Class Project
(or, as we say in Spanish, El Classo Projecto)

A) “Thank God I’m a country boy.” NOT!!!

Select a random sample of 30 Georgia zip codes. (GA has zip number assignments 30000 – 31999. Not all numbers are in use.) For each zip code, find the adjusted gross income, and the percentage of the population living in urban areas (degree of urbanization). Your sample should not include any zip codes with 100% urbanization, 0% urbanization, or less than 2000 people. Since the data is chosen randomly EVERYONE should have a different data set. (www.melissadata.com/lookups has the data.)

Run a regression with Average Gross Income as the dependant variable and degree of urbanization as the independent variable.

Prepare a report on your research.

B) “I don’t care if they’re down by 30 points. They’re my beloved Dolphins, and they’re gonna make a comeback!!!!!”

Collect data from the last year on all regular season NFL games. Create a 95% confidence interval for the probability that a team will make a fourth quarter comeback to win a game.

Prepare a report on your research.

C) “@#%^$%^$%^$! I just lost $2000 on that $%#!% stock!!!”

Collect data on the S&P 500 index and 3 month T-bill rates for the last 10 years. (See Yahoo Finance for the S&P index, and the FRED database hosted by the Federal Reserve Bank of St Louis for the interest rates.) Plot a time series graph for each of the data series. Do you notice any features of the data that correspond to US/World events?

Prepare a report on your research.

Your reports should include a description of the project, a description of the data source, whatever graphs are necessary to demonstrate your findings, and your conclusions.