**Pie Charts** show a whole, broken into parts. It is only used for percentages and everything must be counted only once. (The percents must add up to 100).

**Line graphs** show changes over time. We always put the time on the bottom and the amounts on the side.

**Bar graphs** show how different groups compare to each other.

Senator Jim Webb gave a speech on March 26, 2009 to the U.S. Senate arguing that we need to reform the prison system in this country. This was an important speech in changing views on mass incarceration. Webb said:

We have 5% of the world's population; we have 25% of the world's known prison population. We have an incarceration rate in the United States, the world's greatest democracy that is five times as high as the average incarceration rate of the rest of the world (p. 2).

What sort of thesis might Webb be trying to support with this statistic?

Senator Webb argued:

There are only two possibilities here: either we have the most evil people on earth living in the United States; or we are doing something dramatically wrong in terms of how we approach the issue of criminal justice. (p. 2)

What assumptions does Senator Webb make when he says that?   (What does he think about having a large prison population?  Who does he think should go to prison?) Do you think his evidence backs up his claim?

If you were to give a similar speech to this class as your audience, how would you connect the issue to them? (Motivation)

How would you represent “5% of the world's population; we have 25% of the world's known prison population” in a visual aid?

If you were writing this speech, what other kind of statistical support would you want to back it up?  (For example, would you want to compare incarceration rates in the US with other countries?  How the US prison population changed over time?  Could you break it down based on age, gender or race?)

Where would you look for that kind of evidence?

What do you think you might find?

Senator Webb has some pretty specific statistics: “In 1980, we had 41,000 drug offenders in prison; today (2009) we have more than 500,000.” How would you represent that?

A pie graph would **not** work. Why is it a bad choice?

 What would 41,000 to 500,000 look like in a visual aid?

How many drug offenders would be in prison if that had doubled (or increased by 100%) since 1980?

Webb Argues:

African-Americans are about 12% of our population; contrary to a lot of thought and rhetoric, their drug use rate in terms of frequent drug use rate is about the same as all other elements of our society, about 14%. But they end up being 37% of those arrested on drug charges, 59% of those convicted, and 74% of those sentenced to prison . . . .

Why does Webb say: "contrary to a lot of thought and rhetoric, their drug use rate in terms of frequent drug use rate is about the same as all other elements of our society, about 14%?"  What does he want his audience to understand from those two statistics?

That’s a lot of numbers! What kind of visual representation would you use for all those numbers?

What would explain the different numbers?

What thesis do you think this data best supports?**Now, find statistics for your speech.**

*Please draw and label* ***at least 2 graphs*** *for your speech*

What is a stat you would use in a quote:

When would you use a pie graph?

When do you use a line or bar graph?

What other kind of graph or chart?