Questions for project 1 written report

Copyright ©Wayne Hacker 2008. All rights reserved.

Your boss has provided you with the following combinations of genre, location, and benefit, with the correct values for the fair value and premium for each. You should use these to check your spreadsheet.

**Data Set 1:** Alaska; polka; $30,000. Fair value = $1343.89; premium = $1678.28.

**Data Set 2:** Gulf; Christian; $23,000. Fair value = $965.86; premium = $1262.45.

**Data Set 3:** Pacific NW; Latin; $45,000. Fair value = $2881.71; premium = $3369.88.

**Data Set 4:** New England; country; $18,000. Fair value = $1085.89; premium = $1394.48.

**Questions**

1. A promoter wants to buy a policy covering a reggae show in Florida, with a benefit of $28,000. What are the fair value and premium for this policy? You must demonstrate the use of the spreadsheet to get these numbers at the time of the presentation: it’s not enough to bring in the numbers.

2. Same question, only now it’s a funk/soul show in the Northern Plains, with a benefit of $33,000. Again, you must use the spreadsheet at the time of your presentation.

3. What is the fair value of a policy? Why do we call it the “fair” value?

4. What is the relationship between the fair value \( v \) and the premium \( r \)? Is the premium always less than the fair value? Always greater than the fair value? Sometimes less and sometimes greater? Explain the reasons for this relationship.

5. \( R \) is the event that a person drives a red car. \( S \) is the event that the person has received a speeding ticket in the past year. Do you think that \( R \) and \( S \) are independent events? Why or why not? If you had access to data on people’s cars and driving records, how would you determine whether the events are independent or not?

6a. Last year, 5 polka shows were scheduled for Tucson. One of those five shows was cancelled. Can you safely conclude that the probability of a polka show’s being cancelled is 20%? Why or why not?

6b. The family next door has five children. Four of them are boys; one is a girl. If they have another child, can you safely conclude that the probability of its being a girl is 20%? Why or why not?

7. A client recently bought a policy to cover a concert, which went ahead as scheduled. The client now says that since he didn’t collect a benefit from the policy, he should get some of his money back. Does this seem fair? Why or why not?