**The Effect of Various Census Demographics On Graduation Rates by County in NJ, NY, & PA**

**Project Description/Outline:**

* How do various different factors affect high school graduation rates in New Jersey, New York, and Pennsylvania.

**State Data:**

Our project begun with the three states where our data sample was collected. The following results were gathered.

* + Graduation rates by State
  + Poverty rate by State
  + Household size by State
  + Unemployment rate by State
  + Median income rate by State
  + Speak a language other than English by state

The Graduation rate data was sorted by County. We obtained different data sets from the Census for County level data.

**Noticeable Trends by State**

* Graduation rates, Household size, and Unemployment rates are very similar
* New Jersey has the lowest poverty rate and New York has the highest poverty rate
* Median income is higher in New Jersey
* Speak a language other than English by state is higher in New Jersey
* New Jersey has a higher median and a better overall graduation rate.

**Graphs and Plots by County:**

* Graduation rate by County
* Poverty rate by County
* Household size by County
* Unemployment rate by County
* Median income rate by County
* Speak a language other than English by County

**Research Questions:**

* Does the poverty rate correlate to graduation rate?
* Does household size correlate to graduation rate?
* Does the unemployment rate correlate to graduation rate?
* Does the median income correlate to graduation rate?
* Does the language spoken at home affect graduation rates?

**Process:**

* We created various plots and graphs for all our county data. We did a regression analysis over the state data.

**Conclusion:**

Overall the poverty rate had the strongest correlation to graduation rates in the various counties we analyzed. This is followed by median income, then the unemployment rate, the language spoken, and household size. Household size had an exceptionally low correlation.