,837	21,572	118,604	219,013	
2003/2004	122,791	0	7	0	74,336	33,098	107,434	
<b>MA Total</b>	<b>542,378</b>	<b>2</b>	<b>32</b>	<b>167,256</b>	<b>176,361</b>	<b>310,803</b>	<b>654,421</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.844	0.512	1.008	2.364			
	2000/2001	0.000	0.236	0.255	0.491			
	2001/2002	0.000	0.037	0.267	0.304			
	2002/2003	0.716	0.196	1.078	1.990			
	2003/2004	0.000	0.605	0.270	0.875			
	<b>MA Total Pure Premium:</b>	<b>0.308</b>	<b>0.325</b>	<b>0.573</b>	<b>1.207</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.347	0.656	0.641				
	(14) Massachusetts Credibility:	0.25	0.56	0.64				
	(15) Countrywide Pure Premium:	0.875	0.457	0.830	2.162			
	(16) Countrywide Indicated Relativity:	1.050	0.992	0.986				
	(17) Countrywide Credibility:	0.38	0.22	0.18				
	(18) Countrywide Lost-time Claims:	70	1,079					
	(19) Pure Premium Underlying Present Rate:	0.867	0.684	1.458	3.009			
	(20) Relativity to Underlying Present Rate:	1.376	1.039	1.818				
	(21) Credibility to Underlying Relativity:	0.370	0.220	0.180				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	0.995	0.814	0.915				
	(24) Balanced Formula Relativity:	1.002	0.812	0.913	0.926			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000177 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 102

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4740 OIL REFINING - PETROLEUM & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	8,075	0	0	0	0	1,806	1,806		
2000/2001	13,048	0	1	0	6,497	6,272	12,770		
2001/2002	9,271	0	0	0	0	1,134	1,134		
2002/2003	12,040	0	0	0	0	0	0		
2003/2004	15,769	0	0	0	0	0	0		
<b>MA Total</b>	<b>58,203</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6,497</b>	<b>9,212</b>	<b>15,709</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.224	0.224				
	2000/2001	0.000	0.498	0.481	0.979				
	2001/2002	0.000	0.000	0.122	0.122				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.000	0.000	0.000				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.112</b>	<b>0.158</b>	<b>0.270</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	0.225	0.177					
	(14) Massachusetts Credibility:	0.08	0.17	0.17					
	(15) Countrywide Pure Premium:	0.674	0.198	0.433	1.305				
	(16) Countrywide Indicated Relativity:	0.809	0.429	0.515					
	(17) Countrywide Credibility:	0.46	0.42	0.42					
	(18) Countrywide Lost-time Claims:	197	1,230						
	(19) Pure Premium Underlying Present Rate:	0.536	0.322	0.511	1.369				
	(20) Relativity to Underlying Present Rate:	0.851	0.489	0.637					
	(21) Credibility to Underlying Relativity:	0.460	0.410	0.410					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	0.764	0.419	0.507					
	(24) Balanced Formula Relativity:	0.769	0.418	0.506	0.589				

Class(es):		Effective: 9/1/2007						Manufacturing	
4741 ASPHALT OR TAR DISTILLING OR REFINING & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	49	0	0	0	0	0	0		
2000/2001	50	0	0	0	0	0	0		
2001/2002	39,025	0	6	0	112,547	21,623	134,170		
2002/2003	19	0	0	0	0	0	0		
2003/2004	3,137	0	0	0	0	0	0		
<b>MA Total</b>	<b>42,280</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>112,547</b>	<b>21,623</b>	<b>134,170</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.000	0.000				
	2000/2001	0.000	0.000	0.000	0.000				
	2001/2002	0.000	2.884	0.554	3.438				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.000	0.000	0.000				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>2.662</b>	<b>0.511</b>	<b>3.173</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	5.371	0.572					
	(14) Massachusetts Credibility:	0.09	0.25	0.17					
	(15) Countrywide Pure Premium:	1.406	0.297	0.643	2.346				
	(16) Countrywide Indicated Relativity:	1.688	0.644	0.764					
	(17) Countrywide Credibility:	0.24	0.38	0.42					
	(18) Countrywide Lost-time Claims:	13	156						
	(19) Pure Premium Underlying Present Rate:	0.853	1.155	0.668	2.677				
	(20) Relativity to Underlying Present Rate:	1.354	1.756	0.833					
	(21) Credibility to Underlying Relativity:	0.670	0.370	0.410					
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278				
	(23) Formula Relativity:	1.312	2.237	0.760					
	(24) Balanced Formula Relativity:	1.321	2.230	0.758	1.298				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000178 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 103

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
4770 EXPLOSIVES OR AMMUNITION MFG: BAG LOADING-PROPLNT CHRGS &DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.00	0.00	0.00				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000			
		(16) Countrywide Indicated Relativity:	12.059	2.112	1.260				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	7.652	1.402	1.019	10.072			
		(20) Relativity to Underlying Present Rate:	12.145	2.131	1.270				
		(21) Credibility to Underlying Relativity:	1.000	1.000	1.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	12.145	2.131	1.270				
		(24) Balanced Formula Relativity:	12.227	2.124	1.267	5.726			

Class(es):		Effective: 9/1/2007						Manufacturing	
4773 EXPLOSIVES OR AMMUNITION MFG: HIGH EXPLOSIVES MFG & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.00	0.00	0.00				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000			
		(16) Countrywide Indicated Relativity:	24.821	3.847	2.366				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	15.749	2.553	1.912	20.214			
		(20) Relativity to Underlying Present Rate:	24.996	3.881	2.383				
		(21) Credibility to Underlying Relativity:	1.000	1.000	1.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	24.996	3.881	2.383				
		(24) Balanced Formula Relativity:	25.166	3.868	2.379	11.587			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000179 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 104

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing	
		4774 EXPLOSIVES OR AMMUNITION MFG: SMOKELESS PWDR MFG-SNGL BS &DR							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.00	0.00	0.00				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000			
		(16) Countrywide Indicated Relativity:	19.874	3.903	2.198				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	12.610	2.590	1.776	16.977			
		(20) Relativity to Underlying Present Rate:	20.015	3.937	2.215				
		(21) Credibility to Underlying Relativity:	1.000	1.000	1.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	20.015	3.937	2.215				
		(24) Balanced Formula Relativity:	20.151	3.925	2.210	9.577			

Class(es):		Effective: 9/1/2007						Manufacturing	
		4775 EXPLOSIVES OR AMMUNITION MFG: SHELL CASE LOADING & DRIVERS							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	0	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.00	0.00	0.00				
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000			
		(16) Countrywide Indicated Relativity:	11.001	2.001	2.261				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	0	0					
		(19) Pure Premium Underlying Present Rate:	6.980	1.328	1.827	10.135			
		(20) Relativity to Underlying Present Rate:	11.079	2.019	2.278				
		(21) Credibility to Underlying Relativity:	1.000	1.000	1.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	11.079	2.019	2.278				
		(24) Balanced Formula Relativity:	11.154	2.012	2.274	5.679			

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000180 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 105

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
4776 EXPLOSIVES OR AMMUNITION MFG: PROJCTL,BOMB, MINE,GRENADE &DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
1999/2000		0.000	0.000	0.000	0.000			
2000/2001		0.000	0.000	0.000	0.000			
2001/2002		0.000	0.000	0.000	0.000			
2002/2003		0.000	0.000	0.000	0.000			
2003/2004		0.000	0.000	0.000	0.000			
<b>MA Total Pure Premium:</b>		<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
(13) Massachusetts Indicated Relativity:		0.000	0.000	0.000				
(14) Massachusetts Credibility:		0.00	0.00	0.00				
(15) Countrywide Pure Premium:		0.000	0.000	0.000	0.000			
(16) Countrywide Indicated Relativity:		18.644	2.350	1.208				
(17) Countrywide Credibility:		0.00	0.00	0.00				
(18) Countrywide Lost-time Claims:		0	0					
(19) Pure Premium Underlying Present Rate:		11.830	1.560	0.977	14.366			
(20) Relativity to Underlying Present Rate:		18.776	2.371	1.217				
(21) Credibility to Underlying Relativity:		1.000	1.000	1.000				
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278			
(23) Formula Relativity:		18.776	2.371	1.217				
(24) Balanced Formula Relativity:		18.903	2.363	1.215	8.361			

Class(es):		Effective: 9/1/2007						Manufacturing
4779 EXPLOSIVES OR AMMUNITION MFG: CAP,PRIMER,FUSE, ASSEMBLY & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
1999/2000		0.000	0.000	0.000	0.000			
2000/2001		0.000	0.000	0.000	0.000			
2001/2002		0.000	0.000	0.000	0.000			
2002/2003		0.000	0.000	0.000	0.000			
2003/2004		0.000	0.000	0.000	0.000			
<b>MA Total Pure Premium:</b>		<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
(13) Massachusetts Indicated Relativity:		0.000	0.000	0.000				
(14) Massachusetts Credibility:		0.00	0.00	0.00				
(15) Countrywide Pure Premium:		0.000	0.000	0.023	0.023			
(16) Countrywide Indicated Relativity:		0.000	0.000	0.028				
(17) Countrywide Credibility:		0.00	0.00	0.00				
(18) Countrywide Lost-time Claims:		0	0					
(19) Pure Premium Underlying Present Rate:		9.331	1.662	2.156	13.148			
(20) Relativity to Underlying Present Rate:		14.809	2.526	2.687				
(21) Credibility to Underlying Relativity:		1.000	1.000	1.000				
(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278			
(23) Formula Relativity:		14.809	2.526	2.687				
(24) Balanced Formula Relativity:		14.910	2.517	2.682	7.414			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000181 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 106

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
4799 EXPLOSIVES OR AMMUNITION MFG: BLACK POWDER MFG & DRIVERS								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	0	0	0	0	0	0	0	
2000/2001	0	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	0.000	0.000	0.000	0.000		
		2000/2001	0.000	0.000	0.000	0.000		
		2001/2002	0.000	0.000	0.000	0.000		
		2002/2003	0.000	0.000	0.000	0.000		
		2003/2004	0.000	0.000	0.000	0.000		
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>		
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000			
		(14) Massachusetts Credibility:	0.00	0.00	0.00			
		(15) Countrywide Pure Premium:	0.000	0.000	0.000	0.000		
		(16) Countrywide Indicated Relativity:	44.363	7.849	4.647			
		(17) Countrywide Credibility:	0.00	0.00	0.00			
		(18) Countrywide Lost-time Claims:	0	0				
		(19) Pure Premium Underlying Present Rate:	28.148	5.209	3.756	37.113		
		(20) Relativity to Underlying Present Rate:	44.676	7.918	4.682			
		(21) Credibility to Underlying Relativity:	1.000	1.000	1.000			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	44.676	7.918	4.682			
		(24) Balanced Formula Relativity:	44.980	7.892	4.673	21.087		

Class(es):		Effective: 9/1/2007						Manufacturing
4825 DRUG, MEDICINE OR PHARM PREP MFG & INCIDENTL MFG INGREDIENTS								
		Adjusted Converted Loss and Loss Adjustment Expense						
Policy Period (1)	Exposure (2)	Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	312,900	0	6	0	35,955	122,267	158,222	
2000/2001	269,542	1	2	75,046	581	31,036	106,663	
2001/2002	1,099,355	0	3	0	45,321	97,304	142,625	
2002/2003	473,556	1	3	78,971	51,588	97,328	227,886	
2003/2004	451,552	0	4	0	34,757	62,850	97,606	
<b>MA Total</b>	<b>2,606,905</b>	<b>2</b>	<b>18</b>	<b>154,017</b>	<b>168,201</b>	<b>410,784</b>	<b>733,002</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	0.000	0.115	0.391	0.506		
		2000/2001	0.278	0.002	0.115	0.396		
		2001/2002	0.000	0.041	0.089	0.130		
		2002/2003	0.167	0.109	0.206	0.481		
		2003/2004	0.000	0.077	0.139	0.216		
		<b>MA Total Pure Premium:</b>	<b>0.059</b>	<b>0.065</b>	<b>0.158</b>	<b>0.281</b>		
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.067	0.130	0.176			
		(14) Massachusetts Credibility:	0.25	0.53	0.61			
		(15) Countrywide Pure Premium:	0.226	0.126	0.284	0.636		
		(16) Countrywide Indicated Relativity:	0.271	0.274	0.337			
		(17) Countrywide Credibility:	0.38	0.24	0.20			
		(18) Countrywide Lost-time Claims:	65	991				
		(19) Pure Premium Underlying Present Rate:	0.179	0.127	0.265	0.571		
		(20) Relativity to Underlying Present Rate:	0.285	0.193	0.330			
		(21) Credibility to Underlying Relativity:	0.370	0.230	0.190			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	0.225	0.179	0.238			
		(24) Balanced Formula Relativity:	0.226	0.179	0.237	0.220		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000182 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 107

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
4828 CHEMICAL BLENDING OR MIXING NOC- ALL OPERS & DR*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	572,404	0	4	0	4,864	31,288	36,152	
2000/2001	473,934	2	16	128,168	78,225	135,935	342,328	
2001/2002	664,240	2	12	340,098	85,039	121,654	546,791	
2002/2003	675,472	0	11	0	51,181	94,726	145,907	
2003/2004	650,944	2	13	418,777	149,654	561,231	1,129,662	
<b>MA Total</b>	<b>3,036,994</b>	<b>6</b>	<b>56</b>	<b>887,044</b>	<b>368,962</b>	<b>944,834</b>	<b>2,200,840</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.008	0.055	0.063			
	2000/2001	0.270	0.165	0.287	0.722			
	2001/2002	0.512	0.128	0.183	0.823			
	2002/2003	0.000	0.076	0.140	0.216			
	2003/2004	0.643	0.230	0.862	1.735			
	<b>MA Total Pure Premium:</b>	<b>0.292</b>	<b>0.121</b>	<b>0.311</b>	<b>0.725</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.329	0.245	0.348				
	(14) Massachusetts Credibility:	0.34	0.65	0.60				
	(15) Countrywide Pure Premium:	0.689	0.229	0.440	1.357			
	(16) Countrywide Indicated Relativity:	0.827	0.496	0.523				
	(17) Countrywide Credibility:	0.33	0.18	0.20				
	(18) Countrywide Lost-time Claims:	350	2,999					
	(19) Pure Premium Underlying Present Rate:	0.324	0.178	0.220	0.722			
	(20) Relativity to Underlying Present Rate:	0.514	0.271	0.274				
	(21) Credibility to Underlying Relativity:	0.330	0.170	0.200				
	(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
	(23) Formula Relativity:	0.554	0.295	0.368				
	(24) Balanced Formula Relativity:	0.558	0.294	0.367	0.426			

Class(es):		Effective: 9/1/2007						Construction
5020 CEILING INSTALLATION-SUSPENDED ACOUSTICAL GRID								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	178,088	4	33	460,808	237,539	221,501	919,848	
2000/2001	209,009	4	16	790,244	120,218	371,794	1,282,255	
2001/2002	201,127	2	19	285,907	242,240	232,547	760,694	
2002/2003	209,387	6	14	1,395,461	106,910	607,509	2,109,880	
2003/2004	196,154	1	13	291,623	99,071	253,842	644,537	
<b>MA Total</b>	<b>993,765</b>	<b>17</b>	<b>95</b>	<b>3,224,044</b>	<b>805,977</b>	<b>1,687,193</b>	<b>5,717,214</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.588	1.334	1.244	5.165			
	2000/2001	3.781	0.575	1.779	6.135			
	2001/2002	1.422	1.204	1.156	3.782			
	2002/2003	6.665	0.511	2.901	10.076			
	2003/2004	1.487	0.505	1.294	3.286			
	<b>MA Total Pure Premium:</b>	<b>3.244</b>	<b>0.811</b>	<b>1.698</b>	<b>5.753</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.090	0.887	0.855				
	(14) Massachusetts Credibility:	0.42	0.87	0.77				
	(15) Countrywide Pure Premium:	3.517	0.912	1.782	6.210			
	(16) Countrywide Indicated Relativity:	1.263	1.010	0.935				
	(17) Countrywide Credibility:	0.29	0.07	0.12				
	(18) Countrywide Lost-time Claims:	197	1,134					
	(19) Pure Premium Underlying Present Rate:	1.686	1.137	1.271	4.093			
	(20) Relativity to Underlying Present Rate:	0.722	0.824	0.632				
	(21) Credibility to Underlying Relativity:	0.290	0.060	0.110				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.034	0.892	0.840				
	(24) Balanced Formula Relativity:	1.046	0.892	0.844	0.954			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000183 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 108

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5022 MASONRY NOC								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	805,141	28	144	5,944,630	1,985,868	2,180,385	10,110,883	
2000/2001	952,940	33	169	5,551,246	1,747,219	3,689,382	10,987,847	
2001/2002	955,649	37	134	6,897,679	1,138,906	4,416,771	12,453,356	
2002/2003	945,997	24	126	4,712,575	977,662	2,849,638	8,539,875	
2003/2004	895,242	10	101	3,414,117	1,530,349	2,256,141	7,200,607	
<b>MA Total</b>	<b>4,554,969</b>	<b>132</b>	<b>674</b>	<b>26,520,248</b>	<b>7,380,004</b>	<b>15,392,317</b>	<b>49,292,568</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	7.383	2.466	2.708	12.558			
	2000/2001	5.825	1.834	3.872	11.530			
	2001/2002	7.218	1.192	4.622	13.031			
	2002/2003	4.982	1.033	3.012	9.027			
	2003/2004	3.814	1.709	2.520	8.043			
	<b>MA Total Pure Premium:</b>	<b>5.822</b>	<b>1.620</b>	<b>3.379</b>	<b>10.822</b>			
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.956	1.772	1.702				
	(14) Massachusetts Credibility:	1.00	1.00	1.00				
	(15) Countrywide Pure Premium:	4.051	1.181	2.380	7.612			
	(16) Countrywide Indicated Relativity:	1.455	1.309	1.249				
	(17) Countrywide Credibility:	0.00	0.00	0.00				
	(18) Countrywide Lost-time Claims:	1.877	14.415					
	(19) Pure Premium Underlying Present Rate:	5.048	3.365	3.733	12.147			
	(20) Relativity to Underlying Present Rate:	2.162	2.439	1.857				
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.956	1.772	1.702				
	(24) Balanced Formula Relativity:	1.981	1.773	1.709	1.857			

Class(es):		Effective: 9/1/2007						Construction
5037 PAINTING: METAL STRUCTURES-OVER 2 STORIES IN HEIGHT & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	6,124	0	1	0	778	3,824	4,602	
2000/2001	13,019	1	2	308,521	34,369	85,578	428,467	
2001/2002	17,318	2	1	343,436	4,144	220,398	567,978	
2002/2003	23,033	1	2	411,772	46,078	155,115	612,965	
2003/2004	15,148	0	0	0	0	0	0	
<b>MA Total</b>	<b>74,642</b>	<b>4</b>	<b>6</b>	<b>1,063,729</b>	<b>85,369</b>	<b>464,915</b>	<b>1,614,012</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.127	0.624	0.751			
	2000/2001	23.698	2.640	6.574	32.912			
	2001/2002	19.831	0.239	12.727	32.797			
	2002/2003	17.878	2.001	6.735	26.613			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>14.251</b>	<b>1.144</b>	<b>6.229</b>	<b>21.623</b>			
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	4.789	1.251	3.137				
	(14) Massachusetts Credibility:	0.32	0.47	0.51				
	(15) Countrywide Pure Premium:	7.910	1.859	3.718	13.487			
	(16) Countrywide Indicated Relativity:	2.841	2.059	1.951				
	(17) Countrywide Credibility:	0.34	0.27	0.25				
	(18) Countrywide Lost-time Claims:	48	170					
	(19) Pure Premium Underlying Present Rate:	11.611	3.214	5.910	20.735			
	(20) Relativity to Underlying Present Rate:	4.973	2.329	2.940				
	(21) Credibility to Underlying Relativity:	0.340	0.260	0.240				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	4.189	1.750	2.793				
	(24) Balanced Formula Relativity:	4.241	1.751	2.805	3.368			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000184 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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 Exhibit 109

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5040 IRON OR STEEL: ERECTION: ERECTION-FRAME STRUCTURES								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	166,178	16	48	3,337,684	752,362	1,925,657	6,015,703	
2000/2001	249,886	29	69	6,197,604	708,753	3,201,051	10,107,408	
2001/2002	134,146	16	60	4,315,135	549,154	1,785,590	6,649,880	
2002/2003	119,840	24	35	6,951,975	897,192	2,893,001	10,742,168	
2003/2004	87,823	5	22	1,661,086	337,407	778,032	2,776,525	
<b>MA Total</b>	<b>757,873</b>	<b>90</b>	<b>234</b>	<b>22,463,484</b>	<b>3,244,869</b>	<b>10,583,332</b>	<b>36,291,684</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	20.085	4.527	11.588	36.200			
	2000/2001	24.802	2.836	12.810	40.448			
	2001/2002	32.167	4.094	13.311	49.572			
	2002/2003	58.011	7.487	24.141	89.638			
	2003/2004	18.914	3.842	8.859	31.615			
	<b>MA Total Pure Premium:</b>	<b>29.640</b>	<b>4.282</b>	<b>13.965</b>	<b>47.886</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	9.960	4.683	7.034				
	(14) Massachusetts Credibility:	0.94	1.00	1.00				
	(15) Countrywide Pure Premium:	11.558	2.169	5.557	19.284			
	(16) Countrywide Indicated Relativity:	4.152	2.403	2.916				
	(17) Countrywide Credibility:	0.03	0.00	0.00				
	(18) Countrywide Lost-time Claims:	672	2,436					
	(19) Pure Premium Underlying Present Rate:	16.884	7.556	11.297	35.737			
	(20) Relativity to Underlying Present Rate:	7.231	5.477	5.620				
	(21) Credibility to Underlying Relativity:	0.030	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	9.704	4.683	7.034				
	(24) Balanced Formula Relativity:	9.824	4.685	7.063	8.092			

Class(es):		Effective: 9/1/2007						Construction
5057 IRON OR STEEL: ERECTION-NOC*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	140,945	13	38	3,074,459	391,219	1,207,238	4,672,916	
2000/2001	92,054	13	37	2,151,498	727,631	1,544,393	4,423,521	
2001/2002	83,329	13	22	3,487,457	191,890	1,221,276	4,900,623	
2002/2003	198,412	17	22	5,024,707	305,484	1,780,237	7,110,427	
2003/2004	83,568	8	25	2,185,232	351,157	1,603,982	4,140,371	
<b>MA Total</b>	<b>598,308</b>	<b>64</b>	<b>144</b>	<b>15,923,352</b>	<b>1,967,381</b>	<b>7,357,125</b>	<b>25,247,859</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	21.813	2.776	8.565	33.154			
	2000/2001	23.372	7.904	16.777	48.054			
	2001/2002	41.852	2.303	14.656	58.811			
	2002/2003	25.325	1.540	8.972	35.837			
	2003/2004	26.149	4.202	19.194	49.545			
	<b>MA Total Pure Premium:</b>	<b>26.614</b>	<b>3.288</b>	<b>12.297</b>	<b>42.199</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	8.943	3.596	6.194				
	(14) Massachusetts Credibility:	0.85	1.00	1.00				
	(15) Countrywide Pure Premium:	9.142	1.574	4.886	15.603			
	(16) Countrywide Indicated Relativity:	3.284	1.744	2.564				
	(17) Countrywide Credibility:	0.08	0.00	0.00				
	(18) Countrywide Lost-time Claims:	672	2,596					
	(19) Pure Premium Underlying Present Rate:	16.777	6.331	10.451	33.559			
	(20) Relativity to Underlying Present Rate:	7.186	4.589	5.199				
	(21) Credibility to Underlying Relativity:	0.070	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	8.367	3.596	6.194				
	(24) Balanced Formula Relativity:	8.471	3.598	6.219	6.952			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000185 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 110

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5102 DOOR, DOOR FRAME OR SASH ERECTION - METAL OR METAL COVERED								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	310,350	8	49	1,356,546	541,020	612,742	2,510,308	
2000/2001	327,422	6	36	1,055,702	578,891	811,534	2,446,126	
2001/2002	351,404	7	32	2,058,993	301,354	601,740	2,962,087	
2002/2003	453,523	5	25	1,910,282	346,652	660,261	2,917,195	
2003/2004	359,163	1	29	471,911	497,215	637,024	1,606,150	
<b>MA Total</b>	<b>1,801,862</b>	<b>27</b>	<b>171</b>	<b>6,853,433</b>	<b>2,265,133</b>	<b>3,323,302</b>	<b>12,441,868</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	4.371	1.743	1.974	8.089			
	2000/2001	3.224	1.768	2.479	7.471			
	2001/2002	5.859	0.858	1.712	8.429			
	2002/2003	4.212	0.764	1.456	6.432			
	2003/2004	1.314	1.384	1.774	4.472			
	<b>MA Total Pure Premium:</b>	<b>3.804</b>	<b>1.257</b>	<b>1.844</b>	<b>6.905</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.278	1.375	0.929				
	(14) Massachusetts Credibility:	0.68	1.00	1.00				
	(15) Countrywide Pure Premium:	3.149	0.950	2.112	6.211			
	(16) Countrywide Indicated Relativity:	1.131	1.053	1.108				
	(17) Countrywide Credibility:	0.16	0.00	0.00				
	(18) Countrywide Lost-time Claims:	422	2,382					
	(19) Pure Premium Underlying Present Rate:	3.180	2.781	2.589	8.549			
	(20) Relativity to Underlying Present Rate:	1.362	2.015	1.288				
	(21) Credibility to Underlying Relativity:	0.160	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.268	1.375	0.929				
	(24) Balanced Formula Relativity:	1.284	1.376	0.933	1.179			

Class(es):		Effective: 9/1/2007						Construction
5146 FURNITURE OR FIXTURES INSTALLATION - PORTABLE - NOC								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	365,346	7	43	1,006,842	483,256	736,249	2,226,346	
2000/2001	332,300	6	37	786,574	139,047	497,348	1,422,969	
2001/2002	402,365	6	43	1,059,642	530,763	842,861	2,433,266	
2002/2003	412,823	4	36	742,349	400,927	589,130	1,732,405	
2003/2004	406,524	4	36	1,153,107	608,284	626,748	2,388,139	
<b>MA Total</b>	<b>1,919,358</b>	<b>27</b>	<b>195</b>	<b>4,748,514</b>	<b>2,162,277</b>	<b>3,292,335</b>	<b>10,203,126</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.756	1.323	2.015	6.094			
	2000/2001	2.367	0.418	1.497	4.282			
	2001/2002	2.634	1.319	2.095	6.047			
	2002/2003	1.798	0.971	1.427	4.196			
	2003/2004	2.837	1.496	1.542	5.875			
	<b>MA Total Pure Premium:</b>	<b>2.474</b>	<b>1.127</b>	<b>1.715</b>	<b>5.316</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.831	1.232	0.864				
	(14) Massachusetts Credibility:	0.54	1.00	1.00				
	(15) Countrywide Pure Premium:	2.154	0.919	1.482	4.555			
	(16) Countrywide Indicated Relativity:	0.774	1.019	0.778				
	(17) Countrywide Credibility:	0.23	0.00	0.00				
	(18) Countrywide Lost-time Claims:	741	4,901					
	(19) Pure Premium Underlying Present Rate:	1.664	1.469	1.972	5.106			
	(20) Relativity to Underlying Present Rate:	0.713	1.065	0.981				
	(21) Credibility to Underlying Relativity:	0.230	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.791	1.232	0.864				
	(24) Balanced Formula Relativity:	0.801	1.233	0.868	0.891			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000186 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 111

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5160 ELEVATOR ERECTION OR REPAIR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	255,078	2	18	332,441	239,941	283,270	855,652	
2000/2001	345,594	1	13	89,824	297,487	196,610	583,921	
2001/2002	396,923	3	16	820,144	338,012	499,240	1,657,396	
2002/2003	323,821	2	6	370,734	216,394	309,344	896,472	
2003/2004	331,588	2	16	483,567	148,225	794,116	1,425,908	
<b>MA Total</b>	<b>1,653,004</b>	<b>10</b>	<b>69</b>	<b>2,096,710</b>	<b>1,240,058</b>	<b>2,082,580</b>	<b>5,419,349</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	1.303	0.941	1.111	3.354	
			2000/2001	0.260	0.861	0.569	1.690	
			2001/2002	2.066	0.852	1.258	4.176	
			2002/2003	1.145	0.668	0.955	2.768	
			2003/2004	1.458	0.447	2.395	4.300	
			<b>MA Total Pure Premium:</b>	<b>1.268</b>	<b>0.750</b>	<b>1.260</b>	<b>3.278</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	0.426	0.820	0.635		
			(14) Massachusetts Credibility:	0.42	0.97	0.81		
			(15) Countrywide Pure Premium:	1.758	0.699	1.164	3.621	
			(16) Countrywide Indicated Relativity:	0.631	0.775	0.611		
			(17) Countrywide Credibility:	0.29	0.02	0.10		
			(18) Countrywide Lost-time Claims:	365	2,531			
			(19) Pure Premium Underlying Present Rate:	1.057	0.895	0.848	2.801	
			(20) Relativity to Underlying Present Rate:	0.453	0.649	0.422		
			(21) Credibility to Underlying Relativity:	0.290	0.010	0.090		
			(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876	
			(23) Formula Relativity:	0.493	0.818	0.613		
			(24) Balanced Formula Relativity:	0.500	0.818	0.616	0.588	

Class(es):		Effective: 9/1/2007						Construction
5183 PLUMBING NOC & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	3,645,516	50	355	10,214,810	3,073,229	6,010,042	19,298,081	
2000/2001	4,059,984	42	344	7,839,671	3,147,577	5,944,647	16,931,896	
2001/2002	4,330,584	30	324	5,102,077	2,826,349	5,441,121	13,369,548	
2002/2003	4,812,059	47	333	11,551,027	2,821,368	6,539,818	20,912,214	
2003/2004	4,910,738	25	377	8,432,624	4,195,187	6,251,793	18,879,604	
<b>MA Total</b>	<b>21,758,881</b>	<b>194</b>	<b>1,733</b>	<b>43,140,210</b>	<b>16,063,711</b>	<b>30,187,422</b>	<b>89,391,342</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	2.802	0.843	1.649	5.294	
			2000/2001	1.931	0.775	1.464	4.170	
			2001/2002	1.178	0.653	1.256	3.087	
			2002/2003	2.400	0.586	1.359	4.346	
			2003/2004	1.717	0.854	1.273	3.845	
			<b>MA Total Pure Premium:</b>	<b>1.983</b>	<b>0.738</b>	<b>1.387</b>	<b>4.108</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	0.666	0.807	0.699		
			(14) Massachusetts Credibility:	1.00	1.00	1.00		
			(15) Countrywide Pure Premium:	2.126	0.766	1.474	4.366	
			(16) Countrywide Indicated Relativity:	0.764	0.848	0.773		
			(17) Countrywide Credibility:	0.00	0.00	0.00		
			(18) Countrywide Lost-time Claims:	3,198	27,606			
			(19) Pure Premium Underlying Present Rate:	1.233	1.157	1.319	3.709	
			(20) Relativity to Underlying Present Rate:	0.528	0.839	0.656		
			(21) Credibility to Underlying Relativity:	0.000	0.000	0.000		
			(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876	
			(23) Formula Relativity:	0.666	0.807	0.699		
			(24) Balanced Formula Relativity:	0.674	0.808	0.702	0.704	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000187 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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 Exhibit 112

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5188 AUTOMATIC SPRINKLER INSTALLATION & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	465,212	4	44	438,796	453,453	367,834	1,260,083	
2000/2001	505,546	7	56	1,348,476	596,352	990,355	2,935,183	
2001/2002	536,899	6	50	1,576,270	274,549	792,359	2,643,178	
2002/2003	529,516	2	57	507,157	683,787	570,715	1,761,659	
2003/2004	704,438	3	67	695,395	1,022,660	740,462	2,458,516	
<b>MA Total</b>	<b>2,741,611</b>	<b>22</b>	<b>274</b>	<b>4,566,093</b>	<b>3,030,801</b>	<b>3,461,726</b>	<b>11,058,620</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.943	0.975	0.791	2.709			
	2000/2001	2.667	1.180	1.959	5.806			
	2001/2002	2.936	0.511	1.476	4.923			
	2002/2003	0.958	1.291	1.078	3.327			
	2003/2004	0.987	1.452	1.051	3.490			
	<b>MA Total Pure Premium:</b>	<b>1.665</b>	<b>1.105</b>	<b>1.263</b>	<b>4.034</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.560	1.209	0.636				
	(14) Massachusetts Credibility:	0.58	1.00	1.00				
	(15) Countrywide Pure Premium:	2.190	0.686	1.365	4.241			
	(16) Countrywide Indicated Relativity:	0.787	0.760	0.716				
	(17) Countrywide Credibility:	0.21	0.00	0.00				
	(18) Countrywide Lost-time Claims:	243	2,188					
	(19) Pure Premium Underlying Present Rate:	1.401	1.265	1.549	4.215			
	(20) Relativity to Underlying Present Rate:	0.600	0.917	0.771				
	(21) Credibility to Underlying Relativity:	0.210	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.616	1.209	0.636				
	(24) Balanced Formula Relativity:	0.623	1.210	0.639	0.720			

Class(es):		Effective: 9/1/2007						Construction
5190 ELECTRICAL WIRING - WITHIN BUILDINGS & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	4,882,205	45	386	9,525,067	3,504,467	5,894,782	18,924,316	
2000/2001	5,361,539	45	380	8,647,941	3,333,175	6,643,613	18,624,729	
2001/2002	5,371,134	42	358	8,432,937	3,021,082	6,165,726	17,619,745	
2002/2003	5,645,790	33	386	7,551,204	3,002,782	6,331,449	16,885,435	
2003/2004	5,798,366	23	307	6,759,092	3,570,935	7,027,169	17,357,196	
<b>MA Total</b>	<b>27,059,034</b>	<b>188</b>	<b>1,817</b>	<b>40,916,242</b>	<b>16,432,440</b>	<b>32,062,739</b>	<b>89,411,421</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.951	0.718	1.207	3.876			
	2000/2001	1.613	0.622	1.239	3.474			
	2001/2002	1.570	0.562	1.148	3.280			
	2002/2003	1.337	0.532	1.121	2.991			
	2003/2004	1.166	0.616	1.212	2.993			
	<b>MA Total Pure Premium:</b>	<b>1.512</b>	<b>0.607</b>	<b>1.185</b>	<b>3.304</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.508	0.664	0.597				
	(14) Massachusetts Credibility:	1.00	1.00	1.00				
	(15) Countrywide Pure Premium:	1.758	0.646	1.293	3.698			
	(16) Countrywide Indicated Relativity:	0.632	0.716	0.679				
	(17) Countrywide Credibility:	0.00	0.00	0.00				
	(18) Countrywide Lost-time Claims:	3,375	29,287					
	(19) Pure Premium Underlying Present Rate:	1.195	0.904	1.136	3.235			
	(20) Relativity to Underlying Present Rate:	0.512	0.655	0.565				
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.508	0.664	0.597				
	(24) Balanced Formula Relativity:	0.514	0.665	0.599	0.566			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000188 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
5191 OFFICE MACHICE OR APPLIANCE INSTALL, INSP, ADJUSTMT OR REPAIR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	3,954,503	14	117	2,307,589	1,112,920	2,512,242	5,932,751		
2000/2001	3,630,434	9	79	1,678,981	487,648	1,702,047	3,868,676		
2001/2002	3,550,660	8	63	1,138,645	513,220	1,549,854	3,201,719		
2002/2003	3,508,366	13	83	2,027,767	698,441	2,477,831	5,204,039		
2003/2004	3,086,774	8	50	2,019,579	547,276	2,024,364	4,591,218		
<b>MA Total</b>	<b>17,730,737</b>	<b>52</b>	<b>392</b>	<b>9,172,561</b>	<b>3,359,505</b>	<b>10,266,337</b>	<b>22,798,403</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.584	0.281	0.635	1.500		
		2000/2001		0.462	0.134	0.469	1.066		
		2001/2002		0.321	0.145	0.436	0.902		
		2002/2003		0.578	0.199	0.706	1.483		
		2003/2004		0.654	0.177	0.656	1.487		
		<b>MA Total Pure Premium:</b>		<b>0.517</b>	<b>0.189</b>	<b>0.579</b>	<b>1.286</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.745	0.429	0.718			
		(14) Massachusetts Credibility:		0.67	1.00	1.00			
		(15) Countrywide Pure Premium:		0.406	0.196	0.360	0.962		
		(16) Countrywide Indicated Relativity:		0.570	0.425	0.431			
		(17) Countrywide Credibility:		0.17	0.00	0.00			
		(18) Countrywide Lost-time Claims:		1,233	9,416				
		(19) Pure Premium Underlying Present Rate:		0.307	0.263	0.436	1.005		
		(20) Relativity to Underlying Present Rate:		0.654	0.442	0.580			
		(21) Credibility to Underlying Relativity:		0.160	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.700	0.429	0.718			
		(24) Balanced Formula Relativity:		0.694	0.428	0.715	0.643		

Class(es):		Effective: 9/1/2007						Goods & Services	
5192 VENDING OR COIN OPERTD MACHINES-INSTALL, SRVC OR RPR & SALES, DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	265,712	5	51	419,893	375,349	558,531	1,353,773		
2000/2001	286,442	8	51	904,112	361,030	843,199	2,108,341		
2001/2002	320,436	3	49	620,676	455,207	464,197	1,540,080		
2002/2003	275,430	6	44	863,573	320,112	921,414	2,105,100		
2003/2004	324,936	0	44	0	561,160	389,277	950,437		
<b>MA Total</b>	<b>1,472,956</b>	<b>22</b>	<b>239</b>	<b>2,808,255</b>	<b>2,072,857</b>	<b>3,176,619</b>	<b>8,057,731</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.580	1.413	2.102	5.095		
		2000/2001		3.156	1.260	2.944	7.360		
		2001/2002		1.937	1.421	1.449	4.806		
		2002/2003		3.135	1.162	3.345	7.643		
		2003/2004		0.000	1.727	1.198	2.925		
		<b>MA Total Pure Premium:</b>		<b>1.907</b>	<b>1.407</b>	<b>2.157</b>	<b>5.470</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.745	3.189	2.674			
		(14) Massachusetts Credibility:		0.43	1.00	0.93			
		(15) Countrywide Pure Premium:		1.269	0.656	1.178	3.103		
		(16) Countrywide Indicated Relativity:		1.780	1.427	1.409			
		(17) Countrywide Credibility:		0.29	0.00	0.04			
		(18) Countrywide Lost-time Claims:		597	5,344				
		(19) Pure Premium Underlying Present Rate:		1.201	1.496	1.362	4.059		
		(20) Relativity to Underlying Present Rate:		2.559	2.518	1.813			
		(21) Credibility to Underlying Relativity:		0.280	0.000	0.030			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		2.413	3.189	2.597			
		(24) Balanced Formula Relativity:		2.392	3.183	2.588	2.653		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

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Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5213 CONCRETE CONSTRUCTION-NOC								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,087,429	69	224	13,195,849	2,250,013	5,900,946	21,346,808	
2000/2001	1,366,624	94	272	21,248,234	2,746,568	7,671,766	31,666,568	
2001/2002	1,006,426	59	122	12,982,732	1,371,713	5,553,624	19,908,069	
2002/2003	571,767	19	71	4,026,633	735,983	2,190,911	6,953,527	
2003/2004	483,918	15	90	6,837,329	1,359,940	2,746,564	10,943,833	
<b>MA Total</b>	<b>4,516,164</b>	<b>256</b>	<b>779</b>	<b>58,290,777</b>	<b>8,464,216</b>	<b>24,063,811</b>	<b>90,818,804</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	12.135	2.069	5.427	19.631			
	2000/2001	15.548	2.010	5.614	23.171			
	2001/2002	12.900	1.363	5.518	19.781			
	2002/2003	7.042	1.287	3.832	12.161			
	2003/2004	14.129	2.810	5.676	22.615			
	<b>MA Total Pure Premium:</b>	<b>12.907</b>	<b>1.874</b>	<b>5.328</b>	<b>20.110</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	4.337	2.050	2.684				
	(14) Massachusetts Credibility:	1.00	1.00	1.00				
	(15) Countrywide Pure Premium:	4.264	1.259	2.523	8.046			
	(16) Countrywide Indicated Relativity:	1.532	1.395	1.324				
	(17) Countrywide Credibility:	0.00	0.00	0.00				
	(18) Countrywide Lost-time Claims:	1,621	10,725					
	(19) Pure Premium Underlying Present Rate:	11.063	2.373	5.535	18.971			
	(20) Relativity to Underlying Present Rate:	4.738	1.720	2.754				
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	4.337	2.050	2.684				
	(24) Balanced Formula Relativity:	4.391	2.051	2.695	3.454			

Class(es):		Effective: 9/1/2007						Construction
5215 CONCRETE WORK - INCIDENTAL TO CONSTRUCTION OF PRIVATE RES*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	404,814	9	63	1,174,984	404,553	986,245	2,565,782	
2000/2001	472,226	7	78	1,429,797	780,756	1,091,145	3,301,698	
2001/2002	514,276	7	48	808,069	269,341	864,643	1,942,054	
2002/2003	550,411	5	57	839,681	477,267	870,914	2,187,862	
2003/2004	617,760	4	73	738,548	553,308	1,052,082	2,343,938	
<b>MA Total</b>	<b>2,559,487</b>	<b>32</b>	<b>319</b>	<b>4,991,079</b>	<b>2,485,225</b>	<b>4,865,030</b>	<b>12,341,334</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.903	0.999	2.436	6.338			
	2000/2001	3.028	1.653	2.311	6.992			
	2001/2002	1.571	0.524	1.681	3.776			
	2002/2003	1.526	0.867	1.582	3.975			
	2003/2004	1.196	0.896	1.703	3.794			
	<b>MA Total Pure Premium:</b>	<b>1.950</b>	<b>0.971</b>	<b>1.901</b>	<b>4.822</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.655	1.062	0.957				
	(14) Massachusetts Credibility:	0.61	1.00	1.00				
	(15) Countrywide Pure Premium:	2.461	0.869	1.731	5.061			
	(16) Countrywide Indicated Relativity:	0.884	0.963	0.909				
	(17) Countrywide Credibility:	0.20	0.00	0.00				
	(18) Countrywide Lost-time Claims:	345	4,819					
	(19) Pure Premium Underlying Present Rate:	1.695	1.576	2.232	5.503			
	(20) Relativity to Underlying Present Rate:	0.726	1.142	1.111				
	(21) Credibility to Underlying Relativity:	0.190	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.714	1.062	0.957				
	(24) Balanced Formula Relativity:	0.723	1.063	0.961	0.857			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000190 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 115

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5221 CONCRETE OR CEMENT WORK-FLOORS DRIVEWAYS YRDS OR SIDEWALKS & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	836,580	18	105	3,182,820	846,256	2,097,891	6,126,967	
2000/2001	971,010	26	112	4,517,073	918,909	2,950,731	8,386,712	
2001/2002	927,951	22	75	4,017,210	674,496	1,670,861	6,362,568	
2002/2003	902,645	11	68	2,597,870	559,964	1,798,413	4,956,247	
2003/2004	949,243	6	81	2,356,863	1,134,763	1,775,674	5,267,300	
<b>MA Total</b>	<b>4,587,429</b>	<b>83</b>	<b>441</b>	<b>16,671,836</b>	<b>4,134,388</b>	<b>10,293,569</b>	<b>31,099,794</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	3.805	1.012	2.508	7.324			
	2000/2001	4.652	0.946	3.039	8.637			
	2001/2002	4.329	0.727	1.801	6.857			
	2002/2003	2.878	0.620	1.992	5.491			
	2003/2004	2.483	1.195	1.871	5.549			
	<b>MA Total Pure Premium:</b>	<b>3.634</b>	<b>0.901</b>	<b>2.244</b>	<b>6.779</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.221	0.986	1.130				
	(14) Massachusetts Credibility:	1.00	1.00	1.00				
	(15) Countrywide Pure Premium:	2.554	0.811	1.610	4.974			
	(16) Countrywide Indicated Relativity:	0.917	0.898	0.845				
	(17) Countrywide Credibility:	0.00	0.00	0.00				
	(18) Countrywide Lost-time Claims:	1,599	13,809					
	(19) Pure Premium Underlying Present Rate:	3.338	1.479	2.299	7.116			
	(20) Relativity to Underlying Present Rate:	1.430	1.072	1.144				
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.221	0.986	1.130				
	(24) Balanced Formula Relativity:	1.236	0.986	1.135	1.163			

Class(es):		Effective: 9/1/2007						Construction
5222 CONCRETE CONSTRUCTION IN CONNECTION WITH BRIDGES OR CULVERTS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	238,281	9	20	2,276,541	185,258	820,542	3,282,341	
2000/2001	334,237	10	25	1,848,101	218,565	750,884	2,817,550	
2001/2002	268,299	4	13	1,068,670	66,936	291,385	1,426,991	
2002/2003	201,688	5	13	1,115,283	380,745	762,202	2,258,230	
2003/2004	160,901	2	2	444,668	68,876	547,750	1,061,294	
<b>MA Total</b>	<b>1,203,406</b>	<b>30</b>	<b>73</b>	<b>6,753,263</b>	<b>920,380</b>	<b>3,172,763</b>	<b>10,846,406</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	9.554	0.777	3.444	13.775			
	2000/2001	5.529	0.654	2.247	8.430			
	2001/2002	3.983	0.249	1.086	5.319			
	2002/2003	5.530	1.888	3.779	11.197			
	2003/2004	2.764	0.428	3.404	6.596			
	<b>MA Total Pure Premium:</b>	<b>5.612</b>	<b>0.765</b>	<b>2.636</b>	<b>9.013</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.886	0.836	1.328				
	(14) Massachusetts Credibility:	0.62	0.81	1.00				
	(15) Countrywide Pure Premium:	5.258	1.239	2.747	9.244			
	(16) Countrywide Indicated Relativity:	1.889	1.372	1.441				
	(17) Countrywide Credibility:	0.19	0.10	0.00				
	(18) Countrywide Lost-time Claims:	381	2,075					
	(19) Pure Premium Underlying Present Rate:	3.741	0.778	2.164	6.684			
	(20) Relativity to Underlying Present Rate:	1.602	0.564	1.077				
	(21) Credibility to Underlying Relativity:	0.190	0.090	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.832	0.866	1.328				
	(24) Balanced Formula Relativity:	1.855	0.866	1.334	1.525			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000191 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 116

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5348 STONE, MOSAIC, TERRAZZO OR CERAMIC TILE WORK - INSIDE								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	192,859	1	13	182,912	248,813	244,428	676,152	
2000/2001	296,740	6	21	977,342	375,504	448,549	1,801,395	
2001/2002	304,771	4	36	1,201,209	609,429	490,869	2,301,507	
2002/2003	337,263	6	23	1,416,838	307,948	662,350	2,387,135	
2003/2004	384,013	4	36	1,303,262	580,859	961,045	2,845,166	
<b>MA Total</b>	<b>1,515,646</b>	<b>21</b>	<b>129</b>	<b>5,081,562</b>	<b>2,122,552</b>	<b>2,807,242</b>	<b>10,011,356</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.948	1.290	1.267	3.506			
	2000/2001	3.294	1.265	1.512	6.071			
	2001/2002	3.941	2.000	1.611	7.552			
	2002/2003	4.201	0.913	1.964	7.078			
	2003/2004	3.394	1.513	2.503	7.409			
	<b>MA Total Pure Premium:</b>	<b>3.353</b>	<b>1.400</b>	<b>1.852</b>	<b>6.605</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.127	1.532	0.933				
	(14) Massachusetts Credibility:	0.57	1.00	1.00				
	(15) Countrywide Pure Premium:	2.503	0.932	1.611	5.046			
	(16) Countrywide Indicated Relativity:	0.899	1.032	0.845				
	(17) Countrywide Credibility:	0.22	0.00	0.00				
	(18) Countrywide Lost-time Claims:	614	4,591					
	(19) Pure Premium Underlying Present Rate:	2.468	2.554	1.782	6.804			
	(20) Relativity to Underlying Present Rate:	1.057	1.851	0.886				
	(21) Credibility to Underlying Relativity:	0.210	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.062	1.532	0.933				
	(24) Balanced Formula Relativity:	1.075	1.532	0.937	1.100			

Class(es):		Effective: 9/1/2007						Construction
5402 HOTHOUSE ERECTION - ALL OPERATIONS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	5,152	1	1	79,527	527	335,919	415,974	
2000/2001	4,788	0	1	0	6,032	5,710	11,743	
2001/2002	5,745	0	2	0	8,464	10,422	18,885	
2002/2003	3,790	0	1	0	1,553	5,909	7,462	
2003/2004	3,048	0	0	0	0	8,663	8,663	
<b>MA Total</b>	<b>22,523</b>	<b>1</b>	<b>5</b>	<b>79,527</b>	<b>16,577</b>	<b>366,623</b>	<b>462,727</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	15.438	0.102	65.207	80.747			
	2000/2001	0.000	1.260	1.193	2.452			
	2001/2002	0.000	1.473	1.814	3.287			
	2002/2003	0.000	0.410	1.559	1.969			
	2003/2004	0.000	0.000	2.843	2.843			
	<b>MA Total Pure Premium:</b>	<b>3.531</b>	<b>0.736</b>	<b>16.278</b>	<b>20.545</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.187	0.805	8.199				
	(14) Massachusetts Credibility:	0.13	0.23	0.42				
	(15) Countrywide Pure Premium:	1.556	0.456	2.070	4.082			
	(16) Countrywide Indicated Relativity:	0.559	0.505	1.086				
	(17) Countrywide Credibility:	0.13	0.23	0.29				
	(18) Countrywide Lost-time Claims:	3	24					
	(19) Pure Premium Underlying Present Rate:	4.379	1.786	11.880	18.044			
	(20) Relativity to Underlying Present Rate:	1.876	1.294	5.910				
	(21) Credibility to Underlying Relativity:	0.740	0.540	0.290				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.615	1.000	5.473				
	(24) Balanced Formula Relativity:	1.635	1.001	5.495	2.841			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000192 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 117

## Calculation of Class Relativities

Class(es): 5403 CARPENTRY NOC		Effective: 9/1/2007						Construction
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	542,170	26	115	3,947,573	1,236,545	2,253,813	7,437,930	
2000/2001	674,330	27	125	5,159,123	1,677,177	2,566,656	9,402,955	
2001/2002	689,649	24	107	4,093,607	1,142,725	2,416,981	7,653,313	
2002/2003	667,105	10	127	2,044,763	1,250,092	2,060,750	5,355,605	
2003/2004	645,433	12	90	3,639,627	1,621,595	2,977,759	8,238,981	
<b>MA Total</b>	<b>3,218,687</b>	<b>99</b>	<b>564</b>	<b>18,884,693</b>	<b>6,928,134</b>	<b>12,275,958</b>	<b>38,088,785</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	7.281	2.281	4.157	13.719	
			2000/2001	7.651	2.487	3.806	13.944	
			2001/2002	5.936	1.657	3.505	11.097	
			2002/2003	3.065	1.874	3.089	8.028	
			2003/2004	5.639	2.512	4.614	12.765	
			<b>MA Total Pure Premium:</b>	<b>5.867</b>	<b>2.152</b>	<b>3.814</b>	<b>11.834</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	1.972	2.354	1.921		
			(14) Massachusetts Credibility:	1.00	1.00	1.00		
			(15) Countrywide Pure Premium:	4.620	1.385	2.935	8.939	
			(16) Countrywide Indicated Relativity:	1.660	1.534	1.540		
			(17) Countrywide Credibility:	0.00	0.00	0.00		
			(18) Countrywide Lost-time Claims:	2.476	18.836			
			(19) Pure Premium Underlying Present Rate:	5.513	2.936	4.323	12.771	
			(20) Relativity to Underlying Present Rate:	2.361	2.128	2.150		
			(21) Credibility to Underlying Relativity:	0.000	0.000	0.000		
			(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876	
			(23) Formula Relativity:	1.972	2.354	1.921		
			(24) Balanced Formula Relativity:	1.996	2.355	1.929	2.029	

Class(es): 5437 CARPENTRY-INSTALL OF CABINET WORK OR INT TRIM		Effective: 9/1/2007						Construction
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	2,072,153	34	219	5,202,375	3,037,156	4,147,776	12,387,308	
2000/2001	2,297,271	42	217	7,539,115	2,117,956	4,715,617	14,372,688	
2001/2002	2,363,232	31	207	6,082,576	1,723,436	4,048,531	11,854,544	
2002/2003	2,378,102	35	208	7,837,464	1,513,967	4,379,538	13,730,969	
2003/2004	2,432,347	25	212	6,840,702	2,385,474	5,095,295	14,321,470	
<b>MA Total</b>	<b>11,543,105</b>	<b>167</b>	<b>1,063</b>	<b>33,502,232</b>	<b>10,777,990</b>	<b>22,386,758</b>	<b>66,666,980</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	2.511	1.466	2.002	5.978	
			2000/2001	3.282	0.922	2.053	6.256	
			2001/2002	2.574	0.729	1.713	5.016	
			2002/2003	3.296	0.637	1.842	5.774	
			2003/2004	2.812	0.981	2.095	5.888	
			<b>MA Total Pure Premium:</b>	<b>2.902</b>	<b>0.934</b>	<b>1.939</b>	<b>5.775</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	0.975	1.021	0.977		
			(14) Massachusetts Credibility:	1.00	1.00	1.00		
			(15) Countrywide Pure Premium:	2.671	1.037	2.111	5.819	
			(16) Countrywide Indicated Relativity:	0.959	1.149	1.108		
			(17) Countrywide Credibility:	0.00	0.00	0.00		
			(18) Countrywide Lost-time Claims:	811	8,692			
			(19) Pure Premium Underlying Present Rate:	1.828	1.615	1.886	5.329	
			(20) Relativity to Underlying Present Rate:	0.783	1.171	0.938		
			(21) Credibility to Underlying Relativity:	0.000	0.000	0.000		
			(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876	
			(23) Formula Relativity:	0.975	1.021	0.977		
			(24) Balanced Formula Relativity:	0.987	1.022	0.981	0.991	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000193 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 118

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction	
5443 LATHING & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	621	0	0	0	0	0	0	0	
2000/2001	2,450	0	0	0	0	0	0	0	
2001/2002	874	0	0	0	0	0	0	0	
2002/2003	675	1	0	170,441	0	151,205		321,646	
2003/2004	1,388	0	0	0	0	0		0	
<b>MA Total</b>	<b>6,008</b>	<b>1</b>	<b>0</b>	<b>170,441</b>	<b>0</b>	<b>151,205</b>		<b>321,646</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	0.000			0.000	
		2000/2001	0.000	0.000	0.000			0.000	
		2001/2002	0.000	0.000	0.000			0.000	
		2002/2003	252.490	0.000	223.995			476.485	
		2003/2004	0.000	0.000	0.000			0.000	
		<b>MA Total Pure Premium:</b>	<b>28.369</b>	<b>0.000</b>	<b>25.167</b>			<b>53.536</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	9.532	0.000	12.676				
		(14) Massachusetts Credibility:	0.06	0.11	0.11				
		(15) Countrywide Pure Premium:	2.796	1.090	1.815			5.701	
		(16) Countrywide Indicated Relativity:	1.004	1.208	0.952				
		(17) Countrywide Credibility:	0.47	0.45	0.45				
		(18) Countrywide Lost-time Claims:	186	994					
		(19) Pure Premium Underlying Present Rate:	1.970	1.141	1.457			4.568	
		(20) Relativity to Underlying Present Rate:	0.844	0.827	0.725				
		(21) Credibility to Underlying Relativity:	0.470	0.440	0.440				
		(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985			5.876	
		(23) Formula Relativity:	1.441	0.907	2.142				
		(24) Balanced Formula Relativity:	1.458	0.908	2.151			1.607	

Class(es):		Effective: 9/1/2007						Construction	
5445 WALLBOARD INSTALLATION WITHIN BUILDINGS & DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,269,237	35	173	5,822,163	1,941,612	3,725,104		11,488,879	
2000/2001	1,483,392	28	171	5,158,992	2,016,190	3,005,561		10,180,744	
2001/2002	1,359,222	31	152	6,495,012	1,285,726	2,730,153		10,510,890	
2002/2003	1,391,239	20	140	4,201,182	971,729	1,703,072		6,875,983	
2003/2004	1,540,899	12	145	4,011,371	2,895,181	2,704,166		9,610,719	
<b>MA Total</b>	<b>7,043,989</b>	<b>126</b>	<b>781</b>	<b>25,688,721</b>	<b>9,110,439</b>	<b>13,868,055</b>		<b>48,667,215</b>	
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	4.587	1.530	2.935			9.052	
		2000/2001	3.478	1.359	2.026			6.863	
		2001/2002	4.778	0.946	2.009			7.733	
		2002/2003	3.020	0.698	1.224			4.942	
		2003/2004	2.603	1.879	1.755			6.237	
		<b>MA Total Pure Premium:</b>	<b>3.647</b>	<b>1.293</b>	<b>1.969</b>			<b>6.909</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	1.225	1.415	0.992				
		(14) Massachusetts Credibility:	1.00	1.00	1.00				
		(15) Countrywide Pure Premium:	2.847	0.957	1.780			5.584	
		(16) Countrywide Indicated Relativity:	1.023	1.061	0.934				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,342	10,099					
		(19) Pure Premium Underlying Present Rate:	3.142	1.663	2.096			6.901	
		(20) Relativity to Underlying Present Rate:	1.346	1.205	1.043				
		(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985			5.876	
		(23) Formula Relativity:	1.225	1.415	0.992				
		(24) Balanced Formula Relativity:	1.241	1.415	0.996			1.185	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000194 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 119

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5462 GLAZIER-AWAY FROM SHOP & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	211,601	1	43	121,143	448,061	494,425	1,063,629	
2000/2001	253,220	5	35	1,176,320	520,826	1,048,233	2,745,379	
2001/2002	308,748	8	38	1,587,108	334,128	918,940	2,840,176	
2002/2003	305,795	8	27	2,380,039	95,611	776,154	3,251,804	
2003/2004	354,164	8	35	2,897,699	320,980	1,370,695	4,589,373	
<b>MA Total</b>	<b>1,433,528</b>	<b>30</b>	<b>178</b>	<b>8,162,309</b>	<b>1,719,606</b>	<b>4,608,447</b>	<b>14,490,361</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.573	2.117	2.337	5.027			
	2000/2001	4.645	2.057	4.140	10.842			
	2001/2002	5.140	1.082	2.976	9.199			
	2002/2003	7.783	0.313	2.538	10.634			
	2003/2004	8.182	0.906	3.870	12.958			
	<b>MA Total Pure Premium:</b>	<b>5.694</b>	<b>1.200</b>	<b>3.215</b>	<b>10.108</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.913	1.312	1.619				
	(14) Massachusetts Credibility:	0.57	1.00	1.00				
	(15) Countrywide Pure Premium:	3.765	1.215	2.437	7.417			
	(16) Countrywide Indicated Relativity:	1.352	1.346	1.279				
	(17) Countrywide Credibility:	0.22	0.00	0.00				
	(18) Countrywide Lost-time Claims:	308	2,658					
	(19) Pure Premium Underlying Present Rate:	2.615	1.772	2.772	7.159			
	(20) Relativity to Underlying Present Rate:	1.120	1.284	1.379				
	(21) Credibility to Underlying Relativity:	0.210	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.623	1.312	1.619				
	(24) Balanced Formula Relativity:	1.643	1.313	1.626	1.586			

Class(es):		Effective: 9/1/2007						Construction
5472 ASBESTOS REMOVAL OP: ASBESTOS CONTR-PIPE&BOILR WORK EXCL &DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	180,203	2	24	256,405	473,585	244,766	974,755	
2000/2001	159,815	6	28	655,490	412,609	445,662	1,513,761	
2001/2002	189,336	7	14	876,753	159,871	375,006	1,411,630	
2002/2003	156,147	6	22	890,833	142,584	752,735	1,786,153	
2003/2004	162,038	2	18	239,906	338,944	285,684	864,534	
<b>MA Total</b>	<b>847,539</b>	<b>23</b>	<b>106</b>	<b>2,919,387</b>	<b>1,527,592</b>	<b>2,103,853</b>	<b>6,550,832</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.423	2.628	1.358	5.409			
	2000/2001	4.102	2.582	2.789	9.472			
	2001/2002	4.631	0.844	1.981	7.456			
	2002/2003	5.705	0.913	4.821	11.439			
	2003/2004	1.481	2.092	1.763	5.335			
	<b>MA Total Pure Premium:</b>	<b>3.445</b>	<b>1.802</b>	<b>2.482</b>	<b>7.729</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.157	1.971	1.250				
	(14) Massachusetts Credibility:	0.48	0.97	0.88				
	(15) Countrywide Pure Premium:	2.238	1.062	2.043	5.343			
	(16) Countrywide Indicated Relativity:	0.804	1.177	1.072				
	(17) Countrywide Credibility:	0.26	0.02	0.06				
	(18) Countrywide Lost-time Claims:	31	309					
	(19) Pure Premium Underlying Present Rate:	2.895	1.728	2.078	6.701			
	(20) Relativity to Underlying Present Rate:	1.240	1.253	1.034				
	(21) Credibility to Underlying Relativity:	0.260	0.010	0.060				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.087	1.948	1.227				
	(24) Balanced Formula Relativity:	1.100	1.949	1.232	1.277			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000195 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 120

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5473 ASBESTOS REMOVAL OP: ASBESTOS CONTRCTR-NOC &DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	49,220	2	5	249,668	28,200	169,119	446,987	
2000/2001	67,331	2	2	332,958	40,712	235,874	609,544	
2001/2002	84,276	11	10	1,956,700	132,618	602,094	2,691,411	
2002/2003	67,314	2	5	557,812	30,357	176,273	764,442	
2003/2004	77,420	1	10	420,801	45,219	229,370	695,391	
<b>MA Total</b>	<b>345,561</b>	<b>18</b>	<b>32</b>	<b>3,517,939</b>	<b>277,107</b>	<b>1,412,730</b>	<b>5,207,775</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
		1999/2000		5.072	0.573	3.436	9.081	
		2000/2001		4.945	0.605	3.503	9.053	
		2001/2002		23.218	1.574	7.144	31.936	
		2002/2003		8.287	0.451	2.619	11.356	
		2003/2004		5.435	0.584	2.963	8.982	
		<b>MA Total Pure Premium:</b>		<b>10.180</b>	<b>0.802</b>	<b>4.088</b>	<b>15.070</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
		(13) Massachusetts Indicated Relativity:		3.421	0.877	2.059		
		(14) Massachusetts Credibility:		0.47	0.71	0.94		
		(15) Countrywide Pure Premium:		4.016	1.402	3.219	8.638	
		(16) Countrywide Indicated Relativity:		1.443	1.554	1.689		
		(17) Countrywide Credibility:		0.27	0.15	0.03		
		(18) Countrywide Lost-time Claims:		239	887			
		(19) Pure Premium Underlying Present Rate:		6.580	1.946	5.920	14.446	
		(20) Relativity to Underlying Present Rate:		2.818	1.411	2.945		
		(21) Credibility to Underlying Relativity:		0.260	0.140	0.030		
		(22) Industry Group Adjusted Converted Pure Premium:		2.976	0.914	1.985	5.876	
		(23) Formula Relativity:		2.730	1.053	2.075		
		(24) Balanced Formula Relativity:		2.764	1.054	2.083	2.268	

Class(es):		Effective: 9/1/2007						Construction
5474 PAINTING OR PAPERHANGING NOC & SHOP OPERS, DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,202,910	16	101	2,683,240	1,280,400	1,876,802	5,840,443	
2000/2001	1,469,454	19	126	2,822,540	1,625,977	2,791,672	7,240,189	
2001/2002	1,524,420	17	120	3,009,268	1,613,999	3,428,235	8,051,502	
2002/2003	1,665,786	21	108	3,609,910	1,333,646	2,838,562	7,782,118	
2003/2004	1,854,244	15	89	4,074,224	1,359,703	3,865,030	9,298,958	
<b>MA Total</b>	<b>7,716,814</b>	<b>88</b>	<b>544</b>	<b>16,199,182</b>	<b>7,213,725</b>	<b>14,800,302</b>	<b>38,213,209</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
		1999/2000		2.231	1.064	1.560	4.855	
		2000/2001		1.921	1.107	1.900	4.927	
		2001/2002		1.974	1.059	2.249	5.282	
		2002/2003		2.167	0.801	1.704	4.672	
		2003/2004		2.197	0.733	2.084	5.015	
		<b>MA Total Pure Premium:</b>		<b>2.099</b>	<b>0.935</b>	<b>1.918</b>	<b>4.952</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
		(13) Massachusetts Indicated Relativity:		0.705	1.022	0.966		
		(14) Massachusetts Credibility:		1.00	1.00	1.00		
		(15) Countrywide Pure Premium:		3.233	1.034	2.250	6.517	
		(16) Countrywide Indicated Relativity:		1.161	1.146	1.181		
		(17) Countrywide Credibility:		0.00	0.00	0.00		
		(18) Countrywide Lost-time Claims:		1,804	10,795			
		(19) Pure Premium Underlying Present Rate:		2.015	1.244	2.048	5.308	
		(20) Relativity to Underlying Present Rate:		0.863	0.902	1.019		
		(21) Credibility to Underlying Relativity:		0.000	0.000	0.000		
		(22) Industry Group Adjusted Converted Pure Premium:		2.976	0.914	1.985	5.876	
		(23) Formula Relativity:		0.705	1.022	0.966		
		(24) Balanced Formula Relativity:		0.714	1.023	0.970	0.849	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000196 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 121

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5478 CARPET, LINOLEUM, VINYL, ASPHALT OR RUBBER FLOOR TILE INSTAL								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	145,231	0	20	0	149,161	78,976	228,136	
2000/2001	173,186	2	17	685,301	433,630	220,110	1,339,041	
2001/2002	226,403	4	16	539,665	58,363	561,295	1,159,323	
2002/2003	326,707	3	14	1,025,116	347,884	316,223	1,689,222	
2003/2004	390,275	0	23	0	522,139	396,505	918,644	
<b>MA Total</b>	<b>1,261,802</b>	<b>9</b>	<b>90</b>	<b>2,250,082</b>	<b>1,511,177</b>	<b>1,573,108</b>	<b>5,334,367</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	1.027	0.544	1.571			
	2000/2001	3.957	2.504	1.271	7.732			
	2001/2002	2.384	0.258	2.479	5.121			
	2002/2003	3.138	1.065	0.968	5.170			
	2003/2004	0.000	1.338	1.016	2.354			
	<b>MA Total Pure Premium:</b>	<b>1.783</b>	<b>1.198</b>	<b>1.247</b>	<b>4.228</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.599	1.310	0.628				
	(14) Massachusetts Credibility:	0.78	1.00	1.00	4.726			
	(15) Countrywide Pure Premium:	2.360	0.911	1.455				
	(16) Countrywide Indicated Relativity:	0.848	1.009	0.764				
	(17) Countrywide Credibility:	0.11	0.00	0.00				
	(18) Countrywide Lost-time Claims:	201	2,034					
	(19) Pure Premium Underlying Present Rate:	6.466	4.054	3.567	14.086			
	(20) Relativity to Underlying Present Rate:	2.769	2.938	1.775				
	(21) Credibility to Underlying Relativity:	0.110	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.865	1.310	0.628				
	(24) Balanced Formula Relativity:	0.876	1.311	0.631	0.861			

Class(es):		Effective: 9/1/2007						Construction
5479 INSULATION WORK NOC & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	103,694	5	33	450,241	268,885	367,987	1,087,113	
2000/2001	135,294	4	22	475,537	103,845	310,849	890,231	
2001/2002	140,465	3	32	243,858	289,356	643,450	1,176,664	
2002/2003	244,903	7	32	1,726,336	214,124	1,104,611	3,045,072	
2003/2004	200,293	2	23	912,025	541,498	592,076	2,045,600	
<b>MA Total</b>	<b>824,649</b>	<b>21</b>	<b>142</b>	<b>3,807,998</b>	<b>1,417,710</b>	<b>3,018,973</b>	<b>8,244,680</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	4.342	2.593	3.549	10.484			
	2000/2001	3.515	0.768	2.298	6.580			
	2001/2002	1.736	2.060	4.581	8.377			
	2002/2003	7.049	0.874	4.510	12.434			
	2003/2004	4.553	2.704	2.956	10.213			
	<b>MA Total Pure Premium:</b>	<b>4.618</b>	<b>1.719</b>	<b>3.661</b>	<b>9.998</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.552	1.880	1.844				
	(14) Massachusetts Credibility:	0.55	1.00	1.00	6.646			
	(15) Countrywide Pure Premium:	2.868	1.354	2.424				
	(16) Countrywide Indicated Relativity:	1.030	1.500	1.272				
	(17) Countrywide Credibility:	0.23	0.00	0.00				
	(18) Countrywide Lost-time Claims:	389	3,528					
	(19) Pure Premium Underlying Present Rate:	4.076	2.258	4.946	11.280			
	(20) Relativity to Underlying Present Rate:	1.746	1.637	2.461				
	(21) Credibility to Underlying Relativity:	0.220	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.474	1.880	1.844				
	(24) Balanced Formula Relativity:	1.493	1.881	1.852	1.674			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000197 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 122

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5480 PLASTERING NOC & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	237,425	3	24	452,261	367,304	261,603	1,081,168	
2000/2001	332,855	8	26	1,445,384	296,053	974,345	2,715,782	
2001/2002	321,921	3	25	617,250	217,274	510,926	1,345,450	
2002/2003	361,669	5	19	1,043,713	59,728	435,326	1,538,767	
2003/2004	433,597	2	19	415,785	372,128	560,974	1,348,887	
<b>MA Total</b>	<b>1,687,467</b>	<b>21</b>	<b>113</b>	<b>3,974,393</b>	<b>1,312,487</b>	<b>2,743,174</b>	<b>8,030,054</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.905	1.547	1.102	4.554			
	2000/2001	4.342	0.889	2.927	8.159			
	2001/2002	1.917	0.675	1.587	4.179			
	2002/2003	2.886	0.165	1.204	4.255			
	2003/2004	0.959	0.858	1.294	3.111			
	<b>MA Total Pure Premium:</b>	<b>2.355</b>	<b>0.778</b>	<b>1.626</b>	<b>4.759</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.791	0.851	0.819				
	(14) Massachusetts Credibility:	0.57	1.00	1.00				
	(15) Countrywide Pure Premium:	3.820	1.002	2.121	6.942			
	(16) Countrywide Indicated Relativity:	1.372	1.111	1.113				
	(17) Countrywide Credibility:	0.22	0.00	0.00				
	(18) Countrywide Lost-time Claims:	82	601					
	(19) Pure Premium Underlying Present Rate:	2.226	1.340	1.573	5.139			
	(20) Relativity to Underlying Present Rate:	0.954	0.971	0.783				
	(21) Credibility to Underlying Relativity:	0.210	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.953	0.851	0.819				
	(24) Balanced Formula Relativity:	0.965	0.851	0.822	0.899			

Class(es):		Effective: 9/1/2007						Construction
5506 STREET OR ROAD CONSTRUCTION: PAVING OR REPAVING & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	207,587	1	25	173,118	127,644	126,412	427,174	
2000/2001	255,447	5	42	783,818	559,012	1,153,186	2,496,016	
2001/2002	260,335	3	20	894,811	145,462	440,657	1,480,930	
2002/2003	361,902	4	35	823,109	265,045	536,837	1,624,991	
2003/2004	326,178	4	19	1,062,731	234,191	545,170	1,842,092	
<b>MA Total</b>	<b>1,411,449</b>	<b>17</b>	<b>141</b>	<b>3,737,587</b>	<b>1,331,355</b>	<b>2,802,262</b>	<b>7,871,203</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.834	0.615	0.609	2.058			
	2000/2001	3.068	2.188	4.514	9.771			
	2001/2002	3.437	0.559	1.693	5.689			
	2002/2003	2.274	0.732	1.483	4.490			
	2003/2004	3.258	0.718	1.671	5.648			
	<b>MA Total Pure Premium:</b>	<b>2.648</b>	<b>0.943</b>	<b>1.985</b>	<b>5.577</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.890	1.032	1.000				
	(14) Massachusetts Credibility:	0.56	1.00	1.00				
	(15) Countrywide Pure Premium:	3.796	0.921	2.211	6.928			
	(16) Countrywide Indicated Relativity:	1.364	1.020	1.160				
	(17) Countrywide Credibility:	0.22	0.00	0.00				
	(18) Countrywide Lost-time Claims:	1,144	7,722					
	(19) Pure Premium Underlying Present Rate:	2.456	1.311	1.866	5.633			
	(20) Relativity to Underlying Present Rate:	1.052	0.950	0.928				
	(21) Credibility to Underlying Relativity:	0.220	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.030	1.032	1.000				
	(24) Balanced Formula Relativity:	1.043	1.032	1.004	1.028			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000198 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 123

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5507 STREET OR ROAD CONSTRUCTION: SUB-SURFACE WORK & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	152,882	6	19	1,535,617	320,509	380,803	2,236,929	
2000/2001	180,034	2	14	280,172	216,320	212,499	708,991	
2001/2002	232,108	1	11	233,018	22,575	169,792	425,384	
2002/2003	233,674	3	13	408,036	209,328	818,178	1,435,543	
2003/2004	238,125	5	17	1,485,511	189,139	519,818	2,194,469	
<b>MA Total</b>	<b>1,036,823</b>	<b>17</b>	<b>74</b>	<b>3,942,353</b>	<b>957,872</b>	<b>2,101,090</b>	<b>7,001,315</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	10.044	2.096	2.491	14.632			
	2000/2001	1.556	1.202	1.180	3.938			
	2001/2002	1.004	0.097	0.732	1.833			
	2002/2003	1.746	0.896	3.501	6.143			
	2003/2004	6.238	0.794	2.183	9.216			
	<b>MA Total Pure Premium:</b>	<b>3.802</b>	<b>0.924</b>	<b>2.026</b>	<b>6.753</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.278	1.010	1.021				
	(14) Massachusetts Credibility:	0.55	0.97	0.83				
	(15) Countrywide Pure Premium:	2.681	0.776	1.734	5.191			
	(16) Countrywide Indicated Relativity:	0.963	0.860	0.910				
	(17) Countrywide Credibility:	0.23	0.02	0.09				
	(18) Countrywide Lost-time Claims:	492	3,342					
	(19) Pure Premium Underlying Present Rate:	3.274	1.424	1.439	6.138			
	(20) Relativity to Underlying Present Rate:	1.402	1.032	0.716				
	(21) Credibility to Underlying Relativity:	0.220	0.010	0.080				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.233	1.008	0.986				
	(24) Balanced Formula Relativity:	1.248	1.008	0.990	1.124			

Class(es):		Effective: 9/1/2007						Construction
5509 STREET OR ROAD MAINTENANCE BY COUNTY OR MUNICIPAL EMP & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	4,097	0	0	0	0	1,266	1,266	
2000/2001	3,436	0	3	0	4,541	10,471	15,012	
2001/2002	3,281	0	1	0	297	1,050	1,347	
2002/2003	160	0	0	0	0	0	0	
2003/2004	476	0	0	0	0	0	0	
<b>MA Total</b>	<b>11,450</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4,837</b>	<b>12,787</b>	<b>17,624</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.309	0.309			
	2000/2001	0.000	1.322	3.048	4.369			
	2001/2002	0.000	0.090	0.320	0.410			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.422</b>	<b>1.117</b>	<b>1.539</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.462	0.562				
	(14) Massachusetts Credibility:	0.06	0.15	0.15				
	(15) Countrywide Pure Premium:	2.444	0.644	1.491	4.579			
	(16) Countrywide Indicated Relativity:	0.878	0.714	0.782				
	(17) Countrywide Credibility:	0.33	0.43	0.43				
	(18) Countrywide Lost-time Claims:	28	705					
	(19) Pure Premium Underlying Present Rate:	1.103	1.265	1.766	4.133			
	(20) Relativity to Underlying Present Rate:	0.472	0.917	0.878				
	(21) Credibility to Underlying Relativity:	0.610	0.420	0.420				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.578	0.761	0.790				
	(24) Balanced Formula Relativity:	0.585	0.762	0.793	0.683			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000199 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 124

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5538 SHEET METAL WORK-SHOP & OUTSIDE-NOC & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,177,342	15	145	2,302,730	1,272,150	1,965,696	5,540,575	
2000/2001	1,248,859	21	168	3,622,251	1,584,080	2,579,070	7,785,400	
2001/2002	1,358,904	16	137	2,869,509	1,483,644	2,314,211	6,667,364	
2002/2003	1,334,540	19	107	3,053,535	844,373	2,123,509	6,021,417	
2003/2004	1,451,131	13	122	4,055,654	1,427,569	3,251,719	8,734,942	
<b>MA Total</b>	<b>6,570,776</b>	<b>84</b>	<b>679</b>	<b>15,903,679</b>	<b>6,611,816</b>	<b>12,234,205</b>	<b>34,749,700</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.956	1.081	1.670	4.706			
	2000/2001	2.900	1.268	2.065	6.234			
	2001/2002	2.112	1.092	1.703	4.906			
	2002/2003	2.288	0.633	1.591	4.512			
	2003/2004	2.795	0.984	2.241	6.019			
	<b>MA Total Pure Premium:</b>	<b>2.420</b>	<b>1.006</b>	<b>1.862</b>	<b>5.289</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.813	1.101	0.938				
	(14) Massachusetts Credibility:	0.88	1.00	1.00				
	(15) Countrywide Pure Premium:	2.954	0.944	2.198	6.096			
	(16) Countrywide Indicated Relativity:	1.061	1.046	1.153				
	(17) Countrywide Credibility:	0.06	0.00	0.00				
	(18) Countrywide Lost-time Claims:	1,349	11,289					
	(19) Pure Premium Underlying Present Rate:	1.650	1.606	1.944	5.200			
	(20) Relativity to Underlying Present Rate:	0.707	1.164	0.967				
	(21) Credibility to Underlying Relativity:	0.060	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.822	1.101	0.938				
	(24) Balanced Formula Relativity:	0.832	1.101	0.942	0.911			

Class(es):		Effective: 9/1/2007						Construction
5545 ROOFING NOC & YARD EMP, DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	17,916	5	9	682,295	46,313	370,821	1,099,429	
2000/2001	35,940	2	13	252,494	84,385	194,534	531,412	
2001/2002	57,143	5	13	704,635	84,778	897,767	1,687,180	
2002/2003	71,118	3	22	504,848	179,863	414,727	1,099,438	
2003/2004	95,768	4	17	760,439	107,281	1,177,611	2,045,331	
<b>MA Total</b>	<b>277,885</b>	<b>19</b>	<b>74</b>	<b>2,904,711</b>	<b>502,619</b>	<b>3,055,461</b>	<b>6,462,790</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	38.083	2.585	20.698	61.367			
	2000/2001	7.025	2.348	5.413	14.786			
	2001/2002	12.331	1.484	15.711	29.526			
	2002/2003	7.099	2.529	5.832	15.459			
	2003/2004	7.940	1.120	12.297	21.357			
	<b>MA Total Pure Premium:</b>	<b>10.453</b>	<b>1.809</b>	<b>10.995</b>	<b>23.257</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	3.512	1.978	5.538				
	(14) Massachusetts Credibility:	0.64	0.91	1.00				
	(15) Countrywide Pure Premium:	3.851	2.395	3.276	9.522			
	(16) Countrywide Indicated Relativity:	1.383	2.654	1.719				
	(17) Countrywide Credibility:	0.11	0.05	0.00				
	(18) Countrywide Lost-time Claims:	2	64					
	(19) Pure Premium Underlying Present Rate:	17.358	4.591	21.557	43.506			
	(20) Relativity to Underlying Present Rate:	7.434	3.327	10.725				
	(21) Credibility to Underlying Relativity:	0.250	0.040	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	4.259	2.066	5.538				
	(24) Balanced Formula Relativity:	4.312	2.067	5.561	4.385			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000200 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 125

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction	
5547 ROOFING-BUILT UP - YARD EMP & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	342,854	14	89	2,320,336	717,612	1,273,813	4,311,761		
2000/2001	321,365	12	83	2,098,090	652,651	1,505,383	4,256,123		
2001/2002	334,812	17	57	2,689,206	873,104	2,199,075	5,761,384		
2002/2003	313,768	14	56	2,352,230	310,944	1,688,679	4,351,853		
2003/2004	323,654	7	38	1,657,748	408,827	1,812,426	3,879,002		
<b>MA Total</b>	<b>1,636,453</b>	<b>64</b>	<b>323</b>	<b>11,117,610</b>	<b>2,963,138</b>	<b>8,479,376</b>	<b>22,560,124</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	6.768	2.093	3.715	12.576		
			2000/2001	6.529	2.031	4.684	13.244		
			2001/2002	8.032	2.608	6.568	17.208		
			2002/2003	7.497	0.991	5.382	13.870		
			2003/2004	5.122	1.263	5.600	11.985		
			<b>MA Total Pure Premium:</b>	<b>6.794</b>	<b>1.811</b>	<b>5.182</b>	<b>13.786</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	2.283	1.980	2.610			
			(14) Massachusetts Credibility:	0.88	1.00	1.00			
			(15) Countrywide Pure Premium:	8.473	2.378	5.738	16.588		
			(16) Countrywide Indicated Relativity:	3.044	2.635	3.011			
			(17) Countrywide Credibility:	0.06	0.00	0.00			
			(18) Countrywide Lost-time Claims:	84	686				
			(19) Pure Premium Underlying Present Rate:	6.715	2.695	5.860	15.269		
			(20) Relativity to Underlying Present Rate:	2.876	1.953	2.915			
			(21) Credibility to Underlying Relativity:	0.060	0.000	0.000			
			(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876		
			(23) Formula Relativity:	2.364	1.980	2.610			
			(24) Balanced Formula Relativity:	2.393	1.981	2.621	2.406		

Class(es):		Effective: 9/1/2007						Construction	
5606 CONTRACTOR-EXECUTIVE SUPERVISOR OR CONSTRUCT SUPERINTENDENT									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	4,063,837	22	120	4,184,508	1,643,159	3,072,015	8,899,681		
2000/2001	4,675,163	23	137	4,539,683	2,229,735	3,231,324	10,000,742		
2001/2002	4,749,944	23	98	3,867,007	930,159	2,512,662	7,309,828		
2002/2003	4,570,438	19	82	3,259,126	962,103	3,655,367	7,876,596		
2003/2004	4,667,857	8	102	2,254,712	1,484,584	2,045,314	5,784,610		
<b>MA Total</b>	<b>22,727,239</b>	<b>95</b>	<b>539</b>	<b>18,105,036</b>	<b>7,249,739</b>	<b>14,516,682</b>	<b>39,871,457</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	1.030	0.404	0.756	2.190		
			2000/2001	0.971	0.477	0.691	2.139		
			2001/2002	0.814	0.196	0.529	1.539		
			2002/2003	0.713	0.211	0.800	1.723		
			2003/2004	0.483	0.318	0.438	1.239		
			<b>MA Total Pure Premium:</b>	<b>0.797</b>	<b>0.319</b>	<b>0.639</b>	<b>1.754</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	0.268	0.349	0.322			
			(14) Massachusetts Credibility:	1.00	1.00	1.00			
			(15) Countrywide Pure Premium:	0.993	0.267	0.619	1.880		
			(16) Countrywide Indicated Relativity:	0.357	0.296	0.325			
			(17) Countrywide Credibility:	0.00	0.00	0.00			
			(18) Countrywide Lost-time Claims:	1,292	7,938				
			(19) Pure Premium Underlying Present Rate:	0.721	0.496	0.653	1.870		
			(20) Relativity to Underlying Present Rate:	0.309	0.360	0.325			
			(21) Credibility to Underlying Relativity:	0.000	0.000	0.000			
			(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876		
			(23) Formula Relativity:	0.268	0.349	0.322			
			(24) Balanced Formula Relativity:	0.271	0.349	0.323	0.301		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000201 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 126

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5610 CLEANER - DEBRIS REMOVAL								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	266,079	2	24	254,701	198,453	300,597	753,752	
2000/2001	231,055	2	14	359,860	314,917	380,124	1,054,901	
2001/2002	214,492	6	15	846,467	111,663	225,297	1,183,426	
2002/2003	244,552	9	21	1,583,389	264,082	714,861	2,562,332	
2003/2004	270,610	4	24	1,479,343	299,451	598,014	2,376,808	
<b>MA Total</b>	<b>1,226,788</b>	<b>23</b>	<b>98</b>	<b>4,523,759</b>	<b>1,188,566</b>	<b>2,218,893</b>	<b>7,931,218</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.957	0.746	1.130	2.833			
	2000/2001	1.557	1.363	1.645	4.566			
	2001/2002	3.946	0.521	1.050	5.517			
	2002/2003	6.475	1.080	2.923	10.478			
	2003/2004	5.467	1.107	2.210	8.783			
	<b>MA Total Pure Premium:</b>	<b>3.687</b>	<b>0.969</b>	<b>1.809</b>	<b>6.465</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.239	1.060	0.911				
	(14) Massachusetts Credibility:	0.46	0.87	0.79				
	(15) Countrywide Pure Premium:	1.708	0.813	1.648	4.169			
	(16) Countrywide Indicated Relativity:	0.613	0.900	0.865				
	(17) Countrywide Credibility:	0.27	0.07	0.11				
	(18) Countrywide Lost-time Claims:	76	1,241					
	(19) Pure Premium Underlying Present Rate:	1.731	0.923	1.068	3.722			
	(20) Relativity to Underlying Present Rate:	0.741	0.669	0.531				
	(21) Credibility to Underlying Relativity:	0.270	0.060	0.100				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.936	1.025	0.868				
	(24) Balanced Formula Relativity:	0.947	1.026	0.872	0.934			

Class(es):		Effective: 9/1/2007						Construction
5645 CARPENTRY-DETACHED ONE OR TWO FAMILY DWELLINGS*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	2,814,116	65	414	8,380,197	3,584,166	9,632,763	21,597,127	
2000/2001	3,355,173	68	456	10,112,884	3,996,810	9,621,770	23,731,464	
2001/2002	3,824,459	63	447	9,494,948	4,381,183	9,864,507	23,740,638	
2002/2003	4,317,969	60	518	11,914,193	4,565,668	12,168,392	28,648,253	
2003/2004	4,847,031	58	528	15,018,696	6,426,780	15,305,711	36,751,188	
<b>MA Total</b>	<b>19,158,748</b>	<b>314</b>	<b>2,363</b>	<b>54,920,919</b>	<b>22,954,608</b>	<b>56,593,143</b>	<b>134,468,670</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.978	1.274	3.423	7.675			
	2000/2001	3.014	1.191	2.868	7.073			
	2001/2002	2.483	1.146	2.579	6.208			
	2002/2003	2.759	1.057	2.818	6.635			
	2003/2004	3.099	1.326	3.158	7.582			
	<b>MA Total Pure Premium:</b>	<b>2.867</b>	<b>1.198</b>	<b>2.954</b>	<b>7.019</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.963	1.310	1.488				
	(14) Massachusetts Credibility:	1.00	1.00	1.00				
	(15) Countrywide Pure Premium:	4.431	1.695	3.799	9.926			
	(16) Countrywide Indicated Relativity:	1.592	1.879	1.994				
	(17) Countrywide Credibility:	0.00	0.00	0.00				
	(18) Countrywide Lost-time Claims:	4,629	42,528					
	(19) Pure Premium Underlying Present Rate:	2.105	1.818	3.052	6.976			
	(20) Relativity to Underlying Present Rate:	0.902	1.318	1.518				
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.963	1.310	1.488				
	(24) Balanced Formula Relativity:	0.975	1.311	1.494	1.203			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000202 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 127

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5701 WRECKING: BUILDING OR STRUCTURES-NOT MARINE- ALL OPERATIONS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	18,259	2	8	286,377	43,474	332,841	662,692	
2000/2001	31,705	2	2	197,353	1,259	79,238	277,850	
2001/2002	24,591	0	1	0	3,942	2,057	5,999	
2002/2003	262,864	22	33	7,777,797	359,557	2,812,512	10,949,865	
2003/2004	39,446	3	7	1,250,455	129,676	477,681	1,857,813	
<b>MA Total</b>	<b>376,865</b>	<b>29</b>	<b>51</b>	<b>9,511,982</b>	<b>537,909</b>	<b>3,704,329</b>	<b>13,754,220</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	15.684	2.381	18.229	36.294			
	2000/2001	6.225	0.040	2.499	8.764			
	2001/2002	0.000	0.160	0.084	0.244			
	2002/2003	29.589	1.368	10.700	41.656			
	2003/2004	31.700	3.287	12.110	47.097			
	<b>MA Total Pure Premium:</b>	<b>25.240</b>	<b>1.427</b>	<b>9.829</b>	<b>36.496</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	8.481	1.561	4.951				
	(14) Massachusetts Credibility:	0.59	0.74	0.97				
	(15) Countrywide Pure Premium:	6.901	1.896	4.426	13.224			
	(16) Countrywide Indicated Relativity:	2.479	2.101	2.323				
	(17) Countrywide Credibility:	0.15	0.13	0.02				
	(18) Countrywide Lost-time Claims:	4	38					
	(19) Pure Premium Underlying Present Rate:	10.447	2.005	5.906	18.357			
	(20) Relativity to Underlying Present Rate:	4.474	1.453	2.938				
	(21) Credibility to Underlying Relativity:	0.260	0.130	0.010				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	6.539	1.617	4.878				
	(24) Balanced Formula Relativity:	6.620	1.618	4.899	5.260			

Class(es):		Effective: 9/1/2007						Construction
5703 BUILDING RAISING OR MOVING & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	8,676	0	3	0	10,336	34,123	44,458	
2000/2001	13,397	0	1	0	17,421	4,678	22,100	
2001/2002	37,191	23	31	6,617,333	361,771	1,694,164	8,673,267	
2002/2003	12,456	0	0	0	0	4,345	4,345	
2003/2004	10,262	0	1	0	3,723	6,223	9,946	
<b>MA Total</b>	<b>81,982</b>	<b>23</b>	<b>36</b>	<b>6,617,333</b>	<b>393,251</b>	<b>1,743,532</b>	<b>8,754,116</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	1.191	3.933	5.124			
	2000/2001	0.000	1.300	0.349	1.650			
	2001/2002	177.927	9.727	45.553	233.207			
	2002/2003	0.000	0.000	0.349	0.349			
	2003/2004	0.000	0.363	0.606	0.969			
	<b>MA Total Pure Premium:</b>	<b>80.717</b>	<b>4.797</b>	<b>21.267</b>	<b>106.781</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	27.123	5.246	10.712				
	(14) Massachusetts Credibility:	0.27	0.40	0.51				
	(15) Countrywide Pure Premium:	4.471	2.138	3.799	10.407			
	(16) Countrywide Indicated Relativity:	1.606	2.369	1.993				
	(17) Countrywide Credibility:	0.23	0.30	0.25				
	(18) Countrywide Lost-time Claims:	12	123					
	(19) Pure Premium Underlying Present Rate:	6.859	1.995	5.433	14.288			
	(20) Relativity to Underlying Present Rate:	2.938	1.446	2.703				
	(21) Credibility to Underlying Relativity:	0.500	0.300	0.240				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	9.161	3.243	6.610				
	(24) Balanced Formula Relativity:	9.275	3.245	6.638	7.446			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000203 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 128

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
5705 SALVAGE OPERATION - NO WRECKING OR ANY STRUCTURAL OPERATIONS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	911	0	0	0	0	0	0	
2000/2001	666	0	0	0	0	0	0	
2001/2002	0	0	0	0	0	0	0	
2002/2003	0	0	0	0	0	0	0	
2003/2004	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>1,577</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.000	0.000			
	2000/2001	0.000	0.000	0.000	0.000			
	2001/2002	0.000	0.000	0.000	0.000			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
	(14) Massachusetts Credibility:	0.05	0.07	0.08				
	(15) Countrywide Pure Premium:	2.681	2.150	2.280	7.111			
	(16) Countrywide Indicated Relativity:	0.963	2.382	1.196				
	(17) Countrywide Credibility:	0.09	0.24	0.29				
	(18) Countrywide Lost-time Claims:	1	26					
	(19) Pure Premium Underlying Present Rate:	6.350	1.433	2.637	10.419			
	(20) Relativity to Underlying Present Rate:	2.719	1.038	1.312				
	(21) Credibility to Underlying Relativity:	0.860	0.690	0.630				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	2.425	1.288	1.174				
	(24) Balanced Formula Relativity:	2.456	1.289	1.178	1.842			

Class(es):		Effective: 9/1/2007						Construction
6003 PILE DRIVING & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	140,152	5	20	1,081,878	217,546	467,755	1,767,180	
2000/2001	141,650	4	28	984,697	635,822	667,263	2,287,782	
2001/2002	95,462	5	18	1,318,284	158,441	508,358	1,985,083	
2002/2003	91,419	7	13	1,839,675	52,395	716,772	2,608,842	
2003/2004	89,731	2	8	658,449	131,255	501,714	1,291,418	
<b>MA Total</b>	<b>558,414</b>	<b>23</b>	<b>87</b>	<b>5,882,984</b>	<b>1,195,459</b>	<b>2,861,861</b>	<b>9,940,304</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	7.719	1.552	3.337	12.609			
	2000/2001	6.952	4.489	4.711	16.151			
	2001/2002	13.809	1.660	5.325	20.794			
	2002/2003	20.123	0.573	7.840	28.537			
	2003/2004	7.338	1.463	5.591	14.392			
	<b>MA Total Pure Premium:</b>	<b>10.535</b>	<b>2.141</b>	<b>5.125</b>	<b>17.801</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	3.540	2.341	2.581				
	(14) Massachusetts Credibility:	0.56	0.91	0.95				
	(15) Countrywide Pure Premium:	1.941	0.678	1.332	3.951			
	(16) Countrywide Indicated Relativity:	0.697	0.751	0.699				
	(17) Countrywide Credibility:	0.22	0.05	0.03				
	(18) Countrywide Lost-time Claims:	68	405					
	(19) Pure Premium Underlying Present Rate:	6.288	2.282	3.782	12.351			
	(20) Relativity to Underlying Present Rate:	2.693	1.654	1.881				
	(21) Credibility to Underlying Relativity:	0.220	0.040	0.020				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	2.728	2.234	2.511				
	(24) Balanced Formula Relativity:	2.762	2.236	2.521	2.599			

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000204 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 129

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction	
6204 DRILLING NOC & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	258,646	12	42	2,257,452	438,078	1,576,905	4,272,435		
2000/2001	201,882	4	23	896,883	306,502	583,640	1,787,024		
2001/2002	198,021	6	29	1,332,757	258,077	434,644	2,025,478		
2002/2003	187,878	5	25	1,311,404	260,822	786,559	2,358,786		
2003/2004	233,905	3	20	1,071,101	340,898	705,197	2,117,197		
<b>MA Total</b>	<b>1,080,332</b>	<b>30</b>	<b>139</b>	<b>6,869,597</b>	<b>1,604,378</b>	<b>4,086,945</b>	<b>12,560,920</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	8.728	1.694	6.097	16.518				
	2000/2001	4.443	1.518	2.891	8.852				
	2001/2002	6.730	1.303	2.195	10.229				
	2002/2003	6.980	1.388	4.187	12.555				
	2003/2004	4.579	1.457	3.015	9.052				
	<b>MA Total Pure Premium:</b>	<b>6.359</b>	<b>1.485</b>	<b>3.783</b>	<b>11.627</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	2.137	1.624	1.906					
	(14) Massachusetts Credibility:	0.66	1.00	1.00					
	(15) Countrywide Pure Premium:	4.757	1.595	3.601	9.953				
	(16) Countrywide Indicated Relativity:	1.709	1.768	1.889					
	(17) Countrywide Credibility:	0.17	0.00	0.00					
	(18) Countrywide Lost-time Claims:	239	2,146						
	(19) Pure Premium Underlying Present Rate:	4.944	1.766	2.695	9.405				
	(20) Relativity to Underlying Present Rate:	2.117	1.280	1.341					
	(21) Credibility to Underlying Relativity:	0.170	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876				
	(23) Formula Relativity:	2.061	1.624	1.906					
	(24) Balanced Formula Relativity:	2.086	1.625	1.913	1.956				

Class(es):		Effective: 9/1/2007						Construction	
6217 EXCAVATION & DRIVERS*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,868,026	40	236	7,194,440	2,861,166	4,673,002	14,728,608		
2000/2001	3,148,838	32	201	5,193,419	2,421,577	4,308,229	11,923,226		
2001/2002	3,006,267	31	170	6,037,049	1,642,504	4,189,191	11,868,744		
2002/2003	3,402,198	27	192	5,567,169	2,128,971	5,527,870	13,224,010		
2003/2004	3,641,508	19	200	4,916,789	2,693,952	5,851,225	13,461,966		
<b>MA Total</b>	<b>16,066,837</b>	<b>149</b>	<b>999</b>	<b>28,908,866</b>	<b>11,748,170</b>	<b>24,549,518</b>	<b>65,206,554</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	2.508	0.998	1.629	5.135				
	2000/2001	1.649	0.769	1.368	3.787				
	2001/2002	2.008	0.546	1.393	3.948				
	2002/2003	1.636	0.626	1.625	3.887				
	2003/2004	1.350	0.740	1.607	3.697				
	<b>MA Total Pure Premium:</b>	<b>1.799</b>	<b>0.731</b>	<b>1.528</b>	<b>4.058</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.605	0.800	0.770					
	(14) Massachusetts Credibility:	1.00	1.00	1.00					
	(15) Countrywide Pure Premium:	2.689	0.775	1.729	5.193				
	(16) Countrywide Indicated Relativity:	0.966	0.859	0.907					
	(17) Countrywide Credibility:	0.00	0.00	0.00					
	(18) Countrywide Lost-time Claims:	1,693	13,587						
	(19) Pure Premium Underlying Present Rate:	2.065	1.002	1.645	4.712				
	(20) Relativity to Underlying Present Rate:	0.884	0.726	0.819					
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876				
	(23) Formula Relativity:	0.605	0.800	0.770					
	(24) Balanced Formula Relativity:	0.612	0.800	0.773	0.696				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000205 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 130

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
6233 OIL OR GAS PIPELINE CONSTRUCTION & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	8,459	0	3	0	34,396	27,031	61,426	
2000/2001	58,856	0	1	0	15,065	48,403	63,468	
2001/2002	2,319	0	0	0	0	0	0	
2002/2003	2,349	0	0	0	0	0	0	
2003/2004	401	0	0	0	0	0	0	
<b>MA Total</b>	<b>72,384</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>49,461</b>	<b>75,434</b>	<b>124,895</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	4.066	3.195	7.261			
	2000/2001	0.000	0.256	0.822	1.078			
	2001/2002	0.000	0.000	0.000	0.000			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	0.000	0.000	0.000	0.000			
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.683</b>	<b>1.042</b>	<b>1.725</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.000	0.747	0.525				
	(14) Massachusetts Credibility:	0.19	0.35	0.26				
	(15) Countrywide Pure Premium:	2.554	0.661	1.216	4.432			
	(16) Countrywide Indicated Relativity:	0.918	0.732	0.638				
	(17) Countrywide Credibility:	0.41	0.33	0.37				
	(18) Countrywide Lost-time Claims:	180	780					
	(19) Pure Premium Underlying Present Rate:	3.123	1.645	1.176	5.944			
	(20) Relativity to Underlying Present Rate:	1.337	1.192	0.585				
	(21) Credibility to Underlying Relativity:	0.400	0.320	0.370				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.911	0.885	0.589				
	(24) Balanced Formula Relativity:	0.922	0.885	0.592	0.805			

Class(es):		Effective: 9/1/2007						Construction
6251 TUNNELING - NOT PNEUMATIC - ALL OPERATIONS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	771,180	13	43	3,198,660	397,782	1,243,939	4,840,381	
2000/2001	696,999	6	27	1,215,344	319,816	619,521	2,154,681	
2001/2002	691,084	14	5	3,892,067	32,859	975,399	4,900,326	
2002/2003	565,605	13	9	3,943,688	106,075	1,438,776	5,488,539	
2003/2004	543,990	5	17	3,122,313	981,260	720,056	4,823,629	
<b>MA Total</b>	<b>3,268,858</b>	<b>51</b>	<b>101</b>	<b>15,372,073</b>	<b>1,837,793</b>	<b>4,997,691</b>	<b>22,207,556</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	4.148	0.516	1.613	6.277			
	2000/2001	1.744	0.459	0.889	3.091			
	2001/2002	5.632	0.048	1.411	7.091			
	2002/2003	6.973	0.188	2.544	9.704			
	2003/2004	5.740	1.804	1.324	8.867			
	<b>MA Total Pure Premium:</b>	<b>4.703</b>	<b>0.562</b>	<b>1.529</b>	<b>6.794</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.580	0.615	0.770				
	(14) Massachusetts Credibility:	0.83	1.00	1.00				
	(15) Countrywide Pure Premium:	4.927	0.857	1.867	7.651			
	(16) Countrywide Indicated Relativity:	1.770	0.949	0.980				
	(17) Countrywide Credibility:	0.09	0.00	0.00				
	(18) Countrywide Lost-time Claims:	60	242					
	(19) Pure Premium Underlying Present Rate:	2.855	0.583	1.347	4.785			
	(20) Relativity to Underlying Present Rate:	1.223	0.423	0.670				
	(21) Credibility to Underlying Relativity:	0.080	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.569	0.615	0.770				
	(24) Balanced Formula Relativity:	1.588	0.615	0.773	1.161			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000206 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 131

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
6252 SHAFT SINKING - ALL OPERATIONS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	55,567	2	1	510,785	7,907	84,818	603,509	
2000/2001	71,919	0	1	0	37,703	0	37,703	
2001/2002	24,940	0	0	0	0	9,184	9,184	
2002/2003	18,233	0	0	0	0	0	0	
2003/2004	14,880	2	4	881,874	25,600	275,612	1,183,086	
<b>MA Total</b>	<b>185,539</b>	<b>4</b>	<b>6</b>	<b>1,392,658</b>	<b>71,210</b>	<b>369,615</b>	<b>1,833,483</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	9.192	0.142	1.526	10.861			
	2000/2001	0.000	0.524	0.000	0.524			
	2001/2002	0.000	0.000	0.368	0.368			
	2002/2003	0.000	0.000	0.000	0.000			
	2003/2004	59.267	1.720	18.523	79.510			
	<b>MA Total Pure Premium:</b>	<b>7.506</b>	<b>0.384</b>	<b>1.992</b>	<b>9.882</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.522	0.420	1.003				
	(14) Massachusetts Credibility:	0.28	0.36	0.42				
	(15) Countrywide Pure Premium:	6.479	0.947	2.637	10.063			
	(16) Countrywide Indicated Relativity:	2.327	1.049	1.384				
	(17) Countrywide Credibility:	0.31	0.32	0.29				
	(18) Countrywide Lost-time Claims:	24	95					
	(19) Pure Premium Underlying Present Rate:	3.229	0.692	1.507	5.429			
	(20) Relativity to Underlying Present Rate:	1.383	0.502	0.750				
	(21) Credibility to Underlying Relativity:	0.410	0.320	0.290				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.995	0.647	1.040				
	(24) Balanced Formula Relativity:	2.019	0.648	1.045	1.477			

Class(es):		Effective: 9/1/2007						Construction
6306 SEWER CONSTRUCTION - ALL OPERATIONS & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	238,331	2	20	343,725	162,913	179,289	685,928	
2000/2001	258,756	3	24	726,115	410,423	613,585	1,750,123	
2001/2002	252,002	3	17	714,051	297,074	516,435	1,527,559	
2002/2003	242,417	2	12	334,451	156,119	318,599	809,169	
2003/2004	393,181	2	5	433,883	28,680	612,009	1,074,571	
<b>MA Total</b>	<b>1,384,687</b>	<b>12</b>	<b>78</b>	<b>2,552,224</b>	<b>1,055,209</b>	<b>2,239,916</b>	<b>5,847,350</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.442	0.684	0.752	2.878			
	2000/2001	2.806	1.586	2.371	6.764			
	2001/2002	2.834	1.179	2.049	6.062			
	2002/2003	1.380	0.644	1.314	3.338			
	2003/2004	1.104	0.073	1.557	2.733			
	<b>MA Total Pure Premium:</b>	<b>1.843</b>	<b>0.762</b>	<b>1.618</b>	<b>4.223</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.619	0.833	0.815				
	(14) Massachusetts Credibility:	0.61	1.00	1.00				
	(15) Countrywide Pure Premium:	3.211	0.907	1.986	6.104			
	(16) Countrywide Indicated Relativity:	1.154	1.004	1.042				
	(17) Countrywide Credibility:	0.20	0.00	0.00				
	(18) Countrywide Lost-time Claims:	284	2,621					
	(19) Pure Premium Underlying Present Rate:	3.092	1.180	1.972	6.244			
	(20) Relativity to Underlying Present Rate:	1.324	0.855	0.981				
	(21) Credibility to Underlying Relativity:	0.190	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.860	0.833	0.815				
	(24) Balanced Formula Relativity:	0.871	0.834	0.818	0.847			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000207 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 132

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
6319 GAS MAIN OR CONNECTION CONSTRUCTION & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	407,627	9	44	1,033,167	538,673	821,589	2,393,429	
2000/2001	434,850	7	43	1,171,030	420,504	846,022	2,437,556	
2001/2002	434,391	10	32	1,789,477	561,306	1,303,029	3,653,812	
2002/2003	432,082	5	28	944,817	175,993	565,763	1,686,573	
2003/2004	434,962	4	12	806,685	96,208	563,725	1,466,619	
<b>MA Total</b>	<b>2,143,912</b>	<b>35</b>	<b>159</b>	<b>5,745,176</b>	<b>1,792,684</b>	<b>4,100,128</b>	<b>11,637,988</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.535	1.321	2.016	5.872			
	2000/2001	2.693	0.967	1.946	5.606			
	2001/2002	4.120	1.292	3.000	8.411			
	2002/2003	2.187	0.407	1.309	3.903			
	2003/2004	1.855	0.221	1.296	3.372			
	<b>MA Total Pure Premium:</b>	<b>2.680</b>	<b>0.836</b>	<b>1.912</b>	<b>5.428</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.900	0.915	0.963				
	(14) Massachusetts Credibility:	0.65	1.00	1.00				
	(15) Countrywide Pure Premium:	3.033	0.643	1.613	5.288			
	(16) Countrywide Indicated Relativity:	1.090	0.712	0.846				
	(17) Countrywide Credibility:	0.18	0.00	0.00				
	(18) Countrywide Lost-time Claims:	354	2,625					
	(19) Pure Premium Underlying Present Rate:	2.345	1.079	1.820	5.244			
	(20) Relativity to Underlying Present Rate:	1.004	0.782	0.905				
	(21) Credibility to Underlying Relativity:	0.170	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.952	0.915	0.963				
	(24) Balanced Formula Relativity:	0.964	0.915	0.967	0.957			

Class(es):		Effective: 9/1/2007						Construction
6325 CONDUIT CONSTRUCTION - FOR CABLES OR WIRES & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	178,794	0	12	0	320,614	234,032	554,646	
2000/2001	315,544	3	11	449,540	77,914	241,805	769,259	
2001/2002	141,652	1	10	3,582	35,015	30,798	69,395	
2002/2003	167,860	1	16	127,178	201,091	184,311	512,580	
2003/2004	141,459	0	9	0	171,089	109,451	280,540	
<b>MA Total</b>	<b>945,309</b>	<b>5</b>	<b>58</b>	<b>580,299</b>	<b>805,724</b>	<b>800,396</b>	<b>2,186,419</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	1.793	1.309	3.102			
	2000/2001	1.425	0.247	0.766	2.438			
	2001/2002	0.025	0.247	0.217	0.490			
	2002/2003	0.758	1.198	1.098	3.054			
	2003/2004	0.000	1.209	0.774	1.983			
	<b>MA Total Pure Premium:</b>	<b>0.614</b>	<b>0.852</b>	<b>0.847</b>	<b>2.313</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.206	0.932	0.426				
	(14) Massachusetts Credibility:	0.35	0.70	0.64				
	(15) Countrywide Pure Premium:	2.848	0.790	1.839	5.477			
	(16) Countrywide Indicated Relativity:	1.023	0.875	0.965				
	(17) Countrywide Credibility:	0.33	0.15	0.18				
	(18) Countrywide Lost-time Claims:	459	2,739					
	(19) Pure Premium Underlying Present Rate:	1.140	0.699	0.828	2.667			
	(20) Relativity to Underlying Present Rate:	0.488	0.507	0.412				
	(21) Credibility to Underlying Relativity:	0.320	0.150	0.180				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.566	0.860	0.521				
	(24) Balanced Formula Relativity:	0.573	0.860	0.523	0.601			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000208 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 133

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
6400 FENCE ERECTION - ALL TYPES								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	143,058	1	19	169,590	119,644	129,970	419,204	
2000/2001	178,915	4	26	844,391	139,146	393,998	1,377,536	
2001/2002	207,016	1	21	82,834	210,309	237,414	530,557	
2002/2003	197,923	5	21	720,479	85,937	905,222	1,711,638	
2003/2004	214,378	3	25	492,570	168,179	480,708	1,141,457	
<b>MA Total</b>	<b>941,290</b>	<b>14</b>	<b>112</b>	<b>2,309,865</b>	<b>723,214</b>	<b>2,147,311</b>	<b>5,180,391</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.185	0.836	0.909	2.930			
	2000/2001	4.720	0.778	2.202	7.699			
	2001/2002	0.400	1.016	1.147	2.563			
	2002/2003	3.640	0.434	4.574	8.648			
	2003/2004	2.298	0.784	2.242	5.325			
	<b>MA Total Pure Premium:</b>	<b>2.454</b>	<b>0.768</b>	<b>2.281</b>	<b>5.504</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.825	0.840	1.149				
	(14) Massachusetts Credibility:	0.51	0.83	0.88				
	(15) Countrywide Pure Premium:	3.801	1.305	2.492	7.597			
	(16) Countrywide Indicated Relativity:	1.365	1.446	1.308				
	(17) Countrywide Credibility:	0.25	0.09	0.06				
	(18) Countrywide Lost-time Claims:	183	1,708					
	(19) Pure Premium Underlying Present Rate:	2.966	1.070	1.862	5.898			
	(20) Relativity to Underlying Present Rate:	1.270	0.775	0.926				
	(21) Credibility to Underlying Relativity:	0.240	0.080	0.060				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.067	0.890	1.145				
	(24) Balanced Formula Relativity:	1.080	0.890	1.150	1.074			

Class(es):		Effective: 9/1/2007						Miscellaneous
6834 BOAT BUILDING OR REPAIRING & DRIVERS: MA ACT								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	115,530	3	4	331,921	13,571	178,210	523,702	
2000/2001	136,653	1	10	148,866	48,993	255,034	452,893	
2001/2002	143,482	2	13	183,319	56,247	156,137	395,702	
2002/2003	144,630	1	12	70,574	49,616	211,989	332,179	
2003/2004	151,557	2	9	566,701	68,888	232,398	867,986	
<b>MA Total</b>	<b>691,852</b>	<b>9</b>	<b>48</b>	<b>1,301,380</b>	<b>237,313</b>	<b>1,033,769</b>	<b>2,572,462</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.873	0.117	1.543	4.533			
	2000/2001	1.089	0.359	1.866	3.314			
	2001/2002	1.278	0.392	1.088	2.758			
	2002/2003	0.488	0.343	1.466	2.297			
	2003/2004	3.739	0.455	1.533	5.727			
	<b>MA Total Pure Premium:</b>	<b>1.881</b>	<b>0.343</b>	<b>1.494</b>	<b>3.718</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.895	0.392	0.811				
	(14) Massachusetts Credibility:	0.29	0.59	0.74				
	(15) Countrywide Pure Premium:	1.174	0.864	1.521	3.559			
	(16) Countrywide Indicated Relativity:	0.617	1.106	0.913				
	(17) Countrywide Credibility:	0.36	0.21	0.13				
	(18) Countrywide Lost-time Claims:	604	4,678					
	(19) Pure Premium Underlying Present Rate:	1.017	0.612	1.641	3.270			
	(20) Relativity to Underlying Present Rate:	0.708	0.513	0.969				
	(21) Credibility to Underlying Relativity:	0.350	0.200	0.130				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.730	0.566	0.845				
	(24) Balanced Formula Relativity:	0.731	0.567	0.847	0.746			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000209 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 134

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
6836 MARINA & DRIVERS: MA ACT								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	278,355	0	18	0	45,752	97,869	143,620	
2000/2001	284,957	1	29	224,122	129,334	212,572	566,027	
2001/2002	317,944	2	20	463,789	61,562	455,461	980,811	
2002/2003	335,785	1	25	154,467	113,789	393,654	661,910	
2003/2004	366,380	2	24	618,580	250,088	519,636	1,388,305	
<b>MA Total</b>	<b>1,583,421</b>	<b>6</b>	<b>116</b>	<b>1,460,957</b>	<b>600,524</b>	<b>1,679,192</b>	<b>3,740,674</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	0.000	0.164	0.352	0.516		
		2000/2001	0.787	0.454	0.746	1.986		
		2001/2002	1.459	0.194	1.433	3.085		
		2002/2003	0.460	0.339	1.172	1.971		
		2003/2004	1.688	0.683	1.418	3.789		
		<b>MA Total Pure Premium:</b>	<b>0.923</b>	<b>0.379</b>	<b>1.060</b>	<b>2.362</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.439	0.433	0.576			
		(14) Massachusetts Credibility:	0.39	0.80	0.81			
		(15) Countrywide Pure Premium:	1.183	0.614	1.347	3.144		
		(16) Countrywide Indicated Relativity:	0.622	0.786	0.809			
		(17) Countrywide Credibility:	0.31	0.10	0.10			
		(18) Countrywide Lost-time Claims:	62	1,035				
		(19) Pure Premium Underlying Present Rate:	0.911	0.575	0.888	2.375		
		(20) Relativity to Underlying Present Rate:	0.635	0.482	0.525			
		(21) Credibility to Underlying Relativity:	0.300	0.100	0.090			
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819		
		(23) Formula Relativity:	0.554	0.473	0.594			
		(24) Balanced Formula Relativity:	0.555	0.474	0.596	0.556		

Class(es):		Effective: 9/1/2007						Miscellaneous
7219 TRUCKING: NOC - ALL EMP & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	5,065,007	94	813	15,650,184	5,608,939	10,247,684	31,506,806	
2000/2001	2,306,120	55	329	9,135,682	3,339,495	5,552,471	18,027,648	
2001/2002	2,265,219	55	298	8,851,734	2,576,731	6,359,190	17,787,656	
2002/2003	2,220,926	50	304	11,003,229	2,351,270	7,089,200	20,443,699	
2003/2004	2,381,834	21	283	5,690,897	3,599,139	5,269,841	14,559,877	
<b>MA Total</b>	<b>14,239,106</b>	<b>275</b>	<b>2,027</b>	<b>50,331,726</b>	<b>17,475,574</b>	<b>34,518,386</b>	<b>102,325,686</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	3.090	1.107	2.023	6.220		
		2000/2001	3.961	1.448	2.408	7.817		
		2001/2002	3.908	1.138	2.807	7.853		
		2002/2003	4.954	1.059	3.192	9.205		
		2003/2004	2.389	1.511	2.213	6.113		
		<b>MA Total Pure Premium:</b>	<b>3.535</b>	<b>1.227</b>	<b>2.424</b>	<b>7.186</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	1.682	1.401	1.316			
		(14) Massachusetts Credibility:	1.00	1.00	1.00			
		(15) Countrywide Pure Premium:	3.591	1.159	2.373	7.123		
		(16) Countrywide Indicated Relativity:	1.887	1.485	1.425			
		(17) Countrywide Credibility:	0.00	0.00	0.00			
		(18) Countrywide Lost-time Claims:	3,604	26,847				
		(19) Pure Premium Underlying Present Rate:	2.531	1.775	2.184	6.490		
		(20) Relativity to Underlying Present Rate:	1.762	1.486	1.290			
		(21) Credibility to Underlying Relativity:	0.000	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819		
		(23) Formula Relativity:	1.682	1.401	1.316			
		(24) Balanced Formula Relativity:	1.686	1.404	1.319	1.494		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000210 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 135

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
7230 TRUCKING: PARCEL OR PACKAGE DELIVERY- ALL EMP & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	44,397	2	16	258,231	31,537	173,333	463,101	
2000/2001	38,270	0	3	0	31,749	12,625	44,375	
2001/2002	35,131	0	4	0	6,503	13,269	19,772	
2002/2003	39,999	2	6	362,539	18,913	416,314	797,765	
2003/2004	38,088	1	8	412,687	62,104	71,379	546,169	
<b>MA Total</b>	<b>195,885</b>	<b>5</b>	<b>37</b>	<b>1,033,456</b>	<b>150,806</b>	<b>686,920</b>	<b>1,871,182</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	5.816	0.710	3.904	10.431			
	2000/2001	0.000	0.830	0.330	1.160			
	2001/2002	0.000	0.185	0.378	0.563			
	2002/2003	9.064	0.473	10.408	19.944			
	2003/2004	10.835	1.631	1.874	14.340			
	<b>MA Total Pure Premium:</b>	<b>5.276</b>	<b>0.770</b>	<b>3.507</b>	<b>9.552</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.511	0.879	1.904				
	(14) Massachusetts Credibility:	0.25	0.50	0.56				
	(15) Countrywide Pure Premium:	2.799	1.171	1.970	5.940			
	(16) Countrywide Indicated Relativity:	1.471	1.500	1.183				
	(17) Countrywide Credibility:	0.38	0.25	0.22				
	(18) Countrywide Lost-time Claims:	882	11,425					
	(19) Pure Premium Underlying Present Rate:	2.464	1.413	2.854	6.731			
	(20) Relativity to Underlying Present Rate:	1.715	1.184	1.685				
	(21) Credibility to Underlying Relativity:	0.370	0.250	0.220				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	1.821	1.110	1.697				
	(24) Balanced Formula Relativity:	1.825	1.113	1.701	1.648			

Class(es):		Effective: 9/1/2007						Miscellaneous
7231 TRUCKING: MAIL, PARCEL OR PACKAGE DELIVERY-ALL EMP & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	164,931	4	30	585,103	332,313	520,637	1,438,053	
2000/2001	193,769	1	12	142,212	146,277	395,453	683,942	
2001/2002	188,290	1	20	133,841	98,101	233,927	465,869	
2002/2003	196,338	5	27	1,081,509	182,829	747,949	2,012,286	
2003/2004	177,950	0	20	0	185,120	126,730	311,850	
<b>MA Total</b>	<b>921,278</b>	<b>11</b>	<b>109</b>	<b>1,942,665</b>	<b>944,639</b>	<b>2,024,696</b>	<b>4,911,999</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	3.548	2.015	3.157	8.719			
	2000/2001	0.734	0.755	2.041	3.530			
	2001/2002	0.711	0.521	1.242	2.474			
	2002/2003	5.508	0.931	3.809	10.249			
	2003/2004	0.000	1.040	0.712	1.752			
	<b>MA Total Pure Premium:</b>	<b>2.109</b>	<b>1.025</b>	<b>2.198</b>	<b>5.332</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.004	1.170	1.193				
	(14) Massachusetts Credibility:	0.41	0.93	0.87				
	(15) Countrywide Pure Premium:	2.299	1.410	2.577	6.286			
	(16) Countrywide Indicated Relativity:	1.208	1.806	1.548				
	(17) Countrywide Credibility:	0.30	0.04	0.07				
	(18) Countrywide Lost-time Claims:	457	8,666					
	(19) Pure Premium Underlying Present Rate:	1.794	1.451	1.836	5.081			
	(20) Relativity to Underlying Present Rate:	1.249	1.215	1.084				
	(21) Credibility to Underlying Relativity:	0.290	0.030	0.060				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	1.136	1.197	1.211				
	(24) Balanced Formula Relativity:	1.138	1.200	1.214	1.179			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000211 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 136

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous	
7360 FREIGHT HANDLING NOC: MA ACT									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	72,537	2	13	351,140	92,981	163,471	607,592		
2000/2001	73,813	1	12	116,252	66,446	94,378	277,076		
2001/2002	54,218	1	5	206,471	10,892	74,284	291,647		
2002/2003	72,483	0	8	0	49,289	109,862	159,151		
2003/2004	66,503	1	8	248,232	100,549	176,095	524,876		
<b>MA Total</b>	<b>339,554</b>	<b>5</b>	<b>46</b>	<b>922,095</b>	<b>320,158</b>	<b>618,089</b>	<b>1,860,342</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	4.841	1.282	2.254	8.376		
			2000/2001	1.575	0.900	1.279	3.754		
			2001/2002	3.808	0.201	1.370	5.379		
			2002/2003	0.000	0.680	1.516	2.196		
			2003/2004	3.733	1.512	2.648	7.893		
			<b>MA Total Pure Premium:</b>	<b>2.716</b>	<b>0.943</b>	<b>1.820</b>	<b>5.479</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.293	1.076	0.988			
		(14) Massachusetts Credibility:		0.26	0.64	0.54			
		(15) Countrywide Pure Premium:		1.827	0.862	1.690	4.379		
		(16) Countrywide Indicated Relativity:		0.960	1.104	1.015			
		(17) Countrywide Credibility:		0.37	0.18	0.23			
		(18) Countrywide Lost-time Claims:		172	2,033				
		(19) Pure Premium Underlying Present Rate:		1.593	1.574	1.525	4.691		
		(20) Relativity to Underlying Present Rate:		1.109	1.318	0.900			
		(21) Credibility to Underlying Relativity:		0.370	0.180	0.230			
		(22) Industry Group Adjusted Converted Pure Premium:		2.101	0.876	1.842	4.819		
		(23) Formula Relativity:		1.102	1.125	0.974			
		(24) Balanced Formula Relativity:		1.104	1.128	0.977	1.059		

Class(es):		Effective: 9/1/2007						Miscellaneous	
7370 TAXICAB CO: ALL OTHER EMP & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	515,599	4	102	591,511	515,570	1,123,088	2,230,169		
2000/2001	643,006	5	126	736,573	548,873	755,835	2,041,280		
2001/2002	696,514	2	133	155,397	398,431	726,044	1,279,872		
2002/2003	747,310	5	149	564,965	748,625	1,104,152	2,417,741		
2003/2004	1,154,162	7	211	1,705,179	1,048,954	1,913,012	4,667,145		
<b>MA Total</b>	<b>3,756,591</b>	<b>23</b>	<b>721</b>	<b>3,753,624</b>	<b>3,260,453</b>	<b>5,622,130</b>	<b>12,636,207</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	1.147	1.000	2.178	4.325		
			2000/2001	1.146	0.854	1.175	3.175		
			2001/2002	0.223	0.572	1.042	1.838		
			2002/2003	0.756	1.002	1.478	3.235		
			2003/2004	1.477	0.909	1.657	4.044		
			<b>MA Total Pure Premium:</b>	<b>0.999</b>	<b>0.868</b>	<b>1.497</b>	<b>3.364</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.476	0.991	0.812			
		(14) Massachusetts Credibility:		0.54	1.00	1.00			
		(15) Countrywide Pure Premium:		1.544	0.860	2.092	4.496		
		(16) Countrywide Indicated Relativity:		0.811	1.102	1.257			
		(17) Countrywide Credibility:		0.23	0.00	0.00			
		(18) Countrywide Lost-time Claims:		204	4,701				
		(19) Pure Premium Underlying Present Rate:		0.869	0.924	1.289	3.082		
		(20) Relativity to Underlying Present Rate:		0.605	0.774	0.761			
		(21) Credibility to Underlying Relativity:		0.230	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		2.101	0.876	1.842	4.819		
		(23) Formula Relativity:		0.583	0.991	0.812			
		(24) Balanced Formula Relativity:		0.584	0.993	0.814	0.746		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000212 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 137

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
7380 DRIVERS, CHAUFFEURS AND HELPERS-NOC-COMMERCIAL								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	3,149,562	47	714	7,261,461	6,062,712	8,474,814	21,798,987	
2000/2001	3,369,771	56	572	8,275,969	4,125,994	7,225,965	19,627,928	
2001/2002	3,278,837	48	528	7,162,856	3,497,800	6,781,476	17,442,132	
2002/2003	3,191,403	63	515	10,914,000	3,041,339	8,833,452	22,788,792	
2003/2004	3,153,471	30	432	8,661,322	4,321,086	6,690,615	19,673,023	
<b>MA Total</b>	<b>16,143,044</b>	<b>244</b>	<b>2,761</b>	<b>42,275,608</b>	<b>21,048,931</b>	<b>38,006,322</b>	<b>101,330,862</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.306	1.925	2.691	6.921			
	2000/2001	2.456	1.224	2.144	5.825			
	2001/2002	2.185	1.067	2.068	5.320			
	2002/2003	3.420	0.953	2.768	7.141			
	2003/2004	2.747	1.370	2.122	6.239			
	<b>MA Total Pure Premium:</b>	<b>2.619</b>	<b>1.304</b>	<b>2.354</b>	<b>6.277</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.246	1.488	1.278				
	(14) Massachusetts Credibility:	1.00	1.00	1.00				
	(15) Countrywide Pure Premium:	1.828	0.786	1.573	4.187			
	(16) Countrywide Indicated Relativity:	0.961	1.007	0.945				
	(17) Countrywide Credibility:	0.00	0.00	0.00				
	(18) Countrywide Lost-time Claims:	2,751	33,932					
	(19) Pure Premium Underlying Present Rate:	1.620	1.821	2.174	5.615			
	(20) Relativity to Underlying Present Rate:	1.128	1.525	1.284				
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	1.246	1.488	1.278				
	(24) Balanced Formula Relativity:	1.249	1.492	1.281	1.305			

Class(es):		Effective: 9/1/2007						Miscellaneous
7382 BUS CO: ALL OTHER EMPLOYEES & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,733,925	23	269	3,280,626	1,192,888	2,918,298	7,391,812	
2000/2001	1,814,775	20	221	2,329,375	1,575,021	2,547,763	6,452,159	
2001/2002	1,835,626	22	234	2,471,011	1,589,638	3,691,394	7,752,044	
2002/2003	2,413,401	30	262	4,198,934	1,477,984	4,270,056	9,946,974	
2003/2004	2,090,095	9	215	2,143,476	1,500,537	3,412,934	7,056,946	
<b>MA Total</b>	<b>9,887,822</b>	<b>104</b>	<b>1,201</b>	<b>14,423,423</b>	<b>7,336,068</b>	<b>16,840,444</b>	<b>38,599,935</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.892	0.688	1.683	4.263			
	2000/2001	1.284	0.868	1.404	3.555			
	2001/2002	1.346	0.866	2.011	4.223			
	2002/2003	1.740	0.612	1.769	4.122			
	2003/2004	1.026	0.718	1.633	3.376			
	<b>MA Total Pure Premium:</b>	<b>1.459</b>	<b>0.742</b>	<b>1.703</b>	<b>3.904</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.694	0.847	0.925				
	(14) Massachusetts Credibility:	0.86	1.00	1.00				
	(15) Countrywide Pure Premium:	1.376	0.891	1.770	4.037			
	(16) Countrywide Indicated Relativity:	0.723	1.141	1.063				
	(17) Countrywide Credibility:	0.07	0.00	0.00				
	(18) Countrywide Lost-time Claims:	766	8,781					
	(19) Pure Premium Underlying Present Rate:	1.042	1.020	1.544	3.606			
	(20) Relativity to Underlying Present Rate:	0.726	0.854	0.912				
	(21) Credibility to Underlying Relativity:	0.070	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.698	0.847	0.925				
	(24) Balanced Formula Relativity:	0.700	0.849	0.927	0.814			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000213 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 138

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
7403 AIRCRAFT OR HELICOP OP: AIR CARRIER-SCHD/ SUPPL: A/O EMP &DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	128,245	0	18	0	112,304	132,887	245,191	
2000/2001	131,296	0	6	0	59,120	57,207	116,327	
2001/2002	131,028	1	19	113,616	152,637	365,928	632,181	
2002/2003	583,431	15	69	3,014,466	307,961	1,222,156	4,544,584	
2003/2004	169,642	0	29	0	226,296	229,468	455,764	
<b>MA Total</b>	<b>1,143,642</b>	<b>16</b>	<b>141</b>	<b>3,128,082</b>	<b>858,318</b>	<b>2,007,646</b>	<b>5,994,046</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
1999/2000		0.000	0.876	1.036	1.912			
2000/2001		0.000	0.450	0.436	0.886			
2001/2002		0.867	1.165	2.793	4.825			
2002/2003		5.167	0.528	2.095	7.789			
2003/2004		0.000	1.334	1.353	2.687			
<b>MA Total Pure Premium:</b>		<b>2.735</b>	<b>0.751</b>	<b>1.755</b>	<b>5.241</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
(13) Massachusetts Indicated Relativity:		1.302	0.857	0.953				
(14) Massachusetts Credibility:		0.35	0.79	0.80				
(15) Countrywide Pure Premium:		0.973	0.672	1.207	2.853			
(16) Countrywide Indicated Relativity:		0.511	0.862	0.725				
(17) Countrywide Credibility:		0.33	0.11	0.10				
(18) Countrywide Lost-time Claims:		1,310	18,713					
(19) Pure Premium Underlying Present Rate:		0.932	0.782	1.218	2.933			
(20) Relativity to Underlying Present Rate:		0.649	0.655	0.719				
(21) Credibility to Underlying Relativity:		0.320	0.100	0.100				
(22) Industry Group Adjusted Converted Pure Premium:		2.101	0.876	1.842	4.819			
(23) Formula Relativity:		0.832	0.837	0.907				
(24) Balanced Formula Relativity:		0.834	0.839	0.909	0.864			

Class(es):		Effective: 9/1/2007						Miscellaneous
7405 AIRCRAFT OR HELICOP OP: AIR CARRIER-SCHD/ SUPPL: FLYING CREW								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	21,681	0	0	0	0	0	0	
2000/2001	74,663	0	1	0	670	1,650	2,320	
2001/2002	115,347	0	0	0	0	1,145	1,145	
2002/2003	1,336,672	5	40	1,107,196	281,763	554,814	1,943,774	
2003/2004	16,183	0	0	0	0	0	0	
<b>MA Total</b>	<b>1,564,546</b>	<b>5</b>	<b>41</b>	<b>1,107,196</b>	<b>282,433</b>	<b>557,610</b>	<b>1,947,239</b>	
		MA Indicated Pure Premiums						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
1999/2000		0.000	0.000	0.000	0.000			
2000/2001		0.000	0.009	0.022	0.031			
2001/2002		0.000	0.000	0.010	0.010			
2002/2003		0.828	0.211	0.415	1.454			
2003/2004		0.000	0.000	0.000	0.000			
<b>MA Total Pure Premium:</b>		<b>0.708</b>	<b>0.181</b>	<b>0.356</b>	<b>1.245</b>			
		Pure Premium Relativities						
		Serious	Non-Serious	Medical	Total			
(13) Massachusetts Indicated Relativity:		0.337	0.206	0.193				
(14) Massachusetts Credibility:		0.26	0.66	0.61				
(15) Countrywide Pure Premium:		0.262	0.204	0.312	0.779			
(16) Countrywide Indicated Relativity:		0.138	0.262	0.187				
(17) Countrywide Credibility:		0.37	0.17	0.20				
(18) Countrywide Lost-time Claims:		462	7,276					
(19) Pure Premium Underlying Present Rate:		0.334	0.361	0.444	1.139			
(20) Relativity to Underlying Present Rate:		0.232	0.303	0.262				
(21) Credibility to Underlying Relativity:		0.370	0.170	0.190				
(22) Industry Group Adjusted Converted Pure Premium:		2.101	0.876	1.842	4.819			
(23) Formula Relativity:		0.225	0.232	0.205				
(24) Balanced Formula Relativity:		0.225	0.233	0.206	0.219			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000214 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 139

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous	
7409 AIRCRAFT OR HELICOP OP: AERIAL APPL, SEEDING: FLYING CREW*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,402	0	0	0	0	0	0	0	
2000/2001	2,952	0	0	0	0	0	0	0	
2001/2002	1,969	0	0	0	0	2,597	2,597	0	
2002/2003	1,444	0	0	0	0	873	873	0	
2003/2004	2,191	0	0	0	0	0	0	0	
<b>MA Total</b>	<b>9,958</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,470</b>	<b>3,470</b>	<b>0</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	1.319	1.319			
		2002/2003	0.000	0.000	0.605	0.605			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.348</b>	<b>0.348</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.189				
		(14) Massachusetts Credibility:	0.10	0.11	0.12				
		(15) Countrywide Pure Premium:	1.205	0.337	0.694	2.236			
		(16) Countrywide Indicated Relativity:	0.633	0.432	0.417				
		(17) Countrywide Credibility:	0.45	0.45	0.44				
		(18) Countrywide Lost-time Claims:	116	1,123					
		(19) Pure Premium Underlying Present Rate:	4.235	0.601	1.202	6.039			
		(20) Relativity to Underlying Present Rate:	2.949	0.503	0.710				
		(21) Credibility to Underlying Relativity:	0.450	0.440	0.440				
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
		(23) Formula Relativity:	1.612	0.416	0.518				
		(24) Balanced Formula Relativity:	1.615	0.417	0.520	0.979			

Class(es):		Effective: 9/1/2007						Miscellaneous	
7421 AIRCRAFT OR HELICOP OP: TRANSPORT PERS IN EMPLR BUS: FLY CRW*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	152,863	1	7	145,522	31,881	146,288	323,691	0	
2000/2001	151,744	1	1	323,040	65	100,035	423,140	0	
2001/2002	186,239	1	5	241,862	53,739	61,877	357,478	0	
2002/2003	208,794	1	2	231,267	3,614	4,085	238,966	0	
2003/2004	210,553	0	3	0	25,325	174,216	199,541	0	
<b>MA Total</b>	<b>910,193</b>	<b>4</b>	<b>18</b>	<b>941,692</b>	<b>114,624</b>	<b>486,500</b>	<b>1,542,816</b>	<b>0</b>	
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.952	0.209	0.957	2.118			
		2000/2001	2.129	0.000	0.659	2.789			
		2001/2002	1.299	0.289	0.332	1.919			
		2002/2003	1.108	0.017	0.020	1.145			
		2003/2004	0.000	0.120	0.827	0.948			
		<b>MA Total Pure Premium:</b>	<b>1.035</b>	<b>0.126</b>	<b>0.535</b>	<b>1.695</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.492	0.144	0.290				
		(14) Massachusetts Credibility:	0.25	0.42	0.72				
		(15) Countrywide Pure Premium:	2.159	0.208	0.570	2.937			
		(16) Countrywide Indicated Relativity:	1.135	0.267	0.342				
		(17) Countrywide Credibility:	0.38	0.29	0.14				
		(18) Countrywide Lost-time Claims:	160	867					
		(19) Pure Premium Underlying Present Rate:	0.525	0.197	1.166	1.888			
		(20) Relativity to Underlying Present Rate:	0.365	0.165	0.688				
		(21) Credibility to Underlying Relativity:	0.370	0.290	0.140				
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
		(23) Formula Relativity:	0.689	0.186	0.353				
		(24) Balanced Formula Relativity:	0.691	0.186	0.354	0.470			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000215 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 140

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
7423 AIRCRAFT OR HELICOP OP: AIR CARRIER-COMMUTER: A/O EMP & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	237,666	5	21	714,791	193,343	462,444	1,370,579	
2000/2001	236,554	5	22	444,114	195,263	857,672	1,497,049	
2001/2002	273,126	2	12	339,269	35,479	534,893	909,641	
2002/2003	233,797	2	13	288,593	149,017	552,347	989,957	
2003/2004	261,418	1	14	154,788	191,070	273,300	619,158	
<b>MA Total</b>	<b>1,242,561</b>	<b>15</b>	<b>82</b>	<b>1,941,555</b>	<b>764,173</b>	<b>2,680,655</b>	<b>5,386,383</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	3.008	0.814	1.946	5.767		
		2000/2001	1.877	0.825	3.626	6.329		
		2001/2002	1.242	0.130	1.958	3.330		
		2002/2003	1.234	0.637	2.363	4.234		
		2003/2004	0.592	0.731	1.045	2.368		
		<b>MA Total Pure Premium:</b>	<b>1.563</b>	<b>0.615</b>	<b>2.157</b>	<b>4.335</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.744	0.702	1.171			
		(14) Massachusetts Credibility:	0.38	0.77	0.94			
		(15) Countrywide Pure Premium:	0.944	0.417	0.808	2.169		
		(16) Countrywide Indicated Relativity:	0.496	0.534	0.485			
		(17) Countrywide Credibility:	0.31	0.12	0.03			
		(18) Countrywide Lost-time Claims:	176	2,536				
		(19) Pure Premium Underlying Present Rate:	1.084	0.677	1.645	3.406		
		(20) Relativity to Underlying Present Rate:	0.755	0.567	0.971			
		(21) Credibility to Underlying Relativity:	0.310	0.110	0.030			
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819		
		(23) Formula Relativity:	0.671	0.667	1.145			
		(24) Balanced Formula Relativity:	0.672	0.669	1.147	0.853		

Class(es):		Effective: 9/1/2007						Miscellaneous
7502 GAS COMPANY: GAS CO-NATURAL GAS-LOCAL DISTRIBUTION & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	335,262	2	31	468,566	163,723	511,539	1,143,828	
2000/2001	348,828	6	24	1,078,573	148,332	778,351	2,005,255	
2001/2002	313,109	5	34	548,541	316,988	1,003,344	1,868,874	
2002/2003	302,337	0	15	0	81,929	147,755	229,685	
2003/2004	290,275	0	35	0	456,487	350,640	807,127	
<b>MA Total</b>	<b>1,589,811</b>	<b>13</b>	<b>139</b>	<b>2,095,681</b>	<b>1,167,459</b>	<b>2,791,629</b>	<b>6,054,768</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	1.398	0.488	1.526	3.412		
		2000/2001	3.092	0.425	2.231	5.749		
		2001/2002	1.752	1.012	3.204	5.969		
		2002/2003	0.000	0.271	0.489	0.760		
		2003/2004	0.000	1.573	1.208	2.781		
		<b>MA Total Pure Premium:</b>	<b>1.318</b>	<b>0.734</b>	<b>1.756</b>	<b>3.808</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.627	0.838	0.953			
		(14) Massachusetts Credibility:	0.47	0.90	1.00			
		(15) Countrywide Pure Premium:	1.005	0.452	1.141	2.597		
		(16) Countrywide Indicated Relativity:	0.528	0.579	0.685			
		(17) Countrywide Credibility:	0.27	0.05	0.00			
		(18) Countrywide Lost-time Claims:	90	1,190				
		(19) Pure Premium Underlying Present Rate:	1.406	0.768	1.634	3.808		
		(20) Relativity to Underlying Present Rate:	0.979	0.643	0.965			
		(21) Credibility to Underlying Relativity:	0.260	0.050	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819		
		(23) Formula Relativity:	0.692	0.816	0.953			
		(24) Balanced Formula Relativity:	0.693	0.818	0.956	0.816		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000216 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 141

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
7515 OIL OR GAS PIPELINE OPERATION & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	15,773	0	0	0	0	2,962	2,962	
2000/2001	19,040	0	1	0	28,579	16,539	45,118	
2001/2002	22,693	0	1	0	741	5,566	6,307	
2002/2003	43,926	4	13	960,935	131,993	450,120	1,543,047	
2003/2004	24,263	0	0	0	0	856	856	
<b>MA Total</b>	<b>125,695</b>	<b>4</b>	<b>15</b>	<b>960,935</b>	<b>161,313</b>	<b>476,044</b>	<b>1,598,291</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.000	0.188	0.188			
	2000/2001	0.000	1.501	0.869	2.370			
	2001/2002	0.000	0.033	0.245	0.278			
	2002/2003	21.876	3.005	10.247	35.128			
	2003/2004	0.000	0.000	0.035	0.035			
	<b>MA Total Pure Premium:</b>	<b>7.645</b>	<b>1.283</b>	<b>3.787</b>	<b>12.716</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	3.639	1.465	2.056				
	(14) Massachusetts Credibility:	0.11	0.21	0.20				
	(15) Countrywide Pure Premium:	0.439	0.202	0.429	1.070			
	(16) Countrywide Indicated Relativity:	0.231	0.258	0.258				
	(17) Countrywide Credibility:	0.41	0.40	0.40				
	(18) Countrywide Lost-time Claims:	49	493					
	(19) Pure Premium Underlying Present Rate:	0.445	0.252	0.359	1.056			
	(20) Relativity to Underlying Present Rate:	0.310	0.211	0.212				
	(21) Credibility to Underlying Relativity:	0.480	0.390	0.400				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.644	0.493	0.599				
	(24) Balanced Formula Relativity:	0.645	0.495	0.601	0.601			

Class(es):		Effective: 9/1/2007						Construction
7538 ELECTRIC LIGHT OR POWER LINE CONSTRUCTION & DRIVERS*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	205,515	1	16	127,188	126,366	320,986	574,541	
2000/2001	184,451	1	12	55,191	170,662	152,694	378,548	
2001/2002	179,848	4	22	576,191	305,037	378,911	1,260,139	
2002/2003	187,135	1	9	163,238	146,927	153,914	464,078	
2003/2004	219,760	2	18	376,446	101,284	233,915	711,646	
<b>MA Total</b>	<b>976,709</b>	<b>9</b>	<b>77</b>	<b>1,298,255</b>	<b>850,276</b>	<b>1,240,421</b>	<b>3,388,952</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.619	0.615	1.562	2.796			
	2000/2001	0.299	0.925	0.828	2.052			
	2001/2002	3.204	1.696	2.107	7.007			
	2002/2003	0.872	0.785	0.822	2.480			
	2003/2004	1.713	0.461	1.064	3.238			
	<b>MA Total Pure Premium:</b>	<b>1.329</b>	<b>0.871</b>	<b>1.270</b>	<b>3.470</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.447	0.952	0.640				
	(14) Massachusetts Credibility:	0.38	0.82	0.83				
	(15) Countrywide Pure Premium:	2.800	0.843	1.855	5.499			
	(16) Countrywide Indicated Relativity:	1.006	0.935	0.973				
	(17) Countrywide Credibility:	0.31	0.09	0.09				
	(18) Countrywide Lost-time Claims:	649	4,094					
	(19) Pure Premium Underlying Present Rate:	1.373	1.003	1.543	3.919			
	(20) Relativity to Underlying Present Rate:	0.588	0.727	0.768				
	(21) Credibility to Underlying Relativity:	0.310	0.090	0.080				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	0.664	0.930	0.680				
	(24) Balanced Formula Relativity:	0.672	0.931	0.683	0.716			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000217 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 142

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
7539 ELECTRIC LIGHT OR POWER CO NOC-ALL EMP & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	493,630	1	20	182,076	83,978	100,430	366,484	
2000/2001	445,578	0	15	0	73,571	116,531	190,101	
2001/2002	279,048	0	10	0	103,262	283,095	386,358	
2002/2003	470,434	1	6	428,907	22,366	92,536	543,810	
2003/2004	418,644	1	11	231,260	54,249	162,465	447,973	
<b>MA Total</b>	<b>2,107,334</b>	<b>3</b>	<b>62</b>	<b>842,243</b>	<b>337,427</b>	<b>755,057</b>	<b>1,934,727</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.369	0.170	0.203	0.742			
	2000/2001	0.000	0.165	0.262	0.427			
	2001/2002	0.000	0.370	1.015	1.385			
	2002/2003	0.912	0.048	0.197	1.156			
	2003/2004	0.552	0.130	0.388	1.070			
	<b>MA Total Pure Premium:</b>	<b>0.400</b>	<b>0.160</b>	<b>0.358</b>	<b>0.918</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.190	0.183	0.195				
	(14) Massachusetts Credibility:	0.35	0.86	0.82				
	(15) Countrywide Pure Premium:	0.666	0.260	0.561	1.487			
	(16) Countrywide Indicated Relativity:	0.350	0.333	0.337				
	(17) Countrywide Credibility:	0.33	0.07	0.09				
	(18) Countrywide Lost-time Claims:	376	3,075					
	(19) Pure Premium Underlying Present Rate:	0.502	0.523	0.685	1.711			
	(20) Relativity to Underlying Present Rate:	0.350	0.438	0.405				
	(21) Credibility to Underlying Relativity:	0.320	0.070	0.090				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.294	0.211	0.226				
	(24) Balanced Formula Relativity:	0.295	0.212	0.227	0.254			

Class(es):		Effective: 9/1/2007						Miscellaneous
7580 SEWAGE DISPOSAL PLANT OPERATION & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	103,468	0	8	0	41,056	56,858	97,914	
2000/2001	114,163	1	8	100,591	40,092	101,069	241,753	
2001/2002	104,642	0	6	0	68,550	154,022	222,572	
2002/2003	128,912	1	5	74,105	45,643	147,239	266,986	
2003/2004	121,303	0	7	0	48,220	85,910	134,129	
<b>MA Total</b>	<b>572,488</b>	<b>2</b>	<b>34</b>	<b>174,697</b>	<b>243,560</b>	<b>545,098</b>	<b>963,354</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.397	0.550	0.946			
	2000/2001	0.881	0.351	0.885	2.118			
	2001/2002	0.000	0.655	1.472	2.127			
	2002/2003	0.575	0.354	1.142	2.071			
	2003/2004	0.000	0.398	0.708	1.106			
	<b>MA Total Pure Premium:</b>	<b>0.305</b>	<b>0.425</b>	<b>0.952</b>	<b>1.683</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.145	0.486	0.517				
	(14) Massachusetts Credibility:	0.27	0.50	0.61				
	(15) Countrywide Pure Premium:	0.891	0.377	0.861	2.129			
	(16) Countrywide Indicated Relativity:	0.468	0.483	0.517				
	(17) Countrywide Credibility:	0.37	0.25	0.20				
	(18) Countrywide Lost-time Claims:	101	1,183					
	(19) Pure Premium Underlying Present Rate:	1.020	0.497	1.221	2.738			
	(20) Relativity to Underlying Present Rate:	0.710	0.416	0.721				
	(21) Credibility to Underlying Relativity:	0.360	0.250	0.190				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.468	0.468	0.556				
	(24) Balanced Formula Relativity:	0.469	0.469	0.557	0.503			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000218 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 143

## Calculation of Class Relativities

Class(es): 7590 GARBAGE WORKS		Effective: 9/1/2007						Miscellaneous
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	41,331	2	8	200,249	337,193	426,616	964,058	
2000/2001	44,982	3	1	580,954	2,178	160,883	744,015	
2001/2002	33,677	1	2	134,849	6,015	101,611	242,475	
2002/2003	42,255	0	6	0	52,934	61,758	114,692	
2003/2004	48,938	0	3	0	39,097	24,978	64,075	
<b>MA Total</b>	<b>211,183</b>	<b>6</b>	<b>20</b>	<b>916,053</b>	<b>437,417</b>	<b>775,846</b>	<b>2,129,316</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	4.845	8.158	10.322	23.325			
	2000/2001	12.915	0.048	3.577	16.540			
	2001/2002	4.004	0.179	3.017	7.200			
	2002/2003	0.000	1.253	1.462	2.714			
	2003/2004	0.000	0.799	0.510	1.309			
	<b>MA Total Pure Premium:</b>	<b>4.338</b>	<b>2.071</b>	<b>3.674</b>	<b>10.083</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.065	2.364	1.994				
	(14) Massachusetts Credibility:	0.25	0.59	0.58				
	(15) Countrywide Pure Premium:	2.596	0.742	2.055	5.393			
	(16) Countrywide Indicated Relativity:	1.364	0.951	1.234				
	(17) Countrywide Credibility:	0.38	0.21	0.21				
	(18) Countrywide Lost-time Claims:	144	1,389					
	(19) Pure Premium Underlying Present Rate:	2.289	2.002	2.885	7.176			
	(20) Relativity to Underlying Present Rate:	1.594	1.677	1.704				
	(21) Credibility to Underlying Relativity:	0.370	0.200	0.210				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	1.624	1.930	1.774				
	(24) Balanced Formula Relativity:	1.627	1.935	1.778	1.741			

Class(es): 7600 TELEPHONE OR TELEGRAPH CO: ALL OTHER EMP & DR		Effective: 9/1/2007						Miscellaneous
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,237,060	4	105	779,256	697,660	949,365	2,426,281	
2000/2001	1,262,621	10	64	1,299,070	598,304	1,331,209	3,228,584	
2001/2002	1,265,625	12	69	2,530,749	446,879	1,322,320	4,299,947	
2002/2003	1,082,683	14	81	2,490,249	708,777	1,838,514	5,037,540	
2003/2004	1,053,174	9	69	2,746,040	673,335	1,368,474	4,787,849	
<b>MA Total</b>	<b>5,901,163</b>	<b>49</b>	<b>388</b>	<b>9,845,365</b>	<b>3,124,955</b>	<b>6,809,882</b>	<b>19,780,201</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.630	0.564	0.767	1.961			
	2000/2001	1.029	0.474	1.054	2.557			
	2001/2002	2.000	0.353	1.045	3.397			
	2002/2003	2.300	0.655	1.698	4.653			
	2003/2004	2.607	0.639	1.299	4.546			
	<b>MA Total Pure Premium:</b>	<b>1.668</b>	<b>0.530</b>	<b>1.154</b>	<b>3.352</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.794	0.604	0.626				
	(14) Massachusetts Credibility:	0.63	1.00	1.00				
	(15) Countrywide Pure Premium:	1.012	0.462	0.949	2.422			
	(16) Countrywide Indicated Relativity:	0.532	0.591	0.570				
	(17) Countrywide Credibility:	0.19	0.00	0.00				
	(18) Countrywide Lost-time Claims:	910	9,384					
	(19) Pure Premium Underlying Present Rate:	0.799	0.727	0.874	2.400			
	(20) Relativity to Underlying Present Rate:	0.556	0.608	0.516				
	(21) Credibility to Underlying Relativity:	0.180	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.701	0.604	0.626				
	(24) Balanced Formula Relativity:	0.703	0.606	0.628	0.657			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000219 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Office & Clerical	
7610 RADIO OR TV BROADCAST STATION-ALL EMP & CL, DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	4,454,571	1	15	138,193	65,440	216,819	420,452		
2000/2001	3,351,468	1	20	76,314	169,295	257,347	502,955		
2001/2002	2,877,666	0	10	0	92,029	153,023	245,053		
2002/2003	2,735,901	0	21	0	66,214	139,668	205,881		
2003/2004	2,812,319	0	6	0	98,427	295,775	394,202		
<b>MA Total</b>	<b>16,231,925</b>	<b>2</b>	<b>72</b>	<b>214,507</b>	<b>491,405</b>	<b>1,062,632</b>	<b>1,768,543</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.031	0.015	0.049	0.094				
	2000/2001	0.023	0.051	0.077	0.150				
	2001/2002	0.000	0.032	0.053	0.085				
	2002/2003	0.000	0.024	0.051	0.075				
	2003/2004	0.000	0.035	0.105	0.140				
	<b>MA Total Pure Premium:</b>	<b>0.013</b>	<b>0.030</b>	<b>0.065</b>	<b>0.109</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.181	0.655	0.760					
	(14) Massachusetts Credibility:	0.32	0.81	0.78					
	(15) Countrywide Pure Premium:	0.115	0.051	0.118	0.284				
	(16) Countrywide Indicated Relativity:	1.658	1.214	1.486					
	(17) Countrywide Credibility:	0.34	0.10	0.11					
	(18) Countrywide Lost-time Claims:	311	2,574						
	(19) Pure Premium Underlying Present Rate:	0.052	0.059	0.079	0.189				
	(20) Relativity to Underlying Present Rate:	0.921	0.970	0.963					
	(21) Credibility to Underlying Relativity:	0.340	0.090	0.110					
	(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206				
	(23) Formula Relativity:	0.934	0.740	0.862					
	(24) Balanced Formula Relativity:	0.937	0.738	0.860	0.860				

Class(es):		Effective: 9/1/2007						Miscellaneous	
7704 FIREFIGHTERS & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	7,704	0	4	0	14,615	15,905	30,520		
2000/2001	19,571	0	1	0	70	5,630	5,700		
2001/2002	48,396	0	3	0	3,929	6,357	10,286		
2002/2003	20,085	0	1	0	62	5,628	5,690		
2003/2004	22,415	0	1	0	663	122	785		
<b>MA Total</b>	<b>118,171</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>19,340</b>	<b>33,642</b>	<b>52,982</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	1.897	2.064	3.961				
	2000/2001	0.000	0.004	0.288	0.291				
	2001/2002	0.000	0.081	0.131	0.213				
	2002/2003	0.000	0.003	0.280	0.283				
	2003/2004	0.000	0.030	0.005	0.035				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.164</b>	<b>0.285</b>	<b>0.448</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	0.187	0.155					
	(14) Massachusetts Credibility:	0.09	0.20	0.25					
	(15) Countrywide Pure Premium:	0.341	0.167	0.380	0.889				
	(16) Countrywide Indicated Relativity:	0.179	0.215	0.228					
	(17) Countrywide Credibility:	0.46	0.40	0.38					
	(18) Countrywide Lost-time Claims:	214	4,544						
	(19) Pure Premium Underlying Present Rate:	0.280	0.251	0.609	1.140				
	(20) Relativity to Underlying Present Rate:	0.195	0.210	0.360					
	(21) Credibility to Underlying Relativity:	0.450	0.400	0.370					
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819				
	(23) Formula Relativity:	0.170	0.207	0.258					
	(24) Balanced Formula Relativity:	0.170	0.208	0.259	0.211				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000220 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 145

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
7720 POLICE OFFICERS & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,045,706	5	60	992,880	240,419	723,333	1,956,632	
2000/2001	1,226,193	7	63	672,199	381,223	597,549	1,650,972	
2001/2002	1,511,205	5	72	500,825	259,101	663,137	1,423,064	
2002/2003	1,498,902	4	70	602,505	373,581	1,021,667	1,997,753	
2003/2004	1,394,228	2	68	369,452	393,680	566,476	1,329,608	
<b>MA Total</b>	<b>6,676,234</b>	<b>23</b>	<b>333</b>	<b>3,137,861</b>	<b>1,648,005</b>	<b>3,572,163</b>	<b>8,358,029</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.949	0.230	0.692	1.871			
	2000/2001	0.548	0.311	0.487	1.346			
	2001/2002	0.331	0.171	0.439	0.942			
	2002/2003	0.402	0.249	0.682	1.333			
	2003/2004	0.265	0.282	0.406	0.954			
	<b>MA Total Pure Premium:</b>	<b>0.470</b>	<b>0.247</b>	<b>0.535</b>	<b>1.252</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.224	0.282	0.290				
	(14) Massachusetts Credibility:	0.55	1.00	1.00				
	(15) Countrywide Pure Premium:	0.892	0.492	1.064	2.448			
	(16) Countrywide Indicated Relativity:	0.469	0.630	0.639				
	(17) Countrywide Credibility:	0.23	0.00	0.00				
	(18) Countrywide Lost-time Claims:	944	15,199					
	(19) Pure Premium Underlying Present Rate:	0.508	0.406	0.640	1.555			
	(20) Relativity to Underlying Present Rate:	0.354	0.340	0.378				
	(21) Credibility to Underlying Relativity:	0.220	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.309	0.282	0.290				
	(24) Balanced Formula Relativity:	0.309	0.282	0.291	0.298			

Class(es):		Effective: 9/1/2007						Construction
7855 RAILROAD CONSTR: LAYING/RELAYING TRACK OR MAINT BY CONTR & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	12,278	1	1	88,149	2,551	56,100	146,799	
2000/2001	8,169	0	3	0	77,352	27,325	104,677	
2001/2002	8,490	0	0	0	0	2,176	2,176	
2002/2003	9,615	0	1	0	5,110	1,037	6,147	
2003/2004	11,501	1	0	391,235	0	360,303	751,538	
<b>MA Total</b>	<b>50,053</b>	<b>2</b>	<b>5</b>	<b>479,384</b>	<b>85,013</b>	<b>446,939</b>	<b>1,011,336</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	7.180	0.208	4.569	11.957			
	2000/2001	0.000	9.470	3.345	12.815			
	2001/2002	0.000	0.000	0.256	0.256			
	2002/2003	0.000	0.531	0.108	0.639			
	2003/2004	34.018	0.000	31.328	65.346			
	<b>MA Total Pure Premium:</b>	<b>9.578</b>	<b>1.698</b>	<b>8.929</b>	<b>20.205</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	3.218	1.858	4.498				
	(14) Massachusetts Credibility:	0.14	0.33	0.26				
	(15) Countrywide Pure Premium:	2.947	1.001	1.917	5.865			
	(16) Countrywide Indicated Relativity:	1.059	1.109	1.006				
	(17) Countrywide Credibility:	0.43	0.34	0.37				
	(18) Countrywide Lost-time Claims:	54	405					
	(19) Pure Premium Underlying Present Rate:	2.200	1.926	1.625	5.751			
	(20) Relativity to Underlying Present Rate:	0.942	1.396	0.809				
	(21) Credibility to Underlying Relativity:	0.430	0.330	0.370				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.311	1.451	1.841				
	(24) Balanced Formula Relativity:	1.327	1.452	1.848	1.523			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000221 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 146

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8001 STORE: FLORISTS & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	677,522	2	29	137,977	376,563	511,819	1,026,359		
2000/2001	736,604	3	36	340,944	103,986	318,471	763,401		
2001/2002	747,432	3	36	358,524	225,902	542,330	1,126,755		
2002/2003	772,248	4	30	430,446	103,469	438,329	972,244		
2003/2004	706,572	1	34	187,938	229,601	392,697	810,235		
<b>MA Total</b>	<b>3,640,378</b>	<b>13</b>	<b>165</b>	<b>1,455,828</b>	<b>1,039,521</b>	<b>2,203,645</b>	<b>4,698,993</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.204	0.556	0.755	1.515		
		2000/2001		0.463	0.141	0.432	1.036		
		2001/2002		0.480	0.302	0.726	1.508		
		2002/2003		0.557	0.134	0.568	1.259		
		2003/2004		0.266	0.325	0.556	1.147		
		<b>MA Total Pure Premium:</b>		<b>0.400</b>	<b>0.286</b>	<b>0.605</b>	<b>1.291</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.576	0.647	0.750			
		(14) Massachusetts Credibility:		0.29	0.99	0.84			
		(15) Countrywide Pure Premium:		0.477	0.450	0.802	1.729		
		(16) Countrywide Indicated Relativity:		0.669	0.979	0.958			
		(17) Countrywide Credibility:		0.36	0.01	0.08			
		(18) Countrywide Lost-time Claims:		155	2,721				
		(19) Pure Premium Underlying Present Rate:		0.184	0.431	0.431	1.046		
		(20) Relativity to Underlying Present Rate:		0.392	0.726	0.573			
		(21) Credibility to Underlying Relativity:		0.350	0.000	0.080			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.545	0.650	0.753			
		(24) Balanced Formula Relativity:		0.540	0.649	0.750	0.652		

Class(es):		Effective: 9/1/2007						Goods & Services	
8002 AUTOMOBILE RENTAL CO: ALL OTHER EMP & COUNTER PERSONNEL, DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	169,282	6	14	675,957	72,190	687,274	1,435,420		
2000/2001	158,240	2	12	293,097	79,502	145,678	518,277		
2001/2002	147,122	0	8	0	69,713	54,321	124,034		
2002/2003	158,929	1	19	124,969	53,578	166,966	345,514		
2003/2004	132,458	0	7	0	73,758	104,857	178,615		
<b>MA Total</b>	<b>766,031</b>	<b>9</b>	<b>60</b>	<b>1,094,024</b>	<b>348,740</b>	<b>1,159,096</b>	<b>2,601,860</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		3.993	0.426	4.060	8.479		
		2000/2001		1.852	0.502	0.921	3.275		
		2001/2002		0.000	0.474	0.369	0.843		
		2002/2003		0.786	0.337	1.051	2.174		
		2003/2004		0.000	0.557	0.792	1.348		
		<b>MA Total Pure Premium:</b>		<b>1.428</b>	<b>0.455</b>	<b>1.513</b>	<b>3.397</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.056	1.032	1.876			
		(14) Massachusetts Credibility:		0.27	0.65	0.68			
		(15) Countrywide Pure Premium:		0.519	0.481	0.860	1.860		
		(16) Countrywide Indicated Relativity:		0.728	1.046	1.028			
		(17) Countrywide Credibility:		0.37	0.18	0.16			
		(18) Countrywide Lost-time Claims:		82	2,081				
		(19) Pure Premium Underlying Present Rate:		0.774	0.698	1.203	2.676		
		(20) Relativity to Underlying Present Rate:		1.650	1.175	1.601			
		(21) Credibility to Underlying Relativity:		0.360	0.170	0.160			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		1.418	1.059	1.696			
		(24) Balanced Formula Relativity:		1.406	1.057	1.690	1.445		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000222 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 147

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services
8006 STORE: GROCERY STORES-RETAIL-NO HANDLING OF FRESH MEATS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,175,660	11	71	1,188,526	370,917	780,827	2,340,270	
2000/2001	1,485,351	3	78	291,100	478,185	546,322	1,315,607	
2001/2002	1,649,726	4	99	460,778	403,108	814,902	1,678,788	
2002/2003	1,481,414	2	59	189,249	359,790	517,723	1,066,762	
2003/2004	1,753,179	5	83	1,209,116	548,414	1,289,962	3,047,493	
<b>MA Total</b>	<b>7,545,330</b>	<b>25</b>	<b>390</b>	<b>3,338,769</b>	<b>2,160,415</b>	<b>3,949,736</b>	<b>9,448,920</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	1.011	0.315	0.664	1.991	
			2000/2001	0.196	0.322	0.368	0.886	
			2001/2002	0.279	0.244	0.494	1.018	
			2002/2003	0.128	0.243	0.349	0.720	
			2003/2004	0.690	0.313	0.736	1.738	
			<b>MA Total Pure Premium:</b>	<b>0.442</b>	<b>0.286</b>	<b>0.523</b>	<b>1.252</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	0.637	0.649	0.649		
			(14) Massachusetts Credibility:	0.51	1.00	1.00		
			(15) Countrywide Pure Premium:	0.506	0.442	0.798	1.746	
			(16) Countrywide Indicated Relativity:	0.710	0.960	0.954		
			(17) Countrywide Credibility:	0.25	0.00	0.00		
			(18) Countrywide Lost-time Claims:	934	15,116			
			(19) Pure Premium Underlying Present Rate:	0.373	0.328	0.555	1.257	
			(20) Relativity to Underlying Present Rate:	0.795	0.552	0.739		
			(21) Credibility to Underlying Relativity:	0.240	0.000	0.000		
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943	
			(23) Formula Relativity:	0.693	0.649	0.649		
			(24) Balanced Formula Relativity:	0.687	0.648	0.647	0.661	

Class(es):		Effective: 9/1/2007						Goods & Services
8008 STORE: CLOTHING, WEARING APPAREL OR DRY GOODS - RETAIL								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	2,767,146	11	115	1,133,422	730,758	1,058,533	2,922,712	
2000/2001	2,756,224	7	86	758,069	741,940	1,019,408	2,519,416	
2001/2002	2,506,280	5	82	459,308	429,610	764,332	1,653,249	
2002/2003	2,417,940	4	61	618,935	339,107	741,543	1,699,585	
2003/2004	2,553,581	2	52	359,160	330,358	1,033,705	1,723,223	
<b>MA Total</b>	<b>13,001,171</b>	<b>29</b>	<b>396</b>	<b>3,328,893</b>	<b>2,571,772</b>	<b>4,617,521</b>	<b>10,518,186</b>	
<b>MA Indicated Pure Premiums</b>								
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)	
			1999/2000	0.410	0.264	0.383	1.056	
			2000/2001	0.275	0.269	0.370	0.914	
			2001/2002	0.183	0.171	0.305	0.660	
			2002/2003	0.256	0.140	0.307	0.703	
			2003/2004	0.141	0.129	0.405	0.675	
			<b>MA Total Pure Premium:</b>	<b>0.256</b>	<b>0.198</b>	<b>0.355</b>	<b>0.809</b>	
<b>Pure Premium Relativities</b>								
				Serious	Non-Serious	Medical	Total	
			(13) Massachusetts Indicated Relativity:	0.369	0.448	0.440		
			(14) Massachusetts Credibility:	0.56	1.00	1.00		
			(15) Countrywide Pure Premium:	0.356	0.292	0.524	1.172	
			(16) Countrywide Indicated Relativity:	0.500	0.634	0.626		
			(17) Countrywide Credibility:	0.22	0.00	0.00		
			(18) Countrywide Lost-time Claims:	1,523	18,950			
			(19) Pure Premium Underlying Present Rate:	0.274	0.263	0.343	0.880	
			(20) Relativity to Underlying Present Rate:	0.585	0.442	0.456		
			(21) Credibility to Underlying Relativity:	0.220	0.000	0.000		
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943	
			(23) Formula Relativity:	0.445	0.448	0.440		
			(24) Balanced Formula Relativity:	0.441	0.447	0.439	0.442	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000223 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 148

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8010 STORE: HARDWARE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,886,776	15	100	1,460,245	861,149	1,370,955	3,692,349		
2000/2001	1,853,955	7	120	784,686	819,027	1,244,031	2,847,744		
2001/2002	1,848,179	5	97	799,543	437,867	1,100,398	2,337,808		
2002/2003	1,913,914	4	99	628,188	654,740	1,206,554	2,489,482		
2003/2004	1,875,524	7	77	1,348,934	508,334	1,877,003	3,734,272		
<b>MA Total</b>	<b>9,378,348</b>	<b>38</b>	<b>493</b>	<b>5,021,596</b>	<b>3,281,117</b>	<b>6,798,942</b>	<b>15,101,655</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.774	0.456	0.727	1.957		
		2000/2001		0.423	0.442	0.671	1.536		
		2001/2002		0.433	0.237	0.595	1.265		
		2002/2003		0.328	0.342	0.630	1.301		
		2003/2004		0.719	0.271	1.001	1.991		
		<b>MA Total Pure Premium:</b>		<b>0.535</b>	<b>0.350</b>	<b>0.725</b>	<b>1.610</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.771	0.793	0.899			
		(14) Massachusetts Credibility:		0.58	1.00	1.00			
		(15) Countrywide Pure Premium:		0.587	0.395	0.783	1.765		
		(16) Countrywide Indicated Relativity:		0.824	0.858	0.937			
		(17) Countrywide Credibility:		0.21	0.00	0.00			
		(18) Countrywide Lost-time Claims:		427	9,219				
		(19) Pure Premium Underlying Present Rate:		0.403	0.431	0.611	1.445		
		(20) Relativity to Underlying Present Rate:		0.858	0.726	0.813			
		(21) Credibility to Underlying Relativity:		0.210	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.800	0.793	0.899			
		(24) Balanced Formula Relativity:		0.793	0.791	0.896	0.835		

Class(es):		Effective: 9/1/2007						Goods & Services	
8013 STORE: JEWELRY STORES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	944,519	2	18	283,478	146,402	331,763	761,642		
2000/2001	1,002,846	2	10	237,562	35,826	63,189	336,577		
2001/2002	945,561	2	10	376,785	114,808	191,550	683,144		
2002/2003	1,073,405	0	12	0	46,520	154,908	201,429		
2003/2004	1,051,244	0	8	0	101,037	71,625	172,662		
<b>MA Total</b>	<b>5,017,575</b>	<b>6</b>	<b>58</b>	<b>897,825</b>	<b>444,593</b>	<b>813,036</b>	<b>2,155,454</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.300	0.155	0.351	0.806		
		2000/2001		0.237	0.036	0.063	0.336		
		2001/2002		0.398	0.121	0.203	0.722		
		2002/2003		0.000	0.043	0.144	0.188		
		2003/2004		0.000	0.096	0.068	0.164		
		<b>MA Total Pure Premium:</b>		<b>0.179</b>	<b>0.089</b>	<b>0.162</b>	<b>0.430</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.258	0.201	0.201			
		(14) Massachusetts Credibility:		0.32	0.69	0.67			
		(15) Countrywide Pure Premium:		0.240	0.153	0.263	0.657		
		(16) Countrywide Indicated Relativity:		0.337	0.333	0.315			
		(17) Countrywide Credibility:		0.34	0.16	0.17			
		(18) Countrywide Lost-time Claims:		650	3,958				
		(19) Pure Premium Underlying Present Rate:		0.166	0.124	0.176	0.467		
		(20) Relativity to Underlying Present Rate:		0.355	0.209	0.234			
		(21) Credibility to Underlying Relativity:		0.340	0.150	0.160			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.318	0.223	0.226			
		(24) Balanced Formula Relativity:		0.315	0.223	0.225	0.257		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000224 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 149

## Calculation of Class Relativities

Class(es): 8017 STORE: RETAIL NOC		Effective: 9/1/2007				Goods & Services	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	10,839,540	46	552	4,916,335	3,154,300	7,317,146	15,387,781
2000/2001	10,092,979	39	449	4,467,430	2,801,037	5,478,404	12,746,871
2001/2002	10,822,450	43	472	5,142,346	2,719,220	6,490,895	14,352,461
2002/2003	10,568,649	34	501	4,314,839	2,248,232	5,473,305	12,036,376
2003/2004	10,348,327	13	481	2,944,504	3,282,760	5,126,069	11,353,334
<b>MA Total</b>	<b>52,671,945</b>	<b>175</b>	<b>2,455</b>	<b>21,785,455</b>	<b>14,205,550</b>	<b>29,885,818</b>	<b>65,876,823</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.454	0.291	0.675	1.420		
	2000/2001	0.443	0.278	0.543	1.263		
	2001/2002	0.475	0.251	0.600	1.326		
	2002/2003	0.408	0.213	0.518	1.139		
	2003/2004	0.285	0.317	0.495	1.097		
	<b>MA Total Pure Premium:</b>	<b>0.414</b>	<b>0.270</b>	<b>0.567</b>	<b>1.251</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.595	0.611	0.703			
	(14) Massachusetts Credibility:	1.00	1.00	1.00	1.242		
	(15) Countrywide Pure Premium:	0.350	0.312	0.581			
	(16) Countrywide Indicated Relativity:	0.491	0.678	0.695			
	(17) Countrywide Credibility:	0.00	0.00	0.00			
	(18) Countrywide Lost-time Claims:	3,906	61,137				
	(19) Pure Premium Underlying Present Rate:	0.324	0.309	0.546	1.180		
	(20) Relativity to Underlying Present Rate:	0.691	0.521	0.727			
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000			
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
	(23) Formula Relativity:	0.595	0.611	0.703			
	(24) Balanced Formula Relativity:	0.590	0.610	0.701	0.641		

Class(es): 8018 STORE: WHOLESALE NOC		Effective: 9/1/2007				Goods & Services	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	3,156,709	26	610	2,949,761	3,544,473	4,996,115	11,490,349
2000/2001	2,933,437	32	376	3,493,517	2,287,840	4,081,069	9,862,426
2001/2002	2,737,937	33	443	4,067,519	2,599,878	6,053,706	12,721,103
2002/2003	2,675,699	29	272	3,531,669	1,638,199	3,897,470	9,067,339
2003/2004	2,666,035	12	342	2,128,984	2,934,171	3,614,556	8,677,712
<b>MA Total</b>	<b>14,169,817</b>	<b>132</b>	<b>2,043</b>	<b>16,171,450</b>	<b>13,004,562</b>	<b>22,642,917</b>	<b>51,818,930</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.934	1.123	1.583	3.640		
	2000/2001	1.191	0.780	1.391	3.362		
	2001/2002	1.486	0.950	2.211	4.646		
	2002/2003	1.320	0.612	1.457	3.389		
	2003/2004	0.799	1.101	1.356	3.255		
	<b>MA Total Pure Premium:</b>	<b>1.141</b>	<b>0.918</b>	<b>1.598</b>	<b>3.657</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	1.643	2.080	1.981			
	(14) Massachusetts Credibility:	0.94	1.00	1.00	2.375		
	(15) Countrywide Pure Premium:	0.816	0.568	0.991			
	(16) Countrywide Indicated Relativity:	1.145	1.235	1.184			
	(17) Countrywide Credibility:	0.03	0.00	0.00			
	(18) Countrywide Lost-time Claims:	4,639	44,800				
	(19) Pure Premium Underlying Present Rate:	0.897	1.079	1.446	3.422		
	(20) Relativity to Underlying Present Rate:	1.911	1.816	1.925			
	(21) Credibility to Underlying Relativity:	0.030	0.000	0.000			
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
	(23) Formula Relativity:	1.636	2.080	1.981			
	(24) Balanced Formula Relativity:	1.622	2.076	1.974	1.871		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000225 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8021 STORE: MEAT, FISH OR POULTRY DEALER- WHOLESALE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	485,159	6	54	1,126,931	384,104	1,005,864	2,516,899		
2000/2001	583,035	11	63	1,468,105	542,958	856,780	2,867,843		
2001/2002	630,711	5	51	716,272	450,985	540,472	1,707,729		
2002/2003	617,104	11	47	1,538,950	260,042	1,497,367	3,296,358		
2003/2004	610,444	2	55	378,067	301,191	496,515	1,175,773		
<b>MA Total</b>	<b>2,926,453</b>	<b>35</b>	<b>270</b>	<b>5,228,324</b>	<b>1,939,280</b>	<b>4,396,997</b>	<b>11,564,601</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		2.323	0.792	2.073	5.188		
		2000/2001		2.518	0.931	1.470	4.919		
		2001/2002		1.136	0.715	0.857	2.708		
		2002/2003		2.494	0.421	2.426	5.342		
		2003/2004		0.619	0.493	0.813	1.926		
		<b>MA Total Pure Premium:</b>		<b>1.787</b>	<b>0.663</b>	<b>1.503</b>	<b>3.952</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.572	1.502	1.863			
		(14) Massachusetts Credibility:		0.60	1.00	1.00			
		(15) Countrywide Pure Premium:		0.742	0.563	1.022	2.327		
		(16) Countrywide Indicated Relativity:		1.042	1.223	1.222			
		(17) Countrywide Credibility:		0.20	0.00	0.00			
		(18) Countrywide Lost-time Claims:		353	5,022				
		(19) Pure Premium Underlying Present Rate:		1.445	1.398	1.631	4.474		
		(20) Relativity to Underlying Present Rate:		3.080	2.353	2.170			
		(21) Credibility to Underlying Relativity:		0.200	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		2.368	1.502	1.863			
		(24) Balanced Formula Relativity:		2.347	1.499	1.856	1.950		

Class(es):		Effective: 9/1/2007						Goods & Services	
8031 STORE: MEAT, FISH OR POULTRY - RETAIL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	201,714	1	17	103,756	103,174	158,910	365,840		
2000/2001	221,408	0	22	0	184,101	91,278	275,379		
2001/2002	232,979	4	10	576,466	29,534	140,741	746,741		
2002/2003	217,979	2	17	312,099	103,865	235,534	651,497		
2003/2004	206,389	0	14	0	91,735	145,552	237,286		
<b>MA Total</b>	<b>1,080,469</b>	<b>7</b>	<b>80</b>	<b>992,320</b>	<b>512,409</b>	<b>772,014</b>	<b>2,276,743</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.514	0.511	0.788	1.814		
		2000/2001		0.000	0.832	0.412	1.244		
		2001/2002		2.474	0.127	0.604	3.205		
		2002/2003		1.432	0.476	1.081	2.989		
		2003/2004		0.000	0.444	0.705	1.150		
		<b>MA Total Pure Premium:</b>		<b>0.918</b>	<b>0.474</b>	<b>0.715</b>	<b>2.107</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.322	1.075	0.886			
		(14) Massachusetts Credibility:		0.32	0.76	0.65			
		(15) Countrywide Pure Premium:		0.934	0.614	1.098	2.646		
		(16) Countrywide Indicated Relativity:		1.311	1.334	1.313			
		(17) Countrywide Credibility:		0.34	0.12	0.18			
		(18) Countrywide Lost-time Claims:		294	2,219				
		(19) Pure Premium Underlying Present Rate:		0.783	0.745	0.758	2.286		
		(20) Relativity to Underlying Present Rate:		1.668	1.255	1.009			
		(21) Credibility to Underlying Relativity:		0.340	0.120	0.170			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		1.436	1.127	0.984			
		(24) Balanced Formula Relativity:		1.423	1.125	0.980	1.172		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000226 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 151

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services
8032 STORE: CLOTHING, WEARING APPAREL OR DRY GOODS - WHOLESALE								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	674,498	4	65	881,059	551,944	817,175	2,250,177	
2000/2001	405,855	1	24	63,543	138,818	148,028	350,389	
2001/2002	300,456	1	11	84,384	64,565	114,742	263,691	
2002/2003	319,949	0	18	0	147,226	165,198	312,423	
2003/2004	311,809	1	10	130,121	47,841	103,275	281,237	
<b>MA Total</b>	<b>2,012,567</b>	<b>7</b>	<b>128</b>	<b>1,159,106</b>	<b>950,393</b>	<b>1,348,417</b>	<b>3,457,917</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.306	0.818	1.212	3.336			
	2000/2001	0.157	0.342	0.365	0.863			
	2001/2002	0.281	0.215	0.382	0.878			
	2002/2003	0.000	0.460	0.516	0.976			
	2003/2004	0.417	0.153	0.331	0.902			
	<b>MA Total Pure Premium:</b>	<b>0.576</b>	<b>0.472</b>	<b>0.670</b>	<b>1.718</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.829	1.070	0.831				
	(14) Massachusetts Credibility:	0.33	0.86	0.83				
	(15) Countrywide Pure Premium:	0.669	0.603	0.941	2.214			
	(16) Countrywide Indicated Relativity:	0.939	1.311	1.125				
	(17) Countrywide Credibility:	0.34	0.07	0.09				
	(18) Countrywide Lost-time Claims:	374	4,141					
	(19) Pure Premium Underlying Present Rate:	0.459	0.553	0.741	1.754			
	(20) Relativity to Underlying Present Rate:	0.979	0.931	0.987				
	(21) Credibility to Underlying Relativity:	0.330	0.070	0.080				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	0.916	1.077	0.870				
	(24) Balanced Formula Relativity:	0.908	1.075	0.867	0.929			

Class(es):		Effective: 9/1/2007						Goods & Services
8033 STORE: MEAT, GROCERY & PROVISION COMBINED RETAIL-NOC								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,784,158	7	162	748,070	1,279,146	1,586,026	3,613,242	
2000/2001	1,742,065	10	164	1,379,178	815,034	1,266,083	3,460,295	
2001/2002	1,047,574	6	100	840,685	952,665	961,559	2,754,909	
2002/2003	1,005,626	4	78	391,915	397,406	555,127	1,344,448	
2003/2004	1,014,282	2	57	423,885	507,477	933,614	1,864,977	
<b>MA Total</b>	<b>6,593,705</b>	<b>29</b>	<b>561</b>	<b>3,783,733</b>	<b>3,951,729</b>	<b>5,302,409</b>	<b>13,037,871</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.419	0.717	0.889	2.025			
	2000/2001	0.792	0.468	0.727	1.986			
	2001/2002	0.803	0.909	0.918	2.630			
	2002/2003	0.390	0.395	0.552	1.337			
	2003/2004	0.418	0.500	0.920	1.839			
	<b>MA Total Pure Premium:</b>	<b>0.574</b>	<b>0.599</b>	<b>0.804</b>	<b>1.977</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.826	1.358	0.997				
	(14) Massachusetts Credibility:	0.50	1.00	1.00				
	(15) Countrywide Pure Premium:	0.608	0.514	0.844	1.966			
	(16) Countrywide Indicated Relativity:	0.853	1.118	1.009				
	(17) Countrywide Credibility:	0.25	0.00	0.00				
	(18) Countrywide Lost-time Claims:	1,197	30,605					
	(19) Pure Premium Underlying Present Rate:	0.394	0.732	0.797	1.924			
	(20) Relativity to Underlying Present Rate:	0.841	1.233	1.061				
	(21) Credibility to Underlying Relativity:	0.250	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	0.836	1.358	0.997				
	(24) Balanced Formula Relativity:	0.829	1.355	0.994	1.017			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000227 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 152

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8034 STORE: GROCERY STORES - WHOLESALE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	171,088	3	59	602,111	263,707	415,178	1,280,997		
2000/2001	168,874	2	34	107,755	92,580	163,609	363,943		
2001/2002	165,113	1	16	128,671	158,096	148,315	435,082		
2002/2003	190,576	1	19	226,551	71,387	184,494	482,432		
2003/2004	172,143	1	19	225,847	95,244	539,235	860,326		
<b>MA Total</b>	<b>867,794</b>	<b>8</b>	<b>147</b>	<b>1,290,934</b>	<b>681,014</b>	<b>1,450,831</b>	<b>3,422,779</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	3.519	1.541	2.427	7.487		
			2000/2001	0.638	0.548	0.969	2.155		
			2001/2002	0.779	0.958	0.898	2.635		
			2002/2003	1.189	0.375	0.968	2.531		
			2003/2004	1.312	0.553	3.132	4.998		
			<b>MA Total Pure Premium:</b>	<b>1.488</b>	<b>0.785</b>	<b>1.672</b>	<b>3.944</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	2.142	1.778	2.073			
			(14) Massachusetts Credibility:	0.37	0.95	0.83			
			(15) Countrywide Pure Premium:	1.516	1.232	1.832	4.581		
			(16) Countrywide Indicated Relativity:	2.127	2.679	2.191			
			(17) Countrywide Credibility:	0.32	0.03	0.09			
			(18) Countrywide Lost-time Claims:	141	2,654				
			(19) Pure Premium Underlying Present Rate:	1.480	1.631	1.742	4.854		
			(20) Relativity to Underlying Present Rate:	3.155	2.746	2.319			
			(21) Credibility to Underlying Relativity:	0.310	0.020	0.080			
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
			(23) Formula Relativity:	2.451	1.825	2.103			
			(24) Balanced Formula Relativity:	2.429	1.821	2.096	2.153		

Class(es):		Effective: 9/1/2007						Goods & Services	
8039 STORE: DEPARTMENT - RETAIL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	544,644	7	144	735,794	436,459	1,326,193	2,498,446		
2000/2001	579,374	2	100	275,706	391,079	496,092	1,162,877		
2001/2002	613,238	5	76	466,873	270,699	516,289	1,253,861		
2002/2003	146,556	0	8	0	112,595	93,633	206,229		
2003/2004	201,528	0	15	0	77,715	111,297	189,012		
<b>MA Total</b>	<b>2,085,340</b>	<b>14</b>	<b>343</b>	<b>1,478,373</b>	<b>1,288,548</b>	<b>2,543,503</b>	<b>5,310,425</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	1.351	0.801	2.435	4.587		
			2000/2001	0.476	0.675	0.856	2.007		
			2001/2002	0.761	0.441	0.842	2.045		
			2002/2003	0.000	0.768	0.639	1.407		
			2003/2004	0.000	0.386	0.552	0.938		
			<b>MA Total Pure Premium:</b>	<b>0.709</b>	<b>0.618</b>	<b>1.220</b>	<b>2.547</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	1.021	1.400	1.512			
			(14) Massachusetts Credibility:	0.30	0.98	0.88			
			(15) Countrywide Pure Premium:	0.476	0.387	0.776	1.639		
			(16) Countrywide Indicated Relativity:	0.668	0.842	0.928			
			(17) Countrywide Credibility:	0.35	0.01	0.06			
			(18) Countrywide Lost-time Claims:	820	12,086				
			(19) Pure Premium Underlying Present Rate:	0.349	0.725	0.824	1.899		
			(20) Relativity to Underlying Present Rate:	0.744	1.221	1.097			
			(21) Credibility to Underlying Relativity:	0.350	0.010	0.060			
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
			(23) Formula Relativity:	0.800	1.393	1.452			
			(24) Balanced Formula Relativity:	0.793	1.390	1.447	1.200		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000228 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8044 STORE: FURNITURE & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,229,634	8	186	1,293,823	1,103,622	1,513,903	3,911,348		
2000/2001	1,290,604	11	154	1,601,178	830,170	1,494,369	3,925,717		
2001/2002	1,294,444	14	186	1,720,808	1,155,880	1,705,198	4,581,885		
2002/2003	1,281,510	17	138	3,120,320	970,999	2,063,642	6,154,961		
2003/2004	1,279,131	8	121	1,618,313	829,879	1,352,197	3,800,388		
<b>MA Total</b>	<b>6,375,323</b>	<b>58</b>	<b>785</b>	<b>9,354,441</b>	<b>4,890,549</b>	<b>8,129,309</b>	<b>22,374,299</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	1.052	0.898	1.231	3.181				
	2000/2001	1.241	0.643	1.158	3.042				
	2001/2002	1.329	0.893	1.317	3.540				
	2002/2003	2.435	0.758	1.610	4.803				
	2003/2004	1.265	0.649	1.057	2.971				
	<b>MA Total Pure Premium:</b>	<b>1.467</b>	<b>0.767</b>	<b>1.275</b>	<b>3.510</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	2.112	1.738	1.581					
	(14) Massachusetts Credibility:	0.65	1.00	1.00					
	(15) Countrywide Pure Premium:	1.079	0.594	1.058	2.731				
	(16) Countrywide Indicated Relativity:	1.514	1.291	1.264					
	(17) Countrywide Credibility:	0.18	0.00	0.00					
	(18) Countrywide Lost-time Claims:	779	11,643						
	(19) Pure Premium Underlying Present Rate:	0.813	0.976	1.362	3.151				
	(20) Relativity to Underlying Present Rate:	1.732	1.643	1.813					
	(21) Credibility to Underlying Relativity:	0.170	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.940	1.738	1.581					
	(24) Balanced Formula Relativity:	1.923	1.735	1.575	1.736				

Class(es):		Effective: 9/1/2007						Goods & Services	
8046 STORE: AUTOMOBILE ACCESSORIES-RETAIL-NOC & DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	337,120	2	35	357,503	284,359	245,390	887,252		
2000/2001	350,418	2	24	192,700	196,502	182,757	571,959		
2001/2002	352,742	2	37	376,922	169,897	618,657	1,165,476		
2002/2003	323,074	2	16	450,810	102,739	179,426	732,975		
2003/2004	278,055	1	13	249,347	143,550	152,564	545,460		
<b>MA Total</b>	<b>1,641,409</b>	<b>9</b>	<b>125</b>	<b>1,627,281</b>	<b>897,046</b>	<b>1,378,795</b>	<b>3,903,122</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	1.060	0.843	0.728	2.632				
	2000/2001	0.550	0.561	0.522	1.632				
	2001/2002	1.069	0.482	1.754	3.304				
	2002/2003	1.395	0.318	0.555	2.269				
	2003/2004	0.897	0.516	0.549	1.962				
	<b>MA Total Pure Premium:</b>	<b>0.991</b>	<b>0.547</b>	<b>0.840</b>	<b>2.378</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.427	1.238	1.041					
	(14) Massachusetts Credibility:	0.30	0.94	0.80					
	(15) Countrywide Pure Premium:	0.696	0.458	0.979	2.134				
	(16) Countrywide Indicated Relativity:	0.977	0.996	1.171					
	(17) Countrywide Credibility:	0.35	0.03	0.10					
	(18) Countrywide Lost-time Claims:	508	6,622						
	(19) Pure Premium Underlying Present Rate:	0.449	0.824	0.826	2.099				
	(20) Relativity to Underlying Present Rate:	0.957	1.387	1.099					
	(21) Credibility to Underlying Relativity:	0.350	0.030	0.100					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.105	1.236	1.060					
	(24) Balanced Formula Relativity:	1.096	1.233	1.056	1.111				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000229 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8048 STORE: FRUIT OR VEGETABLE -WHOLESALE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	194,021	3	35	531,803	261,380	212,801	1,005,983		
2000/2001	230,630	2	25	128,362	108,992	166,846	404,200		
2001/2002	251,190	3	13	384,210	43,090	226,157	653,457		
2002/2003	250,002	1	18	94,253	105,566	141,492	341,311		
2003/2004	271,542	4	17	602,482	124,363	350,196	1,077,041		
<b>MA Total</b>	<b>1,197,385</b>	<b>13</b>	<b>108</b>	<b>1,741,110</b>	<b>643,391</b>	<b>1,097,492</b>	<b>3,481,993</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	2.741	1.347	1.097	5.185				
	2000/2001	0.557	0.473	0.723	1.753				
	2001/2002	1.530	0.172	0.900	2.601				
	2002/2003	0.377	0.422	0.566	1.365				
	2003/2004	2.219	0.458	1.290	3.966				
	<b>MA Total Pure Premium:</b>	<b>1.454</b>	<b>0.537</b>	<b>0.917</b>	<b>2.908</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	2.093	1.218	1.136					
	(14) Massachusetts Credibility:	0.36	0.79	0.72					
	(15) Countrywide Pure Premium:	2.236	0.980	1.750	4.966				
	(16) Countrywide Indicated Relativity:	3.138	2.130	2.092					
	(17) Countrywide Credibility:	0.32	0.11	0.14					
	(18) Countrywide Lost-time Claims:	55	457						
	(19) Pure Premium Underlying Present Rate:	0.978	0.751	0.868	2.597				
	(20) Relativity to Underlying Present Rate:	2.084	1.264	1.155					
	(21) Credibility to Underlying Relativity:	0.320	0.100	0.140					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	2.425	1.323	1.273					
	(24) Balanced Formula Relativity:	2.403	1.320	1.268	1.686				

Class(es):		Effective: 9/1/2007						Goods & Services	
8050 STORE: FIVE & TEN CENT STORES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	5,532	0	0	0	0	310	310		
2000/2001	3,127	0	1	0	1,307	997	2,304		
2001/2002	3,537	0	0	0	0	0	0		
2002/2003	6,334	0	4	0	21,633	16,674	38,306		
2003/2004	6,457	0	0	0	0	271	271		
<b>MA Total</b>	<b>24,987</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>22,940</b>	<b>18,251</b>	<b>41,191</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.056	0.056				
	2000/2001	0.000	0.418	0.319	0.737				
	2001/2002	0.000	0.000	0.000	0.000				
	2002/2003	0.000	3.416	2.633	6.048				
	2003/2004	0.000	0.000	0.042	0.042				
	<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.918</b>	<b>0.730</b>	<b>1.648</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.000	2.080	0.906					
	(14) Massachusetts Credibility:	0.05	0.11	0.11					
	(15) Countrywide Pure Premium:	1.253	0.359	2.234	3.846				
	(16) Countrywide Indicated Relativity:	1.758	0.780	2.670					
	(17) Countrywide Credibility:	0.13	0.26	0.31					
	(18) Countrywide Lost-time Claims:	3	30						
	(19) Pure Premium Underlying Present Rate:	0.272	0.281	0.351	0.903				
	(20) Relativity to Underlying Present Rate:	0.580	0.473	0.467					
	(21) Credibility to Underlying Relativity:	0.820	0.630	0.580					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	0.704	0.730	1.198					
	(24) Balanced Formula Relativity:	0.698	0.728	1.194	0.911				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000230 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 155

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services
8058 BUILDING MATERIAL DEALER-NEW MATERIALS ONLY-STORE EMP								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	186,395	0	20	0	143,695	208,150	351,845	
2000/2001	223,407	3	34	369,836	154,777	540,944	1,065,557	
2001/2002	268,582	3	21	382,149	86,776	614,656	1,083,581	
2002/2003	262,223	0	19	0	138,139	137,722	275,861	
2003/2004	234,135	1	21	193,787	322,246	455,167	971,200	
<b>MA Total</b>	<b>1,174,742</b>	<b>7</b>	<b>115</b>	<b>945,771</b>	<b>845,633</b>	<b>1,956,639</b>	<b>3,748,044</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.771	1.117	1.888			
	2000/2001	1.655	0.693	2.421	4.770			
	2001/2002	1.423	0.323	2.289	4.034			
	2002/2003	0.000	0.527	0.525	1.052			
	2003/2004	0.828	1.376	1.944	4.148			
	<b>MA Total Pure Premium:</b>	<b>0.805</b>	<b>0.720</b>	<b>1.666</b>	<b>3.191</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.159	1.631	2.065				
	(14) Massachusetts Credibility:	0.31	0.81	0.80				
	(15) Countrywide Pure Premium:	0.649	0.545	1.083	2.277			
	(16) Countrywide Indicated Relativity:	0.911	1.185	1.294				
	(17) Countrywide Credibility:	0.35	0.10	0.10				
	(18) Countrywide Lost-time Claims:	386	7,567					
	(19) Pure Premium Underlying Present Rate:	0.665	0.800	1.160	2.625			
	(20) Relativity to Underlying Present Rate:	1.417	1.348	1.544				
	(21) Credibility to Underlying Relativity:	0.340	0.090	0.100				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	1.160	1.561	1.936				
	(24) Balanced Formula Relativity:	1.150	1.558	1.929	1.566			

Class(es):		Effective: 9/1/2007						Goods & Services
8103 WOOL MERCHANT								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	35,860	0	1	0	2,644	15,544	18,188	
2000/2001	32,262	0	0	0	0	4,106	4,106	
2001/2002	26,886	0	3	0	11,873	14,003	25,876	
2002/2003	27,132	1	1	221,676	402	94,068	316,147	
2003/2004	31,352	0	0	0	0	4,816	4,816	
<b>MA Total</b>	<b>153,492</b>	<b>1</b>	<b>5</b>	<b>221,676</b>	<b>14,919</b>	<b>132,537</b>	<b>369,133</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.074	0.433	0.507			
	2000/2001	0.000	0.000	0.127	0.127			
	2001/2002	0.000	0.442	0.521	0.962			
	2002/2003	8.170	0.015	3.467	11.652			
	2003/2004	0.000	0.000	0.154	0.154			
	<b>MA Total Pure Premium:</b>	<b>1.444</b>	<b>0.097</b>	<b>0.863</b>	<b>2.405</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.079	0.220	1.071				
	(14) Massachusetts Credibility:	0.14	0.38	0.34				
	(15) Countrywide Pure Premium:	1.393	0.731	2.489	4.612			
	(16) Countrywide Indicated Relativity:	1.954	1.588	2.976				
	(17) Countrywide Credibility:	0.37	0.31	0.33				
	(18) Countrywide Lost-time Claims:	37	199					
	(19) Pure Premium Underlying Present Rate:	0.770	0.958	1.088	2.816			
	(20) Relativity to Underlying Present Rate:	1.641	1.612	1.448				
	(21) Credibility to Underlying Relativity:	0.490	0.310	0.330				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	1.818	1.076	1.824				
	(24) Balanced Formula Relativity:	1.802	1.074	1.818	1.643			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000231 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8105 STORE: HIDE OR LEATHER DEALERS OR STORES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	8,876	0	0	0	0	1,109	1,109		
2000/2001	8,879	1	0	146,965	0	14,285	161,250		
2001/2002	8,565	0	1	0	609	5,214	5,822		
2002/2003	9,887	0	0	0	0	0	0		
2003/2004	10,664	0	0	0	0	0	0		
<b>MA Total</b>	<b>46,871</b>	<b>1</b>	<b>1</b>	<b>146,965</b>	<b>609</b>	<b>20,608</b>	<b>168,181</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	0.000	0.125	0.125				
	2000/2001	16.551	0.000	1.609	18.160				
	2001/2002	0.000	0.071	0.609	0.680				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.000	0.000	0.000				
	<b>MA Total Pure Premium:</b>	<b>3.136</b>	<b>0.013</b>	<b>0.440</b>	<b>3.588</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
(13)	Massachusetts Indicated Relativity:	4.514	0.029	0.545					
(14)	Massachusetts Credibility:	0.12	0.21	0.25					
(15)	Countrywide Pure Premium:	2.100	0.188	2.678	4.965				
(16)	Countrywide Indicated Relativity:	2.946	0.409	3.201					
(17)	Countrywide Credibility:	0.09	0.14	0.18					
(18)	Countrywide Lost-time Claims:	1	7						
(19)	Pure Premium Underlying Present Rate:	1.451	0.666	1.529	3.645				
(20)	Relativity to Underlying Present Rate:	3.092	1.120	2.035					
(21)	Credibility to Underlying Relativity:	0.790	0.650	0.570					
(22)	Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
(23)	Formula Relativity:	3.250	0.792	1.872					
(24)	Balanced Formula Relativity:	3.221	0.790	1.866	2.106				

Class(es):		Effective: 9/1/2007						Goods & Services	
8106 IRON OR STEEL MERCHANT & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	179,037	5	53	744,595	404,887	539,230	1,688,711		
2000/2001	171,222	4	43	804,351	355,122	667,208	1,826,681		
2001/2002	152,779	3	34	457,756	295,720	450,964	1,204,439		
2002/2003	148,348	0	33	0	254,674	361,040	615,713		
2003/2004	159,513	2	39	672,720	413,375	855,023	1,941,118		
<b>MA Total</b>	<b>810,899</b>	<b>14</b>	<b>202</b>	<b>2,679,421</b>	<b>1,723,777</b>	<b>2,873,464</b>	<b>7,276,663</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	4.159	2.261	3.012	9.432				
	2000/2001	4.698	2.074	3.897	10.669				
	2001/2002	2.996	1.936	2.952	7.884				
	2002/2003	0.000	1.717	2.434	4.150				
	2003/2004	4.217	2.591	5.360	12.169				
	<b>MA Total Pure Premium:</b>	<b>3.304</b>	<b>2.126</b>	<b>3.544</b>	<b>8.974</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
(13)	Massachusetts Indicated Relativity:	4.757	4.817	4.393					
(14)	Massachusetts Credibility:	0.37	1.00	0.91					
(15)	Countrywide Pure Premium:	1.786	0.885	1.713	4.385				
(16)	Countrywide Indicated Relativity:	2.506	1.925	2.048					
(17)	Countrywide Credibility:	0.32	0.00	0.05					
(18)	Countrywide Lost-time Claims:	419	4,615						
(19)	Pure Premium Underlying Present Rate:	1.593	2.114	2.358	6.065				
(20)	Relativity to Underlying Present Rate:	3.393	3.560	3.138					
(21)	Credibility to Underlying Relativity:	0.310	0.000	0.040					
(22)	Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
(23)	Formula Relativity:	3.614	4.817	4.226					
(24)	Balanced Formula Relativity:	3.582	4.807	4.211	4.122				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000232 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
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 Exhibit 157

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8107 MACHINERY DEALER- NOC- STORE OR YARD & DRIVERS*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	581,975	6	42	645,407	386,982	744,772	1,777,160		
2000/2001	634,134	2	47	151,551	487,170	608,839	1,247,560		
2001/2002	573,163	3	34	429,230	273,095	672,664	1,374,989		
2002/2003	602,428	7	45	1,340,686	421,156	1,051,010	2,812,852		
2003/2004	554,700	4	43	1,337,676	778,082	1,555,625	3,671,384		
<b>MA Total</b>	<b>2,946,400</b>	<b>22</b>	<b>211</b>	<b>3,904,550</b>	<b>2,346,486</b>	<b>4,632,910</b>	<b>10,883,945</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	1.109	0.665	1.280	3.054				
	2000/2001	0.239	0.768	0.960	1.967				
	2001/2002	0.749	0.476	1.174	2.399				
	2002/2003	2.225	0.699	1.745	4.669				
	2003/2004	2.412	1.403	2.804	6.619				
	<b>MA Total Pure Premium:</b>	<b>1.325</b>	<b>0.796</b>	<b>1.572</b>	<b>3.694</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.908	1.805	1.949					
	(14) Massachusetts Credibility:	0.42	1.00	1.00					
	(15) Countrywide Pure Premium:	1.486	0.595	1.167	3.248				
	(16) Countrywide Indicated Relativity:	2.085	1.295	1.395					
	(17) Countrywide Credibility:	0.29	0.00	0.00					
	(18) Countrywide Lost-time Claims:	854	9,045						
	(19) Pure Premium Underlying Present Rate:	0.594	0.647	0.936	2.177				
	(20) Relativity to Underlying Present Rate:	1.265	1.090	1.245					
	(21) Credibility to Underlying Relativity:	0.290	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.773	1.805	1.949					
	(24) Balanced Formula Relativity:	1.757	1.801	1.943	1.844				

Class(es):		Effective: 9/1/2007						Goods & Services	
8111 PLUMBERS SUPPLIES DEALERS & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	390,171	4	36	532,089	148,004	496,757	1,176,849		
2000/2001	386,624	6	34	833,097	414,951	572,358	1,820,406		
2001/2002	375,770	5	42	684,553	348,429	835,590	1,868,572		
2002/2003	371,174	3	46	203,198	241,638	507,791	952,627		
2003/2004	396,972	1	40	213,607	399,102	393,317	1,006,025		
<b>MA Total</b>	<b>1,920,711</b>	<b>19</b>	<b>198</b>	<b>2,466,543</b>	<b>1,552,124</b>	<b>2,805,811</b>	<b>6,824,479</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	1.364	0.379	1.273	3.016				
	2000/2001	2.155	1.073	1.480	4.708				
	2001/2002	1.822	0.927	2.224	4.973				
	2002/2003	0.547	0.651	1.368	2.567				
	2003/2004	0.538	1.005	0.991	2.534				
	<b>MA Total Pure Premium:</b>	<b>1.284</b>	<b>0.808</b>	<b>1.461</b>	<b>3.553</b>				
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.849	1.831	1.811					
	(14) Massachusetts Credibility:	0.37	1.00	0.92					
	(15) Countrywide Pure Premium:	1.027	0.627	1.177	2.830				
	(16) Countrywide Indicated Relativity:	1.440	1.363	1.407					
	(17) Countrywide Credibility:	0.32	0.00	0.04					
	(18) Countrywide Lost-time Claims:	293	2,878						
	(19) Pure Premium Underlying Present Rate:	0.643	1.134	1.013	2.790				
	(20) Relativity to Underlying Present Rate:	1.371	1.909	1.348					
	(21) Credibility to Underlying Relativity:	0.310	0.000	0.040					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.570	1.831	1.776					
	(24) Balanced Formula Relativity:	1.556	1.828	1.770	1.707				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000233 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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 Exhibit 158

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8203 ICE DEALER & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	25,756	0	6	0	48,899	12,055	60,955		
2000/2001	27,678	0	5	0	46,954	35,976	82,930		
2001/2002	23,824	1	4	186,824	9,770	90,195	286,788		
2002/2003	27,177	0	3	0	4,323	30,040	34,363		
2003/2004	25,525	1	2	123,514	1,527	52,592	177,633		
<b>MA Total</b>	<b>129,960</b>	<b>2</b>	<b>20</b>	<b>310,337</b>	<b>111,474</b>	<b>220,858</b>	<b>642,670</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	1.899	0.468	2.367				
	2000/2001	0.000	1.696	1.300	2.996				
	2001/2002	7.842	0.410	3.786	12.038				
	2002/2003	0.000	0.159	1.105	1.264				
	2003/2004	4.839	0.060	2.060	6.959				
	<b>MA Total Pure Premium:</b>	<b>2.388</b>	<b>0.858</b>	<b>1.699</b>	<b>4.945</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	3.438	1.944	2.107					
	(14) Massachusetts Credibility:	0.14	0.44	0.33					
	(15) Countrywide Pure Premium:	2.606	1.001	2.776	6.384				
	(16) Countrywide Indicated Relativity:	3.657	2.177	3.319					
	(17) Countrywide Credibility:	0.34	0.28	0.34					
	(18) Countrywide Lost-time Claims:	31	384						
	(19) Pure Premium Underlying Present Rate:	0.850	1.600	1.124	3.574				
	(20) Relativity to Underlying Present Rate:	1.811	2.694	1.496					
	(21) Credibility to Underlying Relativity:	0.520	0.280	0.330					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	2.666	2.219	2.317					
	(24) Balanced Formula Relativity:	2.643	2.215	2.309	2.407				

Class(es):		Effective: 9/1/2007						Goods & Services	
8204 BUILDING MATERIAL YARD & LOCAL MANAGERS, DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	10,938	0	3	0	23,451	16,752	40,203		
2000/2001	12,295	1	2	133,148	281	36,437	169,866		
2001/2002	8,689	0	3	0	1,615	4,328	5,943		
2002/2003	5,291	0	0	0	0	0	0		
2003/2004	5,087	0	0	0	0	0	0		
<b>MA Total</b>	<b>42,300</b>	<b>1</b>	<b>8</b>	<b>133,148</b>	<b>25,347</b>	<b>57,517</b>	<b>216,012</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.000	2.144	1.532	3.676				
	2000/2001	10.829	0.023	2.963	13.816				
	2001/2002	0.000	0.186	0.498	0.684				
	2002/2003	0.000	0.000	0.000	0.000				
	2003/2004	0.000	0.000	0.000	0.000				
	<b>MA Total Pure Premium:</b>	<b>3.148</b>	<b>0.599</b>	<b>1.360</b>	<b>5.107</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	4.531	1.358	1.686					
	(14) Massachusetts Credibility:	0.16	0.26	0.26					
	(15) Countrywide Pure Premium:	1.796	0.664	1.441	3.901				
	(16) Countrywide Indicated Relativity:	2.520	1.445	1.722					
	(17) Countrywide Credibility:	0.31	0.37	0.37					
	(18) Countrywide Lost-time Claims:	25	178						
	(19) Pure Premium Underlying Present Rate:	3.756	1.341	1.889	6.986				
	(20) Relativity to Underlying Present Rate:	8.003	2.257	2.514					
	(21) Credibility to Underlying Relativity:	0.530	0.370	0.370					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	5.748	1.723	2.006					
	(24) Balanced Formula Relativity:	5.697	1.719	1.999	3.258				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000234 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007				Goods & Services	
8215 HAY, GRAIN OR FEED DEALER & LOCAL MANAGERS, DR							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	48,695	0	8	0	82,663	74,409	157,072
2000/2001	78,601	1	8	118,568	190,212	279,790	588,570
2001/2002	52,668	0	3	0	13,863	15,123	28,985
2002/2003	58,179	0	5	0	22,971	15,802	38,773
2003/2004	66,235	0	7	0	124,850	106,560	231,411
<b>MA Total</b>	<b>304,378</b>	<b>1</b>	<b>31</b>	<b>118,568</b>	<b>434,558</b>	<b>491,684</b>	<b>1,044,810</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.000	1.698	1.528	3.226		
	2000/2001	1.508	2.420	3.560	7.488		
	2001/2002	0.000	0.263	0.287	0.550		
	2002/2003	0.000	0.395	0.272	0.666		
	2003/2004	0.000	1.885	1.609	3.494		
	<b>MA Total Pure Premium:</b>	<b>0.390</b>	<b>1.428</b>	<b>1.615</b>	<b>3.433</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.561	3.235	2.003			
	(14) Massachusetts Credibility:	0.19	0.52	0.55			
	(15) Countrywide Pure Premium:	1.512	0.573	1.498	3.583		
	(16) Countrywide Indicated Relativity:	2.121	1.246	1.791			
	(17) Countrywide Credibility:	0.41	0.24	0.23			
	(18) Countrywide Lost-time Claims:	179	1,734				
	(19) Pure Premium Underlying Present Rate:	0.789	1.006	1.769	3.564		
	(20) Relativity to Underlying Present Rate:	1.682	1.693	2.354			
	(21) Credibility to Underlying Relativity:	0.400	0.240	0.220			
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
	(23) Formula Relativity:	1.649	2.388	2.031			
	(24) Balanced Formula Relativity:	1.635	2.383	2.024	1.966		

Class(es):		Effective: 9/1/2007				Construction	
8227 CONTRACTORS PERMANENT YARD							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	730,114	11	38	2,025,217	223,042	1,214,450	3,462,709
2000/2001	782,091	4	60	733,014	485,986	830,168	2,049,168
2001/2002	765,112	2	40	186,875	344,576	414,154	945,605
2002/2003	870,828	5	20	1,264,363	123,139	542,550	1,930,052
2003/2004	829,489	5	43	1,345,114	493,276	1,331,531	3,169,921
<b>MA Total</b>	<b>3,977,634</b>	<b>27</b>	<b>201</b>	<b>5,554,583</b>	<b>1,670,018</b>	<b>4,332,853</b>	<b>11,557,454</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	2.774	0.305	1.663	4.743		
	2000/2001	0.937	0.621	1.061	2.620		
	2001/2002	0.244	0.450	0.541	1.236		
	2002/2003	1.452	0.141	0.623	2.216		
	2003/2004	1.622	0.595	1.605	3.822		
	<b>MA Total Pure Premium:</b>	<b>1.396</b>	<b>0.420</b>	<b>1.089</b>	<b>2.906</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.469	0.459	0.549			
	(14) Massachusetts Credibility:	0.61	1.00	1.00			
	(15) Countrywide Pure Premium:	2.423	0.713	1.563	4.699		
	(16) Countrywide Indicated Relativity:	0.870	0.791	0.820			
	(17) Countrywide Credibility:	0.20	0.00	0.00			
	(18) Countrywide Lost-time Claims:	878	6,270				
	(19) Pure Premium Underlying Present Rate:	1.103	0.652	1.058	2.812		
	(20) Relativity to Underlying Present Rate:	0.472	0.472	0.526			
	(21) Credibility to Underlying Relativity:	0.190	0.000	0.000			
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876		
	(23) Formula Relativity:	0.550	0.459	0.549			
	(24) Balanced Formula Relativity:	0.557	0.459	0.551	0.540		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000235 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 160

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services
8232 LUMBER YARD-NEW MATERIALS ONLY: A/O EMP INCL YRD & WHSE & DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	1,016,146	7	188	999,137	2,027,074	2,256,202	5,282,413	
2000/2001	1,159,659	14	188	2,461,954	1,846,673	3,010,772	7,319,400	
2001/2002	1,051,682	14	129	1,897,909	833,923	2,094,433	4,826,265	
2002/2003	1,225,189	16	132	3,074,553	876,999	2,278,034	6,229,587	
2003/2004	1,048,984	7	98	1,294,298	857,122	2,146,500	4,297,920	
<b>MA Total</b>	<b>5,501,660</b>	<b>58</b>	<b>735</b>	<b>9,727,851</b>	<b>6,441,791</b>	<b>11,785,942</b>	<b>27,955,584</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.983	1.995	2.220	5.198			
	2000/2001	2.123	1.592	2.596	6.312			
	2001/2002	1.805	0.793	1.992	4.589			
	2002/2003	2.509	0.716	1.859	5.085			
	2003/2004	1.234	0.817	2.046	4.097			
	<b>MA Total Pure Premium:</b>	<b>1.768</b>	<b>1.171</b>	<b>2.142</b>	<b>5.081</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	2.545	2.653	2.656				
	(14) Massachusetts Credibility:	0.71	1.00	1.00				
	(15) Countrywide Pure Premium:	1.681	0.775	1.463	3.919			
	(16) Countrywide Indicated Relativity:	2.358	1.685	1.750				
	(17) Countrywide Credibility:	0.15	0.00	0.00				
	(18) Countrywide Lost-time Claims:	2,302	22,075					
	(19) Pure Premium Underlying Present Rate:	1.149	1.473	1.993	4.614			
	(20) Relativity to Underlying Present Rate:	2.448	2.479	2.652				
	(21) Credibility to Underlying Relativity:	0.140	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	2.504	2.653	2.656				
	(24) Balanced Formula Relativity:	2.482	2.648	2.647	2.588			

Class(es):		Effective: 9/1/2007						Goods & Services
8233 COAL MERCHANT & LOCAL MANAGERS & DRIVERS*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	124,680	2	35	223,044	259,726	433,533	916,302	
2000/2001	122,321	6	20	941,258	82,635	1,255,919	2,279,812	
2001/2002	157,340	6	14	1,081,023	88,203	682,931	1,852,157	
2002/2003	145,312	3	26	568,484	144,385	525,235	1,238,103	
2003/2004	204,937	3	37	717,452	446,864	1,268,333	2,432,650	
<b>MA Total</b>	<b>754,590</b>	<b>20</b>	<b>132</b>	<b>3,531,261</b>	<b>1,021,813</b>	<b>4,165,950</b>	<b>8,719,024</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.789	2.083	3.477	7.349			
	2000/2001	7.695	0.676	10.267	18.638			
	2001/2002	6.871	0.561	4.340	11.772			
	2002/2003	3.912	0.994	3.615	8.520			
	2003/2004	3.501	2.180	6.189	11.870			
	<b>MA Total Pure Premium:</b>	<b>4.680</b>	<b>1.354</b>	<b>5.521</b>	<b>11.555</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	6.737	3.068	6.845				
	(14) Massachusetts Credibility:	0.40	0.87	1.00				
	(15) Countrywide Pure Premium:	2.220	0.921	2.110	5.251			
	(16) Countrywide Indicated Relativity:	3.115	2.002	2.523				
	(17) Countrywide Credibility:	0.30	0.07	0.00				
	(18) Countrywide Lost-time Claims:	293	2,607					
	(19) Pure Premium Underlying Present Rate:	2.010	1.490	3.739	7.239			
	(20) Relativity to Underlying Present Rate:	4.282	2.509	4.977				
	(21) Credibility to Underlying Relativity:	0.300	0.060	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	4.914	2.960	6.845				
	(24) Balanced Formula Relativity:	4.871	2.954	6.821	5.245			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000236 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007				Goods & Services	
8235 SASH, DOOR OR ASSEMBLED MILLWORK DEALER & DR							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	188,065	1	30	77,911	115,255	234,713	427,879
2000/2001	202,682	4	27	326,377	163,801	430,659	920,837
2001/2002	161,413	4	20	479,090	158,428	378,614	1,016,132
2002/2003	169,788	3	29	264,772	223,105	266,721	754,598
2003/2004	155,171	1	26	186,155	228,106	274,745	689,006
<b>MA Total</b>	<b>877,119</b>	<b>13</b>	<b>132</b>	<b>1,334,305</b>	<b>888,694</b>	<b>1,585,453</b>	<b>3,808,452</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.414	0.613	1.248	2.275		
	2000/2001	1.610	0.808	2.125	4.543		
	2001/2002	2.968	0.982	2.346	6.295		
	2002/2003	1.559	1.314	1.571	4.444		
	2003/2004	1.200	1.470	1.771	4.440		
	<b>MA Total Pure Premium:</b>	<b>1.521</b>	<b>1.013</b>	<b>1.808</b>	<b>4.342</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	2.190	2.296	2.241			
	(14) Massachusetts Credibility:	0.33	0.91	0.84			
	(15) Countrywide Pure Premium:	1.959	0.949	1.826	4.734		
	(16) Countrywide Indicated Relativity:	2.749	2.063	2.183			
	(17) Countrywide Credibility:	0.34	0.05	0.08			
	(18) Countrywide Lost-time Claims:	90	1,207				
	(19) Pure Premium Underlying Present Rate:	1.039	1.442	1.779	4.259		
	(20) Relativity to Underlying Present Rate:	2.213	2.427	2.367			
	(21) Credibility to Underlying Relativity:	0.330	0.040	0.080			
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
	(23) Formula Relativity:	2.388	2.290	2.246			
	(24) Balanced Formula Relativity:	2.367	2.285	2.239	2.295		

Class(es):		Effective: 9/1/2007				Goods & Services	
8263 JUNK DEALERS & DRIVERS							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	16,164	0	1	0	15,581	21,959	37,541
2000/2001	16,608	1	2	59,388	6,648	47,011	113,048
2001/2002	22,217	0	3	0	4,480	23,612	28,092
2002/2003	23,152	0	1	0	134	2,460	2,594
2003/2004	22,706	0	5	0	4,332	19,528	23,860
<b>MA Total</b>	<b>100,847</b>	<b>1</b>	<b>12</b>	<b>59,388</b>	<b>31,176</b>	<b>114,570</b>	<b>205,135</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.000	0.964	1.359	2.323		
	2000/2001	3.576	0.400	2.831	6.807		
	2001/2002	0.000	0.202	1.063	1.264		
	2002/2003	0.000	0.006	0.106	0.112		
	2003/2004	0.000	0.191	0.860	1.051		
	<b>MA Total Pure Premium:</b>	<b>0.589</b>	<b>0.309</b>	<b>1.136</b>	<b>2.034</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.848	0.701	1.408			
	(14) Massachusetts Credibility:	0.17	0.34	0.37			
	(15) Countrywide Pure Premium:	3.743	1.169	3.691	8.604		
	(16) Countrywide Indicated Relativity:	5.252	2.542	4.413			
	(17) Countrywide Credibility:	0.34	0.33	0.32			
	(18) Countrywide Lost-time Claims:	31	259				
	(19) Pure Premium Underlying Present Rate:	1.759	1.078	2.025	4.862		
	(20) Relativity to Underlying Present Rate:	3.748	1.814	2.696			
	(21) Credibility to Underlying Relativity:	0.490	0.330	0.310			
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
	(23) Formula Relativity:	3.766	1.676	2.769			
	(24) Balanced Formula Relativity:	3.733	1.672	2.759	2.861		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000237 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
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 Exhibit 162

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8264 BOTTLE DEALER-USED & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	133,108	1	19	187,865	323,908	441,980	953,753		
2000/2001	142,224	8	21	1,183,858	181,747	449,712	1,815,317		
2001/2002	142,677	1	11	55,679	73,822	73,629	203,130		
2002/2003	170,437	1	12	121,724	90,721	132,824	345,269		
2003/2004	131,329	1	20	122,596	208,461	223,458	554,515		
<b>MA Total</b>	<b>719,775</b>	<b>12</b>	<b>83</b>	<b>1,671,723</b>	<b>878,658</b>	<b>1,321,603</b>	<b>3,871,984</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	1.411	2.433	3.320	7.165		
			2000/2001	8.324	1.278	3.162	12.764		
			2001/2002	0.390	0.517	0.516	1.424		
			2002/2003	0.714	0.532	0.779	2.026		
			2003/2004	0.934	1.587	1.702	4.222		
			<b>MA Total Pure Premium:</b>	<b>2.323</b>	<b>1.221</b>	<b>1.836</b>	<b>5.379</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	3.344	2.766	2.276			
			(14) Massachusetts Credibility:	0.33	0.94	0.76			
			(15) Countrywide Pure Premium:	1.723	0.888	1.866	4.477		
			(16) Countrywide Indicated Relativity:	2.417	1.932	2.230			
			(17) Countrywide Credibility:	0.34	0.03	0.12			
			(18) Countrywide Lost-time Claims:	178	1,466				
			(19) Pure Premium Underlying Present Rate:	1.285	1.884	1.702	4.870		
			(20) Relativity to Underlying Present Rate:	2.737	3.172	2.265			
			(21) Credibility to Underlying Relativity:	0.330	0.030	0.120			
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
			(23) Formula Relativity:	2.829	2.753	2.269			
			(24) Balanced Formula Relativity:	2.804	2.748	2.262	2.566		

Class(es):		Effective: 9/1/2007						Goods & Services	
8279 STABLE OR BREEDING FARM & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	76,649	1	20	55,322	107,240	180,547	343,108		
2000/2001	88,628	1	11	237,264	84,210	253,307	574,782		
2001/2002	108,331	2	17	198,540	77,287	309,840	585,667		
2002/2003	122,762	1	11	213,812	19,243	65,412	298,467		
2003/2004	133,463	1	21	313,502	237,356	421,503	972,361		
<b>MA Total</b>	<b>529,833</b>	<b>6</b>	<b>80</b>	<b>1,018,440</b>	<b>525,336</b>	<b>1,230,608</b>	<b>2,774,384</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.722	1.399	2.356	4.476		
			2000/2001	2.677	0.950	2.858	6.485		
			2001/2002	1.833	0.713	2.860	5.406		
			2002/2003	1.742	0.157	0.533	2.431		
			2003/2004	2.349	1.778	3.158	7.286		
			<b>MA Total Pure Premium:</b>	<b>1.922</b>	<b>0.992</b>	<b>2.323</b>	<b>5.236</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	2.767	2.247	2.880			
			(14) Massachusetts Credibility:	0.28	0.60	0.78			
			(15) Countrywide Pure Premium:	3.349	1.027	2.887	7.263		
			(16) Countrywide Indicated Relativity:	4.699	2.233	3.451			
			(17) Countrywide Credibility:	0.36	0.20	0.11			
			(18) Countrywide Lost-time Claims:	90	1,064				
			(19) Pure Premium Underlying Present Rate:	1.169	0.829	2.444	4.441		
			(20) Relativity to Underlying Present Rate:	2.490	1.395	3.253			
			(21) Credibility to Underlying Relativity:	0.360	0.200	0.110			
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
			(23) Formula Relativity:	3.363	2.074	2.983			
			(24) Balanced Formula Relativity:	3.333	2.070	2.973	2.897		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

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Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
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## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8291 STORAGE WAREHOUSE-COLD									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	100,387	0	19	0	197,309	84,065	281,374		
2000/2001	113,801	1	12	174,891	38,517	260,107	473,516		
2001/2002	129,099	2	10	406,714	55,115	442,547	904,376		
2002/2003	120,960	2	14	133,227	67,783	111,019	312,029		
2003/2004	93,836	0	12	0	205,465	189,256	394,720		
<b>MA Total</b>	<b>558,083</b>	<b>5</b>	<b>67</b>	<b>714,832</b>	<b>564,188</b>	<b>1,086,994</b>	<b>2,366,015</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	1.965	0.837	2.803			
		2000/2001	1.537	0.338	2.286	4.161			
		2001/2002	3.150	0.427	3.428	7.005			
		2002/2003	1.101	0.560	0.918	2.580			
		2003/2004	0.000	2.190	2.017	4.206			
		<b>MA Total Pure Premium:</b>	<b>1.281</b>	<b>1.011</b>	<b>1.948</b>	<b>4.240</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.844	2.291	2.415				
		(14) Massachusetts Credibility:	0.24	0.65	0.61				
		(15) Countrywide Pure Premium:	1.081	0.891	1.591	3.563			
		(16) Countrywide Indicated Relativity:	1.517	1.938	1.902				
		(17) Countrywide Credibility:	0.38	0.18	0.20				
		(18) Countrywide Lost-time Claims:	220	2.162					
		(19) Pure Premium Underlying Present Rate:	0.775	0.960	1.240	2.975			
		(20) Relativity to Underlying Present Rate:	1.652	1.616	1.650				
		(21) Credibility to Underlying Relativity:	0.380	0.170	0.190				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	1.647	2.113	2.167				
		(24) Balanced Formula Relativity:	1.632	2.108	2.159	1.959			

Class(es):		Effective: 9/1/2007						Goods & Services	
8292 STORAGE WAREHOUSE NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	451,349	6	64	824,663	429,739	813,526	2,067,928		
2000/2001	445,822	4	57	442,311	343,354	652,498	1,438,162		
2001/2002	459,678	2	61	359,624	409,494	439,034	1,208,151		
2002/2003	460,897	3	91	358,408	626,002	704,403	1,688,813		
2003/2004	430,232	2	66	349,925	651,540	719,086	1,720,551		
<b>MA Total</b>	<b>2,247,978</b>	<b>17</b>	<b>339</b>	<b>2,334,931</b>	<b>2,460,128</b>	<b>3,328,547</b>	<b>8,123,606</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	1.827	0.952	1.802	4.582			
		2000/2001	0.992	0.770	1.464	3.226			
		2001/2002	0.782	0.891	0.955	2.628			
		2002/2003	0.778	1.358	1.528	3.664			
		2003/2004	0.813	1.514	1.671	3.999			
		<b>MA Total Pure Premium:</b>	<b>1.039</b>	<b>1.094</b>	<b>1.481</b>	<b>3.614</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.495	2.480	1.836				
		(14) Massachusetts Credibility:	0.46	1.00	1.00				
		(15) Countrywide Pure Premium:	1.346	0.856	1.447	3.648			
		(16) Countrywide Indicated Relativity:	1.889	1.861	1.729				
		(17) Countrywide Credibility:	0.27	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,212	13,766					
		(19) Pure Premium Underlying Present Rate:	0.953	0.966	1.168	3.087			
		(20) Relativity to Underlying Present Rate:	2.030	1.627	1.555				
		(21) Credibility to Underlying Relativity:	0.270	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	1.746	2.480	1.836				
		(24) Balanced Formula Relativity:	1.730	2.475	1.829	1.941			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000239 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 164

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8293 STORAGE WAREHOUSE-FURNITURE & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	374,114	10	89	1,362,937	428,284	1,194,250	2,985,471		
2000/2001	404,448	10	75	1,051,424	374,496	995,614	2,421,535		
2001/2002	410,953	14	84	2,151,924	678,047	1,505,505	4,335,477		
2002/2003	470,595	11	78	1,635,437	763,903	1,677,406	4,076,746		
2003/2004	473,777	8	82	1,495,675	936,431	1,426,037	3,858,144		
<b>MA Total</b>	<b>2,133,887</b>	<b>53</b>	<b>408</b>	<b>7,697,398</b>	<b>3,181,162</b>	<b>6,798,812</b>	<b>17,677,372</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		3.643	1.145	3.192	7.980		
		2000/2001		2.600	0.926	2.462	5.987		
		2001/2002		5.236	1.650	3.663	10.550		
		2002/2003		3.475	1.623	3.564	8.663		
		2003/2004		3.157	1.977	3.010	8.143		
		<b>MA Total Pure Premium:</b>		<b>3.607</b>	<b>1.491</b>	<b>3.186</b>	<b>8.284</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		5.193	3.378	3.950			
		(14) Massachusetts Credibility:		0.70	1.00	1.00			
		(15) Countrywide Pure Premium:		2.739	1.594	3.096	7.429		
		(16) Countrywide Indicated Relativity:		3.843	3.467	3.701			
		(17) Countrywide Credibility:		0.15	0.00	0.00			
		(18) Countrywide Lost-time Claims:		756	8,767				
		(19) Pure Premium Underlying Present Rate:		2.852	1.782	2.734	7.369		
		(20) Relativity to Underlying Present Rate:		6.077	3.001	3.639			
		(21) Credibility to Underlying Relativity:		0.150	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		5.123	3.378	3.950			
		(24) Balanced Formula Relativity:		5.078	3.371	3.936	4.216		

Class(es):		Effective: 9/1/2007						Goods & Services	
8350 GASOLINE OR OIL DEALER & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,208,195	19	167	3,795,751	1,900,742	2,262,236	7,958,729		
2000/2001	1,339,595	12	162	2,135,480	1,520,637	2,369,278	6,025,394		
2001/2002	1,478,555	18	152	3,320,859	1,448,623	2,675,421	7,444,903		
2002/2003	1,509,385	19	177	4,040,096	1,199,524	3,444,792	8,684,412		
2003/2004	1,554,209	5	163	1,622,830	2,190,287	2,631,587	6,444,705		
<b>MA Total</b>	<b>7,089,939</b>	<b>73</b>	<b>821</b>	<b>14,915,016</b>	<b>8,259,813</b>	<b>13,383,315</b>	<b>36,558,143</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		3.142	1.573	1.872	6.587		
		2000/2001		1.594	1.135	1.769	4.498		
		2001/2002		2.246	0.980	1.809	5.035		
		2002/2003		2.677	0.795	2.282	5.754		
		2003/2004		1.044	1.409	1.693	4.147		
		<b>MA Total Pure Premium:</b>		<b>2.104</b>	<b>1.165</b>	<b>1.888</b>	<b>5.156</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		3.028	2.640	2.340			
		(14) Massachusetts Credibility:		0.87	1.00	1.00			
		(15) Countrywide Pure Premium:		2.423	0.753	1.520	4.696		
		(16) Countrywide Indicated Relativity:		3.399	1.638	1.818			
		(17) Countrywide Credibility:		0.07	0.00	0.00			
		(18) Countrywide Lost-time Claims:		717	6,020				
		(19) Pure Premium Underlying Present Rate:		1.489	1.435	1.586	4.510		
		(20) Relativity to Underlying Present Rate:		3.173	2.416	2.111			
		(21) Credibility to Underlying Relativity:		0.060	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		3.063	2.640	2.340			
		(24) Balanced Formula Relativity:		3.036	2.635	2.332	2.653		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000240 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 165

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007				Goods & Services	
8380 AUTOMOBILE SERVICE OR REPAIR CENTER & DRIVERS							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	8,626,183	58	711	8,579,709	6,236,386	10,612,032	25,428,126
2000/2001	9,421,540	70	710	11,125,256	5,179,967	10,285,726	26,590,950
2001/2002	9,738,650	62	653	9,486,755	4,515,722	9,770,132	23,772,609
2002/2003	10,092,647	75	586	13,593,524	4,355,403	11,522,668	29,471,595
2003/2004	9,458,118	25	535	7,205,305	5,806,008	8,011,649	21,022,962
<b>MA Total</b>	<b>47,337,138</b>	<b>290</b>	<b>3,195</b>	<b>49,990,549</b>	<b>26,093,486</b>	<b>50,202,207</b>	<b>126,286,242</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.995	0.723	1.230	2.948		
	2000/2001	1.181	0.550	1.092	2.822		
	2001/2002	0.974	0.464	1.003	2.441		
	2002/2003	1.347	0.432	1.142	2.920		
	2003/2004	0.762	0.614	0.847	2.223		
	<b>MA Total Pure Premium:</b>	<b>1.056</b>	<b>0.551</b>	<b>1.061</b>	<b>2.668</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	1.520	1.249	1.315			
	(14) Massachusetts Credibility:	1.00	1.00	1.00			
	(15) Countrywide Pure Premium:	1.192	0.506	0.948	2.646		
	(16) Countrywide Indicated Relativity:	1.672	1.100	1.133			
	(17) Countrywide Credibility:	0.00	0.00	0.00			
	(18) Countrywide Lost-time Claims:	2,747	37,011				
	(19) Pure Premium Underlying Present Rate:	0.572	0.826	0.982	2.380		
	(20) Relativity to Underlying Present Rate:	1.219	1.390	1.307			
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000			
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
	(23) Formula Relativity:	1.520	1.249	1.315			
	(24) Balanced Formula Relativity:	1.507	1.247	1.310	1.366		

Class(es):		Effective: 9/1/2007				Goods & Services	
8381 GASOLINE STATION-RETAIL-SELF SERVICE							
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	354,050	2	17	175,703	141,738	380,950	698,392
2000/2001	246,999	0	14	0	179,271	95,597	274,869
2001/2002	286,090	1	18	69,317	181,660	130,395	381,371
2002/2003	244,600	3	4	487,609	7,469	347,252	842,330
2003/2004	207,143	0	7	0	32,801	51,145	83,946
<b>MA Total</b>	<b>1,338,882</b>	<b>6</b>	<b>60</b>	<b>732,629</b>	<b>542,939</b>	<b>1,005,339</b>	<b>2,280,907</b>
<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
	1999/2000	0.496	0.400	1.076	1.973		
	2000/2001	0.000	0.726	0.387	1.113		
	2001/2002	0.242	0.635	0.456	1.333		
	2002/2003	1.993	0.031	1.420	3.444		
	2003/2004	0.000	0.158	0.247	0.405		
	<b>MA Total Pure Premium:</b>	<b>0.547</b>	<b>0.406</b>	<b>0.751</b>	<b>1.704</b>		
<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total		
	(13) Massachusetts Indicated Relativity:	0.788	0.919	0.931			
	(14) Massachusetts Credibility:	0.23	0.65	0.64			
	(15) Countrywide Pure Premium:	0.511	0.310	0.606	1.427		
	(16) Countrywide Indicated Relativity:	0.717	0.675	0.724			
	(17) Countrywide Credibility:	0.39	0.18	0.18			
	(18) Countrywide Lost-time Claims:	95	1,445				
	(19) Pure Premium Underlying Present Rate:	0.282	0.407	0.590	1.278		
	(20) Relativity to Underlying Present Rate:	0.601	0.685	0.785			
	(21) Credibility to Underlying Relativity:	0.380	0.170	0.180			
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
	(23) Formula Relativity:	0.689	0.835	0.867			
	(24) Balanced Formula Relativity:	0.683	0.833	0.864	0.792		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000241 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 166

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8385 BUS CO: GARAGE EMPLOYEES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	289,239	2	34	248,329	153,744	281,600	683,673		
2000/2001	310,908	6	35	903,852	268,860	480,836	1,653,548		
2001/2002	286,432	1	20	185,660	173,424	159,029	518,113		
2002/2003	410,580	1	20	73,012	146,975	233,747	453,733		
2003/2004	325,326	2	33	620,272	256,719	400,375	1,277,366		
<b>MA Total</b>	<b>1,622,485</b>	<b>12</b>	<b>142</b>	<b>2,031,125</b>	<b>999,722</b>	<b>1,555,587</b>	<b>4,586,434</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.859	0.532	0.974	2.364		
		2000/2001		2.907	0.865	1.547	5.318		
		2001/2002		0.648	0.605	0.555	1.809		
		2002/2003		0.178	0.358	0.569	1.105		
		2003/2004		1.907	0.789	1.231	3.926		
		<b>MA Total Pure Premium:</b>		<b>1.252</b>	<b>0.616</b>	<b>0.959</b>	<b>2.827</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.802	1.396	1.189			
		(14) Massachusetts Credibility:		0.43	0.96	0.87			
		(15) Countrywide Pure Premium:		0.985	0.617	1.345	2.947		
		(16) Countrywide Indicated Relativity:		1.382	1.342	1.607			
		(17) Countrywide Credibility:		0.29	0.02	0.07			
		(18) Countrywide Lost-time Claims:		178	2,286				
		(19) Pure Premium Underlying Present Rate:		1.101	0.886	1.048	3.034		
		(20) Relativity to Underlying Present Rate:		2.345	1.491	1.395			
		(21) Credibility to Underlying Relativity:		0.280	0.020	0.060			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		1.832	1.397	1.230			
		(24) Balanced Formula Relativity:		1.816	1.394	1.226	1.475		

Class(es):		Effective: 9/1/2007						Goods & Services	
8392 AUTOMOBILE STORAGE GARAGE OR PARKING STATION & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	482,728	3	36	405,229	140,897	555,942	1,102,068		
2000/2001	576,014	4	30	679,142	211,739	365,099	1,255,980		
2001/2002	603,123	0	16	0	37,907	95,692	133,598		
2002/2003	417,022	1	21	94,451	53,298	104,725	252,474		
2003/2004	456,481	0	25	0	176,339	181,818	358,157		
<b>MA Total</b>	<b>2,535,368</b>	<b>8</b>	<b>128</b>	<b>1,178,822</b>	<b>620,180</b>	<b>1,303,275</b>	<b>3,102,277</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.839	0.292	1.152	2.283		
		2000/2001		1.179	0.368	0.634	2.180		
		2001/2002		0.000	0.063	0.159	0.222		
		2002/2003		0.226	0.128	0.251	0.605		
		2003/2004		0.000	0.386	0.398	0.785		
		<b>MA Total Pure Premium:</b>		<b>0.465</b>	<b>0.245</b>	<b>0.514</b>	<b>1.224</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.669	0.554	0.637			
		(14) Massachusetts Credibility:		0.35	0.87	0.78			
		(15) Countrywide Pure Premium:		0.785	0.607	1.017	2.409		
		(16) Countrywide Indicated Relativity:		1.101	1.320	1.215			
		(17) Countrywide Credibility:		0.33	0.07	0.11			
		(18) Countrywide Lost-time Claims:		415	3,689				
		(19) Pure Premium Underlying Present Rate:		0.436	0.447	0.514	1.396		
		(20) Relativity to Underlying Present Rate:		0.928	0.753	0.684			
		(21) Credibility to Underlying Relativity:		0.320	0.060	0.110			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.895	0.620	0.706			
		(24) Balanced Formula Relativity:		0.887	0.619	0.704	0.750		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000242 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 167

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8393 AUTOMOBILE BODY REPAIR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,324,790	7	65	1,135,352	869,660	889,236	2,894,248		
2000/2001	1,416,277	9	63	1,268,578	960,255	938,867	3,167,699		
2001/2002	1,506,172	12	71	1,568,919	464,689	1,175,674	3,209,283		
2002/2003	1,650,510	12	59	2,500,407	457,950	1,434,612	4,392,969		
2003/2004	1,664,834	5	62	1,077,375	713,104	1,110,011	2,900,490		
<b>MA Total</b>	<b>7,562,583</b>	<b>45</b>	<b>320</b>	<b>7,550,631</b>	<b>3,465,659</b>	<b>5,548,399</b>	<b>16,564,690</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.857	0.656	0.671	2.185		
		2000/2001		0.896	0.678	0.663	2.237		
		2001/2002		1.042	0.309	0.781	2.131		
		2002/2003		1.515	0.277	0.869	2.662		
		2003/2004		0.647	0.428	0.667	1.742		
		<b>MA Total Pure Premium:</b>		<b>0.998</b>	<b>0.458</b>	<b>0.734</b>	<b>2.190</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.437	1.038	0.910			
		(14) Massachusetts Credibility:		0.55	1.00	1.00			
		(15) Countrywide Pure Premium:		0.890	0.408	0.695	1.993		
		(16) Countrywide Indicated Relativity:		1.248	0.888	0.831			
		(17) Countrywide Credibility:		0.23	0.00	0.00			
		(18) Countrywide Lost-time Claims:		722	5,842				
		(19) Pure Premium Underlying Present Rate:		0.455	0.732	0.677	1.864		
		(20) Relativity to Underlying Present Rate:		0.970	1.233	0.901			
		(21) Credibility to Underlying Relativity:		0.220	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		1.291	1.038	0.910			
		(24) Balanced Formula Relativity:		1.280	1.036	0.906	1.069		

Class(es):		Effective: 9/1/2007						Office & Clerical	
8601 ARCHITECT OR ENGINEER-CONSULTING									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	7,000,834	6	73	799,848	356,918	1,096,030	2,252,796		
2000/2001	7,168,949	4	61	893,185	473,545	1,179,012	2,545,742		
2001/2002	7,786,907	9	51	2,101,740	455,595	1,130,284	3,687,619		
2002/2003	9,160,263	2	44	680,898	516,205	771,878	1,968,981		
2003/2004	9,124,653	2	41	940,471	352,037	1,051,449	2,343,957		
<b>MA Total</b>	<b>40,241,606</b>	<b>23</b>	<b>270</b>	<b>5,416,143</b>	<b>2,154,299</b>	<b>5,228,653</b>	<b>12,799,095</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.114	0.051	0.157	0.322		
		2000/2001		0.125	0.066	0.164	0.355		
		2001/2002		0.270	0.059	0.145	0.474		
		2002/2003		0.074	0.056	0.084	0.215		
		2003/2004		0.103	0.039	0.115	0.257		
		<b>MA Total Pure Premium:</b>		<b>0.135</b>	<b>0.054</b>	<b>0.130</b>	<b>0.318</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.839	1.159	1.509			
		(14) Massachusetts Credibility:		0.62	1.00	1.00			
		(15) Countrywide Pure Premium:		0.199	0.073	0.155	0.427		
		(16) Countrywide Indicated Relativity:		2.874	1.730	1.949			
		(17) Countrywide Credibility:		0.19	0.00	0.00			
		(18) Countrywide Lost-time Claims:		745	6,599				
		(19) Pure Premium Underlying Present Rate:		0.112	0.078	0.166	0.355		
		(20) Relativity to Underlying Present Rate:		1.987	1.282	2.019			
		(21) Credibility to Underlying Relativity:		0.190	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.073	0.046	0.086	0.206		
		(23) Formula Relativity:		2.064	1.159	1.509			
		(24) Balanced Formula Relativity:		2.070	1.156	1.504	1.628		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000243 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 168

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8710 FIELD BONDED WAREHOUSING - ALL EMP & CLERICAL*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	233	0	0	0	0	0	0	0	
2000/2001	41	0	0	0	0	0	0	0	
2001/2002	4,319	0	1	0	1,219	1,439	2,658		
2002/2003	2,544	0	0	0	0	1,062	1,062		
2003/2004	4,675	0	0	0	0	0	0		
<b>MA Total</b>	<b>11,812</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1,219</b>	<b>2,501</b>	<b>3,720</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	0.000			0.000	
		2000/2001	0.000	0.000	0.000			0.000	
		2001/2002	0.000	0.282	0.333			0.615	
		2002/2003	0.000	0.000	0.417			0.417	
		2003/2004	0.000	0.000	0.000			0.000	
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.103</b>	<b>0.212</b>			<b>0.315</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	0.234	0.262				
		(14) Massachusetts Credibility:	0.05	0.11	0.11				
		(15) Countrywide Pure Premium:	0.653	0.460	0.832			1.945	
		(16) Countrywide Indicated Relativity:	0.916	1.001	0.994				
		(17) Countrywide Credibility:	0.15	0.33	0.40				
		(18) Countrywide Lost-time Claims:	4	57					
		(19) Pure Premium Underlying Present Rate:	0.587	0.531	0.728			1.845	
		(20) Relativity to Underlying Present Rate:	1.250	0.893	0.969				
		(21) Credibility to Underlying Relativity:	0.800	0.560	0.490				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807			1.943	
		(23) Formula Relativity:	1.137	0.856	0.901				
		(24) Balanced Formula Relativity:	1.127	0.855	0.898			0.970	

Class(es):		Effective: 9/1/2007						Goods & Services	
8720 INSPECTION OF RISKS FOR INSURANCE OR VALUATION PURPOSES NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	903,531	1	26	175,078	93,740	444,559	713,377		
2000/2001	1,061,788	2	20	130,556	131,876	164,848	427,280		
2001/2002	1,066,160	5	18	567,171	59,933	399,540	1,026,645		
2002/2003	1,178,037	3	19	733,842	233,896	143,773	1,111,512		
2003/2004	1,224,367	3	14	703,407	226,747	746,093	1,676,247		
<b>MA Total</b>	<b>5,433,883</b>	<b>14</b>	<b>97</b>	<b>2,310,055</b>	<b>746,193</b>	<b>1,898,813</b>	<b>4,955,061</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.194	0.104	0.492			0.790	
		2000/2001	0.123	0.124	0.155			0.402	
		2001/2002	0.532	0.056	0.375			0.963	
		2002/2003	0.623	0.199	0.122			0.944	
		2003/2004	0.575	0.185	0.609			1.369	
		<b>MA Total Pure Premium:</b>	<b>0.425</b>	<b>0.137</b>	<b>0.349</b>			<b>0.912</b>	
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.612	0.311	0.433				
		(14) Massachusetts Credibility:	0.40	0.86	0.87				
		(15) Countrywide Pure Premium:	0.548	0.303	0.617			1.467	
		(16) Countrywide Indicated Relativity:	0.768	0.658	0.738				
		(17) Countrywide Credibility:	0.30	0.07	0.07				
		(18) Countrywide Lost-time Claims:	187	1,610					
		(19) Pure Premium Underlying Present Rate:	0.288	0.204	0.312			0.803	
		(20) Relativity to Underlying Present Rate:	0.613	0.343	0.415				
		(21) Credibility to Underlying Relativity:	0.300	0.070	0.060				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807			1.943	
		(23) Formula Relativity:	0.659	0.338	0.453				
		(24) Balanced Formula Relativity:	0.653	0.337	0.452			0.498	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000244 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 169

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Office & Clerical	
8721 REAL ESTATE APPRAISAL CO - OUTSIDE EMPLOYEES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	122,898	0	1	0	110,794	38,930	149,724		
2000/2001	142,824	0	0	0	0	0	0		
2001/2002	187,422	0	0	0	0	4,260	4,260		
2002/2003	222,440	0	1	0	1,054	3,908	4,962		
2003/2004	265,514	0	2	0	12,540	19,011	31,551		
<b>MA Total</b>	<b>941,098</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>124,387</b>	<b>66,110</b>	<b>190,497</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.902	0.317	1.218			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.023	0.023			
		2002/2003	0.000	0.005	0.018	0.022			
		2003/2004	0.000	0.047	0.072	0.119			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.132</b>	<b>0.070</b>	<b>0.202</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	2.862	0.816				
		(14) Massachusetts Credibility:	0.11	0.28	0.27				
		(15) Countrywide Pure Premium:	0.216	0.038	0.085	0.339			
		(16) Countrywide Indicated Relativity:	3.119	0.892	1.068				
		(17) Countrywide Credibility:	0.15	0.32	0.37				
		(18) Countrywide Lost-time Claims:	4	51					
		(19) Pure Premium Underlying Present Rate:	0.065	0.068	0.098	0.230			
		(20) Relativity to Underlying Present Rate:	1.157	1.121	1.188				
		(21) Credibility to Underlying Relativity:	0.740	0.400	0.360				
		(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206			
		(23) Formula Relativity:	1.324	1.535	1.043				
		(24) Balanced Formula Relativity:	1.328	1.531	1.040	1.253			

Class(es):		Effective: 9/1/2007						Office & Clerical	
8742 SALESPERSONS, COLLECTORS OR MESSENGERS-OUTSIDE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	59,194,672	46	381	7,141,892	3,241,435	6,783,701	17,167,027		
2000/2001	62,370,686	34	320	5,768,857	3,200,278	6,199,531	15,168,665		
2001/2002	60,110,845	31	300	4,940,463	2,673,604	5,640,339	13,254,406		
2002/2003	59,903,651	34	266	5,336,560	2,014,932	6,247,224	13,598,716		
2003/2004	60,834,977	8	204	1,904,956	2,173,457	3,647,619	7,726,032		
<b>MA Total</b>	<b>302,414,831</b>	<b>153</b>	<b>1,471</b>	<b>25,092,727</b>	<b>13,303,706</b>	<b>28,518,414</b>	<b>66,914,847</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.121	0.055	0.115	0.290			
		2000/2001	0.092	0.051	0.099	0.243			
		2001/2002	0.082	0.044	0.094	0.220			
		2002/2003	0.089	0.034	0.104	0.227			
		2003/2004	0.031	0.036	0.060	0.127			
		<b>MA Total Pure Premium:</b>	<b>0.083</b>	<b>0.044</b>	<b>0.094</b>	<b>0.221</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.133	0.952	1.095				
		(14) Massachusetts Credibility:	1.00	1.00	1.00				
		(15) Countrywide Pure Premium:	0.110	0.051	0.102	0.262			
		(16) Countrywide Indicated Relativity:	1.589	1.195	1.281				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	5,052	41,016					
		(19) Pure Premium Underlying Present Rate:	0.065	0.068	0.098	0.230			
		(20) Relativity to Underlying Present Rate:	1.157	1.121	1.188				
		(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206			
		(23) Formula Relativity:	1.133	0.952	1.095				
		(24) Balanced Formula Relativity:	1.137	0.950	1.092	1.076			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000245 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 170

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8745 NEWS AGENT OR DISTRIB OF MAGAZINE-NOT RETAIL & SALES,DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	125,653	1	14	77,835	217,858	195,443	491,137		
2000/2001	99,173	0	16	0	69,014	131,963	200,978		
2001/2002	149,670	1	17	66,076	93,512	125,035	284,624		
2002/2003	146,477	0	13	0	44,773	99,186	143,959		
2003/2004	154,226	0	17	0	108,969	146,994	255,964		
<b>MA Total</b>	<b>675,199</b>	<b>2</b>	<b>77</b>	<b>143,911</b>	<b>534,127</b>	<b>698,622</b>	<b>1,376,661</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.619	1.734	1.555	3.909				
	2000/2001	0.000	0.696	1.331	2.027				
	2001/2002	0.441	0.625	0.835	1.902				
	2002/2003	0.000	0.306	0.677	0.983				
	2003/2004	0.000	0.707	0.953	1.660				
	<b>MA Total Pure Premium:</b>	<b>0.213</b>	<b>0.791</b>	<b>1.035</b>	<b>2.039</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.307	1.793	1.283					
	(14) Massachusetts Credibility:	0.29	1.00	0.99					
	(15) Countrywide Pure Premium:	1.337	0.964	1.598	3.899				
	(16) Countrywide Indicated Relativity:	1.875	2.097	1.910					
	(17) Countrywide Credibility:	0.36	0.00	0.01					
	(18) Countrywide Lost-time Claims:	115	1,118						
	(19) Pure Premium Underlying Present Rate:	1.025	2.426	3.502	6.953				
	(20) Relativity to Underlying Present Rate:	2.183	4.085	4.661					
	(21) Credibility to Underlying Relativity:	0.350	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.528	1.793	1.289					
	(24) Balanced Formula Relativity:	1.515	1.789	1.285	1.481				

Class(es):		Effective: 9/1/2007						Office & Clerical	
8748 AUTOMOBILE SALESPERSONS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	3,411,528	4	40	678,839	309,607	948,932	1,937,379		
2000/2001	3,671,708	8	58	1,134,193	428,140	847,059	2,409,393		
2001/2002	3,698,723	8	44	1,187,722	372,737	810,246	2,370,705		
2002/2003	3,920,668	10	47	1,601,837	465,821	1,541,774	3,609,432		
2003/2004	3,337,198	1	48	143,879	490,564	658,353	1,292,796		
<b>MA Total</b>	<b>18,039,825</b>	<b>31</b>	<b>237</b>	<b>4,746,470</b>	<b>2,066,869</b>	<b>4,806,365</b>	<b>11,619,705</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.199	0.091	0.278	0.568				
	2000/2001	0.309	0.117	0.231	0.656				
	2001/2002	0.321	0.101	0.219	0.641				
	2002/2003	0.409	0.119	0.393	0.921				
	2003/2004	0.043	0.147	0.197	0.387				
	<b>MA Total Pure Premium:</b>	<b>0.263</b>	<b>0.115</b>	<b>0.266</b>	<b>0.644</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	3.594	2.481	3.094					
	(14) Massachusetts Credibility:	0.52	1.00	1.00					
	(15) Countrywide Pure Premium:	0.152	0.072	0.136	0.360				
	(16) Countrywide Indicated Relativity:	2.189	1.703	1.714					
	(17) Countrywide Credibility:	0.24	0.00	0.00					
	(18) Countrywide Lost-time Claims:	542	3,889						
	(19) Pure Premium Underlying Present Rate:	0.159	0.262	0.312	0.733				
	(20) Relativity to Underlying Present Rate:	2.835	4.329	3.800					
	(21) Credibility to Underlying Relativity:	0.240	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206				
	(23) Formula Relativity:	3.075	2.481	3.094					
	(24) Balanced Formula Relativity:	3.085	2.474	3.085	2.948				

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000246 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 171

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Office & Clerical	
8800 MAILING OR ADDRESSING CO & CLERICAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	903,794	1	24	55,650	111,956	158,803	326,409		
2000/2001	1,229,317	2	18	160,859	98,690	166,300	425,849		
2001/2002	730,016	3	22	455,239	120,965	238,599	814,804		
2002/2003	751,919	3	23	382,024	114,499	243,654	740,178		
2003/2004	845,311	1	6	156,578	89,071	221,842	467,491		
<b>MA Total</b>	<b>4,460,357</b>	<b>10</b>	<b>93</b>	<b>1,210,350</b>	<b>535,181</b>	<b>1,029,198</b>	<b>2,774,730</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.062	0.124	0.176	0.361		
			2000/2001	0.131	0.080	0.135	0.346		
			2001/2002	0.624	0.166	0.327	1.116		
			2002/2003	0.508	0.152	0.324	0.984		
			2003/2004	0.185	0.105	0.262	0.553		
			<b>MA Total Pure Premium:</b>	<b>0.271</b>	<b>0.120</b>	<b>0.231</b>	<b>0.622</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	3.707	2.598	2.679			
			(14) Massachusetts Credibility:	0.34	0.75	0.72			
			(15) Countrywide Pure Premium:	0.315	0.208	0.391	0.914		
			(16) Countrywide Indicated Relativity:	4.546	4.906	4.926			
			(17) Countrywide Credibility:	0.33	0.13	0.14			
			(18) Countrywide Lost-time Claims:	268	2,165				
			(19) Pure Premium Underlying Present Rate:	0.221	0.175	0.235	0.632		
			(20) Relativity to Underlying Present Rate:	3.943	2.902	2.864			
			(21) Credibility to Underlying Relativity:	0.330	0.120	0.140			
			(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206		
			(23) Formula Relativity:	4.062	2.934	3.020			
			(24) Balanced Formula Relativity:	4.075	2.927	3.011	3.371		

Class(es):		Effective: 9/1/2007						Office & Clerical	
8803 AUDITORS, ACCOUNTANT OR FACTORY COST OR OFF SYSTEMTZR-TRAV									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	22,700,790	4	20	717,536	120,762	531,241	1,369,539		
2000/2001	23,221,056	4	24	530,758	364,761	573,104	1,468,622		
2001/2002	21,042,233	3	17	535,923	213,278	469,017	1,218,218		
2002/2003	19,189,599	3	18	753,837	172,467	328,191	1,254,496		
2003/2004	17,876,316	3	14	687,604	99,820	520,774	1,308,198		
<b>MA Total</b>	<b>104,029,994</b>	<b>17</b>	<b>93</b>	<b>3,225,658</b>	<b>971,088</b>	<b>2,422,327</b>	<b>6,619,072</b>		
<b>MA Indicated Pure Premiums</b>									
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.032	0.005	0.023	0.060		
			2000/2001	0.023	0.016	0.025	0.063		
			2001/2002	0.025	0.010	0.022	0.058		
			2002/2003	0.039	0.009	0.017	0.065		
			2003/2004	0.038	0.006	0.029	0.073		
			<b>MA Total Pure Premium:</b>	<b>0.031</b>	<b>0.009</b>	<b>0.023</b>	<b>0.064</b>		
<b>Pure Premium Relativities</b>									
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	0.424	0.202	0.270			
			(14) Massachusetts Credibility:	0.51	1.00	0.93			
			(15) Countrywide Pure Premium:	0.026	0.014	0.026	0.066		
			(16) Countrywide Indicated Relativity:	0.371	0.327	0.328			
			(17) Countrywide Credibility:	0.25	0.00	0.04			
			(18) Countrywide Lost-time Claims:	298	2,263				
			(19) Pure Premium Underlying Present Rate:	0.027	0.018	0.019	0.065		
			(20) Relativity to Underlying Present Rate:	0.481	0.302	0.237			
			(21) Credibility to Underlying Relativity:	0.240	0.000	0.030			
			(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206		
			(23) Formula Relativity:	0.424	0.202	0.272			
			(24) Balanced Formula Relativity:	0.426	0.202	0.271	0.310		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000247 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 172

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Office & Clerical	
8810 CLERICAL OFFICE EMPLOYEES NOC*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	274,290,296	120	1,446	16,268,356	12,208,758	17,520,875	45,997,989		
2000/2001	292,720,554	104	1,107	14,305,643	9,553,194	15,227,486	39,086,324		
2001/2002	277,715,385	91	995	12,177,716	8,412,119	16,400,904	36,990,739		
2002/2003	279,291,115	92	960	14,422,848	7,272,865	14,653,643	36,349,356		
2003/2004	267,047,949	35	842	7,917,281	8,451,114	12,325,608	28,694,003		
<b>MA Total</b>	<b>1,391,065,299</b>	<b>442</b>	<b>5,350</b>	<b>65,091,844</b>	<b>45,898,051</b>	<b>76,128,517</b>	<b>187,118,411</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.059	0.045	0.064	0.168			
		2000/2001	0.049	0.033	0.052	0.134			
		2001/2002	0.044	0.030	0.059	0.133			
		2002/2003	0.052	0.026	0.052	0.130			
		2003/2004	0.030	0.032	0.046	0.107			
		<b>MA Total Pure Premium:</b>	<b>0.047</b>	<b>0.033</b>	<b>0.055</b>	<b>0.135</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.639	0.714	0.636				
		(14) Massachusetts Credibility:	1.00	1.00	1.00				
		(15) Countrywide Pure Premium:	0.051	0.035	0.063	0.149			
		(16) Countrywide Indicated Relativity:	0.737	0.815	0.794				
		(17) Countrywide Credibility:	0.00	0.00	0.00				
		(18) Countrywide Lost-time Claims:	14,749	139,457					
		(19) Pure Premium Underlying Present Rate:	0.037	0.039	0.049	0.125			
		(20) Relativity to Underlying Present Rate:	0.661	0.641	0.593				
		(21) Credibility to Underlying Relativity:	0.000	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206			
		(23) Formula Relativity:	0.639	0.714	0.636				
		(24) Balanced Formula Relativity:	0.641	0.712	0.634	0.654			

Class(es):		Effective: 9/1/2007						Office & Clerical	
8820 ATTORNEY-ALL EMP & CLERICAL, MESSENGERS, DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	15,840,375	5	40	1,038,199	357,130	502,993	1,898,322		
2000/2001	17,861,463	6	46	1,003,586	469,502	595,011	2,068,099		
2001/2002	18,310,819	5	37	715,920	278,550	649,431	1,643,901		
2002/2003	18,947,168	8	31	2,145,675	251,812	1,133,444	3,530,932		
2003/2004	19,398,104	1	33	374,967	352,460	860,565	1,587,992		
<b>MA Total</b>	<b>90,357,929</b>	<b>25</b>	<b>187</b>	<b>5,278,348</b>	<b>1,709,453</b>	<b>3,741,444</b>	<b>10,729,245</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.066	0.023	0.032	0.120			
		2000/2001	0.056	0.026	0.033	0.116			
		2001/2002	0.039	0.015	0.035	0.090			
		2002/2003	0.113	0.013	0.060	0.186			
		2003/2004	0.019	0.018	0.044	0.082			
		<b>MA Total Pure Premium:</b>	<b>0.058</b>	<b>0.019</b>	<b>0.041</b>	<b>0.119</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.798	0.410	0.481				
		(14) Massachusetts Credibility:	0.56	1.00	1.00				
		(15) Countrywide Pure Premium:	0.050	0.029	0.051	0.129			
		(16) Countrywide Indicated Relativity:	0.715	0.683	0.637				
		(17) Countrywide Credibility:	0.22	0.00	0.00				
		(18) Countrywide Lost-time Claims:	940	5,665					
		(19) Pure Premium Underlying Present Rate:	0.039	0.029	0.039	0.107			
		(20) Relativity to Underlying Present Rate:	0.691	0.481	0.475				
		(21) Credibility to Underlying Relativity:	0.220	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206			
		(23) Formula Relativity:	0.756	0.410	0.481				
		(24) Balanced Formula Relativity:	0.759	0.409	0.479	0.563			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000248 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 173

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8829 CONVALESCENT OR NURSING HOME-ALL EMPLOYEES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	8,588,089	50	1,074	5,474,725	7,925,289	10,886,856	24,286,870		
2000/2001	8,404,867	31	886	3,545,588	6,202,110	7,404,246	17,151,944		
2001/2002	9,885,073	53	886	7,044,208	5,328,329	8,688,649	21,061,185		
2002/2003	9,256,485	71	811	9,613,212	3,966,553	9,052,325	22,632,089		
2003/2004	8,008,459	32	701	7,071,160	4,905,903	5,656,877	17,633,940		
<b>MA Total</b>	<b>44,142,973</b>	<b>237</b>	<b>4,358</b>	<b>32,748,893</b>	<b>28,328,184</b>	<b>41,688,952</b>	<b>102,766,029</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.637	0.923	1.268	2.828			
		2000/2001	0.422	0.738	0.881	2.041			
		2001/2002	0.713	0.539	0.879	2.131			
		2002/2003	1.039	0.429	0.978	2.445			
		2003/2004	0.883	0.613	0.706	2.202			
		<b>MA Total Pure Premium:</b>	<b>0.742</b>	<b>0.642</b>	<b>0.944</b>	<b>2.328</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.068	1.454	1.171				
		(14) Massachusetts Credibility:	0.98	1.00	1.00				
		(15) Countrywide Pure Premium:	0.726	0.616	0.983	2.325			
		(16) Countrywide Indicated Relativity:	1.018	1.339	1.175				
		(17) Countrywide Credibility:	0.01	0.00	0.00				
		(18) Countrywide Lost-time Claims:	3,704	49,901					
		(19) Pure Premium Underlying Present Rate:	0.324	0.957	0.890	2.172			
		(20) Relativity to Underlying Present Rate:	0.691	1.611	1.185				
		(21) Credibility to Underlying Relativity:	0.010	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	1.064	1.454	1.171				
		(24) Balanced Formula Relativity:	1.054	1.451	1.167	1.191			

Class(es):		Effective: 9/1/2007						Goods & Services	
8831 PET GROOMING & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,161,155	2	62	138,075	217,366	637,936	993,377		
2000/2001	1,254,684	1	57	96,250	159,369	789,690	1,045,309		
2001/2002	1,421,614	4	65	622,284	391,586	876,993	1,890,863		
2002/2003	1,435,808	4	64	319,853	225,645	960,825	1,506,323		
2003/2004	1,614,317	0	54	206,667	0	665,904	872,572		
<b>MA Total</b>	<b>6,887,578</b>	<b>11</b>	<b>302</b>	<b>1,176,462</b>	<b>1,200,633</b>	<b>3,931,349</b>	<b>6,308,444</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.119	0.187	0.549	0.856			
		2000/2001	0.077	0.127	0.629	0.833			
		2001/2002	0.438	0.275	0.617	1.330			
		2002/2003	0.223	0.157	0.669	1.049			
		2003/2004	0.000	0.128	0.412	0.541			
		<b>MA Total Pure Premium:</b>	<b>0.171</b>	<b>0.174</b>	<b>0.571</b>	<b>0.916</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.246	0.395	0.708				
		(14) Massachusetts Credibility:	0.36	1.00	1.00				
		(15) Countrywide Pure Premium:	0.346	0.275	0.642	1.263			
		(16) Countrywide Indicated Relativity:	0.486	0.598	0.768				
		(17) Countrywide Credibility:	0.32	0.00	0.00				
		(18) Countrywide Lost-time Claims:	388	5,392					
		(19) Pure Premium Underlying Present Rate:	0.171	0.250	0.555	0.976			
		(20) Relativity to Underlying Present Rate:	0.364	0.421	0.739				
		(21) Credibility to Underlying Relativity:	0.320	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	0.360	0.395	0.708				
		(24) Balanced Formula Relativity:	0.357	0.394	0.705	0.510			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000249 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 174

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Office & Clerical	
8832 PHYSICIAN & CLERICAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	27,466,650	30	253	5,703,764	1,961,334	3,812,676	11,477,774		
2000/2001	28,910,814	26	225	3,732,514	1,255,063	3,539,883	8,527,459		
2001/2002	30,739,311	15	209	2,479,481	1,334,247	2,300,337	6,114,065		
2002/2003	34,878,883	25	264	4,409,890	2,307,545	4,865,993	11,583,428		
2003/2004	35,942,353	10	272	2,243,488	2,590,359	3,968,031	8,801,878		
<b>MA Total</b>	<b>157,938,011</b>	<b>106</b>	<b>1,223</b>	<b>18,569,137</b>	<b>9,448,548</b>	<b>18,486,919</b>	<b>46,504,604</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.208	0.071	0.139	0.418		
		2000/2001		0.129	0.043	0.122	0.295		
		2001/2002		0.081	0.043	0.075	0.199		
		2002/2003		0.126	0.066	0.140	0.332		
		2003/2004		0.062	0.072	0.110	0.245		
		<b>MA Total Pure Premium:</b>		<b>0.118</b>	<b>0.060</b>	<b>0.117</b>	<b>0.294</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.606	1.295	1.359			
		(14) Massachusetts Credibility:		1.00	1.00	1.00			
		(15) Countrywide Pure Premium:		0.076	0.050	0.089	0.214		
		(16) Countrywide Indicated Relativity:		1.090	1.180	1.117			
		(17) Countrywide Credibility:		0.00	0.00	0.00			
		(18) Countrywide Lost-time Claims:		1,340	16,741				
		(19) Pure Premium Underlying Present Rate:		0.111	0.078	0.117	0.306		
		(20) Relativity to Underlying Present Rate:		1.983	1.282	1.426			
		(21) Credibility to Underlying Relativity:		0.000	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.073	0.046	0.086	0.206		
		(23) Formula Relativity:		1.606	1.295	1.359			
		(24) Balanced Formula Relativity:		1.611	1.292	1.355	1.432		

Class(es):		Effective: 9/1/2007						Office & Clerical	
8833 HOSPITAL: PROFESSIONAL EMPLOYEES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	6,084,817	22	378	2,846,210	2,908,960	4,680,771	10,435,941		
2000/2001	7,995,104	27	487	3,091,276	2,727,404	3,961,064	9,779,744		
2001/2002	10,181,855	43	539	5,404,798	2,655,108	5,683,031	13,742,937		
2002/2003	10,886,005	43	418	7,078,096	2,452,452	5,937,042	15,467,591		
2003/2004	8,478,516	8	357	1,683,851	2,782,882	2,938,157	7,404,890		
<b>MA Total</b>	<b>43,626,297</b>	<b>143</b>	<b>2,179</b>	<b>20,104,232</b>	<b>13,526,806</b>	<b>23,200,064</b>	<b>56,831,103</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.468	0.478	0.769	1.715		
		2000/2001		0.387	0.341	0.495	1.223		
		2001/2002		0.531	0.261	0.558	1.350		
		2002/2003		0.650	0.225	0.545	1.421		
		2003/2004		0.199	0.328	0.347	0.873		
		<b>MA Total Pure Premium:</b>		<b>0.461</b>	<b>0.310</b>	<b>0.532</b>	<b>1.303</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		6.295	6.713	6.175			
		(14) Massachusetts Credibility:		0.90	1.00	1.00			
		(15) Countrywide Pure Premium:		0.252	0.161	0.285	0.698		
		(16) Countrywide Indicated Relativity:		3.632	3.791	3.593			
		(17) Countrywide Credibility:		0.05	0.00	0.00			
		(18) Countrywide Lost-time Claims:		1,935	25,300				
		(19) Pure Premium Underlying Present Rate:		0.266	0.456	0.497	1.218		
		(20) Relativity to Underlying Present Rate:		4.733	7.535	6.056			
		(21) Credibility to Underlying Relativity:		0.050	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.073	0.046	0.086	0.206		
		(23) Formula Relativity:		6.084	6.713	6.175			
		(24) Balanced Formula Relativity:		6.104	6.695	6.158	6.259		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000250 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 175

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
8835 NURSING-HOME HEALTH, PUBLIC & TRAVELING-ALL EMPLOYEES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,742,654	14	359	1,774,463	1,798,518	2,654,652	6,227,634		
2000/2001	2,590,483	12	286	1,322,471	1,764,640	1,923,546	5,010,657		
2001/2002	2,630,790	20	265	2,641,357	1,349,887	2,427,364	6,418,608		
2002/2003	2,790,464	24	287	2,842,609	1,438,786	2,690,146	6,971,542		
2003/2004	2,966,031	4	286	505,536	1,943,026	1,939,167	4,387,728		
<b>MA Total</b>	<b>13,720,422</b>	<b>74</b>	<b>1,483</b>	<b>9,086,436</b>	<b>8,294,858</b>	<b>11,634,875</b>	<b>29,016,168</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.647	0.656	0.968	2.271				
	2000/2001	0.511	0.681	0.743	1.934				
	2001/2002	1.004	0.513	0.923	2.440				
	2002/2003	1.019	0.516	0.964	2.498				
	2003/2004	0.170	0.655	0.654	1.479				
	<b>MA Total Pure Premium:</b>	<b>0.662</b>	<b>0.605</b>	<b>0.848</b>	<b>2.115</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	0.953	1.370	1.051					
	(14) Massachusetts Credibility:	0.74	1.00	1.00					
	(15) Countrywide Pure Premium:	0.810	0.568	0.936	2.314				
	(16) Countrywide Indicated Relativity:	1.136	1.235	1.119					
	(17) Countrywide Credibility:	0.13	0.00	0.00					
	(18) Countrywide Lost-time Claims:	743	13,690						
	(19) Pure Premium Underlying Present Rate:	0.512	0.938	0.853	2.303				
	(20) Relativity to Underlying Present Rate:	1.090	1.580	1.135					
	(21) Credibility to Underlying Relativity:	0.130	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	0.995	1.370	1.051					
	(24) Balanced Formula Relativity:	0.986	1.367	1.048	1.098				

Class(es):		Effective: 9/1/2007						Office & Clerical	
8868 COLLEGE: PROFESSIONAL EMPLOYEES & CLERICAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	19,362,259	29	598	3,106,417	2,778,378	5,308,084	11,192,879		
2000/2001	21,742,113	35	570	3,704,752	2,286,997	5,626,913	11,618,661		
2001/2002	22,966,613	33	578	3,640,593	2,040,954	5,670,836	11,352,382		
2002/2003	23,376,553	28	718	3,626,026	3,238,067	6,960,318	13,824,411		
2003/2004	23,689,021	16	689	2,790,442	4,413,961	7,112,886	14,317,290		
<b>MA Total</b>	<b>111,136,559</b>	<b>141</b>	<b>3,153</b>	<b>16,868,229</b>	<b>14,758,357</b>	<b>30,679,036</b>	<b>62,305,623</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.160	0.143	0.274	0.578				
	2000/2001	0.170	0.105	0.259	0.534				
	2001/2002	0.159	0.089	0.247	0.494				
	2002/2003	0.155	0.139	0.298	0.591				
	2003/2004	0.118	0.186	0.300	0.604				
	<b>MA Total Pure Premium:</b>	<b>0.152</b>	<b>0.133</b>	<b>0.276</b>	<b>0.561</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	2.073	2.875	3.206					
	(14) Massachusetts Credibility:	0.89	1.00	1.00					
	(15) Countrywide Pure Premium:	0.074	0.063	0.129	0.266				
	(16) Countrywide Indicated Relativity:	1.072	1.499	1.621					
	(17) Countrywide Credibility:	0.06	0.00	0.00					
	(18) Countrywide Lost-time Claims:	2,264	31,216						
	(19) Pure Premium Underlying Present Rate:	0.102	0.145	0.253	0.501				
	(20) Relativity to Underlying Present Rate:	1.818	2.405	3.087					
	(21) Credibility to Underlying Relativity:	0.050	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.073	0.046	0.086	0.206				
	(23) Formula Relativity:	2.001	2.875	3.206					
	(24) Balanced Formula Relativity:	2.007	2.867	3.196	2.699				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000251 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 176

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
9014 BUILDINGS - OPERATION BY CONTRACTORS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,523,857	19	161	2,066,656	1,238,124	1,898,313	5,203,092		
2000/2001	2,689,917	20	150	1,992,720	1,149,950	2,184,574	5,327,244		
2001/2002	4,019,506	19	228	2,682,682	1,502,890	2,741,335	6,926,907		
2002/2003	4,156,208	39	256	5,222,240	1,528,125	4,495,380	11,245,745		
2003/2004	4,390,718	15	246	3,508,867	2,247,758	3,385,519	9,142,144		
<b>MA Total</b>	<b>17,780,206</b>	<b>112</b>	<b>1,041</b>	<b>15,473,165</b>	<b>7,666,846</b>	<b>14,705,121</b>	<b>37,845,132</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	0.819	0.491	0.752	2.062				
	2000/2001	0.741	0.428	0.812	1.980				
	2001/2002	0.667	0.374	0.682	1.723				
	2002/2003	1.256	0.368	1.082	2.706				
	2003/2004	0.799	0.512	0.771	2.082				
	<b>MA Total Pure Premium:</b>	<b>0.870</b>	<b>0.431</b>	<b>0.827</b>	<b>2.128</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.253	0.977	1.025					
	(14) Massachusetts Credibility:	0.87	1.00	1.00					
	(15) Countrywide Pure Premium:	1.027	0.625	1.142	2.793				
	(16) Countrywide Indicated Relativity:	1.440	1.358	1.365					
	(17) Countrywide Credibility:	0.07	0.00	0.00					
	(18) Countrywide Lost-time Claims:	988	17,747						
	(19) Pure Premium Underlying Present Rate:	0.601	0.628	0.788	2.017				
	(20) Relativity to Underlying Present Rate:	1.281	1.057	1.049					
	(21) Credibility to Underlying Relativity:	0.060	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.268	0.977	1.025					
	(24) Balanced Formula Relativity:	1.256	0.975	1.022	1.095				

Class(es):		Effective: 9/1/2007						Goods & Services	
9015 BUILDINGS-OPERATION BY OWNER OR LESSEE									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	3,386,441	29	249	3,656,918	1,881,453	3,974,691	9,513,061		
2000/2001	3,680,084	28	270	4,121,319	2,249,993	4,865,482	11,236,794		
2001/2002	3,841,442	30	250	4,241,661	1,289,165	3,707,220	9,238,047		
2002/2003	3,997,675	37	280	6,479,551	1,813,390	5,691,721	13,984,662		
2003/2004	4,122,912	16	260	3,609,902	2,147,979	4,343,585	10,101,466		
<b>MA Total</b>	<b>19,028,554</b>	<b>140</b>	<b>1,309</b>	<b>22,109,351</b>	<b>9,381,981</b>	<b>22,582,699</b>	<b>54,074,031</b>		
<b>MA Indicated Pure Premiums</b>									
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
	1999/2000	1.080	0.556	1.174	2.809				
	2000/2001	1.120	0.611	1.322	3.053				
	2001/2002	1.104	0.336	0.965	2.405				
	2002/2003	1.621	0.454	1.424	3.498				
	2003/2004	0.876	0.521	1.054	2.450				
	<b>MA Total Pure Premium:</b>	<b>1.162</b>	<b>0.493</b>	<b>1.187</b>	<b>2.842</b>				
<b>Pure Premium Relativities</b>									
		Serious	Non-Serious	Medical	Total				
	(13) Massachusetts Indicated Relativity:	1.673	1.117	1.471					
	(14) Massachusetts Credibility:	1.00	1.00	1.00					
	(15) Countrywide Pure Premium:	1.082	0.630	1.126	2.839				
	(16) Countrywide Indicated Relativity:	1.518	1.371	1.346					
	(17) Countrywide Credibility:	0.00	0.00	0.00					
	(18) Countrywide Lost-time Claims:	2,053	25,110						
	(19) Pure Premium Underlying Present Rate:	0.859	0.647	1.029	2.534				
	(20) Relativity to Underlying Present Rate:	1.830	1.089	1.369					
	(21) Credibility to Underlying Relativity:	0.000	0.000	0.000					
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943				
	(23) Formula Relativity:	1.673	1.117	1.471					
	(24) Balanced Formula Relativity:	1.658	1.115	1.466	1.455				

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000252 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 177

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
9016 AMUSEMENT PARK OR EXHIBITION OPERATION & DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	365,364	1	32	54,287	60,824	247,231	362,342		
2000/2001	380,653	0	43	0	193,628	359,617	553,245		
2001/2002	368,411	2	26	65,572	150,375	253,822	469,769		
2002/2003	378,228	2	31	278,658	145,607	583,367	1,007,632		
2003/2004	413,315	0	31	0	180,038	293,903	473,941		
<b>MA Total</b>	<b>1,905,971</b>	<b>5</b>	<b>163</b>	<b>398,517</b>	<b>730,473</b>	<b>1,737,939</b>	<b>2,866,929</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.149	0.166	0.677	0.992		
		2000/2001		0.000	0.509	0.945	1.453		
		2001/2002		0.178	0.408	0.689	1.275		
		2002/2003		0.737	0.385	1.542	2.664		
		2003/2004		0.000	0.436	0.711	1.147		
		<b>MA Total Pure Premium:</b>		<b>0.209</b>	<b>0.383</b>	<b>0.912</b>	<b>1.504</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.301	0.868	1.130			
		(14) Massachusetts Credibility:		0.29	0.85	0.81			
		(15) Countrywide Pure Premium:		0.894	0.543	1.210	2.647		
		(16) Countrywide Indicated Relativity:		1.255	1.180	1.447			
		(17) Countrywide Credibility:		0.36	0.08	0.10			
		(18) Countrywide Lost-time Claims:		355	4,799				
		(19) Pure Premium Underlying Present Rate:		0.350	0.564	0.732	1.646		
		(20) Relativity to Underlying Present Rate:		0.745	0.950	0.975			
		(21) Credibility to Underlying Relativity:		0.350	0.070	0.090			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		0.800	0.899	1.148			
		(24) Balanced Formula Relativity:		0.793	0.897	1.144	0.962		

Class(es):		Effective: 9/1/2007						Miscellaneous	
9019 BRIDGE OR VEHICULAR TUNNEL OPERATION & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	5,030	0	0	0	0	0	0		
2000/2001	7,278	0	0	0	0	0	0		
2001/2002	7,875	0	1	0	38,227	41,349	79,576		
2002/2003	11,474	0	0	0	0	0	0		
2003/2004	10,303	0	0	0	0	0	0		
<b>MA Total</b>	<b>41,960</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>38,227</b>	<b>41,349</b>	<b>79,576</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.000	0.000	0.000	0.000		
		2000/2001		0.000	0.000	0.000	0.000		
		2001/2002		0.000	4.854	5.251	10.105		
		2002/2003		0.000	0.000	0.000	0.000		
		2003/2004		0.000	0.000	0.000	0.000		
		<b>MA Total Pure Premium:</b>		<b>0.000</b>	<b>0.911</b>	<b>0.985</b>	<b>1.896</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		0.000	1.040	0.535			
		(14) Massachusetts Credibility:		0.14	0.24	0.26			
		(15) Countrywide Pure Premium:		0.361	0.384	0.760	1.504		
		(16) Countrywide Indicated Relativity:		0.189	0.492	0.456			
		(17) Countrywide Credibility:		0.09	0.20	0.24			
		(18) Countrywide Lost-time Claims:		1	16				
		(19) Pure Premium Underlying Present Rate:		2.489	1.035	1.959	5.483		
		(20) Relativity to Underlying Present Rate:		1.733	0.866	1.157			
		(21) Credibility to Underlying Relativity:		0.770	0.560	0.500			
		(22) Industry Group Adjusted Converted Pure Premium:		2.101	0.876	1.842	4.819		
		(23) Formula Relativity:		1.351	0.833	0.827			
		(24) Balanced Formula Relativity:		1.354	0.835	0.829	1.059		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000253 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 178

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
9033 HOUSING AUTHORITY & CLERICAL, SALES, DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,534,691	15	148	2,488,268	1,343,912	1,319,332	5,151,512		
2000/2001	1,006,933	10	80	1,682,084	649,650	870,693	3,202,427		
2001/2002	1,414,384	9	138	1,529,491	1,363,431	1,374,738	4,267,660		
2002/2003	1,391,422	11	140	2,526,514	1,458,829	1,356,245	5,341,587		
2003/2004	697,954	8	74	2,168,781	1,105,291	1,582,365	4,856,437		
<b>MA Total</b>	<b>6,045,384</b>	<b>53</b>	<b>580</b>	<b>10,395,138</b>	<b>5,921,112</b>	<b>6,503,373</b>	<b>22,819,623</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.621	0.876	0.860	3.357		
		2000/2001		1.671	0.645	0.865	3.180		
		2001/2002		1.081	0.964	0.972	3.017		
		2002/2003		1.816	1.048	0.975	3.839		
		2003/2004		3.107	1.584	2.267	6.958		
		<b>MA Total Pure Premium:</b>		<b>1.720</b>	<b>0.979</b>	<b>1.076</b>	<b>3.775</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.475	2.219	1.334			
		(14) Massachusetts Credibility:		0.76	1.00	1.00			
		(15) Countrywide Pure Premium:		1.133	0.629	0.963	2.725		
		(16) Countrywide Indicated Relativity:		1.589	1.368	1.151			
		(17) Countrywide Credibility:		0.12	0.00	0.00			
		(18) Countrywide Lost-time Claims:		128	1,832				
		(19) Pure Premium Underlying Present Rate:		1.260	1.070	0.853	3.182		
		(20) Relativity to Underlying Present Rate:		2.684	1.801	1.135			
		(21) Credibility to Underlying Relativity:		0.120	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		2.394	2.219	1.334			
		(24) Balanced Formula Relativity:		2.373	2.215	1.329	1.904		

Class(es):		Effective: 9/1/2007						Goods & Services	
9040 HOSPITAL: ALL OTHER EMPLOYEEES									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	648,199	2	160	161,677	754,624	1,211,125	2,127,425		
2000/2001	839,177	8	116	1,163,615	628,882	1,395,883	3,188,380		
2001/2002	1,006,187	6	111	723,366	567,495	920,151	2,211,012		
2002/2003	988,761	11	122	1,335,716	491,354	1,435,477	3,262,546		
2003/2004	837,448	4	112	1,598,586	802,178	1,160,408	3,561,173		
<b>MA Total</b>	<b>4,319,772</b>	<b>31</b>	<b>621</b>	<b>4,982,960</b>	<b>3,244,533</b>	<b>6,123,044</b>	<b>14,350,537</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.249	1.164	1.868	3.282		
		2000/2001		1.387	0.749	1.663	3.799		
		2001/2002		0.719	0.564	0.914	2.197		
		2002/2003		1.351	0.497	1.452	3.300		
		2003/2004		1.909	0.958	1.386	4.252		
		<b>MA Total Pure Premium:</b>		<b>1.154</b>	<b>0.751</b>	<b>1.417</b>	<b>3.322</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.661	1.702	1.757			
		(14) Massachusetts Credibility:		0.54	1.00	1.00			
		(15) Countrywide Pure Premium:		0.578	0.463	0.865	1.906		
		(16) Countrywide Indicated Relativity:		0.811	1.006	1.034			
		(17) Countrywide Credibility:		0.23	0.00	0.00			
		(18) Countrywide Lost-time Claims:		946	16,338				
		(19) Pure Premium Underlying Present Rate:		0.753	1.313	1.474	3.541		
		(20) Relativity to Underlying Present Rate:		1.604	2.211	1.963			
		(21) Credibility to Underlying Relativity:		0.230	0.000	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		1.452	1.702	1.757			
		(24) Balanced Formula Relativity:		1.439	1.699	1.751	1.628		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000254 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 179

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
9052 HOTEL: ALL OTHER EMPLOYEES & SALES, DRIVERS*									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	3,910,190	22	305	2,422,858	1,948,229	3,170,069	7,541,156		
2000/2001	3,937,826	22	327	2,631,603	2,039,728	3,363,326	8,034,658		
2001/2002	4,148,947	16	225	2,112,417	1,660,538	3,421,004	7,193,959		
2002/2003	4,349,504	24	279	2,780,068	1,496,469	2,723,280	6,999,817		
2003/2004	4,640,812	7	257	1,332,634	2,066,849	3,118,222	6,517,704		
<b>MA Total</b>	<b>20,987,279</b>	<b>91</b>	<b>1,393</b>	<b>11,279,581</b>	<b>9,211,813</b>	<b>15,795,901</b>	<b>36,287,294</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.620	0.498	0.811	1.929			
		2000/2001	0.668	0.518	0.854	2.040			
		2001/2002	0.509	0.400	0.825	1.734			
		2002/2003	0.639	0.344	0.626	1.609			
		2003/2004	0.287	0.445	0.672	1.404			
		<b>MA Total Pure Premium:</b>	<b>0.537</b>	<b>0.439</b>	<b>0.753</b>	<b>1.729</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.774	0.995	0.933				
		(14) Massachusetts Credibility:	0.73	1.00	1.00				
		(15) Countrywide Pure Premium:	0.513	0.486	0.821	1.820			
		(16) Countrywide Indicated Relativity:	0.720	1.056	0.981				
		(17) Countrywide Credibility:	0.14	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,405	35,232					
		(19) Pure Premium Underlying Present Rate:	0.331	0.544	0.677	1.551			
		(20) Relativity to Underlying Present Rate:	0.704	0.916	0.901				
		(21) Credibility to Underlying Relativity:	0.130	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	0.757	0.995	0.933				
		(24) Balanced Formula Relativity:	0.750	0.993	0.930	0.880			

Class(es):		Effective: 9/1/2007						Goods & Services	
9060 CLUB-COUNTRY, GOLF, FISHING OR YACHT & CLERICAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,892,199	8	102	1,021,330	758,109	983,916	2,763,355		
2000/2001	2,055,505	4	120	702,490	618,092	1,038,970	2,359,551		
2001/2002	2,219,283	6	98	838,978	569,373	1,545,366	2,953,716		
2002/2003	2,287,805	4	80	530,428	617,807	1,054,834	2,203,070		
2003/2004	2,368,399	4	72	1,240,851	664,672	1,634,511	3,540,035		
<b>MA Total</b>	<b>10,823,191</b>	<b>26</b>	<b>472</b>	<b>4,334,077</b>	<b>3,228,053</b>	<b>6,257,597</b>	<b>13,819,727</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.540	0.401	0.520	1.460			
		2000/2001	0.342	0.301	0.505	1.148			
		2001/2002	0.378	0.257	0.696	1.331			
		2002/2003	0.232	0.270	0.461	0.963			
		2003/2004	0.524	0.281	0.690	1.495			
		<b>MA Total Pure Premium:</b>	<b>0.400</b>	<b>0.298</b>	<b>0.578</b>	<b>1.277</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.576	0.676	0.717				
		(14) Massachusetts Credibility:	0.57	1.00	1.00				
		(15) Countrywide Pure Premium:	0.495	0.324	0.669	1.487			
		(16) Countrywide Indicated Relativity:	0.694	0.704	0.799				
		(17) Countrywide Credibility:	0.22	0.00	0.00				
		(18) Countrywide Lost-time Claims:	753	9,659					
		(19) Pure Premium Underlying Present Rate:	0.337	0.338	0.537	1.212			
		(20) Relativity to Underlying Present Rate:	0.719	0.568	0.715				
		(21) Credibility to Underlying Relativity:	0.210	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	0.632	0.676	0.717				
		(24) Balanced Formula Relativity:	0.627	0.675	0.714	0.674			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000255 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 180

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
9061 CLUB NOC & CLERICAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	528,245	1	22	100,296	189,129	155,265	444,690		
2000/2001	549,748	1	14	218,776	65,049	253,617	537,441		
2001/2002	559,546	1	13	75,972	69,917	119,754	265,643		
2002/2003	551,760	1	13	235,629	191,001	163,179	589,808		
2003/2004	593,151	0	16	0	122,599	156,478	279,077		
<b>MA Total</b>	<b>2,782,450</b>	<b>4</b>	<b>78</b>	<b>630,673</b>	<b>637,694</b>	<b>848,292</b>	<b>2,116,659</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.190	0.358	0.294	0.842		
			2000/2001	0.398	0.118	0.461	0.978		
			2001/2002	0.136	0.125	0.214	0.475		
			2002/2003	0.427	0.346	0.296	1.069		
			2003/2004	0.000	0.207	0.264	0.470		
			<b>MA Total Pure Premium:</b>	<b>0.227</b>	<b>0.229</b>	<b>0.305</b>	<b>0.761</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	0.326	0.519	0.378			
			(14) Massachusetts Credibility:	0.34	0.76	0.76			
			(15) Countrywide Pure Premium:	0.405	0.371	0.651	1.427		
			(16) Countrywide Indicated Relativity:	0.569	0.807	0.778			
			(17) Countrywide Credibility:	0.33	0.12	0.12			
			(18) Countrywide Lost-time Claims:	241	2,661				
			(19) Pure Premium Underlying Present Rate:	0.365	0.293	0.430	1.088		
			(20) Relativity to Underlying Present Rate:	0.778	0.493	0.572			
			(21) Credibility to Underlying Relativity:	0.330	0.120	0.120			
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
			(23) Formula Relativity:	0.555	0.551	0.449			
			(24) Balanced Formula Relativity:	0.551	0.550	0.448	0.508		

Class(es):		Effective: 9/1/2007						Goods & Services	
9063 YMCA, YWCA, YMHA OR YWHA, INSTITUTION-ALL EMPLOYEES & CLERICAL									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	2,581,396	4	95	492,798	405,434	739,747	1,637,979		
2000/2001	2,790,366	4	93	299,666	469,255	874,795	1,643,715		
2001/2002	3,061,824	4	87	464,895	694,357	1,375,742	2,534,994		
2002/2003	3,242,662	3	80	611,090	526,939	1,195,739	2,333,768		
2003/2004	3,282,517	0	69	0	527,418	963,726	1,491,145		
<b>MA Total</b>	<b>14,958,765</b>	<b>15</b>	<b>424</b>	<b>1,868,448</b>	<b>2,623,404</b>	<b>5,149,749</b>	<b>9,641,601</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.191	0.157	0.287	0.635		
			2000/2001	0.107	0.168	0.314	0.589		
			2001/2002	0.152	0.227	0.449	0.828		
			2002/2003	0.188	0.163	0.369	0.720		
			2003/2004	0.000	0.161	0.294	0.454		
			<b>MA Total Pure Premium:</b>	<b>0.125</b>	<b>0.175</b>	<b>0.344</b>	<b>0.645</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	0.180	0.397	0.427			
			(14) Massachusetts Credibility:	0.41	1.00	1.00			
			(15) Countrywide Pure Premium:	0.169	0.177	0.377	0.723		
			(16) Countrywide Indicated Relativity:	0.237	0.385	0.451			
			(17) Countrywide Credibility:	0.30	0.00	0.00			
			(18) Countrywide Lost-time Claims:	113	3,520				
			(19) Pure Premium Underlying Present Rate:	0.110	0.215	0.353	0.678		
			(20) Relativity to Underlying Present Rate:	0.234	0.363	0.470			
			(21) Credibility to Underlying Relativity:	0.290	0.000	0.000			
			(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943		
			(23) Formula Relativity:	0.213	0.397	0.427			
			(24) Balanced Formula Relativity:	0.211	0.397	0.425	0.342		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000256 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 181

## Calculation of Class Relativities

Class(es): 9079 RESTAURANT NOC		Effective: 9/1/2007				Goods & Services	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	15,937,353	66	1,231	7,375,733	5,604,168	9,418,445	22,398,346
2000/2001	16,368,674	59	1,053	6,524,744	5,096,372	9,595,309	21,216,426
2001/2002	17,055,427	54	881	6,013,822	4,440,000	8,847,813	19,301,634
2002/2003	16,010,430	55	824	7,552,253	4,468,424	9,366,682	21,387,359
2003/2004	15,599,085	16	692	3,256,918	3,774,173	6,596,770	13,627,861
<b>MA Total</b>	<b>80,970,969</b>	<b>250</b>	<b>4,681</b>	<b>30,723,470</b>	<b>23,383,136</b>	<b>43,825,019</b>	<b>97,931,625</b>
		<b>MA Indicated Pure Premiums</b>					
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000	0.463	0.352	0.591	1.405	
		2000/2001	0.399	0.311	0.586	1.296	
		2001/2002	0.353	0.260	0.519	1.132	
		2002/2003	0.472	0.279	0.585	1.336	
		2003/2004	0.209	0.242	0.423	0.874	
		<b>MA Total Pure Premium:</b>	<b>0.379</b>	<b>0.289</b>	<b>0.541</b>	<b>1.209</b>	
		<b>Pure Premium Relativities</b>					
		Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:	0.546	0.654	0.671		
		(14) Massachusetts Credibility:	1.00	1.00	1.00	1.625	
		(15) Countrywide Pure Premium:	0.437	0.414	0.773	1.625	
		(16) Countrywide Indicated Relativity:	0.614	0.900	0.924		
		(17) Countrywide Credibility:	0.00	0.00	0.00		
		(18) Countrywide Lost-time Claims:	4,742	44,927			
		(19) Pure Premium Underlying Present Rate:	0.296	0.413	0.565	1.274	
		(20) Relativity to Underlying Present Rate:	0.630	0.695	0.753		
		(21) Credibility to Underlying Relativity:	0.000	0.000	0.000		
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943	
		(23) Formula Relativity:	0.546	0.654	0.671		
		(24) Balanced Formula Relativity:	0.541	0.653	0.669	0.620	

Class(es): 9089 BILLIARD HALL		Effective: 9/1/2007				Goods & Services	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense					
		Claim Count		Amount			
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)
1999/2000	36,330	0	2	0	556	5,961	6,516
2000/2001	41,413	0	4	0	34,279	47,535	81,813
2001/2002	37,721	0	1	0	993	8,322	9,316
2002/2003	41,777	1	1	159,618	8,231	99,549	267,398
2003/2004	42,561	0	3	0	16,489	31,126	47,615
<b>MA Total</b>	<b>199,802</b>	<b>1</b>	<b>11</b>	<b>159,618</b>	<b>60,548</b>	<b>192,493</b>	<b>412,658</b>
		<b>MA Indicated Pure Premiums</b>					
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000	0.000	0.015	0.164	0.179	
		2000/2001	0.000	0.828	1.148	1.976	
		2001/2002	0.000	0.026	0.221	0.247	
		2002/2003	3.821	0.197	2.383	6.401	
		2003/2004	0.000	0.387	0.731	1.119	
		<b>MA Total Pure Premium:</b>	<b>0.799</b>	<b>0.303</b>	<b>0.963</b>	<b>2.065</b>	
		<b>Pure Premium Relativities</b>					
		Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:	1.150	0.687	1.194	0.692	
		(14) Massachusetts Credibility:	0.10	0.24	0.22		
		(15) Countrywide Pure Premium:	0.365	0.107	0.219	0.692	
		(16) Countrywide Indicated Relativity:	0.513	0.232	0.262		
		(17) Countrywide Credibility:	0.17	0.38	0.39		
		(18) Countrywide Lost-time Claims:	5	115			
		(19) Pure Premium Underlying Present Rate:	0.219	0.223	0.281	0.723	
		(20) Relativity to Underlying Present Rate:	0.466	0.376	0.374		
		(21) Credibility to Underlying Relativity:	0.730	0.380	0.390		
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943	
		(23) Formula Relativity:	0.542	0.396	0.511		
		(24) Balanced Formula Relativity:	0.537	0.395	0.509	0.493	

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000257 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 182

## Calculation of Class Relativities

Class(es): 9093 BOWLING LANE		Effective: 9/1/2007						Goods & Services	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	99,874	1	13	55,938	60,111	404,901	520,949		
2000/2001	88,721	0	2	0	1,418	16,530	17,949		
2001/2002	103,776	0	2	0	102,175	181,969	284,144		
2002/2003	109,678	0	2	0	1,367	12,512	13,879		
2003/2004	94,165	0	1	0	14,564	37,950	52,514		
<b>MA Total</b>	<b>496,214</b>	<b>1</b>	<b>20</b>	<b>55,938</b>	<b>179,635</b>	<b>653,862</b>	<b>889,436</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.560	0.602	4.054	5.216			
		2000/2001	0.000	0.016	0.186	0.202			
		2001/2002	0.000	0.985	1.753	2.738			
		2002/2003	0.000	0.012	0.114	0.127			
		2003/2004	0.000	0.155	0.403	0.558			
		<b>MA Total Pure Premium:</b>	<b>0.113</b>	<b>0.362</b>	<b>1.318</b>	<b>1.792</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.162	0.820	1.634				
		(14) Massachusetts Credibility:	0.13	0.41	0.52				
		(15) Countrywide Pure Premium:	0.544	0.273	0.515	1.332			
		(16) Countrywide Indicated Relativity:	0.763	0.593	0.616				
		(17) Countrywide Credibility:	0.34	0.30	0.24				
		(18) Countrywide Lost-time Claims:	30	693					
		(19) Pure Premium Underlying Present Rate:	0.197	0.344	0.929	1.470			
		(20) Relativity to Underlying Present Rate:	0.420	0.579	1.236				
		(21) Credibility to Underlying Relativity:	0.530	0.290	0.240				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	0.503	0.682	1.294				
		(24) Balanced Formula Relativity:	0.499	0.681	1.290	0.868			

Class(es): 9101 COLLEGE: ALL OTHER EMPLOYEES		Effective: 9/1/2007						Goods & Services	
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,009,862	2	159	313,946	879,455	1,399,889	2,593,290		
2000/2001	1,183,346	6	142	693,769	787,580	1,407,300	2,888,649		
2001/2002	1,136,587	8	131	1,135,133	509,515	1,515,299	3,159,947		
2002/2003	1,163,662	11	134	1,623,921	881,239	1,911,627	4,416,787		
2003/2004	1,171,619	7	132	2,144,276	1,015,120	1,745,293	4,904,690		
<b>MA Total</b>	<b>5,665,076</b>	<b>34</b>	<b>698</b>	<b>5,911,046</b>	<b>4,072,909</b>	<b>7,979,408</b>	<b>17,963,363</b>		
		<b>MA Indicated Pure Premiums</b>							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.311	0.871	1.386	2.568			
		2000/2001	0.586	0.666	1.189	2.441			
		2001/2002	0.999	0.448	1.333	2.780			
		2002/2003	1.396	0.757	1.643	3.796			
		2003/2004	1.830	0.866	1.490	4.186			
		<b>MA Total Pure Premium:</b>	<b>1.043</b>	<b>0.719</b>	<b>1.409</b>	<b>3.171</b>			
		<b>Pure Premium Relativities</b>							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.502	1.629	1.746				
		(14) Massachusetts Credibility:	0.51	1.00	1.00				
		(15) Countrywide Pure Premium:	0.837	0.635	1.130	2.603			
		(16) Countrywide Indicated Relativity:	1.175	1.380	1.351				
		(17) Countrywide Credibility:	0.25	0.00	0.00				
		(18) Countrywide Lost-time Claims:	1,162	20,151					
		(19) Pure Premium Underlying Present Rate:	0.502	0.666	1.122	2.289			
		(20) Relativity to Underlying Present Rate:	1.070	1.120	1.493				
		(21) Credibility to Underlying Relativity:	0.240	0.000	0.000				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	1.317	1.629	1.746				
		(24) Balanced Formula Relativity:	1.305	1.626	1.740	1.559			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000258 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 183

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
9102 PARK NOC- ALL EMPLOYEES & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	93,282	2	7	143,819	253,474	160,708	558,001	
2000/2001	104,266	0	6	0	20,170	31,809	51,980	
2001/2002	129,228	0	8	0	5,134	26,351	31,486	
2002/2003	124,904	1	3	109,537	67,270	82,969	259,776	
2003/2004	116,732	0	2	0	22,412	34,241	56,652	
<b>MA Total</b>	<b>568,412</b>	<b>3</b>	<b>26</b>	<b>253,356</b>	<b>368,460</b>	<b>336,078</b>	<b>957,894</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.542	2.717	1.723	5.982			
	2000/2001	0.000	0.193	0.305	0.499			
	2001/2002	0.000	0.040	0.204	0.244			
	2002/2003	0.877	0.539	0.664	2.080			
	2003/2004	0.000	0.192	0.293	0.485			
	<b>MA Total Pure Premium:</b>	<b>0.446</b>	<b>0.648</b>	<b>0.591</b>	<b>1.685</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.212	0.740	0.321				
	(14) Massachusetts Credibility:	0.21	0.58	0.50				
	(15) Countrywide Pure Premium:	0.847	0.528	1.308	2.683			
	(16) Countrywide Indicated Relativity:	0.445	0.677	0.785				
	(17) Countrywide Credibility:	0.40	0.21	0.25				
	(18) Countrywide Lost-time Claims:	297	6,725					
	(19) Pure Premium Underlying Present Rate:	0.514	0.713	0.763	1.991			
	(20) Relativity to Underlying Present Rate:	0.358	0.597	0.451				
	(21) Credibility to Underlying Relativity:	0.390	0.210	0.250				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.362	0.697	0.470				
	(24) Balanced Formula Relativity:	0.363	0.698	0.471	0.465			

Class(es):		Effective: 9/1/2007						Miscellaneous
9154 THEATER NOC: ALL OTHER EMPLOYEES								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	561,924	2	22	487,978	211,440	238,412	937,830	
2000/2001	601,026	0	30	0	224,110	271,154	495,264	
2001/2002	648,104	1	20	109,319	75,758	256,768	441,845	
2002/2003	484,867	1	13	139,581	31,853	200,130	371,564	
2003/2004	488,298	1	9	180,120	44,170	347,154	571,443	
<b>MA Total</b>	<b>2,784,219</b>	<b>5</b>	<b>94</b>	<b>916,998</b>	<b>587,331</b>	<b>1,313,617</b>	<b>2,817,946</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.868	0.376	0.424	1.669			
	2000/2001	0.000	0.373	0.451	0.824			
	2001/2002	0.169	0.117	0.396	0.682			
	2002/2003	0.288	0.066	0.413	0.766			
	2003/2004	0.369	0.090	0.711	1.170			
	<b>MA Total Pure Premium:</b>	<b>0.329</b>	<b>0.211</b>	<b>0.472</b>	<b>1.012</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.157	0.241	0.256				
	(14) Massachusetts Credibility:	0.33	0.84	0.76				
	(15) Countrywide Pure Premium:	0.564	0.298	0.715	1.578			
	(16) Countrywide Indicated Relativity:	0.297	0.382	0.430				
	(17) Countrywide Credibility:	0.34	0.08	0.12				
	(18) Countrywide Lost-time Claims:	189	2,421					
	(19) Pure Premium Underlying Present Rate:	0.325	0.375	0.432	1.132			
	(20) Relativity to Underlying Present Rate:	0.226	0.314	0.255				
	(21) Credibility to Underlying Relativity:	0.330	0.080	0.120				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.227	0.258	0.277				
	(24) Balanced Formula Relativity:	0.228	0.259	0.278	0.252			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

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Section X - Classification Pricing  
 Subsection G - Class Relativities  
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Section X - G  
 Exhibit 184

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Office & Clerical	
9156 THEATER NOC: PLAYERS, ENTERTAINERS OR MUSICIANS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	392,593	1	12	153,565	196,965	322,981	673,511		
2000/2001	417,540	2	10	217,485	70,926	135,329	423,739		
2001/2002	418,370	0	5	0	19,829	42,042	61,871		
2002/2003	390,100	2	4	452,476	20,915	201,948	675,339		
2003/2004	418,659	1	12	137,057	99,662	228,317	465,037		
<b>MA Total</b>	<b>2,037,262</b>	<b>6</b>	<b>43</b>	<b>960,582</b>	<b>408,297</b>	<b>930,618</b>	<b>2,299,497</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.391	0.502	0.823	1.716		
		2000/2001		0.521	0.170	0.324	1.015		
		2001/2002		0.000	0.047	0.100	0.148		
		2002/2003		1.160	0.054	0.518	1.731		
		2003/2004		0.327	0.238	0.545	1.111		
		<b>MA Total Pure Premium:</b>		<b>0.472</b>	<b>0.200</b>	<b>0.457</b>	<b>1.129</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		6.441	4.339	5.304			
		(14) Massachusetts Credibility:		0.23	0.77	0.70			
		(15) Countrywide Pure Premium:		0.215	0.343	0.585	1.142		
		(16) Countrywide Indicated Relativity:		3.097	8.093	7.369			
		(17) Countrywide Credibility:		0.39	0.12	0.15			
		(18) Countrywide Lost-time Claims:		70	1,297				
		(19) Pure Premium Underlying Present Rate:		0.196	0.406	0.475	1.078		
		(20) Relativity to Underlying Present Rate:		3.497	6.721	5.786			
		(21) Credibility to Underlying Relativity:		0.380	0.110	0.150			
		(22) Industry Group Adjusted Converted Pure Premium:		0.073	0.046	0.086	0.206		
		(23) Formula Relativity:		4.018	5.052	5.686			
		(24) Balanced Formula Relativity:		4.031	5.038	5.670	4.944		

Class(es):		Effective: 9/1/2007						Miscellaneous	
9178 ATHLETIC TEAM OR PARK: NON-CONTACT SPORTS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	30,126	0	15	0	227,479	633,557	861,036		
2000/2001	30,181	0	20	0	211,501	704,677	916,178		
2001/2002	27,441	3	13	345,748	116,795	871,714	1,334,257		
2002/2003	19,315	0	1	0	274	51,701	51,975		
2003/2004	18,602	0	4	0	6,872	64,653	71,525		
<b>MA Total</b>	<b>125,665</b>	<b>3</b>	<b>53</b>	<b>345,748</b>	<b>562,921</b>	<b>2,326,302</b>	<b>3,234,972</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		0.000	7.551	21.030	28.581		
		2000/2001		0.000	7.008	23.348	30.356		
		2001/2002		12.600	4.256	31.767	48.623		
		2002/2003		0.000	0.014	2.677	2.691		
		2003/2004		0.000	0.369	3.476	3.845		
		<b>MA Total Pure Premium:</b>		<b>2.751</b>	<b>4.480</b>	<b>18.512</b>	<b>25.743</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.310	5.113	10.049			
		(14) Massachusetts Credibility:		0.15	0.71	1.00			
		(15) Countrywide Pure Premium:		0.851	1.082	3.382	5.315		
		(16) Countrywide Indicated Relativity:		0.447	1.386	2.031			
		(17) Countrywide Credibility:		0.42	0.15	0.00			
		(18) Countrywide Lost-time Claims:		50	892				
		(19) Pure Premium Underlying Present Rate:		1.122	5.408	21.863	28.392		
		(20) Relativity to Underlying Present Rate:		0.781	4.528	12.909			
		(21) Credibility to Underlying Relativity:		0.430	0.140	0.000			
		(22) Industry Group Adjusted Converted Pure Premium:		2.101	0.876	1.842	4.819		
		(23) Formula Relativity:		0.720	4.472	10.049			
		(24) Balanced Formula Relativity:		0.722	4.484	10.075	4.981		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000260 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 185

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
9179 ATHLETIC TEAM OR PARK: CONTACT SPORTS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	31,104	6	19	781,744	102,617	306,433	1,190,794	
2000/2001	31,672	5	18	569,941	301,891	180,865	1,052,696	
2001/2002	49,379	4	24	698,966	304,376	530,249	1,533,591	
2002/2003	33,509	0	27	0	160,042	403,539	563,581	
2003/2004	27,666	0	20	0	193,187	363,817	557,004	
<b>MA Total</b>	<b>173,330</b>	<b>15</b>	<b>108</b>	<b>2,050,651</b>	<b>1,062,113</b>	<b>1,784,902</b>	<b>4,897,666</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	25.134	3.299	9.852	38.285			
	2000/2001	17.995	9.532	5.711	33.238			
	2001/2002	14.155	6.164	10.738	31.057			
	2002/2003	0.000	4.776	12.043	16.819			
	2003/2004	0.000	6.983	13.150	20.133			
	<b>MA Total Pure Premium:</b>	<b>11.831</b>	<b>6.128</b>	<b>10.298</b>	<b>28.256</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	5.631	6.995	5.590				
	(14) Massachusetts Credibility:	0.36	0.81	0.76				
	(15) Countrywide Pure Premium:	2.034	1.466	3.185	6.686			
	(16) Countrywide Indicated Relativity:	1.069	1.878	1.913				
	(17) Countrywide Credibility:	0.32	0.10	0.12				
	(18) Countrywide Lost-time Claims:	93	1,433					
	(19) Pure Premium Underlying Present Rate:	6.639	5.475	6.976	19.090			
	(20) Relativity to Underlying Present Rate:	4.622	4.585	4.119				
	(21) Credibility to Underlying Relativity:	0.320	0.090	0.120				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	3.848	6.266	4.972				
	(24) Balanced Formula Relativity:	3.856	6.282	4.985	4.728			

Class(es):		Effective: 9/1/2007						Miscellaneous
9180 AMUSEMENT DEVICE OPERATION NOC-NOT TRAV & DR*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	87,809	0	8	0	74,772	81,628	156,400	
2000/2001	112,726	1	14	322,874	98,582	211,279	632,734	
2001/2002	76,126	0	7	0	55,917	115,777	171,695	
2002/2003	101,435	1	13	82,214	68,496	258,386	409,095	
2003/2004	98,318	0	13	0	81,569	191,543	273,112	
<b>MA Total</b>	<b>476,414</b>	<b>2</b>	<b>55</b>	<b>405,087</b>	<b>379,336</b>	<b>858,612</b>	<b>1,643,036</b>	
MA Indicated Pure Premiums								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.852	0.930	1.781			
	2000/2001	2.864	0.875	1.874	5.613			
	2001/2002	0.000	0.735	1.521	2.255			
	2002/2003	0.811	0.675	2.547	4.033			
	2003/2004	0.000	0.830	1.948	2.778			
	<b>MA Total Pure Premium:</b>	<b>0.850</b>	<b>0.796</b>	<b>1.802</b>	<b>3.449</b>			
Pure Premium Relativities								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.405	0.909	0.978				
	(14) Massachusetts Credibility:	0.21	0.59	0.59				
	(15) Countrywide Pure Premium:	1.678	0.896	2.776	5.350			
	(16) Countrywide Indicated Relativity:	0.882	1.149	1.667				
	(17) Countrywide Credibility:	0.40	0.21	0.21				
	(18) Countrywide Lost-time Claims:	145	2,458					
	(19) Pure Premium Underlying Present Rate:	0.672	0.913	1.364	2.949			
	(20) Relativity to Underlying Present Rate:	0.468	0.764	0.805				
	(21) Credibility to Underlying Relativity:	0.390	0.200	0.200				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.620	0.930	1.088				
	(24) Balanced Formula Relativity:	0.621	0.933	1.091	0.858			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000261 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 186

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous
9182 ATHLETIC TEAM OR PARK: OPERATIONS & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	36,767	0	2	0	6,662	10,218	16,880	
2000/2001	76,953	2	10	285,440	93,899	221,913	601,252	
2001/2002	94,989	2	7	365,974	75,347	242,586	683,907	
2002/2003	70,227	0	8	0	48,821	95,125	143,946	
2003/2004	82,950	0	7	0	200,242	63,562	263,804	
<b>MA Total</b>	<b>361,886</b>	<b>4</b>	<b>34</b>	<b>651,414</b>	<b>424,970</b>	<b>633,405</b>	<b>1,709,788</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.000	0.181	0.278	0.459			
	2000/2001	3.709	1.220	2.884	7.813			
	2001/2002	3.853	0.793	2.554	7.200			
	2002/2003	0.000	0.695	1.355	2.050			
	2003/2004	0.000	2.414	0.766	3.180			
	<b>MA Total Pure Premium:</b>	<b>1.800</b>	<b>1.174</b>	<b>1.750</b>	<b>4.725</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.857	1.340	0.950				
	(14) Massachusetts Credibility:	0.23	0.39	0.48				
	(15) Countrywide Pure Premium:	0.478	0.321	1.013	1.813			
	(16) Countrywide Indicated Relativity:	0.251	0.412	0.609				
	(17) Countrywide Credibility:	0.39	0.31	0.26				
	(18) Countrywide Lost-time Claims:	50	677					
	(19) Pure Premium Underlying Present Rate:	1.032	0.427	1.055	2.514			
	(20) Relativity to Underlying Present Rate:	0.718	0.358	0.623				
	(21) Credibility to Underlying Relativity:	0.380	0.300	0.260				
	(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819			
	(23) Formula Relativity:	0.568	0.758	0.776				
	(24) Balanced Formula Relativity:	0.569	0.760	0.778	0.684			

Class(es):		Effective: 9/1/2007						Goods & Services
9220 CEMETERY OPERATION & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	155,087	1	16	229,292	511,791	282,791	1,023,873	
2000/2001	165,037	1	23	75,825	150,094	145,153	371,072	
2001/2002	162,225	1	19	69,466	96,837	153,526	319,829	
2002/2003	165,402	0	24	0	167,617	139,870	307,487	
2003/2004	165,392	2	13	729,991	97,671	450,601	1,278,264	
<b>MA Total</b>	<b>813,143</b>	<b>5</b>	<b>95</b>	<b>1,104,573</b>	<b>1,024,010</b>	<b>1,171,942</b>	<b>3,300,525</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	1.478	3.300	1.823	6.602			
	2000/2001	0.459	0.909	0.880	2.248			
	2001/2002	0.428	0.597	0.946	1.972			
	2002/2003	0.000	1.013	0.846	1.859			
	2003/2004	4.414	0.591	2.724	7.729			
	<b>MA Total Pure Premium:</b>	<b>1.358</b>	<b>1.259</b>	<b>1.441</b>	<b>4.059</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.956	2.854	1.787				
	(14) Massachusetts Credibility:	0.30	0.89	0.67				
	(15) Countrywide Pure Premium:	1.366	0.793	1.537	3.696			
	(16) Countrywide Indicated Relativity:	1.917	1.724	1.838				
	(17) Countrywide Credibility:	0.35	0.06	0.17				
	(18) Countrywide Lost-time Claims:	153	1,470					
	(19) Pure Premium Underlying Present Rate:	0.876	1.454	1.088	3.417			
	(20) Relativity to Underlying Present Rate:	1.866	2.448	1.448				
	(21) Credibility to Underlying Relativity:	0.350	0.050	0.160				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	1.911	2.766	1.741				
	(24) Balanced Formula Relativity:	1.894	2.760	1.735	2.025			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000262 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 187

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Miscellaneous	
9402 STREET CLEANING & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	414,347	2	24	403,018	128,588	302,180	833,785		
2000/2001	441,283	14	40	2,007,176	558,451	1,214,765	3,780,392		
2001/2002	446,734	9	52	1,654,139	546,960	877,536	3,078,634		
2002/2003	449,878	4	40	1,142,365	257,214	708,009	2,107,588		
2003/2004	514,544	3	41	674,183	661,299	807,823	2,143,305		
<b>MA Total</b>	<b>2,266,786</b>	<b>32</b>	<b>197</b>	<b>5,880,881</b>	<b>2,152,511</b>	<b>3,910,312</b>	<b>11,943,704</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	0.973	0.310	0.729	2.012		
			2000/2001	4.549	1.266	2.753	8.567		
			2001/2002	3.703	1.224	1.964	6.891		
			2002/2003	2.539	0.572	1.574	4.685		
			2003/2004	1.310	1.285	1.570	4.165		
			<b>MA Total Pure Premium:</b>	<b>2.594</b>	<b>0.950</b>	<b>1.725</b>	<b>5.269</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	1.235	1.084	0.936			
			(14) Massachusetts Credibility:	0.64	1.00	1.00			
			(15) Countrywide Pure Premium:	1.850	0.652	1.538	4.041		
			(16) Countrywide Indicated Relativity:	0.972	0.835	0.924			
			(17) Countrywide Credibility:	0.18	0.00	0.00			
			(18) Countrywide Lost-time Claims:	226	2,271				
			(19) Pure Premium Underlying Present Rate:	2.205	1.323	1.995	5.523		
			(20) Relativity to Underlying Present Rate:	1.535	1.108	1.178			
			(21) Credibility to Underlying Relativity:	0.180	0.000	0.000			
			(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819		
			(23) Formula Relativity:	1.242	1.084	0.936			
			(24) Balanced Formula Relativity:	1.244	1.087	0.939	1.099		

Class(es):		Effective: 9/1/2007						Miscellaneous	
9403 GARBAGE, ASHES OR REFUSE COLLECTION & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	351,398	10	50	1,342,296	696,900	1,284,707	3,323,902		
2000/2001	782,770	11	120	1,401,247	878,627	1,599,858	3,879,732		
2001/2002	869,487	23	106	3,326,046	758,305	2,258,743	6,343,094		
2002/2003	953,756	21	113	4,282,069	863,650	2,927,994	8,073,713		
2003/2004	1,004,357	5	119	924,501	1,356,919	2,088,720	4,370,140		
<b>MA Total</b>	<b>3,961,768</b>	<b>70</b>	<b>508</b>	<b>11,276,158</b>	<b>4,554,401</b>	<b>10,160,022</b>	<b>25,990,581</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
			1999/2000	3.820	1.983	3.656	9.459		
			2000/2001	1.790	1.122	2.044	4.956		
			2001/2002	3.825	0.872	2.598	7.295		
			2002/2003	4.490	0.906	3.070	8.465		
			2003/2004	0.920	1.351	2.080	4.351		
			<b>MA Total Pure Premium:</b>	<b>2.846</b>	<b>1.150</b>	<b>2.565</b>	<b>6.560</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
			(13) Massachusetts Indicated Relativity:	1.355	1.312	1.392			
			(14) Massachusetts Credibility:	0.83	1.00	1.00			
			(15) Countrywide Pure Premium:	3.390	1.140	2.670	7.200		
			(16) Countrywide Indicated Relativity:	1.781	1.461	1.604			
			(17) Countrywide Credibility:	0.09	0.00	0.00			
			(18) Countrywide Lost-time Claims:	1,609	13,585				
			(19) Pure Premium Underlying Present Rate:	2.376	1.453	2.870	6.699		
			(20) Relativity to Underlying Present Rate:	1.654	1.217	1.694			
			(21) Credibility to Underlying Relativity:	0.080	0.000	0.000			
			(22) Industry Group Adjusted Converted Pure Premium:	2.101	0.876	1.842	4.819		
			(23) Formula Relativity:	1.417	1.312	1.392			
			(24) Balanced Formula Relativity:	1.420	1.316	1.396	1.392		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000263 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 188

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
9410 MUNICIPAL, TOWN, COUNTY OR STATE EMP NOC									
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount				Total (8)	
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	9,547	0	1	0	1,321	1,658	2,979		
2000/2001	11,053	0	0	0	0	2,061	2,061		
2001/2002	9,993	0	0	0	0	1,654	1,654		
2002/2003	7,095	0	0	0	0	0	0		
2003/2004	6,396	0	1	0	2	5,141	5,143		
<b>MA Total</b>	<b>44,084</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1,324</b>	<b>10,513</b>	<b>11,837</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.000	0.138	0.174	0.312			
		2000/2001	0.000	0.000	0.186	0.186			
		2001/2002	0.000	0.000	0.166	0.166			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.804	0.804			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.030</b>	<b>0.238</b>	<b>0.269</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	0.000	0.068	0.296				
		(14) Massachusetts Credibility:	0.08	0.18	0.18				
		(15) Countrywide Pure Premium:	0.657	0.449	0.904	2.010			
		(16) Countrywide Indicated Relativity:	0.922	0.977	1.081				
		(17) Countrywide Credibility:	0.46	0.41	0.41				
		(18) Countrywide Lost-time Claims:	240	3,281					
		(19) Pure Premium Underlying Present Rate:	0.640	0.534	0.792	1.967			
		(20) Relativity to Underlying Present Rate:	1.364	0.899	1.055				
		(21) Credibility to Underlying Relativity:	0.460	0.410	0.410				
		(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
		(23) Formula Relativity:	1.051	0.781	0.929				
		(24) Balanced Formula Relativity:	1.042	0.780	0.926	0.934			

Class(es):		Effective: 9/1/2007						Manufacturing	
9501 SIGN PAINTING OR LETTERING-INSIDE & DRIVERS*									
		Adjusted Converted Loss and Loss Adjustment Expense							
Policy Period (1)	Exposure (2)	Claim Count		Amount				Total (8)	
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	227,153	1	18	150,490	122,094	282,302	554,886		
2000/2001	246,408	2	22	196,474	227,897	452,991	877,362		
2001/2002	204,486	1	14	106,230	59,063	157,352	322,645		
2002/2003	224,755	4	10	593,300	25,902	266,513	885,714		
2003/2004	244,111	1	13	227,711	279,662	269,884	777,257		
<b>MA Total</b>	<b>1,146,913</b>	<b>9</b>	<b>77</b>	<b>1,274,204</b>	<b>714,618</b>	<b>1,429,042</b>	<b>3,417,864</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)				
		1999/2000	0.663	0.537	1.243	2.443			
		2000/2001	0.797	0.925	1.838	3.561			
		2001/2002	0.519	0.289	0.770	1.578			
		2002/2003	2.640	0.115	1.186	3.941			
		2003/2004	0.933	1.146	1.106	3.184			
		<b>MA Total Pure Premium:</b>	<b>1.111</b>	<b>0.623</b>	<b>1.246</b>	<b>2.980</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical	Total				
		(13) Massachusetts Indicated Relativity:	1.251	1.257	1.393				
		(14) Massachusetts Credibility:	0.33	0.69	0.72				
		(15) Countrywide Pure Premium:	1.034	0.503	1.029	2.567			
		(16) Countrywide Indicated Relativity:	1.241	1.093	1.222				
		(17) Countrywide Credibility:	0.34	0.16	0.14				
		(18) Countrywide Lost-time Claims:	210	1,964					
		(19) Pure Premium Underlying Present Rate:	0.799	0.546	0.912	2.257			
		(20) Relativity to Underlying Present Rate:	1.268	0.830	1.136				
		(21) Credibility to Underlying Relativity:	0.330	0.150	0.140				
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278			
		(23) Formula Relativity:	1.253	1.167	1.333				
		(24) Balanced Formula Relativity:	1.262	1.163	1.331	1.267			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.



# X 000264 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 189

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services	
9519 HOUSEHOLD APPLIANCES-ELECTRICAL-INSTALL, SERV OR REPAIR & DR									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	495,666	5	38	842,282	244,427	493,052	1,579,761		
2000/2001	495,057	3	36	484,246	270,937	347,889	1,103,072		
2001/2002	490,302	4	26	538,739	193,969	375,399	1,108,107		
2002/2003	522,345	4	24	1,026,511	264,446	734,808	2,025,765		
2003/2004	588,400	1	21	499,350	286,550	353,926	1,139,826		
<b>MA Total</b>	<b>2,591,770</b>	<b>17</b>	<b>145</b>	<b>3,391,129</b>	<b>1,260,328</b>	<b>2,305,074</b>	<b>6,956,531</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		1.699	0.493	0.995	3.187		
		2000/2001		0.978	0.547	0.703	2.228		
		2001/2002		1.099	0.396	0.766	2.260		
		2002/2003		1.965	0.506	1.407	3.878		
		2003/2004		0.849	0.487	0.602	1.937		
		<b>MA Total Pure Premium:</b>		<b>1.308</b>	<b>0.486</b>	<b>0.889</b>	<b>2.684</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		1.884	1.102	1.103			
		(14) Massachusetts Credibility:		0.44	0.97	0.92			
		(15) Countrywide Pure Premium:		1.278	0.545	0.937	2.760		
		(16) Countrywide Indicated Relativity:		1.793	1.184	1.121			
		(17) Countrywide Credibility:		0.28	0.02	0.04			
		(18) Countrywide Lost-time Claims:		509	4,170				
		(19) Pure Premium Underlying Present Rate:		0.764	0.565	0.760	2.089		
		(20) Relativity to Underlying Present Rate:		1.628	0.951	1.011			
		(21) Credibility to Underlying Relativity:		0.280	0.010	0.040			
		(22) Industry Group Adjusted Converted Pure Premium:		0.695	0.441	0.807	1.943		
		(23) Formula Relativity:		1.787	1.102	1.100			
		(24) Balanced Formula Relativity:		1.771	1.100	1.096	1.338		

Class(es):		Effective: 9/1/2007						Manufacturing	
9521 HOUSE FURNISHINGS INSTALLATION-NOC									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	333,726	5	35	675,707	904,117	563,158	2,142,983		
2000/2001	345,182	4	40	869,122	408,970	397,825	1,675,917		
2001/2002	320,303	9	23	1,856,636	172,918	885,632	2,915,186		
2002/2003	313,072	1	21	331,545	89,103	158,958	579,607		
2003/2004	299,805	2	20	373,839	349,210	347,998	1,071,047		
<b>MA Total</b>	<b>1,612,088</b>	<b>21</b>	<b>139</b>	<b>4,106,848</b>	<b>1,924,319</b>	<b>2,353,571</b>	<b>8,384,739</b>		
		<b>MA Indicated Pure Premiums</b>							
				Serious (9)	Non-Serious (10)	Medical (11)	Total (12)		
		1999/2000		2.025	2.709	1.687	6.421		
		2000/2001		2.518	1.185	1.153	4.855		
		2001/2002		5.796	0.540	2.765	9.101		
		2002/2003		1.059	0.285	0.508	1.851		
		2003/2004		1.247	1.165	1.161	3.572		
		<b>MA Total Pure Premium:</b>		<b>2.548</b>	<b>1.194</b>	<b>1.460</b>	<b>5.201</b>		
		<b>Pure Premium Relativities</b>							
				Serious	Non-Serious	Medical	Total		
		(13) Massachusetts Indicated Relativity:		2.868	2.408	1.632			
		(14) Massachusetts Credibility:		0.51	1.00	0.98			
		(15) Countrywide Pure Premium:		1.734	0.743	1.213	3.690		
		(16) Countrywide Indicated Relativity:		2.082	1.614	1.441			
		(17) Countrywide Credibility:		0.25	0.00	0.01			
		(18) Countrywide Lost-time Claims:		517	3,327				
		(19) Pure Premium Underlying Present Rate:		1.699	1.918	1.410	5.027		
		(20) Relativity to Underlying Present Rate:		2.696	2.916	1.757			
		(21) Credibility to Underlying Relativity:		0.240	0.000	0.010			
		(22) Industry Group Adjusted Converted Pure Premium:		0.888	0.496	0.895	2.278		
		(23) Formula Relativity:		2.630	2.408	1.631			
		(24) Balanced Formula Relativity:		2.648	2.400	1.628	2.194		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000265 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 190

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Manufacturing
9522 UPHOLSTERING								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	178,417	1	25	161,225	108,576	219,204	489,005	
2000/2001	185,056	1	12	178,016	28,982	122,848	329,847	
2001/2002	177,149	0	10	0	20,928	63,757	84,685	
2002/2003	182,963	1	5	80,062	2,426	49,033	131,521	
2003/2004	150,061	0	5	0	31,572	49,765	81,337	
<b>MA Total</b>	<b>873,646</b>	<b>3</b>	<b>57</b>	<b>419,303</b>	<b>192,484</b>	<b>504,607</b>	<b>1,116,394</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	0.904	0.609	1.229	2.741		
		2000/2001	0.962	0.157	0.664	1.782		
		2001/2002	0.000	0.118	0.360	0.478		
		2002/2003	0.438	0.013	0.268	0.719		
		2003/2004	0.000	0.210	0.332	0.542		
		<b>MA Total Pure Premium:</b>	<b>0.480</b>	<b>0.220</b>	<b>0.578</b>	<b>1.278</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	0.540	0.445	0.646			
		(14) Massachusetts Credibility:	0.25	0.59	0.54			
		(15) Countrywide Pure Premium:	0.751	0.483	0.806	2.040		
		(16) Countrywide Indicated Relativity:	0.902	1.049	0.957			
		(17) Countrywide Credibility:	0.38	0.21	0.23			
		(18) Countrywide Lost-time Claims:	324	2,791				
		(19) Pure Premium Underlying Present Rate:	0.521	0.495	0.592	1.609		
		(20) Relativity to Underlying Present Rate:	0.828	0.752	0.739			
		(21) Credibility to Underlying Relativity:	0.370	0.200	0.230			
		(22) Industry Group Adjusted Converted Pure Premium:	0.888	0.496	0.895	2.278		
		(23) Formula Relativity:	0.784	0.633	0.739			
		(24) Balanced Formula Relativity:	0.789	0.631	0.737	0.734		

Class(es):		Effective: 9/1/2007						Construction
9534 MOBILE CRANE & HOIST SERV CONTR-NOC-ALL OP -INCL YRD EMP &DR								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	131,069	1	12	164,420	183,967	308,651	657,037	
2000/2001	189,187	3	18	928,337	376,625	371,394	1,676,355	
2001/2002	183,028	4	10	1,024,779	70,332	514,399	1,609,510	
2002/2003	211,640	2	9	746,517	78,869	340,990	1,166,376	
2003/2004	211,127	1	15	250,146	134,042	308,917	693,105	
<b>MA Total</b>	<b>926,051</b>	<b>11</b>	<b>64</b>	<b>3,114,198</b>	<b>843,835</b>	<b>1,844,351</b>	<b>5,802,384</b>	
		<b>MA Indicated Pure Premiums</b>						
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
		1999/2000	1.254	1.404	2.355	5.013		
		2000/2001	4.907	1.991	1.963	8.861		
		2001/2002	5.599	0.384	2.810	8.794		
		2002/2003	3.527	0.373	1.611	5.511		
		2003/2004	1.185	0.635	1.463	3.283		
		<b>MA Total Pure Premium:</b>	<b>3.363</b>	<b>0.911</b>	<b>1.992</b>	<b>6.266</b>		
		<b>Pure Premium Relativities</b>						
		Serious	Non-Serious	Medical	Total			
		(13) Massachusetts Indicated Relativity:	1.130	0.997	1.003			
		(14) Massachusetts Credibility:	0.46	0.86	0.92			
		(15) Countrywide Pure Premium:	3.526	0.670	1.813	6.008		
		(16) Countrywide Indicated Relativity:	1.266	0.743	0.951			
		(17) Countrywide Credibility:	0.27	0.07	0.04			
		(18) Countrywide Lost-time Claims:	108	538				
		(19) Pure Premium Underlying Present Rate:	2.352	1.191	2.104	5.647		
		(20) Relativity to Underlying Present Rate:	1.007	0.863	1.047			
		(21) Credibility to Underlying Relativity:	0.270	0.070	0.040			
		(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876		
		(23) Formula Relativity:	1.134	0.969	1.003			
		(24) Balanced Formula Relativity:	1.148	0.970	1.007	1.073		

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000266 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 191

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction	
9545 BILL POSTING & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	3,115	0	1	0	699	1,954	2,653		
2000/2001	2,087	0	1	0	1,374	1,415	2,789		
2001/2002	1,316	0	0	0	0	0	0		
2002/2003	1,440	0	0	0	0	0	0		
2003/2004	2,472	0	0	0	0	0	0		
<b>MA Total</b>	<b>10,430</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2,073</b>	<b>3,369</b>	<b>5,442</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.224	0.627	0.852			
		2000/2001	0.000	0.659	0.678	1.337			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.199</b>	<b>0.323</b>	<b>0.522</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	0.217	0.163				
		(14) Massachusetts Credibility:	0.07	0.16	0.15				
		(15) Countrywide Pure Premium:	1.779	0.198	1.404	3.380			
		(16) Countrywide Indicated Relativity:	0.639	0.219	0.737				
		(17) Countrywide Credibility:	0.20	0.29	0.36				
		(18) Countrywide Lost-time Claims:	8	40					
		(19) Pure Premium Underlying Present Rate:	1.814	1.666	1.944	5.423			
		(20) Relativity to Underlying Present Rate:	0.777	1.207	0.967				
		(21) Credibility to Underlying Relativity:	0.730	0.550	0.490				
		(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
		(23) Formula Relativity:	0.695	0.762	0.763				
		(24) Balanced Formula Relativity:	0.704	0.763	0.767	0.734			

Class(es):		Effective: 9/1/2007						Construction	
9549 ADVERTISING CO & DRIVERS									
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						Total (8)	
		Claim Count		Amount					
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)			
1999/2000	1,483	0	0	0	0	0	0		
2000/2001	336	0	0	0	0	0	0		
2001/2002	419	0	0	0	0	0	0		
2002/2003	109	0	0	0	0	0	0		
2003/2004	992	0	0	0	0	0	0		
<b>MA Total</b>	<b>3,339</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
		MA Indicated Pure Premiums							
		Serious (9)	Non-Serious (10)	Medical (11)			Total (12)		
		1999/2000	0.000	0.000	0.000	0.000			
		2000/2001	0.000	0.000	0.000	0.000			
		2001/2002	0.000	0.000	0.000	0.000			
		2002/2003	0.000	0.000	0.000	0.000			
		2003/2004	0.000	0.000	0.000	0.000			
		<b>MA Total Pure Premium:</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>			
		Pure Premium Relativities							
		Serious	Non-Serious	Medical			Total		
		(13) Massachusetts Indicated Relativity:	0.000	0.000	0.000				
		(14) Massachusetts Credibility:	0.05	0.07	0.07				
		(15) Countrywide Pure Premium:	1.819	0.877	1.434	4.130			
		(16) Countrywide Indicated Relativity:	0.654	0.971	0.753				
		(17) Countrywide Credibility:	0.26	0.35	0.45				
		(18) Countrywide Lost-time Claims:	16	64					
		(19) Pure Premium Underlying Present Rate:	1.949	0.732	1.080	3.761			
		(20) Relativity to Underlying Present Rate:	0.835	0.530	0.537				
		(21) Credibility to Underlying Relativity:	0.690	0.580	0.480				
		(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
		(23) Formula Relativity:	0.746	0.648	0.597				
		(24) Balanced Formula Relativity:	0.755	0.648	0.599	0.686			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000267 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 192

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Construction
9552 SIGN MFG-ERECTION, REPAIR OR MAINT & SHOP, DR*								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	90,204	1	10	211,634	98,010	106,015	415,659	
2000/2001	87,053	2	5	213,040	8,171	98,441	319,652	
2001/2002	99,887	3	12	496,459	128,662	523,776	1,148,896	
2002/2003	105,066	2	9	345,850	45,878	348,551	740,279	
2003/2004	118,116	3	14	571,587	199,036	465,840	1,236,464	
<b>MA Total</b>	<b>500,326</b>	<b>11</b>	<b>50</b>	<b>1,838,570</b>	<b>479,757</b>	<b>1,542,623</b>	<b>3,860,950</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	2.346	1.087	1.175	4.608			
	2000/2001	2.447	0.094	1.131	3.672			
	2001/2002	4.970	1.288	5.244	11.502			
	2002/2003	3.292	0.437	3.317	7.046			
	2003/2004	4.839	1.685	3.944	10.468			
	<b>MA Total Pure Premium:</b>	<b>3.675</b>	<b>0.959</b>	<b>3.083</b>	<b>7.717</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	1.235	1.049	1.553				
	(14) Massachusetts Credibility:	0.38	0.67	0.66				
	(15) Countrywide Pure Premium:	3.453	1.425	2.571	7.448			
	(16) Countrywide Indicated Relativity:	1.240	1.579	1.349				
	(17) Countrywide Credibility:	0.31	0.17	0.17				
	(18) Countrywide Lost-time Claims:	46	223					
	(19) Pure Premium Underlying Present Rate:	2.722	1.191	1.727	5.641			
	(20) Relativity to Underlying Present Rate:	1.166	0.863	0.859				
	(21) Credibility to Underlying Relativity:	0.310	0.160	0.170				
	(22) Industry Group Adjusted Converted Pure Premium:	2.976	0.914	1.985	5.876			
	(23) Formula Relativity:	1.215	1.109	1.400				
	(24) Balanced Formula Relativity:	1.230	1.110	1.406	1.271			

Class(es):		Effective: 9/1/2007						Goods & Services
9586 BARBER SHOP, BEAUTY PARLOR, HAIR STYLING SALON								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	2,146,690	2	39	304,829	459,846	502,383	1,267,057	
2000/2001	2,370,727	2	40	266,692	155,889	206,546	629,126	
2001/2002	2,476,559	4	42	330,177	282,325	745,273	1,357,776	
2002/2003	2,675,700	6	36	702,713	276,906	666,188	1,645,807	
2003/2004	2,837,789	4	41	547,086	228,337	490,468	1,265,891	
<b>MA Total</b>	<b>12,507,465</b>	<b>18</b>	<b>198</b>	<b>2,151,496</b>	<b>1,403,304</b>	<b>2,610,857</b>	<b>6,165,657</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.142	0.214	0.234	0.590			
	2000/2001	0.112	0.066	0.087	0.265			
	2001/2002	0.133	0.114	0.301	0.548			
	2002/2003	0.263	0.103	0.249	0.615			
	2003/2004	0.193	0.080	0.173	0.446			
	<b>MA Total Pure Premium:</b>	<b>0.172</b>	<b>0.112</b>	<b>0.209</b>	<b>0.493</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.248	0.254	0.259				
	(14) Massachusetts Credibility:	0.45	1.00	1.00				
	(15) Countrywide Pure Premium:	0.231	0.194	0.283	0.708			
	(16) Countrywide Indicated Relativity:	0.324	0.421	0.339				
	(17) Countrywide Credibility:	0.28	0.00	0.00				
	(18) Countrywide Lost-time Claims:	411	4,159					
	(19) Pure Premium Underlying Present Rate:	0.159	0.145	0.195	0.499			
	(20) Relativity to Underlying Present Rate:	0.339	0.244	0.260				
	(21) Credibility to Underlying Relativity:	0.270	0.000	0.000				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	0.294	0.254	0.259				
	(24) Balanced Formula Relativity:	0.291	0.254	0.258	0.269			

Notes:

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000268 R

Section X - Classification Pricing  
 Subsection G - Class Relativities  
 9/1/2007

Section X - G  
 Exhibit 193

## Calculation of Class Relativities

Class(es):		Effective: 9/1/2007						Goods & Services
9620 FUNERAL DIRECTOR & DRIVERS								
Policy Period (1)	Exposure (2)	Adjusted Converted Loss and Loss Adjustment Expense						
		Claim Count		Amount				
		Serious (3)	Non-Serious (4)	Serious (5)	Non-Serious (6)	Medical (7)	Total (8)	
1999/2000	397,735	1	3	71,988	26,959	72,310	171,257	
2000/2001	417,703	1	3	117,655	16,466	81,979	216,099	
2001/2002	442,101	0	3	0	40,157	96,438	136,595	
2002/2003	455,659	0	1	0	9,738	40,438	50,176	
2003/2004	475,872	0	8	0	198,644	244,044	442,688	
<b>MA Total</b>	<b>2,189,070</b>	<b>2</b>	<b>18</b>	<b>189,643</b>	<b>291,963</b>	<b>535,209</b>	<b>1,016,815</b>	
<b>MA Indicated Pure Premiums</b>								
		Serious (9)	Non-Serious (10)	Medical (11)	Total (12)			
	1999/2000	0.181	0.068	0.182	0.431			
	2000/2001	0.282	0.039	0.196	0.517			
	2001/2002	0.000	0.091	0.218	0.309			
	2002/2003	0.000	0.021	0.089	0.110			
	2003/2004	0.000	0.417	0.513	0.930			
	<b>MA Total Pure Premium:</b>	<b>0.087</b>	<b>0.133</b>	<b>0.244</b>	<b>0.464</b>			
<b>Pure Premium Relativities</b>								
		Serious	Non-Serious	Medical	Total			
	(13) Massachusetts Indicated Relativity:	0.125	0.302	0.303				
	(14) Massachusetts Credibility:	0.25	0.51	0.60				
	(15) Countrywide Pure Premium:	0.445	0.187	0.385	1.017			
	(16) Countrywide Indicated Relativity:	0.624	0.406	0.461				
	(17) Countrywide Credibility:	0.38	0.25	0.20				
	(18) Countrywide Lost-time Claims:	123	848					
	(19) Pure Premium Underlying Present Rate:	0.204	0.138	0.310	0.652			
	(20) Relativity to Underlying Present Rate:	0.434	0.232	0.413				
	(21) Credibility to Underlying Relativity:	0.370	0.240	0.200				
	(22) Industry Group Adjusted Converted Pure Premium:	0.695	0.441	0.807	1.943			
	(23) Formula Relativity:	0.429	0.311	0.357				
	(24) Balanced Formula Relativity:	0.425	0.311	0.355	0.370			

**Notes:**

\* The experience of more than one class is used in this A-Sheet. See Table of Contents in Section A for list of classes.

# X 000269 R

Section X - Classification Pricing  
 Subsection H - Industry Group Rate Change and Rate Level Factors  
 9/1/2007

Section X - H  
 Exhibit 1

## Calculation of Industry Group Rate Change and Limits

	Industry Group				
	Manufacturing	Construction	Office & Clerical	Goods & Services	Miscellaneous
(1) Industry Group Differential	1.013	0.969	0.944	1.018	1.101
(2) Experience and Benefit Level Change - Overall	-14.6%	-14.6%	-14.6%	-14.6%	-14.6%
(3) Target Rate Change = (1) x [1.000 + (2)] - 1.000	-13.5%	-17.3%	-19.4%	-13.1%	-6.0%
(4) Benefit Level Change - Overall	1.5%	1.5%	1.5%	1.5%	1.5%
(5) Experience Change - Overall = {[1.000 + (2)] / [1.000 + (4)]} - 1.000	-15.9%	-15.9%	-15.9%	-15.9%	-15.9%
(6) Experience Change - by Group = {(1) x [1.000 + (5)]} - 1.000	-14.8%	-18.5%	-20.5%	-14.4%	-7.4%
(7) 1/2 Experience Change - by Group = (6) / 2.000	-7.4%	-9.3%	-10.3%	-7.2%	-3.7%
(8) Maximum Rate Change = (4) + (7) + 20.0%	14.1%	12.2%	11.2%	14.3%	17.8%
(9) Minimum Rate Change = (4) + (7) - 20.0%	-25.9%	-27.8%	-28.8%	-25.7%	-22.2%
(10) Present Average Rate	2.718	7.348	0.259	2.353	5.609
(11) Uncapped Rate Level Factor = [1.000 + (3)] x (10)	2.352	6.077	0.208	2.045	5.274
(12) Capped Rate Level Factor	2.331	6.038	0.208	2.042	5.278

In addition, the WCRIB 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): From Exhibit 2.

(2): Indicated Rate Change, from Section I.

(4): From Section IV - A, Exhibit 8.

(10): Rates by class consistent with the 09/01/05 decision, 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.

Section X - Classification Pricing  
Subsection H - Industry Group Rate Change and Rate Level Factors  
9/1/2007

Calculation of Massachusetts Industry Group Differentials  
Excluding Large Deductibles  
For Three Latest Composite Policy Years, 2001/2002 through 2003/2004

Industry Group (1)	Injury Type (2)	Three Year Expected Losses (3)	Three Year Adjusted Converted Losses (4)	Industry Group Differential = (4) / (3) (5)	Balanced Industry Group Differential = (5) / 1.023 (6)	Adjusted Balanced Industry Group Differential (7)
Manufacturing	Serious	96,616,203	130,549,523	1.351		
	Non-Serious	100,953,717	70,613,867	0.699		
	Medical	123,011,801	131,302,998	1.067		
	Total	320,581,722	332,466,388	1.037	1.014	1.013
Construction	Serious	302,384,681	377,961,526	1.250		
	Non-Serious	183,062,408	110,258,972	0.602		
	Medical	265,789,580	256,666,371	0.966		
	Total	751,236,669	744,886,869	0.992	0.969	0.969
Office & Clerical	Serious	78,740,870	93,963,516	1.193		
	Non-Serious	85,140,021	59,782,775	0.702		
	Medical	115,660,394	116,509,680	1.007		
	Total	279,541,286	270,255,971	0.967	0.945	0.944
Goods & Services	Serious	165,481,195	247,254,487	1.494		
	Non-Serious	208,774,343	141,303,768	0.677		
	Medical	264,286,075	276,637,494	1.047		
	Total	638,541,613	665,195,749	1.042	1.018	1.018
Miscellaneous	Serious	72,613,164	109,495,614	1.508		
	Non-Serious	60,678,832	42,142,452	0.695		
	Medical	87,075,842	96,786,784	1.112		
	Total	220,367,838	248,424,850	1.127	1.102	1.101
All Industry Groups	Serious	715,836,114	959,224,665	1.340		
	Non-Serious	638,609,322	424,101,835	0.664		
	Medical	855,823,692	877,903,326	1.026		
	Total	2,210,269,128	2,261,229,826	1.023	1.000	1.000

Notes:

- (3): Three Years of Exposure x Pure Premium Underlying Present Rate from Section X - F.
- (4): From Section X - C. Goods and Services includes Per Capita classes.
- (7): (6) times an offbalance factor. The offbalance factor is needed to adjust for differences in the payroll distributions by industry group for the three years used in developing the industry group differentials and the five years used in developing pure premiums.

**X 000271 R**

Section X - Classification Pricing  
 Subsection I - Average Uncapped Rates  
 9/1/2007

Section X - 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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
0005	1.285	1.471	1.827	1.552	2.045	3.17
0008	1.229	0.911	0.963	1.046	2.045	2.14
0016	2.072	1.227	1.275	1.549	2.045	3.17
0034	1.620	1.254	1.542	1.504	2.045	3.08
0035	0.765	1.052	0.986	0.922	2.045	1.88
0036	1.620	1.254	1.542	1.504	2.045	3.08
0037	1.229	0.911	0.963	1.046	2.045	2.14
0042	2.178	1.934	2.073	2.079	2.045	4.25
0050	0.777	0.651	0.762	0.752	6.077	4.57
0079	2.058	1.656	1.979	1.934	2.045	3.96
0083	3.211	1.503	1.742	2.213	2.045	4.53
0106	2.955	2.118	3.756	3.109	5.274	16.40
0113	1.620	1.254	1.542	1.504	2.045	3.08
0170	1.620	1.254	1.542	1.504	2.045	3.08
0251	0.938	0.627	0.951	0.887	5.274	4.68
0908	92.466	69.619	57.309	72.678	2.045	74.31
0909	66.803	111.958	192.089	129.084	2.045	131.98
0912	66.803	111.958	192.089	129.084	2.045	263.95
0913	92.466	69.619	57.309	72.678	2.045	148.61
0917	1.034	1.377	1.096	1.138	2.045	2.33
0918	0.689	0.531	0.292	0.488	2.045	1.00
1430	4.422	11.687	2.211	5.135	2.352	12.07
1438	1.645	0.939	1.528	1.445	2.352	3.40
1463	4.276	1.812	2.201	2.926	2.352	6.88
1624	1.081	0.490	0.802	0.867	5.274	4.57
1655	1.011	0.610	1.152	0.992	5.274	5.23
1701	1.721	2.406	1.455	1.765	2.352	4.15
1710	1.081	0.490	0.802	0.867	5.274	4.57
1747	1.942	1.211	1.965	1.792	2.352	4.21
1748	1.820	1.075	1.372	1.482	2.352	3.49
1852	7.807	1.151	1.693	3.958	2.352	9.31
1853	1.267	0.783	0.806	0.980	2.352	2.31
1860	1.615	0.567	0.674	1.017	2.352	2.39
1924	1.350	1.169	1.008	1.177	2.352	2.77
1925	2.365	1.552	1.641	1.904	2.352	4.48
2001	1.135	1.542	1.377	1.318	2.352	3.10
2002	1.637	1.434	1.259	1.445	2.352	3.40
2003	1.135	1.542	1.377	1.318	2.352	3.10
2014	1.988	1.228	1.293	1.550	2.352	3.64
2021	1.879	0.936	0.961	1.314	2.352	3.09
2039	1.780	1.404	1.292	1.506	2.352	3.54
2041	0.908	1.095	1.047	1.003	2.352	2.36



**X 000272 R**

Section X - Classification Pricing  
 Subsection I - Average Uncapped Rates  
 9/1/2007

Section X - 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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
2070	2.081	1.707	1.840	1.905	2.352	4.48
2081	1.827	1.935	1.911	1.883	2.352	4.43
2089	1.464	1.053	1.393	1.347	2.352	3.17
2095	2.215	1.927	2.091	2.104	2.352	4.95
2101	1.464	1.053	1.393	1.347	2.352	3.17
2111	1.095	1.118	1.145	1.120	2.352	2.63
2114	1.464	1.053	1.393	1.347	2.352	3.17
2115	1.293	1.350	1.110	1.233	2.352	2.90
2121	1.236	0.771	1.175	1.111	2.352	2.61
2130	1.649	1.203	1.361	1.439	2.352	3.38
2131	0.962	0.988	0.920	0.951	2.352	2.24
2143	1.007	0.831	1.661	1.225	2.352	2.88
2150	2.005	2.205	1.363	1.796	2.352	4.22
2156	2.842	1.923	2.806	2.628	2.352	6.18
2157	2.499	2.007	1.632	2.052	2.352	4.83
2172	1.090	0.691	0.584	0.805	2.352	1.89
2174	3.270	1.746	2.189	2.514	2.352	5.91
2211	2.877	1.886	1.922	2.286	2.352	5.38
2220	1.378	1.061	1.763	1.460	2.352	3.43
2260	4.367	1.850	1.519	2.701	2.352	6.35
2286	1.378	1.061	1.763	1.460	2.352	3.43
2288	1.176	1.407	1.019	1.165	2.352	2.74
2302	1.378	1.061	1.763	1.460	2.352	3.43
2305	1.035	0.754	0.760	0.866	2.352	2.04
2362	1.127	0.902	0.890	0.985	2.352	2.32
2380	1.006	1.557	1.065	1.149	2.352	2.70
2402	1.432	0.919	1.226	1.239	2.352	2.91
2413	2.520	1.194	1.476	1.822	2.352	4.28
2416	1.496	3.032	1.386	1.787	2.352	4.20
2417	1.467	1.140	1.311	1.335	2.352	3.14
2501	1.131	1.211	1.045	1.115	2.352	2.62
2503	0.428	0.501	0.319	0.401	2.352	0.94
2534	1.131	1.211	1.045	1.115	2.352	2.62
2570	2.426	1.804	2.041	2.140	2.352	5.03
2576	1.177	1.106	1.481	1.281	2.352	3.01
2578	1.177	1.106	1.481	1.281	2.352	3.01
2585	1.281	1.524	1.398	1.380	2.352	3.25
2586	0.622	0.531	0.468	0.542	2.352	1.27
2587	0.885	1.064	1.167	1.043	2.045	2.13
2623	1.524	1.017	0.831	1.141	2.352	2.68
2640	1.601	1.053	1.418	1.410	2.352	3.32
2651	1.601	1.053	1.418	1.410	2.352	3.32

# X 000273 R

Section X - Classification Pricing  
Subsection I - Average Uncapped Rates  
9/1/2007

Section X - 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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
2660	0.498	1.032	1.226	0.900	2.352	2.12
2683	1.101	0.949	1.044	1.045	2.352	2.46
2688	1.297	1.149	1.217	1.233	2.352	2.90
2702	3.987	2.547	4.342	3.861	5.274	20.36
2710	3.447	3.005	2.901	3.137	2.352	7.38
2731	2.137	2.000	2.320	2.179	2.352	5.12
2741	2.727	3.733	2.142	2.716	2.352	6.39
2747	4.377	2.676	3.618	3.709	2.352	8.72
2790	0.928	1.023	0.959	0.961	2.352	2.26
2802	2.045	1.747	2.189	2.037	2.352	4.79
2835	0.865	0.917	0.869	0.878	2.352	2.06
2836	2.367	1.568	1.589	1.888	2.352	4.44
2841	1.064	1.081	1.495	1.237	2.352	2.91
2883	1.276	1.281	1.307	1.289	2.352	3.03
2923	0.726	0.783	0.920	0.815	2.352	1.92
2942	0.747	0.637	0.988	0.818	2.352	1.92
3018	1.520	0.892	1.785	1.487	2.352	3.50
3022	1.584	1.445	2.522	1.922	2.352	4.52
3027	1.759	1.542	2.493	2.000	2.352	4.70
3028	1.282	2.734	2.328	2.009	2.352	4.72
3030	3.838	2.551	3.245	3.325	2.352	7.82
3040	4.197	4.089	4.340	4.230	2.352	9.95
3041	2.578	1.167	2.547	2.259	2.352	5.31
3042	1.524	1.760	1.320	1.495	2.352	3.52
3064	1.484	1.194	1.351	1.369	2.352	3.22
3066	1.484	1.194	1.351	1.369	2.352	3.22
3076	1.175	1.160	1.185	1.175	2.352	2.76
3081	3.669	3.471	3.617	3.606	2.352	8.48
3082	3.669	3.471	3.617	3.606	2.352	8.48
3085	2.279	2.184	2.078	2.179	2.352	5.13
3110	3.353	5.059	2.771	3.496	2.352	8.22
3111	1.143	0.758	1.053	1.024	2.352	2.41
3113	0.841	0.957	0.812	0.855	2.352	2.01
3114	1.923	1.644	1.736	1.789	2.352	4.21
3118	0.841	0.957	0.812	0.855	2.352	2.01
3119	0.449	0.364	0.386	0.406	2.352	0.95
3120	0.656	1.360	0.580	0.779	2.352	1.83
3122	1.297	0.505	1.139	1.063	2.352	2.50
3127	0.244	0.409	0.303	0.303	2.352	0.71
3131	1.545	1.190	0.885	1.208	2.352	2.84
3132	0.795	1.318	1.067	1.016	2.352	2.39
3145	0.673	0.727	0.726	0.706	2.352	1.66

**X 000274 R**

Section X - Classification Pricing  
 Subsection I - Average Uncapped Rates  
 9/1/2007

Section X - 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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
3146	1.218	1.163	0.945	1.099	2.352	2.58
3169	1.648	2.239	2.091	1.950	2.352	4.59
3179	0.989	1.046	0.913	0.972	2.352	2.29
3180	1.299	1.956	1.528	1.532	2.352	3.60
3188	0.973	1.410	1.894	1.430	2.352	3.36
3200	1.082	1.219	1.595	1.313	2.352	3.09
3220	0.881	0.730	0.725	0.787	2.352	1.85
3227	1.648	2.239	2.091	1.950	2.352	4.59
3241	1.350	1.169	1.008	1.177	2.352	2.77
3255	1.411	1.433	1.148	1.313	2.352	3.09
3257	1.106	1.569	1.028	1.176	2.352	2.77
3270	0.942	0.815	0.721	0.828	2.352	1.95
3300	4.137	2.663	2.895	3.329	2.352	7.83
3315	0.866	0.967	0.915	0.907	2.352	2.13
3336	1.203	1.861	1.763	1.566	2.352	3.68
3365	1.614	1.562	2.087	1.766	6.077	10.73
3372	1.249	0.874	1.063	1.094	2.352	2.57
3373	2.804	1.587	1.644	2.084	2.352	4.90
3381	1.081	1.729	1.678	1.456	2.352	3.42
3383	0.610	0.738	0.687	0.668	2.352	1.57
3385	0.382	0.371	0.341	0.363	2.352	0.85
3400	1.648	2.239	2.091	1.950	2.352	4.59
3507	1.558	1.353	1.182	1.366	2.352	3.21
3515	1.252	1.316	1.277	1.276	2.352	3.00
3548	0.906	0.901	0.904	0.904	2.352	2.13
3558	0.256	0.180	0.278	0.248	2.352	0.58
3559	0.906	0.901	0.904	0.904	2.352	2.13
3571	0.636	0.543	0.478	0.553	2.352	1.30
3574	0.906	0.901	0.904	0.904	2.352	2.13
3612	0.750	0.792	0.792	0.776	2.352	1.82
3620	1.989	2.013	1.948	1.978	2.352	4.65
3629	0.906	0.901	0.904	0.904	2.352	2.13
3632	0.906	0.901	0.904	0.904	2.352	2.13
3634	1.212	1.131	1.349	1.248	2.352	2.94
3635	1.212	1.605	1.705	1.491	2.352	3.51
3638	0.906	0.901	0.904	0.904	2.352	2.13
3642	0.475	0.475	0.357	0.429	2.352	1.01
3643	0.989	1.046	0.913	0.972	2.352	2.29
3647	0.871	1.741	1.570	1.335	2.352	3.14
3648	0.641	0.795	0.996	0.814	2.352	1.91
3681	0.339	0.362	0.378	0.359	2.352	0.84
3685	0.339	0.362	0.378	0.359	2.352	0.84

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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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
3724	0.973	1.004	1.048	1.004	6.077	6.10
3726	3.093	1.211	2.079	2.458	6.077	14.94
3807	1.648	2.239	2.091	1.950	2.352	4.59
3808	1.042	1.494	1.424	1.290	2.352	3.03
3821	2.549	1.753	2.520	2.356	2.045	4.82
3826	1.064	1.265	0.971	1.071	2.352	2.52
3830	0.906	0.901	0.904	0.904	2.352	2.13
3841	0.693	0.844	0.859	0.791	2.352	1.86
4000	1.152	1.201	1.200	1.179	5.274	6.22
4021	1.705	1.181	1.435	1.485	2.352	3.49
4024	2.297	1.438	1.270	1.707	2.352	4.01
4034	3.384	2.194	3.025	2.984	2.352	7.02
4036	1.328	1.220	1.026	1.186	2.352	2.79
4038	0.934	0.758	0.757	0.826	2.352	1.94
4053	0.819	0.648	0.695	0.733	2.352	1.72
4061	1.023	1.067	0.966	1.010	2.352	2.38
4062	1.023	1.067	0.966	1.010	2.352	2.38
4112	0.289	0.388	0.275	0.305	2.352	0.72
4113	0.819	0.648	0.695	0.733	2.352	1.72
4114	1.026	0.786	0.813	0.890	2.352	2.09
4130	1.832	1.909	1.461	1.703	2.352	4.00
4133	0.901	0.781	0.881	0.867	2.352	2.04
4150	0.428	0.376	0.427	0.416	2.352	0.98
4239	2.030	2.035	1.901	1.981	2.352	4.66
4243	1.338	2.066	1.861	1.702	2.352	4.00
4244	1.597	1.784	1.533	1.613	2.352	3.79
4250	1.401	0.980	1.178	1.222	2.352	2.87
4251	1.080	0.908	0.931	0.984	2.352	2.31
4273	1.130	1.870	1.915	1.599	2.352	3.76
4279	1.517	1.297	2.285	1.771	2.352	4.16
4282	0.274	0.365	0.349	0.323	2.352	0.76
4283	1.526	1.889	1.073	1.427	2.352	3.36
4299	0.897	0.888	0.851	0.877	2.352	2.06
4301	1.824	1.157	1.533	1.565	2.352	3.68
4304	1.053	1.475	1.936	1.491	2.352	3.51
4307	0.719	0.757	0.776	0.750	2.352	1.76
4308	0.318	0.397	0.381	0.360	2.352	0.85
4350	0.247	0.392	0.244	0.277	2.352	0.65
4351	0.468	0.408	0.305	0.391	2.352	0.92
4352	0.448	0.432	0.461	0.450	2.352	1.06
4360	0.682	0.438	0.484	0.551	2.352	1.30
4361	2.757	1.790	2.158	2.288	0.208	0.48

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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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
4362	0.422	0.473	0.471	0.454	2.045	0.93
4410	1.589	1.884	2.021	1.823	2.352	4.29
4417	1.638	2.127	2.146	1.944	2.352	4.57
4432	0.607	0.682	0.655	0.642	2.352	1.51
4439	0.999	0.843	0.957	0.949	2.352	2.23
4452	1.154	1.293	1.416	1.287	2.352	3.03
4459	1.100	1.539	1.064	1.182	2.352	2.78
4470	1.343	1.291	1.210	1.279	2.352	3.01
4484	1.043	1.354	1.134	1.146	2.352	2.70
4493	1.361	1.436	1.519	1.439	2.352	3.38
4511	0.307	0.158	0.211	0.233	2.045	0.48
4512	0.085	0.087	0.083	0.085	2.045	0.17
4557	0.735	0.560	0.553	0.625	2.352	1.47
4558	1.092	1.222	1.080	1.116	2.352	2.62
4561	0.999	0.843	0.957	0.949	2.352	2.23
4583	2.019	0.890	1.193	1.449	2.352	3.41
4611	0.564	0.726	0.597	0.612	2.352	1.44
4635	1.330	1.179	1.069	1.195	2.352	2.81
4653	0.794	2.025	0.991	1.139	2.352	2.68
4665	3.049	2.464	3.332	3.033	2.352	7.13
4692	0.212	0.269	0.240	0.235	2.352	0.55
4693	0.302	0.738	0.446	0.454	2.352	1.07
4720	1.002	0.812	0.913	0.926	2.352	2.18
4740	0.769	0.418	0.506	0.589	2.352	1.39
4741	1.321	2.230	0.758	1.298	2.352	3.05
4770	12.227	2.124	1.267	5.726	2.352	13.47
4773	25.166	3.868	2.379	11.587	2.352	27.25
4774	20.151	3.925	2.210	9.577	2.352	22.52
4775	11.154	2.012	2.274	5.679	2.352	13.35
4776	18.903	2.363	1.215	8.361	2.352	19.66
4777	2.019	0.890	1.193	1.449	2.352	3.41
4779	14.910	2.517	2.682	7.414	2.352	17.43
4799	44.980	7.892	4.673	21.087	2.352	49.59
4825	0.226	0.179	0.237	0.220	2.352	0.52
4828	0.558	0.294	0.367	0.426	2.352	1.00
4829	0.558	0.294	0.367	0.426	2.352	1.00
4902	0.747	0.637	0.988	0.818	2.352	1.92
4923	0.682	0.438	0.484	0.551	2.352	1.30
5020	1.046	0.892	0.844	0.954	6.077	5.80
5022	1.981	1.773	1.709	1.857	6.077	11.28
5037	4.241	1.751	2.805	3.368	6.077	20.47
5040	9.824	4.685	7.063	8.092	6.077	49.18

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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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
5057	8.471	3.598	6.219	6.952	6.077	42.25
5059	8.471	3.598	6.219	6.952	6.077	42.25
5069	8.471	3.598	6.219	6.952	6.077	42.25
5102	1.284	1.376	0.933	1.179	6.077	7.17
5146	0.801	1.233	0.868	0.891	6.077	5.41
5160	0.500	0.818	0.616	0.588	6.077	3.58
5183	0.674	0.808	0.702	0.704	6.077	4.28
5188	0.623	1.210	0.639	0.720	6.077	4.37
5190	0.514	0.665	0.599	0.566	6.077	3.44
5191	0.694	0.428	0.715	0.643	2.045	1.31
5192	2.392	3.183	2.588	2.653	2.045	5.42
5213	4.391	2.051	2.695	3.454	6.077	20.99
5215	0.723	1.063	0.961	0.857	6.077	5.21
5221	1.236	0.986	1.135	1.163	6.077	7.07
5222	1.855	0.866	1.334	1.525	6.077	9.27
5223	0.723	1.063	0.961	0.857	6.077	5.21
5348	1.075	1.532	0.937	1.100	6.077	6.68
5402	1.635	1.001	5.495	2.841	6.077	17.26
5403	1.996	2.355	1.929	2.029	6.077	12.33
5437	0.987	1.022	0.981	0.991	6.077	6.02
5443	1.458	0.908	2.151	1.607	6.077	9.76
5445	1.241	1.415	0.996	1.185	6.077	7.20
5462	1.643	1.313	1.626	1.586	6.077	9.64
5472	1.100	1.949	1.232	1.277	6.077	7.76
5473	2.764	1.054	2.083	2.268	6.077	13.78
5474	0.714	1.023	0.970	0.849	6.077	5.16
5478	0.876	1.311	0.631	0.861	6.077	5.23
5479	1.493	1.881	1.852	1.674	6.077	10.18
5480	0.965	0.851	0.822	0.899	6.077	5.46
5506	1.043	1.032	1.004	1.028	6.077	6.25
5507	1.248	1.008	0.990	1.124	6.077	6.83
5508	0.777	0.651	0.762	0.752	6.077	4.57
5509	0.585	0.762	0.793	0.683	6.077	4.15
5538	0.832	1.101	0.942	0.911	6.077	5.54
5545	4.312	2.067	5.561	4.385	6.077	26.65
5547	2.393	1.981	2.621	2.406	6.077	14.62
5606	0.271	0.349	0.323	0.301	6.077	1.83
5610	0.947	1.026	0.872	0.934	6.077	5.68
5645	0.975	1.311	1.494	1.203	6.077	7.31
5651	0.975	1.311	1.494	1.203	6.077	7.31
5701	6.620	1.618	4.899	5.260	6.077	31.97
5703	9.275	3.245	6.638	7.446	6.077	45.25

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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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
5705	2.456	1.289	1.178	1.842	6.077	11.20
6003	2.762	2.236	2.521	2.599	6.077	15.79
6005	0.777	0.651	0.762	0.752	6.077	4.57
6204	2.086	1.625	1.913	1.956	6.077	11.89
6217	0.612	0.800	0.773	0.696	6.077	4.23
6229	0.612	0.800	0.773	0.696	6.077	4.23
6233	0.922	0.885	0.592	0.805	6.077	4.89
6251	1.588	0.615	0.773	1.161	6.077	7.06
6252	2.019	0.648	1.045	1.477	6.077	8.97
6306	0.871	0.834	0.818	0.847	6.077	5.15
6319	0.964	0.915	0.967	0.957	6.077	5.82
6325	0.573	0.860	0.523	0.601	6.077	3.65
6400	1.080	0.890	1.150	1.074	6.077	6.53
6504	1.464	1.053	1.393	1.347	2.352	3.17
6834	0.731	0.567	0.847	0.746	5.274	3.93
6836	0.555	0.474	0.596	0.556	5.274	2.93
7219	1.686	1.404	1.319	1.494	5.274	7.88
7230	1.825	1.113	1.701	1.648	5.274	8.69
7231	1.138	1.200	1.214	1.179	5.274	6.22
7360	1.104	1.128	0.977	1.059	5.274	5.59
7370	0.584	0.993	0.814	0.746	5.274	3.94
7380	1.249	1.492	1.281	1.305	5.274	6.89
7382	0.700	0.849	0.927	0.814	5.274	4.29
7403	0.834	0.839	0.909	0.864	5.274	4.55
7405	0.225	0.233	0.206	0.219	5.274	1.16
7409	1.615	0.417	0.520	0.979	5.274	5.16
7418	1.615	0.417	0.520	0.979	5.274	5.16
7420	1.615	0.417	0.520	0.979	5.274	5.16
7421	0.691	0.186	0.354	0.470	5.274	2.48
7422	0.691	0.186	0.354	0.470	5.274	2.48
7423	0.672	0.669	1.147	0.853	5.274	4.50
7431	0.691	0.186	0.354	0.470	5.274	2.48
7502	0.693	0.818	0.956	0.816	5.274	4.30
7515	0.645	0.495	0.601	0.601	5.274	3.17
7520	0.938	0.627	0.951	0.887	5.274	4.68
7538	0.672	0.931	0.683	0.716	6.077	4.35
7539	0.295	0.212	0.227	0.254	5.274	1.34
7580	0.469	0.469	0.557	0.503	5.274	2.65
7590	1.627	1.935	1.778	1.741	5.274	9.18
7600	0.703	0.606	0.628	0.657	5.274	3.46
7601	0.672	0.931	0.683	0.716	6.077	4.35
7610	0.937	0.738	0.860	0.860	0.208	0.18

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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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
7704	0.170	0.208	0.259	0.211	5.274	1.11
7720	0.309	0.282	0.291	0.298	5.274	1.57
7855	1.327	1.452	1.848	1.523	6.077	9.25
8001	0.540	0.649	0.750	0.652	2.045	1.33
8002	1.406	1.057	1.690	1.445	2.045	2.95
8006	0.687	0.648	0.647	0.661	2.045	1.35
8008	0.441	0.447	0.439	0.442	2.045	0.90
8010	0.793	0.791	0.896	0.835	2.045	1.71
8013	0.315	0.223	0.225	0.257	2.045	0.52
8017	0.590	0.610	0.701	0.641	2.045	1.31
8018	1.622	2.076	1.974	1.871	2.045	3.83
8021	2.347	1.499	1.856	1.950	2.045	3.99
8031	1.423	1.125	0.980	1.172	2.045	2.40
8032	0.908	1.075	0.867	0.929	2.045	1.90
8033	0.829	1.355	0.994	1.017	2.045	2.08
8034	2.429	1.821	2.096	2.153	2.045	4.40
8039	0.793	1.390	1.447	1.200	2.045	2.45
8044	1.923	1.735	1.575	1.736	2.045	3.55
8046	1.096	1.233	1.056	1.111	2.045	2.27
8048	2.403	1.320	1.268	1.686	2.045	3.45
8050	0.698	0.728	1.194	0.911	2.045	1.86
8058	1.150	1.558	1.929	1.566	2.045	3.20
8103	1.802	1.074	1.818	1.643	2.045	3.36
8105	3.221	0.790	1.866	2.106	2.045	4.31
8106	3.582	4.807	4.211	4.122	2.045	8.43
8107	1.757	1.801	1.943	1.844	2.045	3.77
8111	1.556	1.828	1.770	1.707	2.045	3.49
8116	1.757	1.801	1.943	1.844	2.045	3.77
8203	2.643	2.215	2.309	2.407	2.045	4.92
8204	5.697	1.719	1.999	3.258	2.045	6.66
8215	1.635	2.383	2.024	1.966	2.045	4.02
8227	0.557	0.459	0.551	0.540	6.077	3.28
8232	2.482	2.648	2.647	2.588	2.045	5.29
8233	4.871	2.954	6.821	5.245	2.045	10.73
8235	2.367	2.285	2.239	2.295	2.045	4.69
8263	3.733	1.672	2.759	2.861	2.045	5.85
8264	2.804	2.748	2.262	2.566	2.045	5.25
8265	4.871	2.954	6.821	5.245	2.045	10.73
8279	3.333	2.070	2.973	2.897	2.045	5.92
8291	1.632	2.108	2.159	1.959	2.045	4.01
8292	1.730	2.475	1.829	1.941	2.045	3.97
8293	5.078	3.371	3.936	4.216	2.045	8.62



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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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
8350	3.036	2.635	2.332	2.653	2.045	5.42
8380	1.507	1.247	1.310	1.366	2.045	2.79
8381	0.683	0.833	0.864	0.792	2.045	1.62
8385	1.816	1.394	1.226	1.475	2.045	3.02
8392	0.887	0.619	0.704	0.750	2.045	1.53
8393	1.280	1.036	0.906	1.069	2.045	2.19
8500	4.871	2.954	6.821	5.245	2.045	10.73
8601	2.070	1.156	1.504	1.628	0.208	0.34
8710	1.127	0.855	0.898	0.970	2.045	1.98
8719	1.127	0.855	0.898	0.970	2.045	1.98
8720	0.653	0.337	0.452	0.498	2.045	1.02
8721	1.328	1.531	1.040	1.253	0.208	0.26
8742	1.137	0.950	1.092	1.076	0.208	0.22
8745	1.515	1.789	1.285	1.481	2.045	3.03
8748	3.085	2.474	3.085	2.948	0.208	0.61
8800	4.075	2.927	3.011	3.371	0.208	0.70
8803	0.426	0.202	0.271	0.310	0.208	0.06
8810	0.641	0.712	0.634	0.654	0.208	0.14
8820	0.759	0.409	0.479	0.563	0.208	0.12
8829	1.054	1.451	1.167	1.191	2.045	2.44
8831	0.357	0.394	0.705	0.510	2.045	1.04
8832	1.611	1.292	1.355	1.432	0.208	0.30
8833	6.104	6.695	6.158	6.259	0.208	1.30
8835	0.986	1.367	1.048	1.098	2.045	2.25
8868	2.007	2.867	3.196	2.699	0.208	0.56
8901	0.641	0.712	0.634	0.654	0.208	0.14
9014	1.256	0.975	1.022	1.095	2.045	2.24
9015	1.658	1.115	1.466	1.455	2.045	2.98
9016	0.793	0.897	1.144	0.962	2.045	1.97
9019	1.354	0.835	0.829	1.059	5.274	5.59
9033	2.373	2.215	1.329	1.904	2.045	3.89
9040	1.439	1.699	1.751	1.628	2.045	3.33
9052	0.750	0.993	0.930	0.880	2.045	1.80
9058	0.750	0.993	0.930	0.880	2.045	1.80
9060	0.627	0.675	0.714	0.674	2.045	1.38
9061	0.551	0.550	0.448	0.508	2.045	1.04
9063	0.211	0.397	0.425	0.342	2.045	0.70
9079	0.541	0.653	0.669	0.620	2.045	1.27
9089	0.537	0.395	0.509	0.493	2.045	1.01
9093	0.499	0.681	1.290	0.868	2.045	1.78
9101	1.305	1.626	1.740	1.559	2.045	3.19
9102	0.363	0.698	0.471	0.465	5.274	2.45

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Section X - Classification Pricing  
Subsection I - Average Uncapped Rates  
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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)
	Serious (2)	Non-Serious (3)	Medical (4)	Total (5)		
9154	0.228	0.259	0.278	0.252	5.274	1.33
9156	4.031	5.038	5.670	4.944	0.208	1.03
9178	0.722	4.484	10.075	4.981	5.274	26.27
9179	3.856	6.282	4.985	4.728	5.274	24.94
9180	0.621	0.933	1.091	0.858	5.274	4.52
9182	0.569	0.760	0.778	0.684	5.274	3.61
9186	0.621	0.933	1.091	0.858	5.274	4.52
9220	1.894	2.760	1.735	2.025	2.045	4.14
9402	1.244	1.087	0.939	1.099	5.274	5.80
9403	1.420	1.316	1.396	1.392	5.274	7.34
9410	1.042	0.780	0.926	0.934	2.045	1.91
9501	1.262	1.163	1.331	1.267	2.352	2.98
9505	1.262	1.163	1.331	1.267	2.352	2.98
9519	1.771	1.100	1.096	1.338	2.045	2.74
9521	2.648	2.400	1.628	2.194	2.352	5.16
9522	0.789	0.631	0.737	0.734	2.352	1.73
9534	1.148	0.970	1.007	1.073	6.077	6.52
9545	0.704	0.763	0.767	0.734	6.077	4.46
9549	0.755	0.648	0.599	0.686	6.077	4.17
9552	1.230	1.110	1.406	1.271	6.077	7.72
9553	1.230	1.110	1.406	1.271	6.077	7.72
9586	0.291	0.254	0.258	0.269	2.045	0.55
9620	0.425	0.311	0.355	0.370	2.045	0.76

### Notes:

(2), (3), (4), (5): From Section X - G.

(6): From Section X - H, Exhibit 1.

(7): (5) x (6)

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Section X - Classification Pricing  
 Subsection J - Average Rates and Proposed Premium Change  
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Section X - 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	3.97	3.17	3.17
0008	2.37	2.14	2.14
0016	3.57	3.17	3.16
0034	4.02	3.08	3.07
0035	2.22	1.88	1.88
0036	4.02	3.08	3.07
0037	2.37	2.14	2.14
0042	5.14	4.25	4.25
0050	5.23	4.57	4.54
0079	6.01	3.96	4.47
0083	4.05	4.53	4.52
0106	16.93	16.40	16.41
0113	4.02	3.08	3.07
0170	4.02	3.08	3.07
0251	3.53	4.68	4.16
0908	83.51	74.31	74.21
0909	133.27	131.98	131.80
0912	266.56	263.95	263.60
0913	167.02	148.61	148.41
0917	3.37	2.33	2.50
0918	0.78	1.00	0.89
1430	24.22	12.07	17.95
1438	3.70	3.40	3.37
1463	6.03	6.88	6.82
1624	4.41	4.57	4.57
1655	4.58	5.23	5.23
1701	5.30	4.15	4.11
1710	4.41	4.57	4.57
1747	3.45	4.21	3.94
1748	4.33	3.49	3.45
1852	9.45	9.31	9.23
1853	3.00	2.31	2.29
1860	2.47	2.39	2.37
1924	3.01	2.77	2.74
1925	4.57	4.48	4.44
2001	3.82	3.10	3.07
2002	5.23	3.40	3.88
2003	3.82	3.10	3.07
2014	3.86	3.64	3.61
2021	2.19	3.09	2.50
2039	3.96	3.54	3.51
2041	2.67	2.36	2.34
2070	5.12	4.48	4.44
2081	5.47	4.43	4.39
2089	3.92	3.17	3.14
2095	5.11	4.95	4.90
2101	3.92	3.17	3.14
2111	3.44	2.63	2.61

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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)
2114	3.92	3.17	3.14
2115	3.78	2.90	2.87
2121	2.12	2.61	2.42
2130	4.12	3.38	3.35
2131	3.06	2.24	2.27
2143	2.94	2.88	2.86
2150	7.28	4.22	5.40
2156	6.74	6.18	6.12
2157	5.59	4.83	4.78
2172	1.07	1.89	1.22
2174	9.38	5.91	6.95
2211	5.78	5.38	5.33
2220	3.53	3.43	3.40
2260	6.65	6.35	6.30
2286	3.53	3.43	3.40
2288	3.11	2.74	2.71
2302	3.53	3.43	3.40
2305	3.50	2.04	2.59
2362	2.91	2.32	2.30
2380	2.75	2.70	2.68
2402	3.03	2.91	2.89
2413	5.47	4.28	4.25
2416	5.14	4.20	4.16
2417	2.87	3.14	3.11
2501	3.12	2.62	2.60
2503	1.04	0.94	0.93
2534	3.12	2.62	2.60
2570	6.88	5.03	5.10
2576	2.98	3.01	2.98
2578	2.98	3.01	2.98
2585	4.31	3.25	3.22
2586	1.85	1.27	1.37
2587	2.18	2.13	2.13
2623	3.92	2.68	2.91
2640	3.75	3.32	3.29
2651	3.75	3.32	3.29
2660	1.91	2.12	2.10
2683	2.36	2.46	2.44
2688	3.48	2.90	2.87
2702	16.60	20.36	19.56
2710	9.34	7.38	7.31
2731	5.44	5.12	5.08
2741	8.17	6.39	6.33
2747	8.11	8.72	8.64
2790	1.97	2.26	2.24
2802	5.92	4.79	4.75
2835	4.31	2.06	3.19
2836	5.38	4.44	4.40

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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)
2841	2.51	2.91	2.86
2883	3.66	3.03	3.00
2923	2.45	1.92	1.90
2942	2.13	1.92	1.91
3018	4.33	3.50	3.47
3022	5.13	4.52	4.48
3027	4.95	4.70	4.66
3028	4.68	4.72	4.68
3030	8.59	7.82	7.75
3040	13.92	9.95	10.32
3041	4.65	5.31	5.27
3042	3.34	3.52	3.48
3064	3.58	3.22	3.19
3066	3.58	3.22	3.19
3076	3.25	2.76	2.74
3081	8.64	8.48	8.40
3082	8.64	8.48	8.40
3085	4.88	5.13	5.08
3110	9.74	8.22	8.15
3111	2.81	2.41	2.39
3113	1.86	2.01	1.99
3114	4.34	4.21	4.17
3118	1.86	2.01	1.99
3119	1.05	0.95	0.95
3120	1.98	1.83	1.82
3122	2.93	2.50	2.48
3127	0.70	0.71	0.71
3131	3.64	2.84	2.82
3132	2.49	2.39	2.37
3145	1.63	1.66	1.64
3146	3.12	2.58	2.56
3169	5.36	4.59	4.55
3179	2.41	2.29	2.27
3180	4.33	3.60	3.57
3188	3.87	3.36	3.33
3200	3.02	3.09	3.06
3220	2.92	1.85	2.16
3227	5.36	4.59	4.55
3241	3.01	2.77	2.74
3255	5.06	3.09	3.75
3257	3.69	2.77	2.74
3270	3.01	1.95	2.23
3300	8.74	7.83	7.76
3315	1.98	2.13	2.11
3336	2.80	3.68	3.20
3365	14.22	10.73	10.66
3372	3.08	2.57	2.55
3373	6.63	4.90	4.91

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Section X - 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)
3381	3.46	3.42	3.39
3383	1.79	1.57	1.56
3385	1.03	0.85	0.85
3400	5.36	4.59	4.55
3507	4.54	3.21	3.36
3515	3.50	3.00	2.97
3548	2.46	2.13	2.11
3558	0.70	0.58	0.58
3559	2.46	2.13	2.11
3571	1.63	1.30	1.29
3574	2.46	2.13	2.11
3612	2.54	1.82	1.88
3620	6.22	4.65	4.61
3629	2.46	2.13	2.11
3632	2.46	2.13	2.11
3634	3.14	2.94	2.91
3635	2.61	3.51	2.98
3638	2.46	2.13	2.11
3642	1.85	1.01	1.37
3643	2.41	2.29	2.27
3647	2.97	3.14	3.11
3648	2.52	1.91	1.90
3681	0.97	0.84	0.84
3685	0.97	0.84	0.84
3724	6.93	6.10	6.06
3726	11.66	14.94	13.09
3807	5.36	4.59	4.55
3808	2.94	3.03	3.01
3821	5.29	4.82	4.81
3826	2.61	2.52	2.50
3830	2.46	2.13	2.11
3841	2.68	1.86	1.99
4000	5.16	6.22	6.08
4021	3.69	3.49	3.46
4024	5.32	4.01	3.98
4034	8.47	7.02	6.95
4036	2.88	2.79	2.76
4038	2.52	1.94	1.93
4053	1.73	1.72	1.71
4061	3.14	2.38	2.35
4062	3.14	2.38	2.35
4112	0.96	0.72	0.71
4113	1.73	1.72	1.71
4114	3.62	2.09	2.68
4130	5.24	4.00	3.97
4133	2.64	2.04	2.02
4150	1.05	0.98	0.97
4239	5.45	4.66	4.62

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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)
4243	4.28	4.00	3.97
4244	4.40	3.79	3.76
4250	3.00	2.87	2.85
4251	3.29	2.31	2.44
4273	3.48	3.76	3.73
4279	4.37	4.16	4.13
4282	0.55	0.76	0.63
4283	3.42	3.36	3.33
4299	2.39	2.06	2.04
4301	4.36	3.68	3.65
4304	3.81	3.51	3.48
4307	2.70	1.76	2.00
4308	1.01	0.85	0.84
4350	0.79	0.65	0.65
4351	1.08	0.92	0.91
4352	1.31	1.06	1.05
4360	1.03	1.30	1.18
4361	0.62	0.48	0.48
4362	0.70	0.93	0.80
4410	4.31	4.29	4.25
4417	4.13	4.57	4.53
4432	2.14	1.51	1.59
4439	3.19	2.23	2.36
4452	3.84	3.03	3.00
4459	3.45	2.78	2.75
4470	3.06	3.01	2.98
4484	2.83	2.70	2.67
4493	4.59	3.38	3.40
4511	0.56	0.48	0.48
4512	0.28	0.17	0.21
4557	2.18	1.47	1.62
4558	2.82	2.62	2.60
4561	3.19	2.23	2.36
4583	3.56	3.41	3.38
4611	1.59	1.44	1.43
4635	2.61	2.81	2.78
4653	6.59	2.68	4.88
4665	6.35	7.13	7.07
4692	0.65	0.55	0.55
4693	1.19	1.07	1.06
4720	3.90	2.18	2.89
4740	2.63	1.39	1.95
4741	3.92	3.05	3.02
4770	12.91	13.47	13.35
4773	25.89	27.25	27.00
4774	21.76	22.52	22.32
4775	13.01	13.35	13.23
4776	18.39	19.66	19.48

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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)
4777	3.56	3.41	3.38
4779	16.87	17.43	17.28
4799	47.56	49.59	49.15
4825	0.74	0.52	0.55
4828	2.68	1.00	1.99
4829	2.68	1.00	1.99
4902	2.13	1.92	1.91
4923	1.03	1.30	1.18
5020	4.63	5.80	5.20
5022	15.78	11.28	11.40
5037	45.18	20.47	32.64
5040	43.99	49.18	48.86
5057	34.29	42.25	38.49
5059	34.29	42.25	38.49
5069	34.29	42.25	38.49
5102	11.11	7.17	8.03
5146	6.29	5.41	5.38
5160	3.64	3.58	3.55
5183	4.83	4.28	4.25
5188	5.49	4.37	4.35
5190	4.21	3.44	3.42
5191	1.30	1.31	1.31
5192	5.26	5.42	5.42
5213	22.47	20.99	20.86
5215	7.27	5.21	5.25
5221	9.24	7.07	7.02
5222	8.67	9.27	9.21
5223	7.27	5.21	5.25
5348	8.84	6.68	6.64
5402	18.81	17.26	17.15
5403	16.59	12.33	12.25
5437	6.93	6.02	5.98
5443	5.93	9.76	6.66
5445	8.96	7.20	7.16
5462	9.31	9.64	9.58
5472	8.71	7.76	7.71
5473	18.78	13.78	13.69
5474	6.90	5.16	5.12
5478	6.49	5.23	5.20
5479	14.69	10.18	10.61
5480	6.67	5.46	5.43
5506	7.32	6.25	6.21
5507	7.96	6.83	6.79
5508	5.23	4.57	4.54
5509	5.39	4.15	4.12
5538	6.77	5.54	5.50
5545	47.89	26.65	34.60
5547	19.85	14.62	14.53



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Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
5606	2.43	1.83	1.82
5610	5.93	5.68	5.64
5645	9.09	7.31	7.26
5651	9.09	7.31	7.26
5701	24.19	31.97	27.15
5703	20.73	45.25	23.27
5705	13.50	11.20	11.13
6003	16.03	15.79	15.69
6005	5.23	4.57	4.54
6204	12.20	11.89	11.81
6217	6.12	4.23	4.42
6229	6.12	4.23	4.42
6233	7.79	4.89	5.63
6251	10.54	7.06	7.61
6252	7.67	8.97	8.61
6306	8.10	5.15	5.85
6319	6.81	5.82	5.78
6325	3.49	3.65	3.63
6400	7.65	6.53	6.49
6504	3.92	3.17	3.14
6834	4.29	3.93	3.94
6836	3.11	2.93	2.94
7219	8.49	7.88	7.89
7230	10.22	8.69	8.70
7231	6.65	6.22	6.22
7360	7.27	5.59	5.66
7370	4.05	3.94	3.94
7380	7.36	6.89	6.89
7382	4.73	4.29	4.29
7403	3.85	4.55	4.54
7405	1.50	1.16	1.17
7409	11.39	5.16	8.86
7418	11.39	5.16	8.86
7420	11.39	5.16	8.86
7421	2.33	2.48	2.48
7422	2.33	2.48	2.48
7423	3.53	4.50	4.16
7431	2.33	2.48	2.48
7502	3.83	4.30	4.31
7515	1.67	3.17	1.97
7520	3.53	4.68	4.16
7538	5.15	4.35	4.32
7539	2.24	1.34	1.74
7580	3.59	2.65	2.79
7590	9.41	9.18	9.19
7600	3.14	3.46	3.47
7601	5.15	4.35	4.32
7610	0.25	0.18	0.18

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Class (1)	Present Average Capped Rate (2)	Proposed Average Uncapped Rate (3)	Proposed Average Capped Rate (4)
7704	2.59	1.11	2.02
7720	2.04	1.57	1.59
7855	8.19	9.25	9.19
8001	1.36	1.33	1.33
8002	3.14	2.95	2.95
8006	1.63	1.35	1.35
8008	1.14	0.90	0.90
8010	1.88	1.71	1.71
8013	0.60	0.52	0.52
8017	1.53	1.31	1.31
8018	4.44	3.83	3.82
8021	5.80	3.99	4.31
8031	2.96	2.40	2.39
8032	2.28	1.90	1.90
8033	2.50	2.08	2.08
8034	6.29	4.40	4.67
8039	2.47	2.45	2.45
8044	4.09	3.55	3.54
8046	2.53	2.27	2.27
8048	3.36	3.45	3.44
8050	1.17	1.86	1.34
8058	3.27	3.20	3.20
8103	3.65	3.36	3.36
8105	4.72	4.31	4.30
8106	7.27	8.43	8.31
8107	2.83	3.77	3.23
8111	3.57	3.49	3.49
8116	2.83	3.77	3.23
8203	4.63	4.92	4.92
8204	11.49	6.66	8.54
8215	4.63	4.02	4.02
8227	3.66	3.28	3.26
8232	5.99	5.29	5.28
8233	8.52	10.73	9.74
8235	5.53	4.69	4.69
8263	6.81	5.85	5.84
8264	6.32	5.25	5.24
8265	8.52	10.73	9.74
8279	5.77	5.92	5.92
8291	3.86	4.01	4.00
8292	4.00	3.97	3.96
8293	9.54	8.62	8.61
8350	5.84	5.42	5.42
8380	3.09	2.79	2.79
8381	1.66	1.62	1.62
8385	4.04	3.02	3.01
8392	1.81	1.53	1.53
8393	2.42	2.19	2.18

**X 000290 R**

Section X - Classification Pricing  
 Subsection J - Average Rates and Proposed Premium Change  
 9/1/2007

Section X - 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)
8500	8.52	10.73	9.74
8601	0.47	0.34	0.34
8710	2.39	1.98	1.98
8719	2.39	1.98	1.98
8720	1.04	1.02	1.02
8721	0.30	0.26	0.26
8742	0.30	0.22	0.22
8745	6.31	3.03	4.69
8748	0.97	0.61	0.69
8800	0.83	0.70	0.70
8803	0.08	0.06	0.06
8810	0.16	0.14	0.14
8820	0.14	0.12	0.12
8829	2.82	2.44	2.43
8831	1.27	1.04	1.04
8832	0.40	0.30	0.30
8833	1.61	1.30	1.30
8835	2.99	2.25	2.24
8868	0.66	0.56	0.56
8901	0.16	0.14	0.14
9014	2.67	2.24	2.24
9015	3.29	2.98	2.97
9016	2.26	1.97	1.97
9019	6.40	5.59	5.59
9033	4.12	3.89	3.89
9040	4.60	3.33	3.42
9052	2.02	1.80	1.80
9058	2.02	1.80	1.80
9060	1.57	1.38	1.38
9061	1.41	1.04	1.05
9063	0.88	0.70	0.70
9079	1.65	1.27	1.27
9089	1.11	1.01	1.01
9093	1.92	1.78	1.77
9101	2.98	3.19	3.18
9102	2.61	2.45	2.45
9154	1.49	1.33	1.33
9156	1.42	1.03	1.03
9178	21.32	26.27	25.12
9179	25.01	24.94	24.95
9180	3.87	4.52	4.53
9182	3.29	3.61	3.61
9186	3.87	4.52	4.53
9220	4.43	4.14	4.13
9402	6.97	5.80	5.80
9403	8.78	7.34	7.34
9410	2.55	1.91	1.91
9501	2.92	2.98	2.95

# X 000291 R

Section X - Classification Pricing  
Subsection J - Average Rates and Proposed Premium Change  
9/1/2007

Section X - 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	2.92	2.98	2.95
9519	2.71	2.74	2.73
9521	6.49	5.16	5.11
9522	2.08	1.73	1.71
9534	6.81	6.52	6.48
9545	7.22	4.46	5.22
9549	5.95	4.17	4.30
9552	7.10	7.72	7.67
9553	7.10	7.72	7.67
9586	0.65	0.55	0.55
9620	0.83	0.76	0.76

Notes:

(2): Column (3) from Section X - K of the 9/1/2005 rate decision.

(3): From Section X - I.

(4): Total Balanced Formula Relativity (from Section X - I) x Capped Rate Level Factor  
and subject to maximum and minimum caps (from Section X - H, Exhibit 1.)

# X 000292 R

Section X - Classification Pricing  
Subsection J - Average Rates and Proposed Premium Change  
9/1/2007

Section X - 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	717,306,601	620,536,597	-13.5%	-13.5%	2.331
Construction	1,555,485,000	1,286,568,764	-17.3%	-17.3%	6.038
Office & Clerical	591,216,017	476,792,262	-19.4%	-19.4%	0.208
Goods & Services	1,345,884,227	1,169,557,942	-13.1%	-13.1%	2.042
Miscellaneous	483,872,575	455,021,001	-6.0%	-6.0%	5.278
All Groups	4,693,764,420	4,008,476,566	-14.6%		

### Notes:

(2), (3): Exposure x Average Rates from Exhibit 1.

(4):  $[(3) - (2)] / (2) - 1.000$

(5): From Section X - H, Exhibit 1.

(6): From Section X - H, Exhibit 1. Proposed average uncapped rates are capped by an iterative process using rate levels to determine if the required change is achieved.

# X 000293 R

Section X - Classification Pricing  
Subsection K - Adjustments to Derive Final Manual Rates  
9/1/2007

Section X - K  
Exhibit 1

## Calculation of Proposed Manual Rates

The proposed manual rates in Section X - A are derived from the proposed average capped rates in Section X - J 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 =	1.060	The offset for ARAP
(3)	Factor 3 =	0.966	For eligible classes, the offset for the Construction Classification Premium Adjustment Program
(4)	Factor 4 =	-0.030	The loading from the filing of recoupment of amounts paid to the Insolvency Fund

### Notes:

- (1): From Exhibit 2.
- (2): From Exhibit 3.
- (3): From Exhibit 4.
- (4): From Section I - E, Exhibit 1.

Section X - Classification Pricing  
Subsection K - Adjustments to Derive Final Manual Rates  
9/1/2007

Offset for Experience & Merit Rating

Composite Policy Year (1)	Report (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)
1999/2000	5	Non Rated	63,833	41%	13,259,369	1%	13,240,594	0.999	
		Merit Rated	59,363	38%	113,667,677	13%	110,677,081	0.974	
		Intrastate Rated	20,183	13%	549,738,120	61%	541,988,336	0.986	
		Interstate Rated	12,664	8%	231,777,970	26%	214,929,455	0.927	
		Total	156,043	100%	908,443,136	100%	880,835,466	0.970	
2000/2001	4	Non Rated	65,134	41%	13,375,648	1%	13,353,340	0.998	
		Merit Rated	60,736	38%	116,374,527	12%	113,229,049	0.973	
		Intrastate Rated	21,669	13%	555,047,662	59%	541,558,805	0.976	
		Interstate Rated	13,272	8%	255,626,573	27%	236,068,826	0.923	
		Total	160,811	100%	940,424,410	100%	904,210,020	0.961	
2001/2002	3	Non Rated	66,333	41%	12,684,020	1%	12,663,588	0.998	
		Merit Rated	61,093	37%	118,814,316	12%	115,569,881	0.973	
		Intrastate Rated	22,898	14%	589,416,400	61%	575,381,212	0.976	
		Interstate Rated	12,957	8%	251,980,277	26%	233,465,129	0.927	
		Total	163,281	100%	972,895,013	100%	937,079,810	0.963	
2002/2003	2	Non Rated	66,046	40%	12,379,879	1%	12,367,019	0.999	
		Merit Rated	61,565	37%	121,397,850	12%	118,058,845	0.972	
		Intrastate Rated	23,249	14%	594,067,640	59%	575,967,391	0.970	
		Interstate Rated	14,688	9%	277,928,200	28%	256,293,918	0.922	
		Total	165,548	100%	1,005,773,569	100%	962,687,173	0.957	
2003/2004	1	Non Rated	68,111	41%	12,966,208	1%	12,956,384	0.999	
		Merit Rated	61,278	37%	120,542,315	13%	117,384,480	0.974	
		Intrastate Rated	22,855	14%	561,146,658	60%	548,982,742	0.978	
		Interstate Rated	15,474	9%	248,138,191	26%	237,269,879	0.956	
		Total	167,718	100%	942,793,372	100%	916,593,485	0.972	
Total		Non Rated	329,457	41%	64,665,124	1%	64,580,925	0.999	1.000
		Merit Rated	304,035	37%	590,796,685	12%	574,919,336	0.973	0.973
		Intrastate Rated	110,854	14%	2,849,416,480	60%	2,783,878,486	0.977	1.000
		Interstate Rated	69,055	8%	1,265,451,211	27%	1,178,027,207	0.931	1.000
		Total	813,401	100%	4,770,329,500	100%	4,601,405,954	0.965	0.997

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).

# X 000295 R

Section X - Classification Pricing  
 Subsection K - Adjustments to Derive Final Manual Rates  
 9/1/2007

Section X - K  
 Exhibit 3

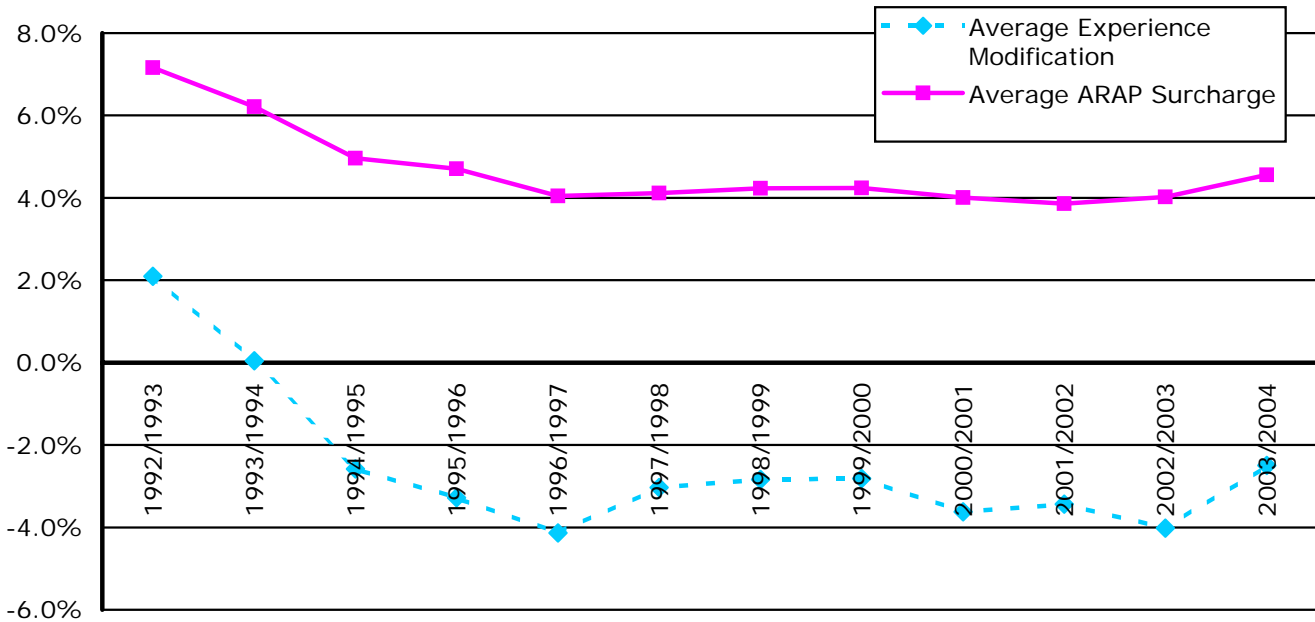
## Offset for Merit Rating and ARAP Estimate of Average ARAP Surcharge for Policy Effective Period

### Historical Average Experience Modification and ARAP Surcharge

Composite Policy Year (1)	Manual Premium (2)	Standard Premium (3)	ARAP Premium (4)	Average Experience Modification =(3) / (2) (5)	Average ARAP Surcharge =(4) / (3) (6)
1992/1993	1,195,522,890	1,220,542,840	87,405,131	2.1%	7.2%
1993/1994	1,181,116,288	1,181,640,393	73,445,415	0.0%	6.2%
1994/1995	1,144,475,690	1,114,903,252	55,296,301	-2.6%	5.0%
1995/1996	1,117,603,765	1,080,967,689	50,901,379	-3.3%	4.7%
1996/1997	982,450,390	941,796,600	38,088,481	-4.1%	4.0%
1997/1998	898,259,663	871,038,716	35,880,497	-3.0%	4.1%
1998/1999	909,153,834	883,327,183	37,397,974	-2.8%	4.2%
1999/2000	906,368,570	880,835,466	37,324,673	-2.8%	4.2%
2000/2001	938,163,950	904,210,020	36,255,459	-3.6%	4.0%
2001/2002	970,404,317	937,079,810	36,180,689	-3.4%	3.9%
2002/2003	1,003,010,568	962,687,173	38,705,088	-4.0%	4.0%
2003/2004	940,057,936	916,593,485	41,813,161	-2.5%	4.6%

### Regression of Average ARAP Surcharge on Average Experience Modification

(7) R-Squared	0.933
(8) Slope	0.542
(9) Intercept	0.060
(10) Projected Average ARAP Surcharge = (8)	0.060



**Notes:**

Data from Unit Statistical Plan data at most recent report, excluding Large Deductibles and SIGs.



# X 000296 R

Section X - Classification Pricing  
Subsection K - Adjustments to Derive Final Manual Rates  
9/1/2007

Section X - K  
Exhibit 4

## Construction Class Premium Adjustment Program

Composite Policy Year (1)	Manual Premium for Eligible Class Codes (2)	Construction Credit (3)	Percent (4)
1999/2000	326,839,439	7,425,777	2.3%
2000/2001	354,600,162	8,506,683	2.4%
2001/2002	344,245,472	8,928,453	2.6%
2002/2003	362,937,750	10,206,863	2.8%
2003/2004	337,313,615	11,488,409	3.4%
(5) Selected Average Credit for Eligible Class Codes in Policy Effective Period			3.4%

### Notes:

Data from Unit Statistical Plan data at most recent report, excluding Large Deductibles and SIGs.

# X 000297 R

Section X - Classification Pricing  
 Subsection L - Pricing Example  
 9/1/2007

Section X - L  
 Exhibit 1

## Pricing Example for Class 3131 Button Or Fastener Mfg-Metal

**Calculation of MA Indicated Relativity:**

The Indicated MA Pure Premium Relativities are calculated by first converting the limited losses by injury type. The converted limited losses are then adjusted for excess losses by serious, non-serious and medical factors. The adjusted converted losses are divided by exposure (generally, payroll in hundreds) to produce MA Indicated Pure Premiums.

Limited Losses (Unit Statistical Plan data, excluding Large Deductibles)							
	Composite Policy Year (1)	Fatal (2)	Permanent Total (3)	Major Permanent Partial (4)	Minor Permanent Partial (5)	Temporary Total (6)	Medical Only (7)
Indemnity	1999/2000	32,610	0	0	1,388	21,109	0
	2000/2001	0	0	152,456	0	2,611	0
	2001/2002	0	0	141,356	51,135	7,941	0
	2002/2003	0	0	0	0	107	0
	2003/2004	0	0	0	0	257	0
Medical	1999/2000	0	0	0	961	5,044	2,890
	2000/2001	0	0	15,376	0	1,797	3,397
	2001/2002	0	0	10,042	23,576	8,158	2,908
	2002/2003	0	0	0	0	54	252
	2003/2004	0	0	0	0	1,912	80

Conversion Factors (Section X - B, Exhibit 1, Page 2)							
	Composite Policy Year (8)	Fatal (9)	Permanent Total (10)	Major Permanent Partial (11)	Minor Permanent Partial (12)	Temporary Total (13)	Medical Only (14)
Indemnity	1999/2000	0.964	0.862	1.492	1.418	1.269	
	2000/2001	0.935	1.118	1.502	1.404	1.214	
	2001/2002	0.896	1.949	1.607	1.501	1.149	
	2002/2003	0.898	2.924	1.953	1.824	1.078	
	2003/2004	0.897	4.802	3.179	2.969	1.159	
Medical	1999/2000	1.287	1.170	1.941	1.386	1.354	1.287
	2000/2001	1.311	1.388	1.965	1.403	1.308	1.269
	2001/2002	1.248	1.582	2.065	1.475	1.221	1.260
	2002/2003	1.319	2.286	2.249	1.607	1.082	1.233
	2003/2004	1.215	2.973	2.902	2.073	1.012	1.275

Excess Loss Factors (Section X - B, Exhibit 4)			
Hazard Group (15)	Injury Type		
	Serious (16)	Non-Serious (17)	Medical (18)
2	1.102	1.009	1.136

Exposure, Adjusted Converted Losses				
Composite Policy Year (19)	Exposure (20)	Serious (21)	Non-Serious (22)	Medical (23)
1999/2000	59,983	34,642	29,012	13,492
2000/2001	43,182	252,345	3,198	41,876
2001/2002	54,049	250,328	86,644	78,513
2002/2003	12,371	0	116	419
2003/2004	12,982	0	301	2,313
Total	182,567	537,315	119,271	136,614
(24)	Indicated Pure Premium	2.943	0.653	0.748
(25)	Manufacturing Industry Group Pure Premium	0.888	0.496	0.895
(26)	MA Indicated Relativity	3.313	1.318	0.837

**Notes:**

- (21), (22), (23): Adjusted Converted Losses = [Limited Losses] x [Conversion Factors] x [Excess Loss Factors]
- (24): Totals of (21), (22), and (23), divided by Total of (20), respectively.
- (25): Industry Group Pure Premium from Section X - C.
- (26): (24) / (25)

# X 000298 R

Section X - Classification Pricing  
 Subsection L - Pricing Example  
 9/1/2007

Section X - L  
 Exhibit 2  
 Page 1

## Pricing Example for Class 3131 Button Or Fastener Mfg-Metal

### Calculation of Countrywide Relativity

State Code (1)	State (2)	Losses			Lost-Time Claims		Payroll (8)
		Serious (3)	Non-Serious (4)	Medical (5)	Serious (6)	Non-Serious (7)	
1	Alabama	0	6,089	6,461	0	1	12,402,354
2	Arizona	0	0	0	0	0	1,718,900
3	Arkansas	0	0	3,435	0	0	2,345,424
4	California	1,513,289	755,381	1,850,002	30	99	133,171,675
5	Colorado	0	3,162	40,401	0	6	1,361,819
6	Connecticut	0	27,076	91,115	0	9	8,262,744
7	Delaware	0	0	0	0	0	0
8	District of Columbia	0	0	0	0	0	0
9	Florida	0	1,168	7,356	0	1	4,455,774
10	Georgia	304,490	44,265	308,913	3	8	35,100,240
11	Idaho	0	0	0	0	0	0
12	Illinois	0	586,260	1,093,135	0	45	107,684,443
13	Indiana	0	119,291	287,628	0	12	65,152,167
14	Iowa	244,463	168,293	495,921	2	14	20,867,679
15	Kansas	0	0	0	0	0	16,709
16	Kentucky	0	40,951	175,675	0	11	43,045,987
17	Louisiana	0	0	0	0	0	0
18	Maine	0	0	0	0	0	0
19	Maryland	0	0	0	0	0	0
21	Michigan	788,431	1,016,345	1,860,832	4	84	256,045,050
22	Minnesota	287,667	44,985	275,590	5	19	16,633,168
23	Mississippi	0	0	0	0	0	84,564
24	Missouri	0	0	0	0	0	5,064
25	Montana	0	0	0	0	0	0
26	Nebraska	0	0	1,895	0	0	1,473,151
27	Nevada	174,587	0	235,644	1	0	399,927
28	New Hampshire	0	24,847	166,910	0	8	11,057,534
29	New Jersey	287,667	179,053	364,775	5	35	29,318,669
30	New Mexico	0	0	0	0	0	0
31	New York	0	0	0	0	0	0
32	North Carolina	0	24,559	114,397	0	5	46,750,551
35	Oklahoma	0	155,751	149,646	0	21	8,906,709
36	Oregon	0	0	0	0	0	34,100
37	Pennsylvania	0	0	0	0	0	0
38	Rhode Island	868,219	33,657	241,029	4	3	3,948,957
39	South Carolina	0	0	4,386	0	0	333,234
40	South Dakota	0	0	0	0	0	2,720
41	Tennessee	0	143,571	188,565	0	11	29,436,896
43	Utah	0	0	0	0	0	0
44	Vermont	0	0	0	0	0	0
45	Virginia	0	0	0	0	0	101,419
48	Wisconsin	0	493,799	1,507,327	0	121	96,025,363
52	Hawaii	0	0	0	0	0	124,787
54	Alaska	0	0	0	0	0	0
	Total	4,468,813	3,868,503	9,471,038	54	513	936,267,778

**Notes:**

(3), (4), (5): Data are total for latest three policy years. See Section X - D, Exhibit 3 for years used.  
 (6), (7): Used in calculating countrywide credibilities. See Section X - D.

# X 000299 R

## Pricing Example for Class 3131 Button Or Fastener Mfg-Metal

Calculation of Countrywide Relativity

State Code (1)	State (2)	Manufacturing Pitch Factors			Pure Premiums, on MA Level			Total (9)
		Serious (3)	Non-Serious (4)	Medical (5)	Serious (6)	Non-Serious (7)	Medical (8)	
1	Alabama	1.639	0.777	0.215	0.000	0.038	0.011	
2	Arizona	1.703	3.098	0.416	0.000	0.000	0.000	
3	Arkansas	1.838	1.397	0.458	0.000	0.000	0.067	
4	California	0.424	0.563	0.302	0.482	0.319	0.420	
5	Colorado	1.108	0.435	0.352	0.000	0.101	1.045	
6	Connecticut	0.467	0.713	0.350	0.000	0.234	0.386	
7	Delaware	1.538	0.849	0.516	0.000	0.000	0.000	
8	District of Columbia	2.156	0.599	0.487	0.000	0.000	0.000	
9	Florida	0.921	0.667	0.213	0.000	0.017	0.035	
10	Georgia	0.673	1.039	0.380	0.583	0.131	0.335	
11	Idaho	1.676	0.688	0.360	0.000	0.000	0.000	
12	Illinois	0.753	0.397	0.279	0.000	0.216	0.283	
13	Indiana	5.605	1.415	0.509	0.000	0.259	0.225	
14	Iowa	0.901	0.676	0.346	1.055	0.545	0.822	
15	Kansas	1.369	0.703	0.426	0.000	0.000	0.000	
16	Kentucky	1.054	1.477	0.309	0.000	0.141	0.126	
17	Louisiana	0.504	1.038	0.289	0.000	0.000	0.000	
18	Maine	0.499	0.674	0.372	0.000	0.000	0.000	
19	Maryland	0.904	1.080	0.554	0.000	0.000	0.000	
21	Michigan	0.621	0.705	0.482	0.191	0.280	0.351	
22	Minnesota	1.184	1.869	0.619	2.049	0.506	1.025	
23	Mississippi	0.910	0.932	0.349	0.000	0.000	0.000	
24	Missouri	1.471	0.385	0.330	0.000	0.000	0.000	
25	Montana	0.167	0.456	0.071	0.000	0.000	0.000	
26	Nebraska	1.376	0.835	0.313	0.000	0.000	0.040	
27	Nevada	0.483	0.873	0.356	21.079	0.000	20.973	
28	New Hampshire	0.862	1.453	0.272	0.000	0.327	0.411	
29	New Jersey	1.783	0.549	0.561	1.750	0.335	0.698	
30	New Mexico	1.064	1.257	0.362	0.000	0.000	0.000	
31	New York	0.504	1.120	0.693	0.000	0.000	0.000	
32	North Carolina	0.378	0.880	0.436	0.000	0.046	0.107	
35	Oklahoma	0.475	0.720	0.262	0.000	1.259	0.440	
36	Oregon	2.015	0.952	0.483	0.000	0.000	0.000	
37	Pennsylvania	1.188	0.099	0.116	0.000	0.000	0.000	
38	Rhode Island	0.371	0.570	0.432	8.163	0.486	2.636	
39	South Carolina	0.943	0.429	0.449	0.000	0.000	0.591	
40	South Dakota	3.962	1.101	0.396	0.000	0.000	0.000	
41	Tennessee	0.620	0.444	0.261	0.000	0.217	0.167	
43	Utah	2.720	1.792	0.461	0.000	0.000	0.000	
44	Vermont	0.717	0.486	0.224	0.000	0.000	0.000	
45	Virginia	1.503	2.716	0.633	0.000	0.000	0.000	
48	Wisconsin	1.333	0.709	0.300	0.000	0.365	0.471	
52	Hawaii	0.423	0.477	0.384	0.000	0.000	0.000	
54	Alaska	0.512	0.501	0.149	0.000	0.000	0.000	
(10)	Average of (6), (7), (8) weighted by Payroll from Page 1, respectively				0.301	0.275	0.374	
(11)	Conversion and Excess Loss Adjustment Factor				1.915	1.335	1.775	
(12)	CW Pure Premium = (18) x (19)				0.576	0.367	0.664	1.608
(13)	CW Manufacturing Pure Premium				0.827	0.457	0.836	2.119
(14)	CW Relativity = (20) / (21)				0.696	0.805	0.795	0.759
(15)	CW Relativity, balanced to unity				0.692	0.798	0.789	

Notes:

(3), (4), (5): (MA Total Manufacturing Limited Losses) / [(Manufacturing Pure Premium by State) x (MA Total Manufacturing Exposure)]. See Section X - D, Exhibit 2.

(11): (MA Total Manufacturing Adjusted Converted Losses) / (MA Manufacturing Limited Losses). See Section X - C.

(13): (12) weighted by MA five year Manufacturing Exposure.

(15): Relativities balanced to unity (weighted by MA exposure) over Manufacturing Industry Group.

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Section X - Classification Pricing  
 Subsection L - Pricing Example  
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Section X - L  
 Exhibit 3

## Pricing Example for Class 3131 Button Or Fastener Mfg-Metal

Calculation of Credibility and Balanced Formula Relativity:

- (1) MA Indicated Relativity
- (2) Countrywide Indicated Relativity
- (3) Relativity to Underlying Present Rate

Injury Type		
Serious	Non-Serious	Medical
3.313	1.318	0.837
0.692	0.798	0.789
1.660	1.428	1.037

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)]<sup>0.4</sup>}

Injury Type		
Serious	Non-Serious	Medical
1.679	1.456	1.050
0.623	0.645	0.792
1.046	0.939	0.832
190,968	171,452	151,823
15,000,000	1,600,000	2,400,000
17.0%	41.0%	33.0%

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) ]<sup>0.4</sup>, 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		
Serious	Non-Serious	Medical
54	513	567
450	900	600
42%	30%	34%
41%	29%	33%
1.534	1.194	0.887
0.993	1.003	1.002

- (16) Balanced Formula Relativity

Injury Type			
Serious	Non-Serious	Medical	Total
1.545	1.190	0.885	1.208

Notes:

- (1): From Exhibit 1.
- (2), (10): From Exhibit 2.
- (3): Relativity of (5) to Industry Group average, using 5 year Schedule Z exposure as weights.
- (4): From Section X - F.
- (5): From Section X - E, Exhibit 1.
- (8), (11): From Section X - D, Exhibit 1, 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 X - Classification Pricing  
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Section X - L  
Exhibit 4

## Pricing Example for Class 3131 Button Or Fastener Mfg-Metal

Calculation of Proposed Average Rate and Proposed Manual Rate:

(1) Total Balanced Formula Relativity	1.208
(2) Capped Rate Level Factor	2.331
(3) Proposed Average Capped Rate = (1) x (2)	2.820
(4) Offset for Merit Rating	0.997
(5) Offset for ARAP	1.060
(6) Offset for Construction Classification Premium Adjustment Program	1.000
(7) Provision for Insolvency Fund Assessment Recoupment	-0.030
(8) Proposed Manual Rate = {(3) / [(4) x (5) x (6)]} x {1.000 / [1.000 - (7)]}	2.59
(9) Minimum Premium	250
(10) Loss Constant	0.00
(11) Expected Loss Rate	1.34
(12) D-Ratio	0.18

### Notes:

- (1): From Exhibit 3.
- (2): From Section X - 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 3131 is in the Manufacturing Industry Group.
- (4), (5), (6), (7): From Section X - K. Class 3131 is not eligible for the Construction Credit program.
- (9):  $\{[(8) \times 35.0] + (10) + \text{Expense Constant}\}$  subject to a maximum of \$500  
Where Expense Constant = 159 if  $(8) \times 35 + (10) < 200$   
= 318 if  $(8) \times 35 + (10) \geq 200$ .
- (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 XI - A, Exhibit 1. Class 3131 is in Hazard Group 2.
- (12): From Section XI. See text of this section for an explanation of the calculation of D-Ratios.

**MISCELLANEOUS RATING FACTORS  
FOR 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 depending on whether its 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 some of the miscellaneous rating factors that are needed to compare the past experience of a risk to its expected experience.

**Expected Loss Rates, XI-A**

Generally, an insured's experience rating modification is based on its exposure and loss experience for the last three completed policies for which the WCRIB 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 Sections X-A, X-J, and XI-A.

Expected Losses for an insured are derived by multiplying the Expected Loss Rates ("ELR") for each applicable class by the reported exposure (typically payroll in hundreds) for each class. The proposed Expected Loss Rates are displayed in Section

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X-A. The Expected Loss Rate for each class is the product of the proposed average capped rate for that class (as shown in Section X-J) and the Ratio of Experience Rating ELR to Average Rate (as calculated in Section XI-A) for the hazard group containing the classification. The intent of the Ratio of Experience Rating ELR to Average Rate is to remove 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), benefit level differences (Exhibit 3), development (Exhibit 4 & 5) and investment income (Exhibit 6).

### **Calculation of D Ratios, XI-B**

The second task of Section XI 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



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losses are compared. D-Ratios vary by class and are listed in the manual rates section of the *Basic Manual for Workers' Compensation*.

The procedure used here for the calculation of D-Ratios is the same as the methodology used in the filings for 9/1/01, 9/1/03 and 9/1/05 rates. The general methodology is as follows. First, the WCRIB calculates partial D-Ratios for serious, non-serious and medical-only losses from detailed loss data (Section XI-B). The loss data is taken from the Schedule Z data base for the three most recent composite 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.

Partial D-Ratios are defined as follows:

$$D (\textit{Serious}) = \frac{\text{Primary Serious Losses (Indemnity \& Medical)}}{\text{Limited Serious Indemnity Losses}}$$

$$D (\textit{Non-Serious}) = \frac{\text{Primary Non-Serious Losses (Indemnity \& Medical)}}{\text{Limited Non-Serious Indemnity Losses}}$$

$$D (\textit{Medical}) = \frac{\text{Primary Medical Only Losses}}{\text{Total Limited Medical Losses}}$$

We calculate these partial D-Ratios on XI-B Exhibit 1, page 1.

As in previous filings, we calculate final D-Ratios by class as a weighted average of the partial D-Ratios using the formula:

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$$\text{"D" Ratio} = \frac{[(P_s)(D_s) + (P_n)(D_n) + (P_m)(D_m)]}{[P_s + P_n + P_m]}$$

where  $P_s$ ,  $P_n$ , and  $P_m$  are the adopted partial pure premiums for serious, non-serious, and medical.  $D_s$ ,  $D_n$ , and  $D_m$  represent the associated partial D-Ratios. The resulting D-Ratios by classification are shown in Section X-A.

Calculation of ELR Factors

Unit Report / Policy Effective Date (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 5th Report (7)	Loss Development from 5th Report to Ult (8)	Investment Income Offset (9)	Ratio of Exp Rating ELR to Average Rate (10)
1st Report 3/1/2006	I	0.670	0.043	1.012	0.978	1.369	1.101	1.035	0.415
	II	0.670	0.062	1.012	0.978	1.378	1.102	1.019	0.410
	III	0.670	0.134	1.012	0.978	1.402	1.135	0.991	0.372
	IV	0.670	0.240	1.012	0.978	1.441	1.174	0.995	0.305
2nd Report 3/1/2005	I	0.670	0.049	1.019	0.967	1.130	1.101	1.035	0.502
	II	0.670	0.071	1.019	0.967	1.134	1.102	1.019	0.496
	III	0.670	0.154	1.019	0.967	1.142	1.135	0.991	0.448
	IV	0.670	0.275	1.019	0.967	1.156	1.174	0.995	0.365
3rd Report 3/1/2004	I	0.670	0.065	1.028	0.957	1.057	1.101	1.035	0.529
	II	0.670	0.094	1.028	0.957	1.058	1.102	1.019	0.519
	III	0.670	0.204	1.028	0.957	1.062	1.135	0.991	0.454
	IV	0.670	0.365	1.028	0.957	1.068	1.174	0.995	0.346
1st - 3rd Report Average	I								0.482
	II								0.475
	III								0.424
	IV								0.339

Notes:

- (1): Unit Stat Reports used to experience rate a policy taking effect 6 months after effective date of the proposed rates.
- (3): Section VI-A, Exhibit 1, (11).
- (4): Exhibit 2, (10)-(12).
- (5): Section IV-A, Exhibit 9, (9).
- (6): Section V-A, Exhibit 1. Net Trend applied from USR policy effective date to average policy effective date of the proposed rates.
- (7): Exhibit 4, Page 1, (8).
- (8): Exhibit 5, Page 1, (7).
- (9): Exhibit 6, (8).
- (10) = { (3) x [ 1.0 - (4) ] } / [ (5) x (6) x (7) x (8) x (9) ]

Loss Elimination Ratios for Losses in Excess of Experience Rating Caps  
By Hazard Group

Hazard Group (1)	Adjusted Schedule Z 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)
I	10,821,631	1,089,224	0.101	13,615,021	0.101	0.76	0.40
II	676,406,833	51,708,001	0.076	914,141,705	0.076	0.58	0.58
III	830,251,570	138,189,716	0.166	1,231,315,121	0.166	1.26	1.26
IV	59,591,122	17,764,928	0.298	51,197,281	0.298	2.26	2.26
Total	1,577,071,156	208,751,869	0.132	2,210,269,128	0.132	1.00	1.00

Expected Loss Limitation Adjustment Factor by Hazard Group

= [ Exhibit 3, (5) ] x (8)

Hazard Group (9)	First Report (10)	Second Report (11)	Third Report (12)	Average (13)
I	0.043	0.049	0.065	0.052
II	0.062	0.071	0.094	0.075
III	0.134	0.154	0.204	0.164
IV	0.240	0.275	0.365	0.294
I, II, III, IV	0.106	0.122	0.162	

Notes:  
 (5): Most recent three composite policy years' data, payroll x pure premium underlying rates.  
 (6) Total = (6) Weighted by (5)  
 (7) = (6) / [(6) for Total]

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Loss Elimination Ratio  
Factor to Reflect the State Accident Limitation of \$175,000  
 (Losses in Thousands)

Report (1)	Injury Type (2)	Adjusted Schedule Z Losses (3)	Adjusted Excess Losses (4)	Loss Elimination Ratio (4) / (3) (5)
1st	1	6,380	3,347	0.525
1st	2	16,064	14,654	0.912
1st	3	130,586	23,322	0.179
1st	4	33,640	40	0.001
1st	5	221,899	5,424	0.024
1st	6	31,513	0	0.000
1st	Total	440,082	46,787	0.106
2nd	1	16,111	12,091	0.750
2nd	2	6,866	5,491	0.800
2nd	3	287,548	44,289	0.154
2nd	4	56,991	557	0.010
2nd	5	149,269	4,548	0.030
2nd	6	32,914	0	0.000
2nd	Total	549,698	66,975	0.122
3rd	1	14,321	9,460	0.661
3rd	2	9,926	7,587	0.764
3rd	3	313,620	70,639	0.225
3rd	4	47,780	0	0.000
3rd	5	167,922	7,192	0.043
3rd	6	34,171	112	0.003
3rd	Total	587,739	94,990	0.162

Notes:

Schedule Z losses have been adjusted by multiplying with law amendment changes and severity trend factors. Column (3) is the adjusted Schedule Z total losses, and Column (4) is the Adjusted Schedule Z losses above \$175,000.

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 Page 1

## Hazard Group Development Factors to Fifth Report

Development to Fifth Report (1)	Hazard Group (2)	Review Year 2006 Losses at Latest Report (3)	Review Year 2006 Losses at 5th Report (4)	Develop. Factor to 5th Report (4) / (3) (5)	Selected Relativity (6)	Balanced Relativity (6) / TT(6) (7)	Selected Dev. Factor to 5th Report (8)
1st to 5th	I	1,896,236	2,350,418	1.240	0.940	0.940	1.369
1st to 5th	II	155,786,990	203,312,080	1.305	0.963	0.964	1.378
1st to 5th	III	203,473,579	302,362,490	1.486	1.023	1.023	1.402
1st to 5th	IV	7,808,587	11,684,960	1.496	1.123	1.124	1.441
1st to 5th	All	368,965,392	519,709,949	1.409	0.999	1.000	1.392
2nd to 5th	I	2,927,343	3,364,433	1.149	0.940	0.937	1.130
2nd to 5th	II	196,320,960	228,546,758	1.164	0.963	0.961	1.134
2nd to 5th	III	236,120,673	285,165,294	1.208	1.023	1.020	1.142
2nd to 5th	IV	27,216,814	34,137,054	1.254	1.123	1.120	1.156
2nd to 5th	All	462,585,790	551,213,538	1.192	1.003	1.000	1.139
3rd to 5th	I	4,204,589	4,376,814	1.041	0.940	0.940	1.057
3rd to 5th	II	214,300,048	225,558,759	1.053	0.963	0.964	1.058
3rd to 5th	III	258,761,590	277,993,888	1.074	1.023	1.023	1.062
3rd to 5th	IV	15,619,888	18,697,756	1.197	1.123	1.124	1.068
3rd to 5th	All	492,886,115	526,627,218	1.068	0.999	1.000	1.060

**Notes:**

- (3),(4): See Exhibit 4 Pages 4-6 for Review Year 2006
- (6): See Page 3 for selection. The entry in the "All" row is the weighted average using incurred losses at latest report in column (3) as the weights.
- (7): The entry in the "All" row is the weighted average using incurred losses at latest report in column (3) as the weights.
- (8): has been balanced to the development factors calculated on Page 2 where selected development factors =  $1.0 + (7) \times (\text{"Overall Development to be balanced to"} - 1.000)$ .

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 Page 2

## Loss Development Factors For Use in Calculation of Reciprocals

Report (1)	Benefit Type (2)	Injury Type (3)	Distribution of Reported Loss @ 5th Report (4)	Loss Development Factor (5)	Adjusted Distribution (4) / (5) (6)	LDF to 5th Report to Derive E.L.R. TT(4) / TT(6) (7)
1st	Indemnity	Death	1.7%	0.967	1.7%	
1st	Indemnity	Permanent Total	3.1%	5.751	0.5%	
1st	Indemnity	Permanent Partial	40.3%	2.235	18.0%	
1st	Indemnity	Temporary Total	20.3%	0.929	21.8%	
1st	Medical	Death	0.1%	1.018	0.1%	
1st	Medical	Permanent Total	2.7%	2.740	1.0%	
1st	Medical	Permanent Partial	15.2%	1.613	9.4%	
1st	Medical	Temporary Total	11.9%	0.806	14.7%	
1st	Medical	Medical Only	4.8%	1.069	4.5%	
1st	Total		100.0%		71.8%	1.392
2nd	Indemnity	Death	1.7%	0.967	1.7%	
2nd	Indemnity	Permanent Total	3.1%	3.494	0.9%	
2nd	Indemnity	Permanent Partial	40.3%	1.367	29.4%	
2nd	Indemnity	Temporary Total	20.3%	0.864	23.5%	
2nd	Medical	Death	0.1%	1.096	0.1%	
2nd	Medical	Permanent Total	2.7%	2.087	1.3%	
2nd	Medical	Permanent Partial	15.2%	1.238	12.3%	
2nd	Medical	Temporary Total	11.9%	0.854	13.9%	
2nd	Medical	Medical Only	4.8%	1.024	4.7%	
2nd	Total		100.0%		87.8%	1.139
3rd	Indemnity	Death	1.7%	0.965	1.7%	
3rd	Indemnity	Permanent Total	3.1%	2.329	1.3%	
3rd	Indemnity	Permanent Partial	40.3%	1.127	35.7%	
3rd	Indemnity	Temporary Total	20.3%	0.920	22.0%	
3rd	Medical	Death	0.1%	0.998	0.1%	
3rd	Medical	Permanent Total	2.7%	1.391	1.9%	
3rd	Medical	Permanent Partial	15.2%	1.095	13.9%	
3rd	Medical	Temporary Total	11.9%	0.928	12.8%	
3rd	Medical	Medical Only	4.8%	1.008	4.8%	
3rd	Total	All	100.0%		94.3%	1.060

Notes:

- (4): Section IV-I, Exhibits 1 and 2
- (5): Section X-B, Exhibit 2, Pages 1-5.

Hazard Group Reported Loss Development Relativities to Fifth Report

Development Review Year (1)	3-5		2-5		1-5		Average (11)
	2006 (2)	2005 (3)	2006 (5)	2005 (6)	2006 (8)	2005 (9)	
H.G. I	0.974	0.987	0.965	1.013	0.880	0.877	0.869
H.G. II	0.985	0.980	0.977	0.971	0.927	0.953	0.931
H.G. III	1.005	1.013	1.014	1.009	1.055	1.019	1.053
H.G. IV	1.120	1.046	1.053	1.246	1.062	1.255	1.201

Notes:  
 From Exhibit 4, Pages 4 through 12



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## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2006  
 First Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	0	0.967	0	0	1.018	0			
I	2	0	5.751	0	0	2.740	0			
I	3	259,580	2.235	580,037	157,677	1.613	254,325			
I	4	91,442	2.235	204,329	71,309	1.613	115,018			
I	5	564,780	0.929	524,814	499,857	0.806	402,994			
I	6	0	1.000	0	251,591	1.069	268,900			
I	Total	915,802		1,309,181	980,434		1,041,237	1,896,236	2,350,418	1.240
II	1	1,739,977	0.967	1,683,206	104,455	1.018	106,359			
II	2	693,412	5.751	3,987,779	576,937	2.740	1,581,036			
II	3	25,104,176	2.235	56,095,840	10,722,363	1.613	17,294,652			
II	4	9,276,556	2.235	20,728,671	6,999,489	1.613	11,289,836			
II	5	44,606,333	0.929	41,449,843	40,820,434	0.806	32,910,215			
II	6	0	1.000	0	15,142,858	1.069	16,184,644			
II	Total	81,420,454		123,945,338	74,366,536		79,366,742	155,786,990	203,312,080	1.305
III	1	3,139,741	0.967	3,037,300	107,152	1.018	109,105			
III	2	2,651,017	5.751	15,245,871	9,329,367	2.740	25,566,169			
III	3	44,851,910	2.235	100,222,590	24,521,407	1.613	39,551,841			
III	4	6,548,853	2.235	14,633,558	4,971,596	1.613	8,018,943			
III	5	55,030,349	0.929	51,136,221	42,200,457	0.806	34,022,816			
III	6	0	1.000	0	10,121,730	1.069	10,818,076			
III	Total	112,221,870		184,275,541	91,251,709		118,086,950	203,473,579	302,362,490	1.486
IV	1	418,960	0.967	405,291	10,000	1.018	10,182			
IV	2	0	5.751	0	0	2.740	0			
IV	3	2,852,953	2.235	6,374,987	997,311	1.613	1,608,614			
IV	4	65,065	2.235	145,389	44,466	1.613	71,722			
IV	5	2,267,896	0.929	2,107,412	1,027,590	0.806	828,463			
IV	6	0	1.000	0	124,346	1.069	132,901			
IV	Total	5,604,874		9,033,079	2,203,713		2,651,881	7,808,587	11,684,960	1.496
I, II, III, IV	Grand Total	200,163,000		318,563,139	168,802,392		201,146,810	368,965,392	519,709,949	1.409

**Notes:**

(3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

# XI 000012 R

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2006  
 Second Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	0	0.967	0	0	1.096	0			
I	2	0	3.494	0	0	2.087	0			
I	3	896,222	1.367	1,225,551	379,932	1.238	470,517			
I	4	265,544	1.367	363,122	225,966	1.238	279,842			
I	5	462,938	0.864	399,803	515,508	0.854	440,003			
I	6	0	1.000	0	181,233	1.024	185,595			
I	Total	1,624,704		1,988,476	1,302,639		1,375,957	2,927,343	3,364,433	1.149
II	1	3,749,294	0.967	3,626,965	407,725	1.096	446,712			
II	2	785,984	3.494	2,746,272	710,339	2.087	1,482,567			
II	3	63,984,348	1.367	87,496,270	24,818,835	1.238	30,736,262			
II	4	14,924,577	1.367	20,408,817	11,268,299	1.238	13,954,942			
II	5	32,379,780	0.864	27,963,846	27,264,839	0.854	23,271,436			
II	6	0	1.000	0	16,026,940	1.024	16,412,668			
II	Total	115,823,983		142,242,171	80,496,977		86,304,588	196,320,960	228,546,758	1.164
III	1	8,003,336	0.967	7,742,209	163,927	1.096	179,602			
III	2	2,293,024	3.494	8,011,955	1,962,136	2.087	4,095,226			
III	3	94,211,456	1.367	128,830,742	37,032,458	1.238	45,861,917			
III	4	11,719,416	1.367	16,025,875	8,887,935	1.238	11,007,040			
III	5	35,725,364	0.864	30,853,162	25,997,135	0.854	22,189,409			
III	6	0	1.000	0	10,124,486	1.024	10,368,157			
III	Total	151,952,596		191,463,944	84,168,077		93,701,350	236,120,673	285,165,294	1.208
IV	1	1,640,079	0.967	1,586,568	17,296	1.096	18,950			
IV	2	0	3.494	0	0	2.087	0			
IV	3	16,682,937	1.367	22,813,310	4,951,253	1.238	6,131,755			
IV	4	236,019	1.367	322,747	96,462	1.238	119,461			
IV	5	2,273,107	0.864	1,963,102	998,396	0.854	852,164			
IV	6	0	1.000	0	321,265	1.024	328,997			
IV	Total	20,832,142		26,685,727	6,384,672		7,451,326	27,216,814	34,137,054	1.254
I, II, III, IV	Grand Total	290,233,425		362,380,318	172,352,365		188,833,221	462,585,790	551,213,538	1.192

Notes:

(3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

# XI 000013 R

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2006  
 Third Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	0	0.965	0	0	0.998	0			
I	2	0	2.329	0	0	1.391	0			
I	3	1,433,371	1.127	1,615,072	703,155	1.095	770,144			
I	4	193,405	1.127	217,922	140,039	1.095	153,380			
I	5	768,154	0.920	707,048	761,546	0.928	706,784			
I	6	0	1.000	0	204,919	1.008	206,464			
I	Total	2,394,930		2,540,042	1,809,659		1,836,772	4,204,589	4,376,814	1.041
II	1	2,452,646	0.965	2,366,109	296,259	0.998	295,777			
II	2	1,515,066	2.329	3,529,151	911,829	1.391	1,268,735			
II	3	69,570,067	1.127	78,389,121	29,802,332	1.095	32,641,561			
II	4	13,578,478	1.127	15,299,755	8,927,910	1.095	9,778,460			
II	5	40,122,419	0.920	36,930,697	30,446,649	0.928	28,257,243			
II	6	0	1.000	0	16,676,393	1.008	16,802,152			
II	Total	127,238,676		136,514,832	87,061,372		89,043,928	214,300,048	225,558,759	1.053
III	1	9,368,166	0.965	9,037,626	346,438	0.998	345,875			
III	2	3,166,514	2.329	7,375,986	1,417,355	1.391	1,972,133			
III	3	110,812,758	1.127	124,859,944	40,608,984	1.095	44,477,748			
III	4	10,289,506	1.127	11,593,856	6,410,942	1.095	7,021,704			
III	5	41,655,097	0.920	38,341,451	24,919,023	0.928	23,127,106			
III	6	0	1.000	0	9,766,807	1.008	9,840,460			
III	Total	175,292,041		191,208,863	83,469,549		86,785,025	258,761,590	277,993,888	1.074
IV	1	0	0.965	0	0	0.998	0			
IV	2	1,222,109	2.329	2,846,745	152,068	1.391	211,590			
IV	3	10,003,385	1.127	11,271,465	2,123,385	1.095	2,325,677			
IV	4	219,006	1.127	246,768	131,518	1.095	144,048			
IV	5	1,047,511	0.920	964,182	491,637	0.928	456,284			
IV	6	0	1.000	0	229,269	1.008	230,998			
IV	Total	12,492,011		15,329,160	3,127,877		3,368,596	15,619,888	18,697,756	1.197
I, II, III, IV	Grand Total	317,417,658		345,592,897	175,468,457		181,034,321	492,886,115	526,627,218	1.068

Notes:  
 (3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

# XI 000014 R

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2005  
 First Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4) (5)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7) (8)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9) (11)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	0	0.967	0	0	1.018	0			
I	2	0	5.751	0	0	2.740	0			
I	3	80,335	2.235	179,510	120,035	1.613	193,611			
I	4	207,353	2.235	463,335	170,230	1.613	274,573			
I	5	1,054,138	0.929	979,544	815,638	0.806	657,583			
I	6	0	1.000	0	185,557	1.069	198,323			
I	Total	1,341,826		1,622,389	1,291,460		1,324,089	2,633,286	2,946,478	1.119
II	1	3,408,902	0.967	3,297,679	405,731	1.018	413,125			
II	2	184,315	5.751	1,059,987	53,626	2.740	146,957			
II	3	21,542,740	2.235	48,137,732	9,999,773	1.613	16,129,149			
II	4	7,725,865	2.235	17,263,617	6,038,241	1.613	9,739,390			
II	5	56,472,891	0.929	52,476,684	43,255,660	0.806	34,873,540			
II	6	0	1.000	0	15,712,356	1.069	16,793,322			
II	Total	89,334,713		122,235,699	75,465,387		78,095,483	164,800,100	200,331,181	1.216
III	1	6,149,726	0.967	5,949,078	647,060	1.018	658,852			
III	2	447,757	5.751	2,575,029	620,350	2.740	1,700,005			
III	3	37,215,907	2.235	83,159,772	18,022,861	1.613	29,070,001			
III	4	6,427,396	2.235	14,362,159	5,330,761	1.613	8,598,259			
III	5	62,897,789	0.929	58,446,935	46,716,267	0.806	37,663,548			
III	6	0	1.000	0	9,981,888	1.069	10,668,614			
III	Total	113,138,575		164,492,973	81,319,187		88,359,279	194,457,762	252,852,252	1.300
IV	1	1,583,170	0.967	1,531,516	17,296	1.018	17,611			
IV	2	0	5.751	0	0	2.740	0			
IV	3	7,054,531	2.235	15,763,506	2,975,885	1.613	4,799,958			
IV	4	100,646	2.235	224,896	61,007	1.613	98,401			
IV	5	3,407,157	0.929	3,166,055	1,401,174	0.806	1,129,653			
IV	6	0	1.000	0	289,512	1.069	309,430			
IV	Total	12,145,504		20,685,973	4,744,874		6,355,054	16,890,378	27,041,027	1.601
I, II, III, IV	Grand Total	215,960,618		309,037,034	162,820,908		174,133,904	378,781,526	483,170,938	1.276

Notes:

(3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

# XI 000015 R

Section XI - Miscellaneous Rating Factors  
 Subsection A - Expected Loss Rates  
 9/1/2007

Section XI - A  
 Exhibit 4  
 Page 8

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2005  
 Second Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	0	0.967	0	0	1.096	0			
I	2	0	3.494	0	0	2.087	0			
I	3	1,388,684	1.367	1,898,975	693,342	1.238	858,652			
I	4	229,437	1.367	313,747	141,642	1.238	175,413			
I	5	733,070	0.864	633,094	705,209	0.854	601,919			
I	6	0	1.000	0	207,004	1.024	211,986			
I	Total	2,351,191		2,845,816	1,747,197		1,847,970	4,098,388	4,693,786	1.145
II	1	2,208,062	0.967	2,136,019	339,502	1.096	371,966			
II	2	1,170,706	3.494	4,090,513	735,964	2.087	1,536,050			
II	3	48,023,953	1.367	65,671,010	19,617,328	1.238	24,294,587			
II	4	11,846,808	1.367	16,200,079	8,124,738	1.238	10,061,878			
II	5	54,129,599	0.864	46,747,439	38,360,640	0.854	32,742,067			
II	6	0	1.000	0	16,549,676	1.024	16,947,985			
II	Total	117,379,128		134,845,061	83,727,848		85,954,532	201,106,976	220,799,592	1.098
III	1	9,746,570	0.967	9,428,567	290,385	1.096	318,152			
III	2	1,678,176	3.494	5,863,642	783,079	2.087	1,634,385			
III	3	79,967,635	1.367	109,352,835	30,857,335	1.238	38,214,491			
III	4	9,372,352	1.367	12,816,351	6,130,792	1.238	7,592,525			
III	5	58,874,673	0.864	50,845,383	32,816,475	0.854	28,009,940			
III	6	0	1.000	0	9,485,010	1.024	9,713,290			
III	Total	159,639,406		188,306,776	80,363,076		85,482,783	240,002,482	273,789,559	1.141
IV	1	0	0.967	0	0	1.096	0			
IV	2	1,279,773	3.494	4,471,599	67,592	2.087	141,073			
IV	3	7,844,003	1.367	10,726,389	1,993,288	1.238	2,468,537			
IV	4	208,978	1.367	285,770	108,709	1.238	134,628			
IV	5	2,860,721	0.864	2,470,578	677,318	0.854	578,113			
IV	6	0	1.000	0	232,698	1.024	238,298			
IV	Total	12,193,475		17,954,336	3,079,605		3,560,650	15,273,080	21,514,986	1.409
I, II, III, IV	Grand Total	291,563,200		343,951,988	168,917,726		176,845,935	460,480,926	520,797,923	1.131

Notes:

(3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

# XI 000016 R

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2005  
 Third Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	4,000	0.965	3,859	1,889	0.998	1,886			
I	2	0	2.329	0	0	1.391	0			
I	3	905,170	1.127	1,019,914	328,887	1.095	360,220			
I	4	189,830	1.127	213,894	181,497	1.095	198,788			
I	5	700,396	0.920	644,680	366,170	0.928	339,839			
I	6	0	1.000	0	207,951	1.008	209,519			
I	Total	1,799,396		1,882,346	1,086,394		1,110,252	2,885,790	2,992,598	1.037
II	1	2,472,896	0.965	2,385,644	42,307	0.998	42,238			
II	2	986,467	2.329	2,297,848	697,066	1.391	969,910			
II	3	62,704,229	1.127	70,652,934	21,125,438	1.095	23,138,030			
II	4	12,354,672	1.127	13,920,813	6,915,515	1.095	7,574,347			
II	5	60,043,455	0.920	55,267,023	35,509,148	0.928	32,955,700			
II	6	0	1.000	0	16,154,035	1.008	16,275,855			
II	Total	138,561,719		144,524,262	80,443,509		80,956,080	219,005,228	225,480,342	1.030
III	1	8,106,035	0.965	7,820,027	336,415	0.998	335,868			
III	2	3,721,678	2.329	8,669,168	9,284,735	1.391	12,918,944			
III	3	103,789,352	1.127	116,946,215	33,877,073	1.095	37,104,497			
III	4	10,635,202	1.127	11,983,374	6,815,719	1.095	7,465,044			
III	5	69,761,324	0.920	64,211,840	35,469,863	0.928	32,919,240			
III	6	0	1.000	0	9,616,314	1.008	9,688,832			
III	Total	196,013,591		209,630,625	95,400,119		100,432,423	291,413,710	310,063,048	1.064
IV	1	0	0.965	0	0	0.998	0			
IV	2	137,795	2.329	320,976	17,695	1.391	24,621			
IV	3	8,150,423	1.127	9,183,612	2,090,796	1.095	2,289,983			
IV	4	394,404	1.127	444,401	249,216	1.095	272,958			
IV	5	1,610,931	0.920	1,482,782	568,851	0.928	527,945			
IV	6	0	1.000	0	293,975	1.008	296,192			
IV	Total	10,293,553		11,431,770	3,220,533		3,411,700	13,514,086	14,843,470	1.098
I, II, III, IV	Grand Total	346,668,259		367,469,003	180,150,555		185,910,455	526,818,814	553,379,458	1.050

**Notes:**

(3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

# XI 000017 R

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2004  
 First Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	0	0.967	0	0	1.018	0			
I	2	0	5.751	0	0	2.740	0			
I	3	537,043	2.235	1,200,035	358,207	1.613	577,771			
I	4	103,929	2.235	232,232	71,465	1.613	115,270			
I	5	1,170,742	0.929	1,087,896	1,529,923	0.806	1,233,453			
I	6	0	1.000	0	194,995	1.069	208,410			
I	Total	1,811,714		2,520,163	2,154,590		2,134,903	3,966,304	4,655,066	1.174
II	1	1,736,648	0.967	1,679,986	70,495	1.018	71,780			
II	2	753,197	5.751	4,331,600	598,855	2.740	1,641,100			
II	3	22,711,317	2.235	50,748,943	11,319,882	1.613	18,258,421			
II	4	10,183,748	2.235	22,755,811	8,212,385	1.613	13,246,179			
II	5	60,866,423	0.929	56,559,315	44,275,063	0.806	35,695,403			
II	6	0	1.000	0	15,292,679	1.069	16,344,772			
II	Total	96,251,333		136,075,656	79,769,359		85,257,655	176,020,692	221,333,310	1.257
III	1	10,893,978	0.967	10,538,538	371,012	1.018	377,773			
III	2	2,295,283	5.751	13,200,062	1,727,050	2.740	4,732,803			
III	3	43,896,093	2.235	98,086,796	19,786,893	1.613	31,915,299			
III	4	10,701,061	2.235	23,911,759	7,731,606	1.613	12,470,706			
III	5	62,077,951	0.929	57,685,112	37,320,136	0.806	30,088,207			
III	6	0	1.000	0	8,916,447	1.069	9,529,873			
III	Total	129,864,366		203,422,267	75,853,144		89,114,661	205,717,510	292,536,928	1.422
IV	1	0	0.967	0	0	1.018	0			
IV	2	0	5.751	0	0	2.740	0			
IV	3	3,942,639	2.235	8,809,915	1,480,816	1.613	2,388,484			
IV	4	342,038	2.235	764,292	146,124	1.613	235,691			
IV	5	2,468,850	0.929	2,294,146	963,423	0.806	776,730			
IV	6	0	1.000	0	198,213	1.069	211,849			
IV	Total	6,753,527		11,868,352	2,788,576		3,612,755	9,542,103	15,481,107	1.622
I, II, III, IV	Grand Total	234,680,940		353,886,437	160,565,669		180,119,974	395,246,609	534,006,411	1.351

**Notes:**

(3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

# XI 000018 R

Section XI - Miscellaneous Rating Factors  
 Subsection A - Expected Loss Rates  
 9/1/2007

Section XI - A  
 Exhibit 4  
 Page 11

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2004  
 Second Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	4,000	0.967	3,869	1,889	1.096	2,070			
I	2	0	3.494	0	0	2.087	0			
I	3	376,758	1.367	515,203	159,903	1.238	198,028			
I	4	162,692	1.367	222,475	124,507	1.238	154,193			
I	5	1,217,962	0.864	1,051,857	608,082	0.854	519,018			
I	6	0	1.000	0	196,306	1.024	201,031			
I	Total	1,761,412		1,793,405	1,090,687		1,074,339	2,852,099	2,867,743	1.005
II	1	2,688,624	0.967	2,600,902	119,747	1.096	131,197			
II	2	0	3.494	0	0	2.087	0			
II	3	40,662,587	1.367	55,604,610	14,604,496	1.238	18,086,571			
II	4	9,945,451	1.367	13,600,043	5,801,598	1.238	7,184,843			
II	5	79,292,064	0.864	68,478,263	43,448,006	0.854	37,084,301			
II	6	0	1.000	0	15,622,716	1.024	15,998,716			
II	Total	132,588,726		140,283,817	79,596,563		78,485,628	212,185,289	218,769,445	1.031
III	1	8,619,514	0.967	8,338,283	131,683	1.096	144,275			
III	2	1,943,499	3.494	6,790,695	2,253,912	2.087	4,704,199			
III	3	77,041,650	1.367	105,351,656	27,762,590	1.238	34,381,882			
III	4	9,893,859	1.367	13,529,493	6,678,678	1.238	8,271,041			
III	5	94,807,359	0.864	81,877,592	43,525,358	0.854	37,150,323			
III	6	0	1.000	0	9,526,854	1.024	9,756,141			
III	Total	192,305,881		215,887,719	89,879,075		94,407,861	282,184,956	310,295,580	1.100
IV	1	0	0.967	0	0	1.096	0			
IV	2	0	3.494	0	0	2.087	0			
IV	3	6,282,762	1.367	8,591,449	1,831,898	1.238	2,268,668			
IV	4	420,873	1.367	575,529	194,463	1.238	240,828			
IV	5	3,569,944	0.864	3,083,077	1,126,306	0.854	961,339			
IV	6	0	1.000	0	282,750	1.024	289,555			
IV	Total	10,273,579		12,250,055	3,435,417		3,760,390	13,708,996	16,010,445	1.168
I, II, III, IV	Grand Total	336,929,598		370,214,996	174,001,742		177,728,217	510,931,340	547,943,214	1.072

Notes:

- (3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.
- (4), (7): Section X-B, Exhibit 2, Pages 1-5.



# XI 000019 R

## Loss Development of Schedule Z to Fifth Report by Hazard Group

Review Year 2004  
 Third Report to Fifth Report

Hazard Group	Injury Type	Indemnity Losses			Medical Losses			Total Losses		
		Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (3) x (4)	Reported Losses	Develop. Factor to 5th Report	Losses Developed to 5th Report (6) x (7)	Total Reported Losses	Total Developed Losses	Develop. Factor (10) / (9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
I	1	0	0.965	0	0	0.998	0			
I	2	0	2.329	0	0	1.391	0			
I	3	581,462	1.127	655,171	430,409	1.095	471,413			
I	4	188,089	1.127	211,932	139,640	1.095	152,943			
I	5	1,193,782	0.920	1,098,817	838,320	0.928	778,037			
I	6	0	1.000	0	219,460	1.008	221,115			
I	Total	1,963,333		1,965,920	1,627,829		1,623,509	3,591,162	3,589,429	1.000
II	1	1,295,855	0.965	1,250,133	44,037	0.998	43,965			
II	2	3,215,658	2.329	7,490,460	3,628,587	1.391	5,048,880			
II	3	55,745,531	1.127	62,812,117	21,950,994	1.095	24,042,236			
II	4	13,012,227	1.127	14,661,723	8,617,458	1.095	9,438,432			
II	5	78,097,916	0.920	71,885,259	45,472,754	0.928	42,202,827			
II	6	0	1.000	0	16,944,095	1.008	17,071,872			
II	Total	151,367,187		158,099,692	96,657,925		97,848,213	248,025,112	255,947,904	1.032
III	1	6,815,021	0.965	6,574,565	312,395	0.998	311,887			
III	2	4,475,446	2.329	10,424,974	4,978,789	1.391	6,927,575			
III	3	90,697,253	1.127	102,194,496	40,544,105	1.095	44,406,688			
III	4	11,984,041	1.127	13,503,199	8,170,741	1.095	8,949,157			
III	5	77,341,784	0.920	71,189,277	34,375,109	0.928	31,903,209			
III	6	0	1.000	0	9,197,575	1.008	9,266,935			
III	Total	191,313,545		203,886,510	97,578,714		101,765,450	288,892,259	305,651,960	1.058
IV	1	206,228	0.965	198,952	674	0.998	673			
IV	2	72,393	2.329	168,630	1,250,000	1.391	1,739,272			
IV	3	6,910,206	1.127	7,786,179	1,490,836	1.095	1,632,866			
IV	4	469,252	1.127	528,737	173,633	1.095	190,175			
IV	5	3,238,037	0.920	2,980,453	1,182,142	0.928	1,097,135			
IV	6	0	1.000	0	273,618	1.008	275,681			
IV	Total	10,896,116		11,662,950	4,370,903		4,935,802	15,267,019	16,598,751	1.087
I, II, III, IV	Grand Total	355,540,181		375,615,072	200,235,371		206,172,973	555,775,552	581,788,045	1.047

Notes:  
 (3), (6): Sum of Unit Statistical Plan Data Underlying Schedule Z.  
 (4), (7): Section X-B, Exhibit 2, Pages 1-5.

Loss Development Factors From 5th to Ultimate

Hazard Group (1)	Losses Developed to 5th Report						Indicated Factor to Financial Agg. Level (6)	Balanced Selected Factor (7)
	Indemnity		Medical		Non-Serious (5)	Serious (4)		
	Serious (2)	Non-serious (3)	Serious	Non-Serious				
I	3,420,661	2,417,038	1,494,986	2,758,980		1.101	1.101	
II	239,920,713	162,781,628	85,853,661	168,861,596		1.102	1.102	
III	404,364,224	162,584,123	162,159,614	136,413,711		1.135	1.135	
IV	45,298,365	5,749,601	10,306,768	3,165,036		1.174	1.174	
TOTAL	693,003,963	333,532,390	259,815,030	311,199,322		1.122	1.122	

Notes:

- (2)-(5): From Exhibit 4, Pages 4-6.
- (6): Weighted Average of Adjustment Factors from Page 2.  
(Serious Indemnity 1.194, Non-Serious Indemnity 1.000,  
Serious Medical 1.236, Non-Serious Medical 1.000)
- (7): Factors are balanced to the overall factor to Financial Aggregate level from page 2.

# XI 000021 R

Section XI - Miscellaneous Rating Factors  
 Subsection A - Expected Loss Rates  
 9/1/2007

Section XI - A  
 Exhibit 5  
 Page 2

## Determination of Factor to Financial Aggregate Level

Composite Policy Year  (1)	Schedule Z Losses Developed to 5th Rept.  (2)	Financial Aggregate Develop. Factor 5th to Ult.  (3)	Differential in Loss Development  (4)	Schedule Z Losses Adjusted to Financial Agg. Ult. Loss Level (2) x (3) x (4)  (5)	Adjustment Factor (5) / (2)  (6)
Indemnity					
03/04	318,572,341	1.107	1.021	360,202,181	1.131
02/03	362,403,802	1.107	1.021	409,761,374	1.131
01/02	345,757,266	1.107	1.021	390,939,530	1.131
Total	1,026,733,409			1,160,903,085	1.131
Medical					
03/04	201,171,416	1.108	1.000	222,811,583	1.108
02/03	188,868,997	1.108	1.000	209,185,783	1.108
01/02	181,174,712	1.108	1.000	200,663,817	1.108
Total	571,215,125			632,661,183	1.108
Ind.+Med.					
03/04	519,743,757			583,013,764	1.122
02/03	551,272,799			618,947,157	1.123
01/02	526,931,977			591,603,347	1.123
Total	1,597,948,534			1,793,564,269	1.122

(7)	Schedule Z Indem. Losses Developed to 5th Report  (8)	Adjustment Factor  (9)	Schedule Z Med. Losses Developed to 5th Report  (10)	Adjustment Factor  (11)
a. Serious	693,160,675	1.194	259,927,623	1.236
b. Non-Ser.	333,572,734	1.000	311,287,502	1.000
c. Total	1,026,733,409	1.131	571,215,125	1.108

**Notes:**

(2): From Page 4

(3): From Page 3

(4): From Page 5

(8),(10): From Page 4

(9),(11): Serious Adjustment Factor = 1 + (Total Losses/Serious Losses) x ("Appropriate Column 6 Factor" - 1)

# XI 000022 R

Section XI - Miscellaneous Rating Factors  
Subsection A - Expected Loss Rates  
9/1/2007

Section XI - A  
Exhibit 5  
Page 3

## Determination of Factor to Financial Aggregate Level

	<u>Indemnity</u>	<u>Medical</u>
(1) Development Factor based on Paid+Case 72 Months to Ult.	1.069	1.194
(2) Est. Ultimate Losses (Prior to Escalation Adj.) based on Paid + Case Develop. Method		
(a) PY2003	234,176,682	174,431,466
(b) PY2004	227,758,790	182,571,714
(c) Average	230,967,736	178,501,590
(3) Est. Ultimate Losses (Prior to Escalation Adj.) based on Paid Develop. Method		
(a) PY2003	243,661,798	151,668,275
(b) PY2004	250,985,507	153,813,545
(c) Average	247,323,652	152,740,910
(4) = { [ (2c) + (3c) ] / 2.000 } / (2c) Ratio of Est. Ultimate Losses based on average of Paid and Paid + Case indications to Est. Ultimate Losses based on Paid + Case	1.035	0.928
(5) = (1) x (4) Development Factor to bring Schedule Z 5th report data to Financial Aggregate Ultimate Level	1.107	1.108

### Notes:

(1): Indemnity: Section II-B, Exhibit 1 & Section II-C, Exhibit 2, Page 1

Medical: Section II-B, Exhibit 1 & Section II-C, Exhibit 2, Page 1

(2),(3): Section II-A, Exhibit 1, Page 1

All Classifications

Composite Policy Year	Injury Type	Paid + Case Data												
		Reported Schedule Z Losses		Development Factors to 5th Report		Losses Developed to 5th Report		Medical	Medical					
		(3)	(4)	(5)	(6)	(3) x (5)	(4) x (6)							
(1)	(2)													
03/04	1	5,298,678	221,607	0.967	1.018	5,125,797	225,645							
03/04	2	3,344,429	9,906,304	5.751	2.740	19,233,650	27,147,205							
03/04	3	73,068,619	36,398,758	2.235	1.613	163,273,454	58,709,432							
03/04	4	15,981,916	12,086,860	2.235	1.613	35,711,947	19,495,519							
03/04	5	102,479,261	84,576,785	0.929	0.806	95,227,493	68,187,422							
03/04	6	0	25,642,089	1.000	1.069	0	27,406,192							
03/04	TOTALS	200,172,903	168,832,403			318,572,341	201,171,416							
02/03	1	13,392,709	588,948	0.967	1.096	12,955,742	645,264							
02/03	2	3,079,008	2,672,475	3.494	2.087	10,758,228	5,577,793							
02/03	3	175,774,963	67,182,478	1.367	1.238	240,365,874	83,200,451							
02/03	4	27,160,205	20,493,742	1.367	1.238	37,140,593	25,379,960							
02/03	5	70,845,187	54,789,498	0.864	0.854	61,183,366	46,764,637							
02/03	6	0	26,659,271	1.000	1.024	0	27,300,893							
02/03	TOTALS	290,252,072	172,386,412			362,403,802	188,868,997							
01/02	1	11,820,812	642,697	0.965	0.998	11,403,735	641,652							
01/02	2	5,903,689	2,481,252	2.329	1.391	13,751,881	3,452,458							
01/02	3	191,958,663	73,340,656	1.127	1.095	216,292,314	80,327,723							
01/02	4	24,280,395	15,610,409	1.127	1.095	27,358,301	17,097,592							
01/02	5	83,601,499	56,624,589	0.920	0.928	76,951,034	52,552,738							
01/02	6	0	26,899,695	1.000	1.008	0	27,102,549							
01/02	TOTALS	317,565,058	175,599,298			345,757,266	181,174,712							

Notes:  
(3)-(6): From Section X-B, Exhibit 2, Pages 1-5.

# XI 000024 R

Section XI - Miscellaneous Rating Factors  
 Subsection A - Expected Loss Rates  
 9/1/2007

Section XI - A  
 Exhibit 5  
 Page 5

## Escalation Adjustment for Indemnity Losses Only

Loss Development Method	Composite Policy Year	Differential in Loss Development
(1)	(2)	(3)
Paid Plus Case	03/04	1.011
	02/03	1.011
	01/02	1.011
Paid	03/04	1.032
	02/03	1.032
	01/02	1.032
Average of Paid and Paid Plus Case	03/04	1.021
	02/03	1.021
	01/02	1.021

**Notes:**

(3): From Section II-D, Exhibit 1, Page 1 and Exhibit 2, Page 1

# XI 000025 R

Section XI - Miscellaneous Rating Factors  
 Subsection A - Expected Loss Rates  
 9/1/2007

Section XI - A  
 Exhibit 6

## Investment Income Offset

(1) Hazard Code	(2) Injury Type	Indemnity		Medical		(7) Total Investment Income Offset
		(3) Developed Losses at Ultimate	(4) Investment Income Offset	(5) Developed Losses at Ultimate	(6) Investment Income Offset	
I	1	0	0.6893	0	1.0000	
I	2	0	0.6153	0	0.6234	
I	3	4,082,771	1.0205	1,848,396	1.0340	
I	4	785,373	1.0635	548,240	1.0775	
I	5	1,631,665	1.0388	1,549,781	1.0524	
I	6			660,959	1.0000	
		6,499,809	1.0303	4,607,376	1.0405	1.035
II	1	9,162,117	0.6893	1,049,513	1.0000	
II	2	12,249,770	0.6153	5,356,490	0.6234	
II	3	264,948,397	1.0205	99,743,189	1.0340	
II	4	56,437,242	1.0635	35,023,238	1.0775	
II	5	106,344,386	1.0388	84,438,894	1.0524	
II	6			49,399,464	1.0000	
		449,141,912	1.0124	275,010,788	1.0309	1.019
III	1	23,652,983	0.6893	784,594	1.0000	
III	2	36,563,359	0.6153	39,111,592	0.6234	
III	3	422,417,494	1.0205	160,597,442	1.0340	
III	4	42,253,289	1.0635	26,047,687	1.0775	
III	5	120,330,834	1.0388	79,339,331	1.0524	
III	6			31,026,693	1.0000	
		645,217,959	0.9916	336,907,338	0.9908	0.991
IV	1	2,377,407	0.6893	36,019	1.0000	
IV	2	3,397,767	0.6153	261,609	0.6234	
IV	3	48,291,240	1.0205	12,445,627	1.0340	
IV	4	714,905	1.0635	335,230	1.0775	
IV	5	5,034,696	1.0388	2,136,910	1.0524	
IV	6			692,896	1.0000	
		59,816,016	0.9864	15,908,291	1.0290	0.995

**Notes:**

- (3): 2006 Review Books 1-3. From Exhibit 4, Pages 4-6 (5) x Exhibit 5, Page 2 Col. (9)
- (4),(6): From Section X-B, Exhibit 3
- (5): 2006 Review Books 1-3. From Exhibit 4, Pages 4-6 Col. (8) x Exhibit 5, Page 2 Col. (11)
- (7) = Average of (4) and (6) weighted by (3) and (5)

# XI 000026 R

Section XI - Miscellaneous Rating Factors  
Subsection B - Calculation of "D" Ratios  
9/1/2007

Section XI - B  
Exhibit 1  
Page 1

## Calculation of Statewide Partial "D" Ratios by Injury Type

Lost Time Injuries (1)	Adjusted Primary Losses (Indemnity and Medical) (2)	Adjusted Total Indemnity Losses (3)	Partial D-Ratio (2) / (3) (4)
SERIOUS	26,018,124	443,258,988	0.059
NON-SERIOUS	183,942,820	364,880,054	0.504

Medical Only Injuries (5)	Adjusted Primary Medical Only Losses (6)	Adjusted Total Medical Losses (7)	Partial D-Ratio (6) / (7) (8)
MEDICAL	90,789,965	560,628,675	0.162

### Notes:

Data at the individual claim level has been adjusted by the factors shown on Exhibit 1, page 2, where the individual claim data is for the three most recent composite policy years, Schedule Z. The Adjusted Primary Losses are capped at \$5,000 per claim, the Adjusted Total Losses are capped at \$175,000 per claim.



Severity Trend and Law Amendment Factors

Composite Policy Year	Indemnity By Injury Type					Medical by Injury Type					
	1	2	3	4	5	1	2	3	4	5	6
<b>(1) Severity Trend Factors</b>											
01/02	1.140	1.140	1.140	1.140	1.140	1.220	1.220	1.220	1.220	1.220	1.220
02/03	1.140	1.140	1.140	1.140	1.140	1.220	1.220	1.220	1.220	1.220	1.220
03/04	1.140	1.140	1.140	1.140	1.140	1.220	1.220	1.220	1.220	1.220	1.220
<b>(2) Law Amendment Factors</b>											
01/02	1.002	1.003	1.004	1.004	1.001	1.050	1.050	1.050	1.050	1.050	1.050
02/03	1.008	1.011	1.019	1.019	1.006	1.018	1.018	1.018	1.018	1.018	1.018
03/04	1.011	1.016	1.030	1.030	1.009	1.009	1.009	1.009	1.009	1.009	1.009
<b>(3) Combined Severity Trend and Law Amendment Factors</b>											
01/02	1.142	1.143	1.145	1.145	1.141	1.281	1.281	1.281	1.281	1.281	1.281
02/03	1.148	1.152	1.161	1.161	1.146	1.242	1.242	1.242	1.242	1.242	1.242
03/04	1.153	1.158	1.174	1.174	1.150	1.231	1.231	1.231	1.231	1.231	1.231

Notes:

- (1): From Exhibit 2
- (2): Section IV-A, Exhibit 10, Pages 1 & 2
- (3) = (1) x (2)

# XI 000028 R

Section XI - Miscellaneous Rating Factors  
 Subsection B - Calculation of "D" Ratios  
 9/1/2007

Section XI - B  
 Exhibit 2

## Severity Trend Factors

Schedule Z Composite Policy Year (1)			Average Policy Period (2)		
07/01/2001	-	06/30/2002	03/01/2004	-	02/28/2005
07/01/2002	-	06/30/2003	03/01/2005	-	02/28/2006
07/01/2003	-	06/30/2004	03/01/2006	-	02/28/2007
Avg Acc Date			Avg Acc Date		
06/30/2003			08/30/2005		

(3) Indemnity Severity Trend	6.2%
(4) Medical Severity Trend	9.6%
(5) Trend Period Length = Years between (1) and (2)	2.168
(6) Indemnity Trend Factor = [ 1.000 + (3) ] ^ (5)	1.140
(7) Medical Trend Factor = [ 1.000 + (4) ] ^ (5)	1.220

**Notes:**

(3),(4): From Section V-A Exhibit 1.

(6),(7): Severity Trend Factors adjust 01/02 to 9/1/2004, 02/03 to 9/1/2005, and 03/04 to 9/1/2007.

## Appendix 1

### Aggregate Financial Data Excluded

The WCRIB has excluded the aggregate financial data submitted by the following carrier groups from all parts of the filing:

- American International Group
- Ace INA Group
- Lumber Insurance Group
- Allianz Insurance Group

Additionally, the data for St. Paul Travelers Group was excluded from the derivation of the proposed expense loads in Section VI and the derivation of premium development factors in Section III.