

10. (2.25 points)

The National Council of Compensation Insurance (NCCI) has proposed making the following three changes to its Experience Rating Plan:

1. Increasing the effect of medical-only losses.
2. Giving zero credibility to excess losses.
3. Keeping the primary-excess split of actual losses at a constant value of \$10,000 for the next 10 years.

a. (1.5 points)

Evaluate each of these changes with respect to the following goals of experience rating:

- Safety incentive
- Predictive accuracy

b. (0.75 points)

Briefly discuss each of the proposed changes' effect on the experience modification of an insured that has historically experienced worse than class average claim frequency, but has never had a loss greater than \$10,000.

## EXAM 8 FALL 2014 SAMPLE ANSWERS AND EXAMINER'S REPORT

### QUESTION 10

TOTAL POINT VALUE: 2.25

LEARNING OBJECTIVE: B3

### SAMPLE ANSWERS

Part a: 1.5 points

#### *Sample 1*

Increase Med-only effect  
    Safety Incentive – Decreases  
    Predictive Accuracy – No Change  
Zero Credibility to Excess  
    Safety Incentive – Decreases  
    Predictive Accuracy – Decreases  
Constant Primary/Excess Split  
    Safety Incentive – No change  
    Predictive Accuracy – Decreases

#### *Sample 2*

Increase Med-only effect  
    Safety Incentive – Will drop as company will be discouraged from reporting med losses and may not try to prevent them  
    Predictive Accuracy – Not affected as med losses represent very small portion of total losses  
Zero Credibility to Excess  
    Safety Incentive – will reduce as insurer has less incentive to control losses  
    Predictive Accuracy – Will reduce as excess losses are predictive of severity  
Constant Primary/Excess Split  
    Safety Incentive – Not affected  
    Predictive Accuracy – Will reduce because the plan will be thrown out of balance as primary losses remove into excess layer due to inflation if split is not indexed

#### *Sample 3*

Increase Med-only effect  
    Safety Incentive – Decreases  
    Predictive Accuracy – Will hurt predictive accuracy if many companies decide to cut back on their med claims reporting significantly  
Zero Credibility to Excess  
    Safety Incentive – Decreases  
    Predictive Accuracy – Decreases

## EXAM 8 FALL 2014 SAMPLE ANSWERS AND EXAMINER'S REPORT

### Constant Primary/Excess Split

Safety Incentive – As primary losses pierce into excess layer due to inflation, since excess losses get no credibility per change #2, companies will have less incentive to control large losses

Predictive Accuracy – Decreases

### *Sample 4*

#### Increasing the effect of medical only losses

- Safety incentive – increasing effect of medical only losses could encourage insureds to control their medical only losses; however, more likely insureds would stop reporting them instead as they are small
- Predictive accuracy – as insureds are likely to stop reporting the small medical losses and pay for them themselves, that would decrease the predictive accuracy – not satisfied

#### Giving zero credibility to excess losses

- Safety incentive – giving 0 credibility to excess losses would discourage insureds from controlling excess losses – not satisfied
- Predictive accuracy – predicted future losses would be based on primary only losses which would account for the frequency part but not the severity; this would decrease predictive accuracy as severity is measured by excess losses

#### Keeping the primary excess split of actual losses at a constant value of \$10,000 for the next 10 years

- Safety incentive – with the inflation more actual losses would move from primary to excess layer with the fixed split point; with (2) in effect, excess losses are given no credibility and safety incentive would not increase; on its own there is not significant impact
- Predictive accuracy = as more losses would move to the excess layer from primary due to strictly by inflation, predictive accuracy decreases, additionally without ELR and D ratios, updates there would be a mismatch between actual and expected losses.

Overall the plan does not satisfy the goals

### **Part b:** 0.75 point

### *Sample 1*

Increase Med-only effect – Increases mod

Zero Credibility to Excess – Increases mod

Constant Primary/Excess Split – No change

## EXAM 8 FALL 2014 SAMPLE ANSWERS AND EXAMINER'S REPORT

### Sample 2

Increase Med-only effect – This will increase mod as this company has worse than average claim frequency and med-only losses are mainly small losses used for predicting frequency.

Zero Credibility to Excess – This change will also increase mod since this company has better than average excess loss experience but this change is removing that benefit and further increasing the effect of the primary losses.

Constant Primary/Excess Split – This can potentially lower company's mod as primary losses move into excess layer due to inflation which in turn receives no credibility.

### Sample 3

Increase Med-only effect – If the company stops reporting med only claims all together, mod may go down

Zero Credibility to Excess – Increase

Constant Primary/Excess Split – No Change

### Sample 4

- Medical Only losses are usually small so would be in the primary layer mostly; this would increase the mod for the insured with higher frequency of small losses
- As the insured never had excess claims the mod would increase as the primary claims are now given more weight
- This has no immediate impact on the mod; but if the claims after inflation would start piercing the 10,000 split point, mod would decrease since:
  - Expected excess losses will increase relative to primary losses
  - More claims would hit the 10,000 limit for primary (high frequency)
  - ELRs and D ratios assumed to not be updated, so it would cause misalignment (they would be too low)

## EXAMINER'S REPORT

### Part a

This question has six subparts asking the candidate to evaluate how three different changes would affect two areas of the NCCI plan. Candidates generally received credit if they were able to indicate the correct directionality of the effect, even without providing a full explanation.

However, many candidates wrote way too much on this part. Please note from the examples above, candidates wrote extremely verbose responses (compare responses 1 and 4 above). While both received full credit, a candidate could have save time with the

## EXAM 8 FALL 2014 SAMPLE ANSWERS AND EXAMINER'S REPORT

concise answer in version 1 above.

The most commonly made mistake on this part is the evaluation of the change regarding increasing the effect of med-only losses with respect to safety incentive. The key concept here is that this change will discourage companies from reporting med only losses and as a result will hurt safety incentive because the carrier is more qualified to ensure quick and proper treatment for injured workers and effective management of the claim. Many candidates predicted that companies will be less likely to report under this change, but not all were able to make the connection that this would hurt safety incentive.

### **Part b**

This question has three subparts asking the candidate to evaluate the impact on the experience mod per the three changes identified in part a. Credit was generally granted if the candidate was able to provide the general directionality of the impact for each change, however, as in part a, many candidates wrote too much.

Please note from the examples above, candidates wrote extremely verbose responses (compare responses 1 and 4 above). While both received full credit, a candidate could have save time with the concise answer in version 1 above. Several candidates had such a long response to part a, that it appears they forgot there was a part b.