SOLUTIONS TO TEXT PROBLEMS:

Quick Quizzes

1. Buyers of life insurance will likely have higher than the average death rates. Because those with greater risks of death are more likely to buy life insurance, the price of life insurance will reflect the costs of a riskier-than-average person. Thus, buyers with low risk of death will find the price of life insurance to be too high and will not choose to purchase it.

   Moral hazard is the tendency of a person who is imperfectly monitored to engage in dishonest or otherwise undesirable behavior. A person with a high risk of death may be aware of his risk but not reveal this information to the insurance company.

   Adverse selection is the tendency for the mix of unobserved attributes to become undesirable from the standpoint of an uninformed party. In this case, the insurance company ends up insuring only those individuals who have high risks of death.

   A life insurance company may require that all applicants submit to a medical examination to deal with these problems.

2. According to the median voter theorem, if each voter chooses a point closest to his preferred point, the district vote will reflect the preferences of the median voter. Therefore, the district will end up with a student-teacher ratio of 10:1.

3. Human decision making can differ from the rational human being of conventional economic theory in three important ways: (1) people aren't always rational, (2) people care about fairness, and (3) people are inconsistent over time.

Questions for Review

1. Moral hazard is the tendency of a person who is imperfectly monitored to engage in dishonest or otherwise undesirable behavior. To reduce the severity of this problem, an employer may respond with (1) better monitoring, (2) paying efficiency wages, or (3) delaying part of a worker's compensation.

2. Adverse selection is the tendency for the mix of unobserved attributes to become undesirable from the standpoint of an uninformed party. Examples of markets in which adverse selection might be a problem include the market for used cars and the market for insurance.

3. Signaling is an action taken by an informed party to reveal private information to an uninformed party. Job applicants may use a college diploma as a signal of ability. Screening is an action taken by an uninformed party to induce an informed party to reveal information. A life insurance company may require applicants to submit to a health examination so that the company will have more information on the person's risk of death.

4. Condorcet noticed that the majority rule will fail to produce transitive properties for society.

5. The median voter's preferences will beat out any other proposal in a two-way race because the median voter will have more than half of the voters on his side.

6. Two volunteers are chosen and a coin toss determines which volunteer is Player A and which is Player B. Player A proposes a split of a sum of money and then Player B decides whether to accept or reject the proposal. If Player B accepts, the sum of money is divided as outlined in the proposal. If Player B rejects the proposal, each player gets nothing.

   Conventional economic theory predicts that Player A will offer only $1 to Player B and keep the remainder for himself. This is predicted to occur because Player A knows that Player B will be better of with $1 than with $0. However, in reality, Player B generally rejects small proposals that he considers unfair. If Player A considers this, he will likely offer Player B a more substantial amount.

Problems and Applications

1. a. The landlord is the principal and the tenant is the agent. There is asymmetric information because the landlord does not know how well the tenant will take care of the property. Having a tenant pay a security deposit increases the likelihood that the tenant will take care of the property in order to receive his deposit back.

   b. The stockholders of the firm (the owners) are the principals and the top executives are the agents. The firm's owners do not know in advance how well the top executives will perform their duties. Tying some of the executives' compensation to the value of the firm provides incentive for the executives to work hard to increase the value of the firm.

   c. The insurance company is the principal and the customer is the agent. Insurance companies do not know whether the car owner is likely to leave the vehicle parked with the keys in it or park it in a high crime area. Individuals who will go to the trouble of installing anti-theft equipment are more likely to ensure that their vehicle is taken care of. Offering a discount on insurance premiums will induce car owners to install such devices.

2. Individuals who are relatively healthy may decide to forgo purchasing the policy if the premium rises. Thus, the insurance company is left with only those policyholders who are relatively unhealthy. This means that the firm’s revenues may in fact fall, but its costs could remain the same. Therefore, the firm’s profits could fall.

3. Saying "I love you" is likely not a good signal. To be an effective signal, the signal must be costly. In fact, the signal must be less costly, or more beneficial, to the person with the higher-quality product. Simply professing one's love does not meet this requirement.

4. If insurance companies were not allowed to determine if applicants are HIV-positive, more individuals who are HIV-positive would be able to purchase insurance, but that insurance would be very expensive. Covering these individuals would raise the cost of providing health insurance and the company would have to raise premiums for all. Thus, individuals who are not HIV-positive would be forced to pay more for health insurance and may drop coverage. Insurance companies would be left insuring only those who are ill (including those who are HIV-positive) increasing the adverse selection problem. The number of individuals without health insurance would likely rise as a result.

5. If the needy are given cash, they can use the cash to purchase whatever they most desire. This will increase their utility by more than if the government predetermines what they “need.” However, if the government is worried about how these individuals may spend the cash and wants to ensure that the needy receive proper nutrition, they may want to provide free meals at a soup kitchen instead.

6. Ken is violating the property of independence of irrelevant alternatives. Adding a choice of strawberry after he chooses vanilla over chocolate should not induce him to change his mind and prefer chocolate.

7. It is possible that a minority of voters is willing to contribute large sums of money to a candidate who supports their viewpoint. Running a political campaign is very expensive and a candidate may be able to gain support through expensive advertising. Thus, the candidate may choose to support the views of those individuals who can help finance his campaign.

8. More than likely the two stands will locate at the center of the beach. Thus, they will always be closest for at least half of the beach goers.

9. An earthquake occurring in California does not increase the probability that another will occur. Thus, nothing that affects the benefits from such insurance has really

changed. The individuals are simply putting more emphasis than necessary on the event. However, if it were true that the individuals had no idea of the possible risks until the earthquake occurred, then purchasing the insurance would be a rational thing to do.