25. (1.75 points)

Given the following information:

Accident	Reported Claims Only ($) as of (months)		
Year	12	24	36
2013	6,000	9,000	10,500
2014	7,500	11,250	
2015	9,000		

Accident	Reported ALAE ($) as of (months)		
Year	12	24	36
2013	150	900	1,575
2014	300	1,125	
2015	525		

- The 36 to ultimate development factor for reported claims only is 1.143.

a. (0.75 point)

Use the reported development technique to calculate ultimate claims only for all accident years.

b. (0.5 point)

Evaluate the reasonableness of combining the reported claims only and reported ALAE provided above to estimate total unpaid liabilities.

c. (0.5 point)

Assess the appropriateness of applying the development technique to the reported ALAE data provided above.

CONTINUED ON NEXT PAGE

QUESTION 25	
TOTAL POINT VALUE: 1.75	**LEARNING OBJECTIVE: B3, B7**

SAMPLE ANSWERS

Part a: 0.75 point

Reported Indemnity Claims - Age-to-Age Factors

Accident Year	12-24	24-36	36-Ult
2013	1.500	1.167	
2014	1.500		
2015			
Selected AtA	1.500	1.167	1.143
AtU	2.000	1.334	1.143

Ultimate Indemnity Claims

Accident Year	
2013	12,000
2014	15,000
2015	18,000

Part b: 0.5 point

Sample Answer 1

The development patterns appear noticeably different, and the ratio of ALAE to indemnity appears to be strengthening (or consistent after 24 Mos), Ideally, indemnity and ALAE would be estimated separately in this situation (or combine if consistent after 24 Mos).

Sample Answer 2

The ALAE dollars are fairly small compared to indemnity. A separate ALAE analysis may be unstable or not provide enough credibility, so combining the two may help dodge those issues.

Sample Answer 3

Upon reviewing the Age-to-age factors of the combined triangles it appears that the pattern is stable, combining the two may be appropriate.

Sample Answer 4

Reported ALAE is very small and volatile. Combining it with claims would enhance the credibility of the ALAE development without greatly distorting the reported claims development. I find this to be a reasonable approach given the wild LDFs you would get from developing ALAE separately.

Sample Answer 5

Accident Year	ALAE Age-to-Age Factor 12-24	24-36	36-Ult
2013	6.000	1.750	
2014	3.750		
2015			

Based on the age-to-age factors, it seems that ALAE is being reported a lot slower than claims only. Given the difference in the age-to-age factors, I don't think it is reasonable to combine the two to estimate unpaid liabilities.

Part c: 0.5 point

Sample Answer 1

The ratio of ALAE to indemnity appears to be increasing at 12 months, but not at 24 months in the available data. This suggests the claims department may be recognizing future ALAE spend faster than in prior years, and this change distorts the development technique.

Sample Answer 2

Age-to-age factors appear leveraged at early maturities. This makes selection of appropriate age-to-age factors difficult, so the development technique may not provide a reliable estimate.

Sample Answer 3

A development technique applied to reported ALAE or a ratio of ALAE to Loss, may be appropriate. However, the 12-24 development factor pick will be difficult and may require additional information.

Sample Answer 4

Accident Year	ALAE Age-to-Age Factor 12-24	24-36	36-Ult
2013	6.000	1.750	
2014	3.750		
2015			

The LDFs for ALAE alone are highly leveraged so I would not recommend. Instead, the ratio approach seems to be more appropriate. Assumptions also needs to be made about the ALAE tail.

Sample Answer 5

The age-to-age factors are very volatile due to the small ALAE amounts. Volatile LDFs may produce erratic results; I do not recommend using the development technique directly on ALAE.

EXAMINER'S REPORT
Part a
Candidates were expected to calculate age-to-age factors using the reported claim triangle given, select age-to-ultimate factors and appropriately apply the LDFs to each accident year. Common mistakes included: • Candidates added reported claims & ALAE triangles and calculated ultimate losses with combined LDFs. • Candidates neglected to calculate ultimate losses for ALL accident years.
Part b
Candidates were expected to evaluate the appropriateness of developing reported claims and reported ALAE together by comparing the LDFs of ALAE to claims, consistency of ALAE to claim ratios, and/or the amount of ALAE relative to claims. Answers of combining or separating claims & ALAE were both accepted as long as the candidate could give an actuarially sound argument using the information given. Common mistakes included: • Candidates did not draw a conclusion at the end. • Candidates argued that ULAE information is needed to evaluate unpaid liabilities.
Part c
Candidates were expected to evaluate if development method/chain ladder method is appropriate to develop reported ALAE, using the data given. A common mistake was interpreting the question incorrectly and repeated their answer to part b.