

CS130/230 Assignment 4

StatView

Date Assigned: Thursday, March 11, 2004

Date Due: Thursday, March 18, 2004

Total Points: 60

For this assignment you are to tackle the following three problems. These problems require that you create a Word document, two StatView files and add to your Excel assignment file. You must submit all three files to receive full credit. All your files should include your PUNET ID in the name.

Make sure you label each problem and section correctly.

Excel Worksheet – name it “Ulcer Rate”

The following table shows the (lifetime) peptic ulcer rate (per 100 population) for various family incomes as reported by the 1989 National Health Interview Survey:

Income	Ulcer Rate
4000	14.1
6000	13
8000	13.4
12000	12.5
16000	12
20000	12.4
30000	10.5
45000	9.4
60000	8.2

- Enter this data into an EXCEL worksheet and use the regression capabilities of EXCEL to produce a scatterplot of and to fit a linear equation to this data. Make certain that the equation of the regression line is displayed within the scatterplot.
- Cut and paste the resulting scatterplot into your Word document and answer the following questions:
 - o To what degree are the data correlated?
 - o Using the regression equation, what is the peptic ulcer rate (per 100 population) expected of a family whose income is \$100,000?
 - o What is the expected income of a family whose peptic ulcer rate is 6.7 per 100 population?

Everything in the worksheets should be right justified and formatted correctly (i.e. currency, percentage, etc).

Problem 2 – Analysis of Car Data

Using the Car Data file within the STATVIEW data sets folder, please do the following:

- a) Compute the basic descriptive statistics for this data set, and cut and paste the table into your Word document.
- b) Construct a histogram for the horsepower continuous variable, and cut and paste the graph into your MS Word document.
- c) Construct a Pie chart for the weight continuous variable and cut and paste the graph into your MS WORD document.
- d) Construct a Bivariate scattergram with weight on the x-axis and horsepower on the y-axis. Cut and paste the graph into your MS WORD document. Does there appear to be a correlation between weight and horsepower? Address this question briefly in the same MS WORD document.

Problem 3 – Sports Data

For this problem I want you to compare and contrast the careers of two sports persons using descriptive statistics. Search the Internet for this data. Also, you should just focus on one aspect of their careers. For example you could compare the homeruns of Joe DiMaggio and Mickey Mantle who both played for the Yankees.

Part I: Enter the data that you find into StatView. You might find it simpler to copy the data into an Excel spreadsheet then import that Excel spreadsheet into StatView.

Part II: Produce the descriptive statistics for this data.

Part III: Copy the descriptive statistics to your Word document (the same one that you used in the previous problem) and discuss what the descriptive statistics tell you about each player. Be as detailed as possible.