3. (1.5 points)

When aggregating data for ratemaking purposes, two of the three general objectives are:

- To accurately match losses and premiums for the policy.
- To use the most recent data available.

Briefly discuss how well the following methods of data aggregation achieve these two general objectives.

a. (0.5 point)

Calendar year

b. (0.5 point)

Calendar/accident year

c. (0.5 point)

Policy year

Exam 5 – Question 3

A. Calendar year data is the most responsive as it uses very recent data and is fixed at the end of the calendar year.

   Calendar year data doesn't do a good job matching premium and losses; we could have losses from written in one calendar year being matched with premium from policies written in another.

   Or

A. Least match premium and losses as it only aggregate data based on transactions data regardless the effective or loss data, thus mismatch. Readily available as premium/losses are fixed as soon as CY ends. No development, thus data readily available.

B. Calendar/Accident year uses the same premium as calendar year, but uses losses that occur in a given year. This does a better job at matching premium and losses than calendar year, but there is still a mismatch. Data is also not fixed at the end of the accident year as losses are not fully developed; therefore, it does not use as recent data as calendar year.

   Or

B. Better match than CY aggregate, as it aggregate losses based on accident date in the 12-mos period, and premium based on transaction date. Not readily available, as the losses data is subject to development due to pure IBNR and IBNER.

C. Policy year provides a perfect match between premiums and loses as it contains losses and premium for policies written in a given year. The drawback is that it can take a while for this data to fully develop and therefore it is not as responsive as calendar or accident year data and doesn't use the most recent data available.

   Or

C. Most match as premium and losses are all from the same policies issued in the 12-mos period. Least available. It takes extended time period to develop to ultimate for both premium and losses.

   Or

C. Best match for premium and losses. It is the exact amount. If it was written in the policy year it will look at all the losses in that policy year regardless if it happened in another accident year. Not the most recent data because it is extended over 24 months. Policy year has an extended time frame to account for all policies written within a 1 year policy period.

Exam 5 Examiner's Report
Fall 2013

The pass score for this exam was set at 41 points, or 70.1% of the total available points.

1.

Nearly all candidates were able to name three criteria for an exposure base. When candidates lost points, it was typically due to only evaluating hours worked as an exposure base, without comparison to payroll. Others lost credit for not supporting the reason, or for simply restating the criteria as the reason. For example, with the proportionality criteria, simply stating that 'hours worked is proportional to expected loss' without further explanation was not given full credit. Given justification, candidates could argue for either exposure base for any particular criteria.

2.

Most candidates correctly used the current rates and calculated the on-level premium accurately. For candidates that incorrectly calculated the on-level premium, there were various errors related to using older rates.

About half the candidates calculated the earnings percentage correctly. Some common errors were assuming the latest 2 years exposures were fully earned or assuming the expense fee is fully earned immediately.

Some candidates forced the calculation into a parallelogram method. The question explicitly said to use the extension of exposures method. This would cause significant amount of additional work and would result in lost points since it was not the appropriate method.

3.

Candidates generally answered this question correctly. Some candidates did not provide any explanation of why or how the data aggregation method achieved the objective and in those cases were not afforded full credit.

a. The majority of candidates provided comprehensive answers for this part.

b. Some candidates struggled to articulate how the calendar/accident year aggregation method met the objective of matching premium to loss.

c. The majority of candidates provided comprehensive answers for this part