

- Enroll and Choose Max Premium Ratio and Industry Class

<u>Max Premium Ratio Chosen</u>	<u>Projected Group Standard Premium</u>				
1.25	\$2,000,000				
↓					
<u>Basic Premium Ratio Determination</u>					
MPR	1.05	1.25	1.50	1.75	2.00
BPR	.293	.141	.097	.080	.071

<u>Industry Group Chosen</u>
Services Industry
LDF <sup>12-month</sup> 1.687
LDF <sup>24-month</sup> 1.438
LDF <sup>36-month</sup> 1.279
<i>LDF varies by Industry Group</i>

<u>Loss Conversion Factor</u>
1.05
<i>LCF is constant across all plans and group sizes</i>

- Individual Employers Pay Experience or Base Rated Premium each 6-month Payroll Period

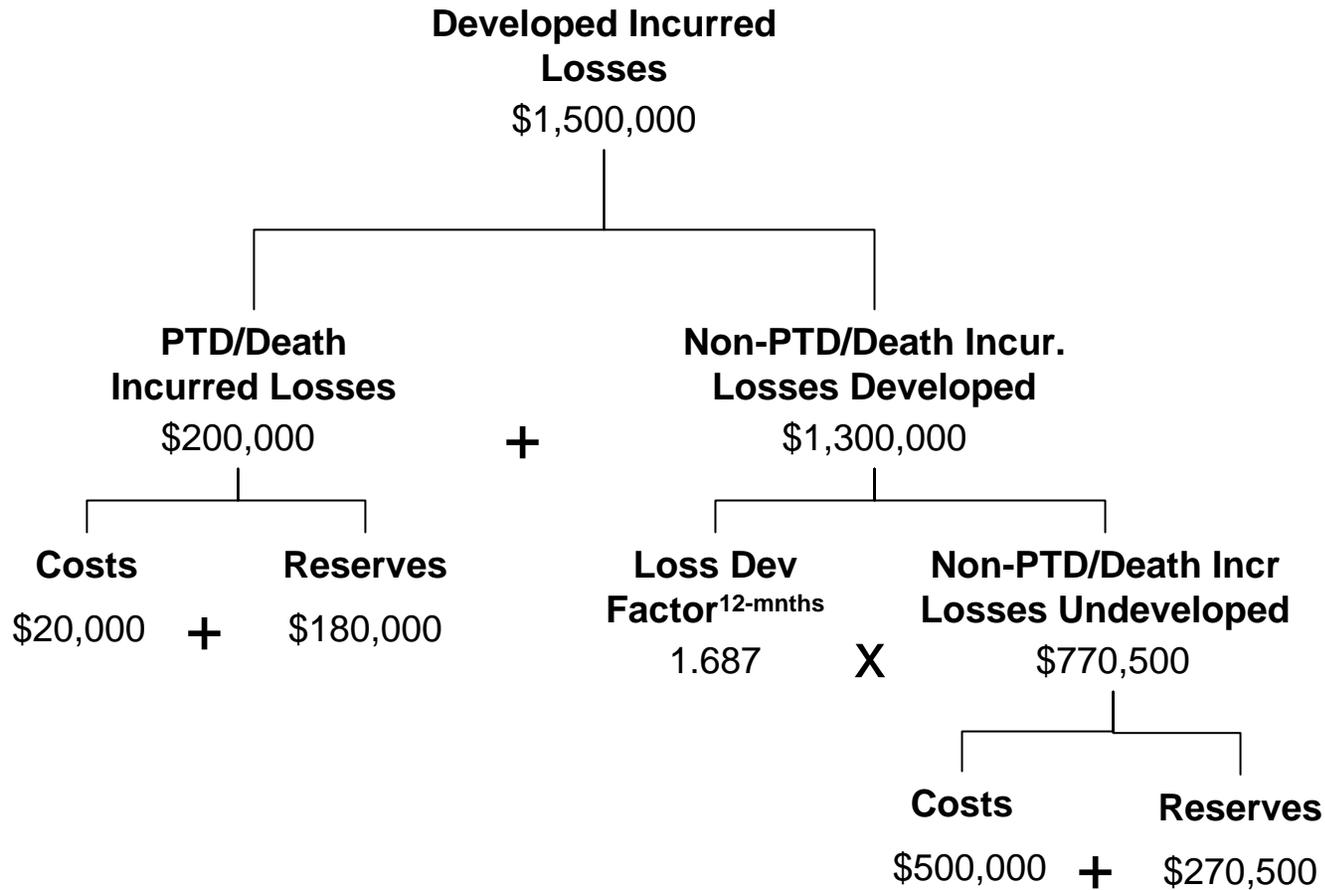
<u>1<sup>st</sup> 6 Months Total of Premiums</u>	<u>2<sup>nd</sup> 6 Months Total of Premiums</u>	<u>Group Standard Premium</u>
\$1,000,000	\$1,200,000	\$2,200,000

- Valuation Period 12-Months After Policy End – Refund Scenario

$$\begin{aligned} \text{Retro Premium} &= \left[ \begin{array}{cc} \text{Standard Prem} & \text{Basic Prem Ratio} \\ \$2,200,000 & \times .141 \end{array} \right] + \left[ \begin{array}{cc} \text{Loss Cnv Fctr} & \text{Dev Incurred Loss} \\ 1.05 & \times \$1,500,000 \end{array} \right] \\ \text{Retro Premium} &= \qquad \qquad \qquad \$310,200 \qquad \qquad \qquad + \qquad \qquad \qquad \$1,575,000 \\ \text{Retro Premium} &= \qquad \qquad \qquad \mathbf{\$1,885,200} \end{aligned}$$

$$\begin{aligned} \text{Refund/ Assessment Calculation} &= \text{Standard Prem} - \text{Retro Premium} \\ &= \$2,200,000 - \$1,885,200 \\ \text{Refund/ Assessment Calculation} &= \mathbf{\$314,800 \text{ Group Refund}} \end{aligned}$$

- Developed Incurred Loss Calculation



- Valuation Period 12-Months After Policy End – Assessment Scenario

$$\begin{aligned} \text{Retro Premium} &= \left[ \begin{array}{cc} \text{Standard Prem} & \text{Basic Prem Ratio} \\ \$2,200,000 & \times .141 \end{array} \right] + \left[ \begin{array}{cc} \text{Loss Cnv Fctr} & \text{Dev Incurred Loss} \\ 1.05 & \times \$3,000,000 \end{array} \right] \\ \text{Retro Premium} &= \qquad \qquad \qquad \$310,200 \qquad \qquad \qquad + \qquad \qquad \qquad \$3,150,000 \\ \text{Retro Premium} &= \qquad \qquad \qquad \mathbf{\$3,460,200} \end{aligned}$$

$$\begin{aligned} \text{Maximum Premium} &= \text{Standard Prem} \times \text{Max Prem Ratio} \\ &= \$2,200,000 \times 1.25 \\ \text{Maximum Premium} &= \mathbf{\$2,750,000} \end{aligned}$$

If Max Premium is less than Retro Premium, then use Max Premium in Assessment Calculation

$$\begin{aligned} \text{Refund/ Assessment Calculation} &= \text{Standard Prem} - \text{Retro Premium} \\ &= \$2,200,000 - \$2,750,000 \\ \text{Refund/ Assessment Calculation} &= \mathbf{\$550,000 \text{ Group Assessment}} \end{aligned}$$

## Determining the Break-Point

- o To determine the loss ratio required for a group to receive a refund, the following formula should be applied:

$$\text{Target Loss Ratio} = \frac{(1 - \text{Basic Premium Ratio})}{\text{Loss Conversion Factor}}$$

This example:

$$\text{Target Group Loss Ratio} = (1 - .141) / 1.05$$

$$\text{Target Group Loss Ratio} = .818$$