5. (3.25 points)

The following information is available for a homeowners insurance company as of December 31, 2013:

Period (months)	Reported Loss and ALAE Age-to-Age Development Factors
12-24	1.10
24-36	1.05
36-48	1.01

Calendar/ Accident Year	Earned Exposures (000)	Amount of Insurance Years (AIY) ($000)	Reported Non-Catastrophe Loss and ALAE ($000)
2011	45	13,500	23,000
2012	50	15,300	25,000
2013	40	12,500	20,000

- Annual loss and ALAE trend = 4%.
- Historical non-catastrophe ULAE to loss and ALAE ratio = 1.05.
- Historical catastrophe ULAE to loss and ALAE ratio = 1.09.
- Long-term non-modeled catastrophe loss and ALAE-to-AIY ratio = 0.25.
- Modeled catastrophe loss and ALAE-to-AIY ratio = 0.07.
- Rates will take effect on January 1, 2015, and will be in effect for one year.
- All policies are annual.
- Assume no development after 48 months.

Using three years of historical data, determine the provision for loss and LAE to be used in the pure premium indication.

CONTINUED ON NEXT PAGE

QUESTION 5

TOTAL POINT VALUE: 3.25 | **LEARNING OBJECTIVE: A4**

SAMPLE ANSWERS

Yr	AIY/E. Expo.	Change
11	300	
12	306	2%
13	312.5	2.10%
Proj		
15	312.5 * 1.02^2 = 325.125	
16	312.5*1.02^3 = 331.628	
Avg = 328.38		

(1) CAT PP (L&LAE) = 328.3 * (0.25 + 0.07) * 1.09 = 114.54

YR	(2) Rpt Non Cat L&LAE	(3) Trend Factor	(4) CDF Ult	(5) ULAE Load	(6) Proj Ult L&LAE
11	23,000	1.04 ^ 4.5	1.01	1.05	29,100
12	25,000	1.04 ^ 3.5	1.0605	1.05	31,934
13	20,000	1.04 ^ 2.5	1.1 * 1.05 * 1.01 = 1.16655	1.05	27,021
					88,055

(3) Trend from 7/1/XX to 1/1/16

(6) = (2)*(3)*(4)*(5)

(7) Non-cat PP = 88,055 / (45 + 50 + 40) = 652.26

(8) Proj PP = (1) + (7) = 766.80

EXAMINER'S REPORT

For the non-catastrophe provision, candidates were expected to calculate ultimate loss development factors, determine the loss trend period, and apply the non-catastrophe ULAE factor. Many candidates did well on this part. Common errors included not calculating a per-exposure provision for the pure premium indication or calculating the projected loss for each accident year but not determining a selected provision for the pure premium indication.

For the catastrophe portion, candidates were expected to determine the trend in average AIY per exposure and use this to trend AIY/Exposure to the proposed policy period. Candidates were then expected to apply the non-modeled and modeled catastrophe provisions and catastrophe ULAE provisions to determine the projected catastrophe loss and LAE per exposure. Common errors included not calculating or applying an AIY/Exposure trend and applying the incorrect ULAE provision to the projected catastrophe losses.