20. (2.25 points)

An actuary for a large general liability insurer uses a frequency-severity technique to determine the estimate of unpaid claims.

a. (0.5 point)

Discuss whether the frequency-severity technique is appropriate for determining an estimate of unpaid claims for general liability.

b. (1.25 points)

The insurer recently changed their offering from large deductible policies to small deductible policies. Discuss the impact of this change on the frequency-severity technique, including an assessment of the appropriateness of the technique.

c. (0.5 point)

Recommend and justify an improvement to the actuary's estimation of unpaid claims given the change in deductible offerings described in part b. above.

QUESTION 20	
TOTAL POINT VALUE: 2.25	**LEARNING OBJECTIVE: B3**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample Answer 1

The F/S technique can certainly be used for GL since the true GL severities may not be known for a while, the historical severity is a good starting point. With good indications of frequency early on, the F/S technique allows for justifiable estimates of ultimate claims and unpaid claims.

Sample Answer 2

For a large GL insurer, a F/S technique could be appropriate since it is a long-tailed line and trends on severity could make it a better estimate. Also, these claims are usually a low frequency high severity type of business, thus it may make more sense to analyze frequency and severity separately.

Part b: 1.25 points

Sample Answer 1

This would increase our frequency of claims and decrease our average severity since we are adding a lot of small claims into our data. It would not be appropriate to analyze this data without first adjusting all prior data to be on the same basis as the current. Since this is not possible because our small claims have been censored by the large deductible, we cannot know our new average severity and new frequency.

Sample Answer 2

The average severity will increase since claims will be higher than before with a smaller deductible. Frequency will increase as well since former losses under the large deductible may be above the small deductible. The F/S technique would be appropriate if prior loss information below the deductible was available so that the historical data could be re-stated to the new deductible level.

Part c: 0.5 point

Sample Answer 1

Estimate unpaid claims using policy year instead of accident year to separate policies with smaller deductible and adjust prior policy years for the change in deductible.

Sample Answer 2

The use of expected claims or B-F method is preferable until more data with the small deductible option is collected since it does not rely solely on historical development patterns. The actuary can select an appropriate expected claim ratio based on judgement or industry data.

Sample Answer 3

An improvement would be to re-state historical data to new deductible level if prior claim data below the large deductible exists and then use the F/S method since applying the F/S method on the current data would yield incorrect estimates.

EXAMINER'S REPORT

Part a

Candidates were expected to know that the frequency-severity technique works well for long-tailed lines as well as the reasons why. They also needed to know GL is a long-tailed line.

Candidate results were mixed. Many candidates thought that the frequency-severity technique worked only for short-tail lines. However, the text states that frequency-severity is appropriate for all lines of business but is more often used for long-tail lines.

Those getting partial credit generally did not provide a full explanation of why the frequency-severity technique is appropriate for general liability.

Part b

Candidates were expected to know how and why the deductible change would individually impact frequency and severity. Candidates would also be expected to know that this would violate a key assumption of the frequency-severity technique unless an appropriate adjustment was made.

Candidates performed well on this part. Candidates receiving less than full credit did not fully explain why both frequency and severity would change.

Part c

Candidates were expected to recommend an improvement and explain why it would improve the estimate.

Candidates scored well on this part. The most common error was not justifying why their proposed recommendation was an improvement.