

SILVER'S GYM, INC. – QUESTIONS SPRING 2011

Your firm has been hired by Silver's Gym to provide an analysis of the situation. Write a report using the report writing guide from the course website. Before beginning to write the report, what issues must be addressed in the case? Does your firm require additional information? If so, what is the additional information needed? Silver's Gym is also concerned with input on the following questions:

- Q. 1. Using the Excel data set found on the course web site, perform linear regression analysis to obtain an equation to predict age at death given a specific cholesterol level. Predict the age at which Tommy will die given his cholesterol level is 310 mg/dL. Interpret the slope in the context of this problem. Interpret the coefficient of determination.
- Q. 2. Suppose it costs \$2,500 to buy a defibrillator. Find the expected value of owning a defibrillator if there is a 4% probability that Silver's will lose a lawsuit regarding its operation, with each lawsuit resulting in Silver's being liable in the amount of \$1,000,000.
- Q. 3. If the age of an initial cardiac incident (heart attack or sudden cardiac arrest) is normally distributed with a population standard deviation = 12 years, find the average age at which people will experience their first cardiac incident, given that 17% of all initial cardiac incident victims are younger than 50.
- Q. 4. Suppose that over the next several years, there will be 100 cardiac incidents at Silver's. Without a defibrillator, 30 victims will die before paramedics arrive. With a defibrillator, there is an 80% probability of saving a victim who would die without it. However, there is a 3% probability that improper use of the defibrillator will kill a victim who would have otherwise lived. Find the expected number of lives saved by the defibrillator.
- Q. 5. Was Silver's Gym negligent in failing to have an AED on the premises? (In answering this question assume that Gould Health & Safety Code §204 and §205 and Gould Evidence Code §966 in the Case Library WERE NOT in force at the time of Tommy's death.)
- Q. 6. Suppose Gould Health & Safety Code §204 and §205 and Gould Evidence Code §966 in the Case Library WERE in force at the time of Tommy's death. Would your answer to Question 5 change? Why or why not?
- Q. 7. Regardless of the conclusions reached in questions 5 and 6, has Silver's acted ethically?