

EXAM 5, SPRING 2016

4. (2.25 points)

Given the following information:

Claim	Policy Effective Date	Accident Date	Report Date	Transaction Date	Claim Status	Loss Payment	Case Reserve Change
1	October 1, 2013	December 15, 2013	January 5, 2014	January 7, 2014	Open	-	+\$5,000
				March 1, 2014	Open	\$4,000	-\$4,000
				January 5, 2015	Closed	\$500	-\$1,000
2	November 1, 2013	February 1, 2014	February 10, 2014	March 1, 2014	Open	-	+\$6,000
				March 15, 2014	Closed	\$6,000	-\$6,000
3	January 1, 2014	June 1, 2014	June 5, 2014	June 10, 2014	Open	-	+\$10,000
				September 1, 2014	Open	\$1,000	+\$10,000
				January 3, 2015	Open	\$4,000	-\$5,000
4	June 1, 2014	August 15, 2014	July 15, 2015	July 20, 2015	Open	\$500	+\$5,000
				March 1, 2016	Open	-	+\$5,000
				June 1, 2016	Open	\$5,000	+\$7,000

- Calendar year 2014 earned premium = \$50,000.
- Calendar year 2015 earned premium = \$60,000.

a. (0.5 point)

Calculate the 2015 calendar year case incurred losses.

b. (0.5 point)

Calculate the 2014 policy year case incurred losses, evaluated at December 31, 2014.

c. (0.75 point)

Calculate the 2014 accident year case incurred loss ratio, evaluated at December 31, 2015.

d. (0.5 point)

Provide one advantage and one disadvantage of using policy year data in ratemaking analyses.

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EXAM 5 SPRING 2016 SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 4	
TOTAL POINT VALUE: 2.25	LEARNING OBJECTIVE(S): A3
SAMPLE ANSWERS	
Part a: 0.5 point	
$500 - 1000 + 4000 - 5000 + 500 + 5000 = 4000$	
Part b: 0.5 point	
$10,000 + 1000 + 10000 = 21,000$	
Part c: 0.75 point	
$\frac{6000 + 6000 - 6000 + 10,000 + 1000 + 10000 + 4000 - 5000 + 5500}{50,000} = .63$	
Part d: 0.5 point	
<p><u>Sample Responses for "Advantage"</u></p> <ul style="list-style-type: none"> • Provides the best match of premium and losses • It provides a good match between exposures and losses • Can isolate changes in policy limits or underwriting guidelines <p><u>Sample Responses for "Disadvantage"</u></p> <ul style="list-style-type: none"> • Takes longest to develop • PY is the least responsive with an extended time to become available for ratemaking analysis • Policy year premium and loss need to develop to ult 	
EXAMINER'S REPORT	
<p>Candidates were expected to calculate case incurred losses using the loss payment and case reserve change transactions provided. Candidates were also expected to calculate a loss ratio using the premium information provided. Finally, candidates were expected to provide an advantage and a disadvantage of using policy year data in ratemaking.</p> <p>This question was straightforward, and candidates did well on this question. The majority of candidates calculated the case incurred loss correctly for parts a., b. and c., as well as the loss ratio for part c. Most candidates were able to provide one each of the several advantages and disadvantages for using policy year data in ratemaking.</p>	
Part a	
<p>Candidates were expected to calculate the 2015 calendar year case incurred losses using the loss payment and case reserve change transactions provided for four claims, organized by policy effective, accident, report, and transaction dates.</p> <p>Candidates were expected to demonstrate the correct use of the loss payments and case reserve changes with a 2015 transaction date by summing the loss payments and case reserve changes to determine the correct total case incurred losses.</p> <p>Common mistakes included:</p> <ul style="list-style-type: none"> • Including transactions not belonging to calendar year 2015 • Calculating the change in case reserves but calling it the case incurred loss (i.e., ignoring the loss payments) 	
Part b	

EXAM 5 SPRING 2016 SAMPLE ANSWERS AND EXAMINER'S REPORT

Candidates were expected to calculate the 2014 policy year case incurred losses, evaluated at December 31, 2014, using the loss payment and case reserve change transactions provided for four claims, organized by policy effective, accident, report, and transaction dates.

Candidates were expected to demonstrate the correct use of the loss payments and case reserve changes for claims with policy effective dates in 2014 and transactions on or before December 31, 2014, by summing the loss payments and case reserve changes to determine the correct total case incurred losses. Note: only the first two transaction dates for claim 3 were required for this calculation.

Common mistakes included:

- Including claims not belonging to policy year 2014
- Including transactions beyond the December 31, 2014 evaluation date
- Calculating the change in case reserves but calling it the case incurred loss (i.e., ignoring the loss payments)

Part c

Candidates were expected to calculate the 2014 accident year case incurred losses, evaluated at December 31, 2015, using the loss payment and case reserve change transactions provided for four claims, organized by policy effective, accident, report, and transaction dates.

Candidates were expected to demonstrate the correct use of the loss payments and case reserve changes for claims with accident dates in 2014 & transactions on or before December 31, 2015, by summing the loss payments and case reserve changes to determine the correct total case incurred losses. In addition, candidates were expected to select the correct premium from the two provided premiums, and use the 2014 earned premium to calculate the case incurred loss ratio. Note: only the 2014 and 2015 transactions for claims 2, 3, and 4 are required for this calculation.

Common mistakes included:

- Including transactions beyond the December 31, 2015 evaluation date
- Calculating the change in case reserves but calling it the case incurred loss (i.e., ignoring the loss payments)
- Skipping the calculation of the loss ratio

Part d

Candidates were expected to know an advantage and a disadvantage of using policy year data in ratemaking.

Candidates were expected to briefly state one advantage and one disadvantage specific to the policy year aggregation method, with no detailed explanation or other supporting information required.