

CS130 Assignment #3

Date due: October 4, 2010 by 4:45pm

Points: 50

"In October of 1989, Florida's Governor and Cabinet also directed the Florida Department of Environmental Protection to work with thirteen "key" manatee counties to implement measures for reducing manatee injuries and deaths."

Reference: <http://www.savethemanatee.org/faqprotection.htm>

Consider the following table of information:

Year	PowerBoat Registrations (in thousands)	Manatee Related Fatalities
1980	498	16
1981	513	24
1982	512	20
1983	512	15
1984	559	34
1985	585	33
1986	614	33
1987	645	39
1988	675	43
1989	711	50
1990	719	47
1991	739	53
1992	744	38
1993	752	35
1994	760	49
1995	774	42
1996	788	60
1997	802	54
1998	815	66
1999	820	82

Most of this information is accurate and can be found at http://www.floridamarine.org/features/view_article.asp?id=12084. I did not have powerboat information for the years 1991 to 1999, thus I extrapolated from 1991 to 1999 based on information I had about the year 2003.

Here is the problem.

I would like you to develop a six slide professionally looking PowerPoint presentation as follows:

Slide #1: Title slide which includes a picture of a Manatee

Slide #2: Briefly discuss the problem with Manatee fatalities in Florida and mention what was done in October of 1989.

Slide #3: Create a Scatterplot of the PowerBoat Registrations and Manatee fatalities. Perform a linear regression on this data using SPSS and create an equation with an R^2 value using the equation editor. Include the graph, equation, and R^2 value on the slide with the proper explanation of what is going on. Do not make this slide too busy.

Slide #4: You are to pose the question of whether the legislation passed on October of 1989 had a significant impact on the number of manatee fatalities. Also, state the Null Hypothesis based on the proper hypothesis test to determine whether the number of fatalities changed after the legislation was enacted. Assume the year 1990 is the year the law took effect.

Slide #5: Perform the proper hypothesis test and draw your conclusion.

Slide #6: Are the means significantly different before and after legislation? Discuss how you know this.