## EXAM 8 - FALL 2016

# 3. (2 points)

A private passenger automobile insurer sells policies through two distribution channels: independent insurance agents and directly to consumers via the internet.

The company's rates already incorporate expense differentials between the two channels but the head of sales has asked their actuary to file different pure premium factors for the two groups.

The actuary wishes to evaluate the acceptability of the request against the American Academy of Actuaries "Risk Classification Statement of Principles."

- a. (1 point)
   Identify and briefly describe two considerations supporting inclusion of distribution channel in the pure premium factors.
- b. (1 point)
   Identify and briefly describe two considerations against inclusion of distribution channel in the pure premium factors.

#### **EXAM 8 FALL 2016 SAMPLE ANSWERS AND EXAMINER'S REPORT**

QUESTION: 3	
TOTAL POINT VALUE: 2	LEARNING OBJECTIVE(S): A1
SAMPLE ANSWERS	

Part a: 1 point

#### Sample Responses to considerations supporting inclusion

- Statistical critieria: Credibility -> each classification is likely large enough to produce credible statistical predictions. I.e., enough policies sold through each distribution channel.
- Absence of Ambiguity -> each classification is easy to determine and likely to be mutually exclusive.
- Using distribution channels improve prediction accuracy of the expected loss of the insured.
- Since more policies can be priced more accurately, availability of coverage will increase.
- The consumer has a choice to either go to an independent agent and thus can <u>control</u> this selection.
- The distribution channel is easily measured and objective such that it is either one or the other.

### Part b: 1 point

### Sample Responses to considerations against inclusion

- Manipulation -> easily manipulated by insured (Change distribution channel based on what produces preferential pricing)
- Public Acceptability -> unclear how distribution channel is related to the insured's loss potential.
   No clear cause and effect relationship, not clearly based on relevant data.
- Hazard Reduction Incentive Varying rates by distribution channel in no way promotes insureds to mitigate their hazard exposure because distribution channel is not directly linked to losses.
- Using distribution channels is more prone to insured's manipulation. They can price through different channels and select the lowest price.
- It is hard to justify for the causality to the DOI regulator to make the variable acceptable.
- Distribution channel does not necessarily reflect differences in expected loss. No reason to believe driving behavior is different and so causality does not appear to be here.
- A consumer one year could go to an agent and then the next year go online so not constancy in measure.

#### **EXAMINER'S REPORT**

Candidates were expected to identify and describe two considerations for and two against using distribution channel as a variable in coming up with their pure premium factors.

## Common mistakes include:

- Describing or identifying, but not both. If a candidate described a consideration and included
  the key word (e.g., statistical, homogeneity, credibility, predictive stability), they got credit for
  identifying as well. If the key word was not included, they got the credit for describing, but
  not for identifying. Graders were fairly liberal in helping to identify a consideration that could
  fit the description given by the candidate.
- Identifying a consideration that was not one of the AAA's recommendations did not get credit for that identification, but the description would fit into another consideration, so the candidate would get credit for the description but not the identification.

### **EXAM 8 FALL 2016 SAMPLE ANSWERS AND EXAMINER'S REPORT**

- Identifying expenses as a consideration was given no credit, as the question stated that the expenses were already taken into account.
- Identifying a consideration in a (supporting inclusion) but were really more appropriate for b
  (against inclusion), or vice versa, were given no credit. For example, manipulation was a
  reason against having distribution channel as part of the rating plan, but it would not be a
  good example of why it should be included.