

EXAM 6 – UNITED STATES, FALL 2016

11. (2.5 points)

Given the following excerpts from an insurance company's 2015 Schedule P for a line of business:

Part 5, Section 1				
Cumulative Number of Claims Closed with Loss Payment Direct and Assumed at Year-End				
Year	2012	2013	2014	2015
2012	215	300	315	350
2013	XXX	225	335	375
2014	XXX	XXX	215	310
2015	XXX	XXX	XXX	175

Part 5, Section 2				
Number of Claims Outstanding Direct and Assumed at Year-End				
Year	2012	2013	2014	2015
2012	90	25	10	5
2013	XXX	95	25	20
2014	XXX	XXX	90	45
2015	XXX	XXX	XXX	90

Part 5, Section 3				
Cumulative Number of Claims Reported Direct and Assumed at Year-End				
Year	2012	2013	2014	2015
2012	460	520	515	510
2013	XXX	480	580	575
2014	XXX	XXX	460	500
2015	XXX	XXX	XXX	340

a. (1.25 points)

Construct a triangle showing the ratio of all closed claims to reported claims.

b. (0.75 point)

Identify one trend in the closure rates and briefly describe two possible causes for that trend.

c. (0.5 point)

Explain how the trend identified in part b. above could affect an actuary's estimate of unpaid claims if not taken into consideration.

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## SAMPLE ANSWERS AND EXAMINER'S REPORT

### QUESTION 11

**TOTAL POINT VALUE: 2.5**

**LEARNING OBJECTIVE: C1**

### SAMPLE ANSWERS

**Part a:** 1.25 points

Claims Closure Rate = (Reported Claims – Outstanding Claims) / Reported Claims  
 = (Section 3 – Section 2) / Section 3

Calculations:

2012	2013	2014	2015
(460-90)/460	(520-25)/520	(515-10)/515	(510-5)/510
	(480-95)/480	(580-25)/580	(575-20)/575
		(460-90)/460	(500-45)/500
			(340-90)/340

Completed Triangle (Schedule P Format):

2012	2013	2014	2015
80.4%	95.2%	98.1%	99.0%
	80.2%	95.7%	96.5%
		80.4%	91.0%
			73.5%

Or in non-Schedule P Format:

2012	2013	2014	2015
80.4%	95.2%	98.1%	99.0%
80.2%	95.7%	96.5%	
80.4%	91.0%		
73.5%			

**Part b:** 0.75 point

#### Sample 1

Claim closure rates have decreased in calendar year 2015 across all accident years.

Possible causes for trend:

- Reduction in claims department staffing levels

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- Management actively focusing on larger, more complex claims instead of small claims.
- Inefficiency of claim process due to high turnover in claims department
- Implementation of new claim procedure, technique, or technology
- Regulatory or legal change that hinders claim closure
- Change in policy language making claims settling more complicated
- Shift from company adjusters to independent adjusters
- Catastrophic event occurring that causes claims staff backlog
- Shift towards more vigorous defense of suits
- Change in data coding procedure
- Insurer may be distressed and deliberately leaving claims open longer
- Change of mix of business within specific schedule P line of business

### Part c: 0.5 point

#### Sample 1

The loss development patterns from historical years will be low compared to how claims are closing in accident year 2015. If historical LDFs are applied to current claims, the ultimate projected claims will be underestimated.

#### Sample 2

If a frequency/severity method is used and historical frequency development patterns are applied to the latest frequencies, which are depressed relative to historic levels, then the ultimate frequency of unpaid claims will be underestimated.

#### Sample 3

If claims department is actively focusing on closing large claims sooner, paid loss numbers would be inflated at early ages. These paid loss amounts would have LDFs applied that are based on a historical period where the claims department is not focusing on large losses early. The historical LDFs would be too high based on the current paid loss strategy and would overestimate ultimate unpaid loss.

### EXAMINER'S REPORT

The candidates were expected to use a company's schedule P data to provide a claims closure rate table while also interpreting the possible causes and ramifications of the results.

#### Part a

The candidates were expected to construct a triangle showing the ratio of all closed claims to reported claims using the schedule P data provided.

A common mistake was using the claims closed with payment triangle. Some candidates simply

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used (Section 1 / Section 3) which is incorrect due to the question asking for the ratio of all closed claims to reported claims.

### Part b

The candidates were expected to identify a trend in the closure rates while also identifying possible causes for that trend. If an error was made in part a, the results were carried through to part b without additional penalty, even if part a showed a claim closure rate increase.

Common mistakes included:

- Stating only that the closing of claims was slowing down without any additional information
- Discussing change in lines of business for cause of trend. Schedule P is specific to LOB. Credit was given for stating a mix change within a line of business.

### Part c

The candidates were expected to explain how the change in claim closure rates would affect an actuary's unpaid claim estimate.

The most common errors were:

- Incorrectly stating whether the change in claim closure rates would overestimate or underestimate the unpaid claim estimate
- Stating that the actuary's estimate would be affected or incorrect but not making a determination of whether it would be too high or too low