

21. (2 points)

Given the following information:

Cumulative Reported Claim Counts

Accident Year	12 Months	24 Months	36 Months
2012	500	750	1,000
2013	575	865	
2014	800		

Cumulative Closed Claim Counts

Accident Year	12 Months	24 Months	36 Months
2012	300	500	875
2013	350	800	
2014	750		

- Assume no reported development after 36 months.

a. (1.5 points)

Based on disposal rates, assess the appropriateness of using a Berquist-Sherman paid claims development adjustment.

b. (0.5 point)

Given the additional information below, discuss a possible distortion when using the Berquist-Sherman paid claim development adjustment.

Unadjusted Paid Claims Severity on Closed

Accident Year	12 Months	24 Months	36 Months
2012	\$24,000	\$34,667	\$35,657
2013	\$26,087	\$28,142	
2014	\$16,111		

- Assume no partial payments.

## EXAM 5 SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 21																																											
TOTAL POINT VALUE: 2.0	LEARNING OBJECTIVE: B5																																										
SAMPLE ANSWERS																																											
Part a: 1.5 points																																											
<p>Cum. reported claim counts</p> <table><tr><td>AY</td><td>12-24</td><td>24-36</td><td>36-ult</td></tr><tr><td>2012</td><td>1.5</td><td>1.333</td><td></td></tr><tr><td>2013</td><td>1.504</td><td></td><td></td></tr><tr><td>Sel avg</td><td>1.502</td><td>1.333</td><td>1</td></tr><tr><td>Age to ult</td><td>2.002</td><td>1.333</td><td>1</td></tr></table> <p>AY Ult Counts</p> <table><tr><td>2012</td><td><math>1000 \times 1 = 1000</math></td></tr><tr><td>2013</td><td><math>865 \times 1.333 = 1153</math></td></tr><tr><td>2014</td><td><math>800 \times 2.002 = 1602</math></td></tr></table> <p>AY Disposal Rates</p> <table><tr><td></td><td>12</td><td>24</td><td>36</td></tr><tr><td>2012</td><td>.3</td><td>.5</td><td>.875</td></tr><tr><td>2013</td><td>.304</td><td>.694</td><td></td></tr><tr><td>2014</td><td>.468</td><td></td><td></td></tr></table> <p>Since there is a jump in disposal rates for the latest diagonal, there seems to be an increase in settlement rates, so the Berquist-Sherman paid claims development adjustment would be appropriate.</p>		AY	12-24	24-36	36-ult	2012	1.5	1.333		2013	1.504			Sel avg	1.502	1.333	1	Age to ult	2.002	1.333	1	2012	$1000 \times 1 = 1000$	2013	$865 \times 1.333 = 1153$	2014	$800 \times 2.002 = 1602$		12	24	36	2012	.3	.5	.875	2013	.304	.694		2014	.468		
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Part b: 0.5 point																																											
<p>Severity decreasing for 2014 combined with closed counts/closure rates increase for 2014 violates the assumption of the paid Berquist Sherman that a higher % of closed counts corresponds to a higher % paid claims. The paid Berquist Sherman adj is inappropriate here and would distort development pattern. This could indicate instead a switch to closing small claims instead of large ones.</p>																																											
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<p>Candidates were expected to know how to calculate disposal rates and understand when the Berquist Sherman method should be used. In order to receive full credit, candidates must accurately develop reported ultimates, including the calculation of LDFs, and correctly use the closed claims triangle and ultimate reported claims to calculate a disposal rate triangle. Candidates must then recognize the increase in disposal rates and state that the Berquist</p>																																											

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Sherman method is appropriate given the increase.

Many candidates simply divided the closed triangle by the reported triangle to calculate disposal rates. This is not the recommended method of calculating disposal rates. Also, some candidates calculated ultimate claim counts using the closed claim triangle.

### **Part b**

Candidates were expected to make the connection between the increase in disposal rates and decrease in paid severity on closed claims. In order to obtain full credit, candidates were expected to point out the severity change and the claims handling process that could have led to that change, and describe what assumption of the Berquist-Sherman method was violated.

Many candidates simply stated that severity had decreased without describing why that violated the Berquist Sherman method. This is important, as severity trends can be accounted for in the method, but a shift in claim handling cannot.