Proposal For Final Project - IS608 -James Quacinella

Summary and Data Sources:

This project's visualization will be to show county-level energy consumption on an interactive map. The data will mostly come from "Electric power sales, revenue, and energy efficiency" (http://www.eia.gov/electricity/data/eia861/index.html) and "Monthly Electric Utility Sales and Revenue Report with State Distributions" (http://www.eia.gov/electricity/data/eia826/). To do the mapping, I would need county-level mapping data, which seems to be out there.

Social Issues:

What I hope to find are areas that consume much higher amount of energy than average, or in some sense, hotspots of energy consumption. This can lead to understanding of what areas we should concentrate our efforts for conservation.

There might be other patterns to find as well, as this data set includes a lot of information. For example, we can see if there has been a general decrease in net consumption of energy due to the 2008 crisis. The dataset also includes a file on Net Metering, which is how much energy is being produced by consumers and sold back to utilities. That might be useful to see if there has been progress over time and in what geographical areas.

Technologies:

I plan on doing most of this using Python (pandas, numpy, etc) to do any analysis needed and use D3 to create the main interface, which is mocked up below. I do not expect any issues with these choices, but will use R if Python is insufficient for analysis.

Energy Consumption Per Utility in the United States (1990 - 2013)