27. (1.75 points)

Given the following information:

	As of December 31, 2014		As of December 31, 2015
Accident Year	Selected Ultimate Claim Counts	Reported Claim Counts	Reported Claim Counts
2013	7,500	1,000	3,500
2014	8,600	600	3,400

Maturity	Cumulative Percent of Claim Counts Reported
36	55%
24	30%
12	8%

a. (1 point)

Compare actual reported claim count emergence to expected claim count emergence on reported claim counts in calendar year 2015.

b. (0.75 point)

Briefly describe a potential limitation of the actual vs. expected calculation performed in part a. above and propose an alternative calculation that addresses this limitation.

END OF EXAMINATION

QUESTION 27	
TOTAL POINT VALUE: 1.75	**LEARNING OBJECTIVE: B8**
SAMPLE ANSWERS	
Part a: 1 point	
AY 2013: (7,500 – 1000) * (0.55 – 0.30) / (1 - 0.30) = 2,321 AY 2014: (8,600 – 600) * (0.30 – 0.08) / (1 – 0.08) = 1,913 Total Expected Emergence in CY 2015 = 2,321 + 1,913 = 4,234 AY 2013: (3,500 – 1000) = 2,500 AY 2014: (3,400 – 600) = 2,800 Total Actual Emergence in CY 2015 = 2,500 + 2,800 = 5,300 5,300 > 4,234 Both accident years greatly underestimate the expected emergence	
Part b: 0.75 point	
Sample Answer 1 We know that claims tend to be reported earlier in the year, however this approach looks at the year as a whole. Claims reported is high at the beginning but decreases throughout the year. I would instead look at shorter time increments. *Sample Answer 2* This approach is reasonable when the prior selected ultimate claim counts for all accident years are based on the reported claim count development technique. If different techniques are used to select ultimate claim counts, the development pattern from the reported claim count development technique may not be appropriate. An alternative approach is to compare the historical closed claim count development triangle to the final value of selected ultimate claim counts to derive an emergence pattern for use in the actual to expected comparison. *Sample Answer 3* Some claims may be immaterial. Perhaps there's been a change in number of small claims -> This would change actual/expected ratio for claim # but total losses may develop the same if larger claims are involved. We could create disposal rate triangles and make Berq. Sherman adjustments to bring a new pattern for claims emergence. *Sample Answer 4* The limitation of the actual vs. expected method is that it uses prior CDFs. If there has been any speed up in development, the expected claims counts would continually underestimate. The method doesn't adjust to the changes in operation as quickly. Alternative would be to do an incremental closed method. *Sample Answer 5* Does not account for potential shifts in claim reporting or mix of business. You could look at expected paid claim counts (or closed) to see if that provides a different indication.	

EXAM 5 FALL 2016 SAMPLE ANSWERS AND EXAMINER'S REPORT

EXAMINER'S REPORT
Part a
Candidates were expected to calculate the actual and expected emergence in CY15 for AY13 and AY14 and provide a comparison of actual versus expected, either subtraction or division, or showing both values and commenting on which was higher Common mistakes included: • Not calculating the CY emergence for actual • Only calculating CY emergence for one AY, not both • Forgetting to show the Actual versus Expected, saying simply that it "doesn't match" or only displaying the results beside each other with no commentary or comparison
Part b
Candidates were expected to provide a limitation to the method used in part a), along with an alternative methodology which corrects this limitation and a brief description of the limitation and/or how the alternative corrects for it. Common mistakes included: • Suggested limitation was due to inaccurate calculation of % reported or ultimate • Not recognizing that these were claim counts rather than claim dollars and suggesting limiting dollar amounts • Suggested use of industry data in response to highly leveraged data (which would still be highly leveraged at an early maturity, even with more data)