1. (2.25 points)

A company is considering introducing a risk accumulation surcharge into its homeowners rating plan. The surcharge is a territory factor beyond expected pure premium differences and will be applied to territories where the total number of homeowner's risks in the territory is beyond a selected threshold.

Construct an argument for or against the introduction of the risk accumulation surcharge and whether it accomplishes the three primary purposes of risk classification listed in the American Academy of Actuaries "Risk Classification Statement of Principles."

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Question 1

Model Solution 1

The three purposes of risk classification are:
1. Protect the financial soundness of the insurance system
2. Enhance fairness
3. Encourage availability of coverage by offering economic incentives to operate

Charging an accumulation surcharge accomplishes all three.
1. If companies were unable to charge a factor beyond expected pure premium it is likely that rates would be inadequate, not on a pure premium basis but on a risk-adjusted basis. Business in these territories is more likely to drain capital and cause insolvency if a catastrophe were to occur.
2. For the same reason above, risks in territories are riskier than risks within the threshold. To charge both types of risks the same (likely to be subsidies) would be unfair.
3. If companies are unable to charge a surcharge in highly concentrated territories, they may choose to stop offering coverage in these territories. That will cause coverage availability issues. Thus the surcharge improves availability.

Model Solution 2

Against the surcharge

A rating plan should be based on factors that reflect expected cost differences. This would make it more acceptable to the public. Otherwise, as it stands, this factor unfairly discriminates against certain risks. This factor does not reflect expected cost differences; rather it is just a business strategy for insurance since it will overcharge a risk if the insurer itself insures too many risks in the territory.

Protect the insurance system's financial soundness: it seems that if the insurer has too many risks in the territory, it will overcharge certain risks in that territory. This may lead those risks to seek out lower premiums from competitors. This results in adverse selected which harms financial soundness.

Enhance fairness: This rating surcharge is not controllable by the insured since it depends on the entire book of the insurer's business. It also doesn't show direct causality to loss, therefore the public acceptability would be very low. While these considerations are not crucial to a risk classification system, they are preferable.

Ensure widespread availability of coverage and allow economic incentives to operate: With a higher premium, good risks may leave the company and go to other companies with lower premium, and only the bad risks will remain. Eventually it would lead to bankruptcy of the company, which would decrease availability of coverage in the market.

Examiner's Comments
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Many different answers were accepted for full or partial credit for this question.

The majority of candidates were able to identify the three principles of rate classification. Most were also able to offer some argument for or against the surcharge for each principle, but many of the arguments only received partial credit. To receive full credit, the argument needed to be well thought out and articulated, as well as sound. Some common "weak" arguments included:

1. Arguing that the charge isn't fair because it's beyond pure premium differences. A rate provides for all costs associated with the transfer of risk, including reinsurance and risk-adjusted cost of capital, both of which would be higher in concentrated areas. To argue that pure premium should be the sole determinant of premium differences only warranted partial credit.
2. Arguing that insurance would become less available because the surcharge makes this insurer more expensive was a weak argument. If, however, the candidate argued that if the surcharge became widespread and caused affordability issues throughout the market, that was a strong argument.
3. Many candidates mentioned "equal profit potential" or some variation thereof in their reasoning for providing economic incentives to provide coverage. In general this was considered weak reasoning. The AAA paper never specifically mentions "profit" in this regard, and unless the candidate made a strong connection between this and the insurer's willingness to provide coverage in the territory, the candidate would only receive partial credit.
4. Just stating that the surcharge would or wouldn't lead to adverse selection wasn't enough for full credit – the candidate needed to demonstrate how the adverse selection would take place.

A candidate did not need to have 3 arguments for, or 3 against to receive full credit. A fair amount of candidates argued 2 reasons for and 1 against or vice versa and received full credit.
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