

EXAM 8 – FALL 2011

15. (1.5 points)

Experience rating plans can be classified as split or no split plans.

Describe the steps of the experience modification calculation under a single split plan. Include a discussion on how a single split plan considers frequency and severity and the relative importance of each.

Question 15

Sample 1

- 1) We use the general formula for experience modification

$$M = \frac{A_p + W A_e + (1 - W) E_e + B}{E + B}$$

- 2) A_p and A_e are actual primary and excess losses. They are calculated as

$$A = \begin{cases} 5,000 & \text{if losses} > 5,000 \\ \text{losses} & \text{if losses} \leq 5,000 \end{cases}$$

applied by claim. A_e is calculated as total losses – A_p .

Also, losses are limited by various limits found in the NCCI Experience Rating manual.

- 3) E is calculated as

$$\sum \frac{\text{payroll}}{3} \times \text{ELR}$$

for the three years used in the experience period.

E_e is calculated as

$$E \times \text{D-ratio}$$

ELR and D-ratios are found using classification codes in the NCCI tables.

- 4) The frequency is reflected in the primary losses that are given more weight than excess losses which represent severity.

Sample 2

The formula used to calculate mod is:

$$M = \frac{A_p + WA_e + (1 - W)E_e + B}{E + B}$$

- 5) Look at employer's class code and search in NCCI experience rating manual for the respective ELR and D-ratio.

- 6) Apply ELR to employee's payroll to get expected total loss, E. Then:

$$E_p = E \times \text{D-ratio}$$

$$E_e = E - E_p$$

- 7) Use the total expected loss to search in NCCI manual for corresponding weighting value W and ballast value B.

- 8) Look at the actual losses during the experience period, and apply a per occurrence limit of SAL for each loss (single risk). Limit of 2×SAL for multiple risks per occurrence. Actual primary loss A_p is determined by applying a single split of 5,000 to each risk, multiple risks per occurrence has primary loss capped at 10,000. Med-only claims are only taking account 30%. Then:

$$A_e = A - A_p$$

- 9) Apply the formula above and round to two decimal places.

A_p reflects frequency and A_e reflects severity. Frequency is more important as A_p is taken as a whole, while A_e is applied a factor of W and weighted with E_e .