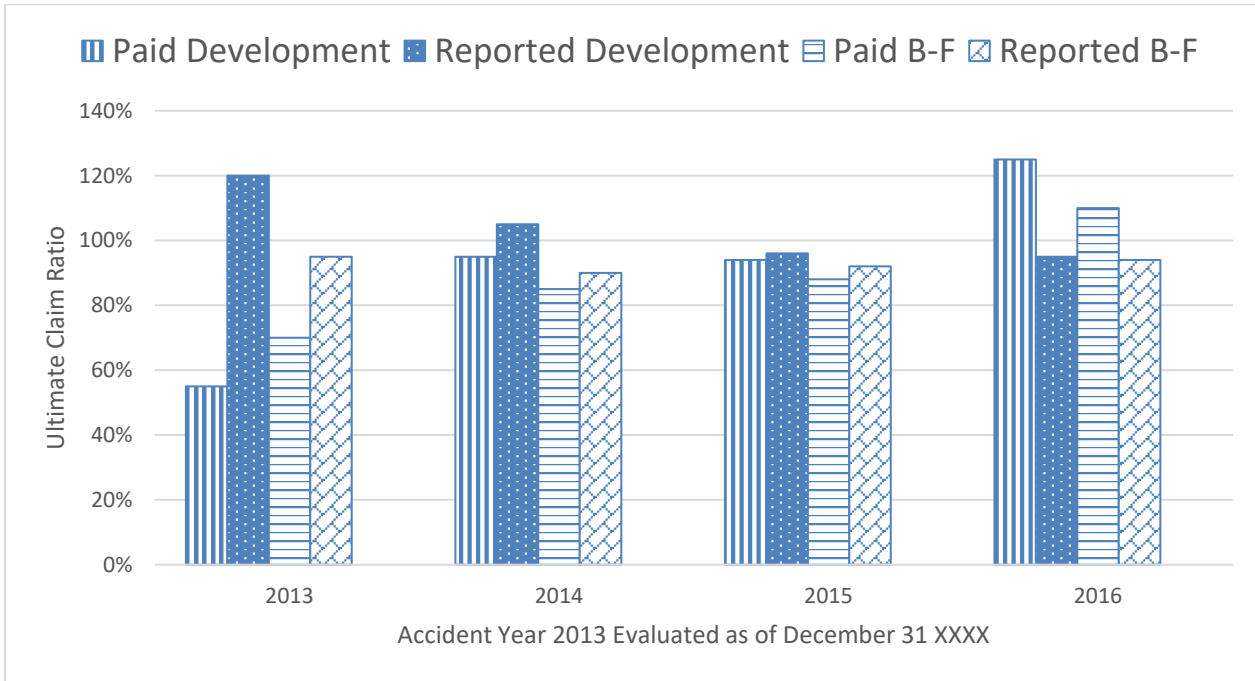


26. (1.5 points)

The following graph shows the results of four techniques for estimating the ultimate claim ratio for accident year 2013, as of December 31 for each year shown.



a. (0.5 point)

The actuary selected an ultimate claim ratio of 100% as of December 31, 2013. Assess the reasonability of this estimate using only information known as of December 31, 2013.

b. (0.5 point)

Discuss the relative position of the ultimate claim ratio for the reported Benktander technique versus the other techniques if the reported Benktander technique were added to the graph as of December 31, 2013.

c. (0.5 point)

Identify two questions that the actuary should ask company management based on the results observed for all four evaluations of accident year 2013.

## EXAM 5 SPRING 2017 SAMPLE ANSWERS AND EXAMINER'S REPORT

<b>QUESTION 26</b>	
<b>TOTAL POINT VALUE: 1.5</b>	
<b>SAMPLE ANSWERS</b>	<b>LEARNING OBJECTIVE(S): B1, B8</b>
<b>Part a: 0.5 point</b>	
<p><u>Sample 1:</u> This seems reasonable. Given the discrepancy between paid and reported methods, I suspect a large claim has been reported but not paid. The actuary selected the reported BF method, which would capture the impact of such a claim without allowing it to distort the IBNR estimate.</p> <p><u>Sample 2:</u> I find this unreasonable – only the rpt dev method is above 100% - and this method can be highly leveraged/volatile in early years. The BF methods are weighted w/ expected development &amp; are better to use for early years. More reasonable to choose the midpoint of the BF methods around 80%.</p> <p><u>Sample 3:</u> The selection seems reasonable. The reported development methods give a higher ultimate claim ratio, but it appears that this may be due to large case reserves. The paid development methods return far lower ultimate claim ratios. Given what we know as of CY2013 end, I think it is wise to trust the case estimates indicating larger losses to come while still considering historical claim ratios. Thus, selecting the BF method, a weighted average, makes sense.</p> <p><u>Sample 4:</u> With paid and reported development UCR so different, this suggests a strengthening of case adequacy vs the historical period. Therefore, reported is high. I will use the Paid BF method to weigh the paid development technique with expected claims to select 75%. I believe the assessment is too high.</p>	
<b>Part b: 0.5 point</b>	
The reported Benktander technique would be higher than the reported BF but lower than the reported development techniques, because it is a weighted average of the two.	
<b>Part c: 0.5 point</b>	
<p>Any two of the following:</p> <ul style="list-style-type: none"> <li>• Have there been any changes to strengthen or weaken the case reserves?</li> <li>• Are there any changes to claim settlement practices?</li> <li>• Was there a large unpaid claim in 2013 that was paid in 2016?</li> <li>• Has there been more focus on settling larger claims instead of smaller claims?</li> </ul>	
<b>EXAMINER'S REPORT</b>	
Candidates were expected to demonstrate knowledge about the principles of basic reserving methods, including the paid and reported claim development methods, B-F method, and the Benktander technique, as well as fundamental issues to be discussed within a company regarding circumstances to consider when evaluating reserve indications.	
<b>Part a</b>	
Candidates were expected to assess the reasonability of a claims ratio selection.	

## EXAM 5 SPRING 2017 SAMPLE ANSWERS AND EXAMINER'S REPORT

Candidates did not receive credit for supporting their reasonability assessment by merely comparing the positioning of the estimate relative to the indications, thereby restating information given in the question.

A common error was supporting the reasonability assessment to a limited degree by making observations/assumptions of possible scenarios, but not connecting these observations with strengths/weakness nor mechanics of the various methods.

### **Part b**

Candidates were expected to know the basic concept underlying the Benktander technique and relate that understanding to its position relative to the B-F and loss development techniques.

A common error was providing the relative position of the Benktander indication as being between the LDF and BF methods but not discussing that this was due to the Benktander technique being a credibility-weighting between the two methods.

### **Part c**

Candidates were expected to identify and articulate fundamental principles of company operations which impact claims reserving.

Common errors included:

- Providing two questions that were essentially the same, such as “Has there been a change in settlement rates?” and “Have claim closure rates changed?”
- Providing questions that were not related to the graphical information provided for 2013 but more general in nature, such as “Have there been underwriting changes?”