All Risk Adjustment Program (ARAP) Calculation

BUREAU #: 123456

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NAME: ABC Co. Inc.

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To calculate ARAP, two separate formulas are used. In the first, solve for "R", and in the second solve for "S".

- If R is less than or equal to 1.00, the risk does not qualify for ARAP, and the mod worksheet will display an ARAP factor of 1.00.
- If R is greater than 1.00, then solve for "S", and "S" equals the ARAP Surcharge.
- For ratings effective September 1, 2007 and after, the surcharge factor is limited to a maximum of 1.25. Prior to September 1, 2007, the maximum surcharge was 1.49.

The following information was taken from the experience modification worksheet:

Weighting Value = 0.08
Expected Losses = 53,731
Actual Losses = 58,943
Expected Primary Losses = 18,270
Actual Primary Losses = 56,826
Experience Modification = 1.48

Solve for R:

\[
R = \frac{(0.5 - (0.5 \times W)) \times Ap}{M \times Ep} + \frac{(0.5 + (0.5 \times W)) \times A}{M \times E}
\]

\[
R = \frac{0.5 - (0.5 \times 0.08) \times 56,826}{1.48 \times 18,270} + \frac{(0.5 + (0.5 \times 0.08) \times 58,943}{1.48 \times 53,731}
\]

\[
R = \frac{26,139.9600}{27,039.6000} + \frac{31,829.2200}{79,521.8800} = 0.9667 + 0.4003
\]

\[
R = 1.3670
\]

Since R > 1, solve for S:

\[
S = \frac{1 + 0.08 \times E \times ((R-1)^{1.25})}{(E+3)^{0.5}}
\]

When solving for S:

- E is expressed in terms of thousands;
- E cannot exceed 40;
- R cannot exceed 2;

\[
S = \frac{1 + 0.08 \times 40 \times 0.367^{1.25}}{6.5574} = 0.9141 + 0.4003
\]

\[
S = 1.14
\]