

Calculation of Premium Reductions under 7 CFR §400.720(b)(2)

BASELINE YEAR

Determine a state-by-state A&O cost percentage for the Baseline Year (initially the 2005 reinsurance year or as determined by RMA) as follows:

A1: State level total net book premium (from RMA database)

A2: State level buy-up premium (from RMA database)

A3: State level CAT premium (from RMA database)

A4: State level A&O subsidy (from RMA database)

A5: State level CAT LAE (loss adjustment expense) subsidy (from RMA database)

A6: State level agent compensation (from Exhibit 10m)

A7: State level loss adjustment expense (from Exhibit 10n)

A8: Total MPCl expenses (from Exhibit 10o)

A9: Total Overhead = total MPCl expenses less total state level agent compensation less total state level loss adjustment expense:

$$A8 - \text{Sum}(A6) - \text{Sum}(A7)$$

A10: Overhead Percentage = total overhead as a percentage of total buy-up premium:

$$A9 / \text{Sum}(A2)$$

A11: Overhead Allocation = state by state allocation of overhead based on the overhead percentage:

$$A10 * A2$$

A12: Allocated A&O Cost = agent compensation plus LAE plus overhead less CAT LAE:

$$A6 + A7 + A11 - A5$$

A13: A&O Cost Percentage = allocated A&O costs as a percentage of buy-up premium by state. If a state has no buy-up premium for the Baseline Year, the A&O cost percentage for that state is determined by taking total A&O costs as a percentage of total buy-up premium.

$$\text{If } A2 > 0: \quad A12/A2$$

$$\text{If } A2 = 0: \quad \text{Sum}(A12) / \text{Sum}(A2)$$

PRP YEAR

Determine a state-by-state A&O cost percentage for the PRP Year (the reinsurance year for which company is requesting a premium reduction) as follows:

B1 through B12: Identical to the respective data definitions and calculations for the Baseline Year (A1 through A12), except that data for the PRP Year are used.

B13: A&O Cost Percentage = allocated A&O costs as a percentage of buy-up premium by state. If a state has no premium for the PRP Year, then a value of 0.00% will be used.

$$\begin{aligned} \text{If } B2 > 0: & \quad B12/B2 \\ \text{If } B2 = 0: & \quad 0.00\% \end{aligned}$$

B14: Total Efficiency = A&O subsidy less A&O costs. A&O costs are total expenses less CAT LAE:

$$\text{Sum (B4)} - (\text{B8} - \text{Sum (B5)})$$

PREMIUM REDUCTION CALCULATIONS

Determine the maximum premium reduction and maximum premium discounts by state as follows:

C1: Efficiency Change Rate = the change in A&O cost percentage from the Baseline Year to the PRP Year. If buy-up premium is zero for the PRP Year for the state, then the efficiency change rate will be 0.00%.

$$\begin{aligned} \text{If } B2 > 0: & \quad A13 - B13 \\ \text{If } B2 = 0: & \quad 0.00\% \end{aligned}$$

C2: Efficiency Due to Change = efficiency change rate multiplied by buy-up premium by state:
 $C1 * B2$

C3: Residual Efficiency Factor = total efficiency less the total of all state-level efficiencies due to change. If the difference between total efficiency and total state-level efficiencies due to change is less than or equal to zero, then the residual efficiency factor is set to 0.00%.

$$\begin{aligned} \text{If } (B14 - \text{Sum (C2)}) > 0: & \quad (B14 - \text{Sum (C2)}) / \text{Sum (B2)} \\ \text{If } (B14 - \text{Sum (C2)}) \leq 0: & \quad 0.00\% \end{aligned}$$

C4: Residual Efficiency = buy-up premium for each state multiplied by the residual efficiency factor.

$$B2 * C3$$

C5: Preliminary Efficiency = the sum of the state-level efficiency due to change and the state-level efficiency due to condition:

$$C2 + C4$$

C6: Maximum Premium Reduction Amount = the maximum dollar premium reduction that can be paid by state. If the total preliminary efficiency exceeds the total efficiency, then the maximum premium discount amount for a state will be prorated down by the ratio of total preliminary efficiency to total efficiency. Also, the maximum premium reduction amount for a state will be limited to a maximum percentage of buy-up premium determined by RMA (initially set for 2006 and 2007 at 4.0 percent according to 7 CFR §400.715(a)).

If $\text{Sum}(C5) > B14$: Minimum $[C5 * (B14 / \text{Sum}(C5)) \text{ and } B2 * .04]$

If $\text{Sum}(C5) \leq B14$: Minimum $[C5 \text{ and } (B2 * .04)]$

C7: Maximum Premium Reduction Percentage = maximum premium reduction amount as a percentage of buy-up premium. If a state has no buy-up premium for the PRP Year, then the value will be set to 0.00%:

If $B2 > 0$: $C6 / B2$

If $B2 = 0$: 0.00%

REQUESTED PREMIUM REDUCTIONS AND RMA APPROVAL CHECK

D1: Amount of premium reduction by state requested by the company.

D2: Percentage premium reduction by state requested by the company.

D3: RMA approval check to ensure that D1 is less than or equal to C6.

D4: RMA approval check to ensure that D2 is less than or equal to C7.