

EXAM 6 – UNITED STATES, SPRING 2017

1. (3 points)

a. (1 point)

Describe two ways in which usage-based insurance, such as telematics, might unfairly discriminate against lower income and protected classes of individuals.

b. (1 point)

Describe two ways in which usage-based insurance might benefit lower income and protected classes of individuals.

c. (1 point)

Describe two criticisms of usage-based insurance, other than the criticism that usage-based insurance may be unfairly discriminatory against lower income and protected classes of people.

SPRING 2017 EXAM 6U SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 1	
TOTAL POINT VALUE: 3	LEARNING OBJECTIVE: A1
SAMPLE ANSWERS	
Part a: 1 point	
Any two of the following: <ul style="list-style-type: none">• Disproportionate impact of offer and sale of UBI against customers in low/moderate income and minority communities.• Telematics may find that people who drive at the early hours of the day present more risk. This could impact low-income insureds who work night shifts.• Telematics may find that people who drive in urban areas present more risk.• When the telematics device is purchased by the consumer, those with low-income may not be able to afford it.• When insurance rates are higher at the outset for a certain class of policyholders due to allegedly unfairly discriminatory factors unrelated to driving history (credit-scores), the application of a discount masks the underlying issue.• Low-income drivers are more likely to operate older vehicles that may not be able to use the telematics device.• Low-income drivers are more likely to operate vehicles in poorer condition or that don't have new automobile features (e.g. lane assist). This could result in harder braking and more swerving.• Those with certain disabilities may need to use a vehicle tailored to their needs, which limits their ability to carpool or use public transportation, which results in higher usage of their vehicle.• Low-income drivers may live near streets in poor condition (e.g. potholes) which could result in more swerving and hard breaking; the telematics may assume these to be poor driving habits.• If one can't speak English, it would be more difficult for them to hear about the benefits of using telematics, or to receive feedback communication on how to improve driving habits.• Lower-income drivers may be forced to drive further to reach employment, especially if they're in a rural area or a neighborhood that businesses don't want to locate to; this results in higher vehicle usage.• Those who can't afford quality driving training may not have learned the skills necessary to be considered a good driver by the standards of the telematics program.	
Part b: 1 point	
Any two of the following: <ul style="list-style-type: none">• Progressive's Snapshot does not use GPS, so urban drivers are not penalized by their urban location.• UBI removes the subsidy for high-mileage drivers who account for the majority of miles driven but pay a disproportionately lower premium. This increases affordability for lower-mileage drivers many of whom are lower-income or elderly. This makes insurance more socially equitable.• UBI can potentially reduce the number of uninsured motorists by making insurance more	

SPRING 2017 EXAM 6U SAMPLE ANSWERS AND EXAMINER'S REPORT

affordable.

- Insureds are encouraged to become better drivers through the telematics program; a reduction in premium would have a disproportionately positive impact on low-income drivers.
- Low-income insureds that live in urban areas would have more access to public transportation as an alternative to driving themselves.
- If someone is significantly poor they may not be able to afford the deductible on a claim and therefore be more cautious when driving, something that's picked up by telematics but not by traditional factors such as their address, age, or gender.
- The GPS technology in the telematics devices would help out in case of car theft, which is more likely to happen in poorer neighborhoods.
- The UBI data could supplant or even replace other variables such as credit score, education, and occupation, which are accused of being unfairly discriminatory.
- Seniors tend to drive during the day and not during commute times which could decrease premiums.
- The existence of UBI expands the availability of affordable insurance by allowing insurers to rate and underwrite risks at a more actuarially fair price.
- The data insurers collect from UBI could speed up the claims process, making payments out to the insureds quicker. This would be particularly helpful for low-income insureds that may need a claims payment immediately, especially if their vehicle is unusable as a result of the claim's event.
- Youthful (teen) drivers would have their driving habits tracked. If their parents have access to this data it could help keep them out of trouble.

Part c: 1 point

Any two of the following:

- Telematics-UBI is just another black box rating factor for insurers. By keeping these black box items secret it defeats the key function of risk classification.
- Limited regulatory oversight
- Using a "discount-only" model for installing the devices until a rating factor can be associated with lower overall claims.
- Reliance on a third-party vendor which raises issues of privacy, data accuracy, and misuse of data by internal and external parties.
- Use of different vehicle input devices may lead to issues where the devices may not record the same data. Some devices are only available for newer vehicles.
- Inconsistent frequency and duration of data transmission to the insurers
- If insured is not privy to detailed information regarding the rating factors being measured and their relationship to the receipt of the discount it is less likely that changes in driving behavior will result or premium reductions will be achieved.
- Driving behavior is not always linked to the actual operator.
- UBI is costly, and this substantial cost will ultimately be absorbed by the consumer in the form of higher premiums.
- If your company has data on a good driver, that good driver may be discouraged from shopping around since other companies wouldn't know they're a good driver, decreasing competitiveness.

SPRING 2017 EXAM 6U SAMPLE ANSWERS AND EXAMINER'S REPORT

- If certain neighborhoods are designated “high risk” by telematics and drivers are dissuaded from going there in order to save on premiums, it would result in fewer people visiting those places which could make it difficult for businesses located there
- Large swings in rates upon implementation of UBI rating.
- Could be subject to manipulation if users are able to compromise/hack the telematics device
- Large insurers may have access to more and better telematics data, potentially making the marketplace less competitive as smaller insurers are driven out.
- Drivers are enticed to enroll for offers of premium reduction but may have concerns about premiums increasing or about non-renewal due to driving behavior tracked by devices.
- UBI data could be used for other purposes like settling claims without consumer’s knowledge

EXAMINER'S REPORT

Candidates were expected to understand the regulatory implications and issues surrounding the relatively new field of usage-based insurance, combining knowledge of both telematics itself and regulatory goals.

Part a

Candidates were expected to list two separate reasons why telematics could discriminate unfairly, some of which were listed in the NAIC CIPR telematics paper.

Common errors include:

- Listing criticisms with telematics that are common to drivers of all types.
- Giving the same issue twice, rewriting and reusing the same reason.
- Listing a key word or two without describing the reason.
- Arguing that if low-income policyholders are worse drivers they would have to pay more – This would not be unfairly discriminatory since the core actuarial principle here is such that policyholders pay in proportion to their expected future loss costs.
- Stating that if low-income drivers don’t drive as much they don’t get as much practice and would have to pay more as a result. Usage-based insurance has one pay more the more they drive, so driving less would result in lower premium under UBI
- Stating religious or cultural objections to telematics without connecting it to privacy concerns or stating that non-driving religious groups would not benefit from telematics

Part b

Candidates were expected to list two separate reasons why telematics could help out low-income and/or protected classes of individuals in particular. Candidates struggled with this part the most, as it was more challenging to describe positive aspects of UBI that would particularly help out certain classes of drivers.

Common errors include:

- Listing positive benefits of telematics that would help out all of society in general,

SPRING 2017 EXAM 6U SAMPLE ANSWERS AND EXAMINER'S REPORT

without noting how it would benefit low-income or protected classes of drivers in particular.

- Giving the same benefit twice in different words.
- Listing a key word or two without fully explaining the reason.
- Stating that UBI results in everyone controlling usage and therefore results in environmental or traffic congestion benefits. This is a general benefit, not particular to protected classes.
- Stating that good drivers will be charged less premium. Unless a reason was given to note how this helps protected classes in particular, this is a general benefit and not particular to protected classes.
- Stating that those who live in protected classes may be in rural areas and therefore charged lower premium. Rural areas are correlated with lower expected losses compared to urban areas. While this is a true statement, this is already understood and rural drivers are today charged less through the ZIP code rating variable. This reason is not attributed to telematics.
- Stating that UBI is more easily understood so low-income drivers can know they aren't being discriminated against. This is a general concern that is not specific to a protected class.

Part c

Candidates were expected to give two separate and complete criticisms regarding telematics that did not involve direct discrimination against certain classes of drivers.

Common errors include:

- Listing a key word or two without fully explaining the reasoning.
- Giving the same criticism twice in different words.
- Giving a criticism that notes discrimination against low-income or protected classes of drivers.
- Repeating a reason from part a.
- Stating that UBI is not perfect, but is still better than the traditional rating variables used by insurers. This response did not link the imperfections of UBI to the implication that someone would be better off by discontinuing its use.
- Stating that UBI discourages usage so drivers get less practice and become more accident-prone. The lack of miles makes up for this phenomenon, since the data thus far shows those who drive more get in more accidents.
- Stating that insurers could be using the data better, or don't have enough data yet to fully use it. The data that insurers have now is better than nothing, so this isn't an argument to discontinue UBI; it's actually an argument to continue so one can collect even more data.
- Stating that UBI isn't well-correlated with actual risk. It's better than the rating variables an insurer has now; which is why insurers want to use it.
- Stating that harsh breaking may be needed to avoid an accident so why penalize for this? Necessary harsh breaks are rare. A good driver will avoid tailgating and other behaviors that necessitate so many hard breaks in the first place.