**Transcript: Pie Charts and Bar Charts in SPSS**

The next data visualization that we're going to go over in SPSS is pie charts and bar charts. We're visualizing one categorical variable.

To make a pie chart, we will go to “Graphs” and “Pie...”. We have here some different options for types of pie choice we could make. We're going to use this default of summaries for groups of cases. We'll click “Define” and that will bring up this window that will allow us to select our variable. As we discussed in the R Commander video, our only categorical variable here is “region”. We also have this “V1” which is getting read as a categorical variable. But as we discussed in the last SPSS video, this is just an artifact of the CSV data type and it's not a real variable in our data set. So, we'll click on “region” and we will click the arrow to put it into this “Defined Slices by” field. We can also change up here if we wanted to have a percent versus a number. We'll leave it as number for now, but you can play around with this if you want. If we wanted to change things like the titles, we could click on this. We could add a nice title to our graph, if we wanted to. We could also change some things in the “Options”, for example, what to do with missing values, et cetera, but we're not going to do any of that today. Once we have our variable selected and we've decided whether we want N or percent, we can go over here to “OK” and click that. And that will pull up this pie chart. This is the same visualization that we saw in R Commander visualizing what fraction of the states come from each region.

If we wanted to see this information as a bar graph, we could also do that. We could navigate to “Graphs” and “Bar...” and we're going to create a simple bar graph. We'll click “Define”. We'll get the same thing. We can select “region” and put it into this “Category Axis” field by clicking the arrow; we'll leave everything else as is and select “OK”. We'll get this bar graph, so again, we can see the number of states within each region. For example, in this East South Central region we have four states. In this Mid-Atlantic we have three, et cetera. We could also get this as a percentage rather than as a count if we wanted to, by selecting the percentage option within the window that pops up when we create a bar graph.

So those are two different ways of visualizing a categorical variable as a pie chart, and also as a bar chart.