

15. (1.25 points)

a. (0.75 point)

List three considerations when establishing a large claim threshold for the purpose of estimating unpaid claims.

b. (0.5 point)

Contrast the effect that large claims have on the development technique and the Bornhuetter-Ferguson technique for estimation of unpaid claims.

EXAM 5 SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 15	
TOTAL POINT VALUE: 1.25	LEARNING OBJECTIVE: A4, B3
SAMPLE ANSWERS	
Part a: 0.75 point	
<p><u>Sample Answers (three required for full credit)</u></p> <ul style="list-style-type: none"> • # of claims over threshold • Size of claim relative to policy limits • Size of claims relative to reinsurance limits • Credibility of data above the threshold • Credibility of large claims • Percentile of loss distribution • The large loss threshold may vary by line of business (for example, property vs. liability) • Industry benchmark • External data relevant to the large loss threshold • Discussion with claims department on large claims • Amount of total Losses. A large loss will have a much more severe effect on a book of business with a total of \$10M total losses as compared to a book with \$1B. • Stability vs. Responsiveness of overall rate indication from year to year. • % of policy limits. If your book of business is composed of different coverages or limits by policy. 	
Part b: 0.50 point	
<p><u>Sample Answer 1</u></p> <p>Large claims will distort the development technique. If LDFs are computed using historical data without large claims, then the historical LDFs will be applied to large claims in immature accident years causing overstated unpaid claims.</p> <p>The B-F method will be less impacted by large losses than the development technique since B-F uses a credibility weighting between the expected claim method and the development method. The expected claim method will not be impacted by large losses, therefore the impact to B-F unpaid claims will be lower than the development technique.</p> <p><u>Sample Answer 2</u></p> <p>Large claims could cause a leveraging effect to LDFs. This will result in high LDFs being applied and resulting in overstated unpaid claims.</p> <p>The B-F unpaid claims will not be impacted because unpaid claims are based on an a priori estimate of ultimate claims.</p>	

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Sample Answer 3

Development technique is more responsive to large claims as LDFs are based off historical data. Higher LDFs will apply to higher losses resulting in overstated unpaid claims.

Since the B-F method is a credibility weighting of the development technique and an a priori estimate, it will be impacted in the same direction as the development technique, but to a lesser extent.

EXAMINER'S REPORT

Part a

Candidates were expected to know three considerations when determining a large loss threshold. Most candidates received partial credit for this part.

Common answers that did not receive credit were more procedural rather than considerations, such as mentioning you need to trend or develop your losses. In addition, many responses were too general/not enough explanation, such as mentioning credibility of data, effect on ultimate losses, or when the data becomes erratic.

Part b

Candidates were expected to know that large losses would distort the development technique, while having less of an impact on Bornhuetter-Ferguson. A basic explanation on why each technique is affected was expected.

In general candidates did well, with the majority earning full credit on this part of the question. Common answers that did not receive full credit include:

- Answers that simply stated that a method would or would not be distorted without any further explanation.
- Not mentioning the credibility weighting of expected claims/a priori estimate for B-F.
- Not comparing or incorrectly comparing the relative effects on each method.
- Stating that unpaid claims would be understated without any justification (answers mentioning understatements were given full credit if the process was explained).
- Incorrectly listing/using the BF formula for unpaid/unreported claims.