**Transcript: Error Bar Plots in SPSS**

The last type of data visualization we're going to look at in SPSS is plotting one numeric variable and one categorical variable. To do that, we're going to go to “Graphs” and “Error Bar...”. And we're going to select a “Simple” error bar plot. We'll click “Define”. In this window, we'll be able to select our two variables. The first one is just called “Variable” and this is the numeric variable that we're looking at, and the second one is “Category Axis”, which is the categorical variable. As we mentioned previously, our only categorical variable in this data set is “region”, so we can go ahead and select that and click the arrow to move it into the “Category Axis” field. Now we can think about which of our numeric variables we want to look at by region. One thing that might be interesting is looking at is population by region. You might be able to think of different factors such as geography or history that might lead states and certain regions to have higher or lower populations than other states and regions. If we want to look at this, we can go ahead and select “pop” or population and move it into the “Variable” field by clicking this arrow. Now we can select “OK”.

And we will get this graph that shows us the population of states in different regions of the US. We can see here that there is some variability, but not a ton. It looks like you know, maybe this mountain region has very low populations, but overall, we're seeing kind of averages within a similar range for all of them.

When we talk about confidence intervals and effect sizes, we will go over what these error bars mean. They’re these bars that look like Is or Ts, but for now you can just see that these dots are representing the average population within each region.

So that's how you can create a plot between one continuous and one categorical variable in SPSS.