20. (3 points)

Given the following information for a line of business:

- Assume no reported claims development past 36 months.
- Annual claim severity trend = +5%.
- Paid claim development method ultimate loss for accident year 2012 = $10,275,000.
- Reported claim development method ultimate loss for accident year 2012 = $9,650,000.

Cumulative Paid Claims ($000s)			
Accident Year	12 Months	24 Months	36 Months
2010	$2,100	$6,410	$8,300
2011	$2,210	$7,000	
2012	$2,550		

Cumulative Closed Claim Count			
Accident Year	12 Months	24 Months	36 Months
2010	35	75	99
2011	35	80	
2012	40		

Cumulative Reported Claims ($000s)			
Accident Year	12 Months	24 Months	36 Months
2010	$5,300	$7,810	$8,500
2011	$5,500	$8,130	
2012	$6,000		

Cumulative Reported Claim Count			
Accident Year	12 Months	24 Months	36 Months
2010	80	98	100
2011	79	97	
2012	82		

Outstanding Claims ($000s)			
Accident Year	12 Months	24 Months	36 Months
2010	$3,200	$1,400	$200
2011	$3,290	$1,130	
2012	$3,450		

Outstanding Claim Count			
Accident Year	12 Months	24 Months	36 Months
2010	45	23	1
2011	44	17	
2012	42		

Fully discuss the considerations in deciding between using the paid or the reported claim development method to estimate ultimate claims for this line of business, and recommend an ultimate loss estimate for accident year 2012.

Exam 5 Question #20

Check avg. paid severities:

AY		12		24		36
10	1.05	60	1.024	85.47		83.84
11	1.01	63.14		87.5		
12		63.75		↘= 7000/80		

Avg pd appears to be trending at rate less than 5% For most recent

Could indicated change in settlement practice could be closing more small claims.

Check Avg
Case Outstanding:

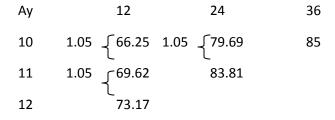$$\text{Avg Case out} = \left(\frac{Out\ CLM}{Out\ CLM\ Ct}\right)$$

AY		12		24	36
10	1.05	71.11	1.09	60.87	200
11	1.02	74.77		66.47	
12		76.19			

Avg. case outstanding increased by less than 5% per year at 12 months and greater than 5% per year at 24 months. Could indicate a change in type of claim being closed at the pd.

Look at closed to reported of ratio: Closed Ct/Rep Ct

AY	12	24	36
10	.4375	.7653	.99 ↘
11	.4430	.8247	=99/100
12	.4878		

Closed to report count ratio appears to be increasingly, indicating a speed up in claim settlement. Since there is a speed up in settlement and avg. pd severity is trending at rate lower than 5%, it appears the insurer is closing more small claims quickly.

Avg rep clm

Ay	12	24	36
10	1.05 $\{$ 66.25	1.05 $\{$ 79.69	85
11	1.05 $\{$ 69.62	83.81	
12	73.17		

Avg. Rep. CLM increasing at steady rate of 5%.

Due to the diagnostics and explanations above, I would select the reported dev method ultimate of $9.65 mil.

Common mistakes included:
- Not using trend factors
- Not using loss development factors
- Applying loss development factors or trend factors to the incorrect year (for example, applying the 36-month factor to 2012 rather than 2010)
- Assuming that the inverse of the given percentage reported factors were age-to-age factors rather than age-to-ultimate factors

20. Candidates were supposed to evaluate Average Paid (and/or Outstanding) and Average Reported trends and compare them to the known severity of 5%. They should have noticed the increase in paid settlement and that reported trends matched the 5% severity. From there they were to conclude to use the reported method and not the paid. This conclusion should have been reached by evaluating changes (or lack of change) in both case adequacy and settlement rates.

Many candidates calculated Average Paid and Average Case severities, but did not calculate the Average Reported severities. Most candidates did calculate trend from year to year. Many of those lost credit by not making any statement on the stability or instability of the resulting trends. Also, comparisons of the observed paid severity to the outstanding severity, or the observed severities along the diagonal rather than down the columns of the triangle did not receive full credit.

Many candidates that only looked at average paid and case decided the change in trend of the case outstanding disproved using the reported method. But case alone is inconclusive in determining reported stability. Many of those candidates did not test for settlement rate changes, likely with the thought that they had identified the relevant piece of information to make their choice. Some candidates further went on to test the settlement rate but did not see how an apparent case adequacy change is influenced by a real settlement rate change.

Those that did calculate Average Reported often noticed that the year to year trend was stable and some of those mentioned that the trend was consistent with the 5% severity.

A large number of candidates went off onto a Berquist-Sherman technique or an "adjusted" reported methodology which was incorrect as the reported method without adjustment is the preferred method.

Full credit for the selection of the reported method was given if the correct choice was made or even if the words "select the reported method" and no numerical choice was made. If the candidate mistook the reported ultimate for incurred and then applied an LDF, or created their own LDF instead of using the ultimate given, full credit was still awarded. If they adjusted the reported triangle using a BS or other methodology and then developed to ultimate, no credit was given for selecting the reported method.

The question asked the candidates to choose between the paid and reported methods. Some candidates choose an average of them and got a number "Between." Since the reported was accurate and the paid was not candidates did not receive full credit.

21.