

## SPSS PC Version 10: Making a Graph (Example - Pie Chart)<sup>1</sup>

The following uses a set of variables from the “1995 National Survey of Family Growth” to demonstrate how to use some procedures available in SPSS PC Version 10.

SPSS for Windows can quickly make a variety of graphs. Examination of the “Graphs” menu will show that SPSS can also create many types of graphs, including bar, line, histograms, and scatterplots. Here I will demonstrate how to create a pie chart.

- Pie charts are most appropriate for nominal and ordinal variables with a limited number of categories.
- After opening your data set, choose *Graphs* from the SPSS Data Editor. You will see a number of choices for different kinds of graphs. Click on *Pie...* This will bring up a dialogue box specifying three different kinds of data structures. Since the most data sets (e.g., the NSFG data used for the exercises) contain information on many different cases and we want to graph just one variable, click on the circle next to *Summaries for groups of cases* and then click on the *Define* button. This will bring up the list of variables. Click on the variable you want to graph and hit the right-pointing arrow next to the “*define slices by*” box. We now have a choice of what information we want presented in the pie chart – the frequencies for each category, the percentage distribution, cumulative percentages, etc. Usually we want either percentages or frequencies (“N of cases”) graphed in the pie chart. To specify one of these options, click on the appropriate circle at the top of the box next to the option “*Slices represent.*” Then click on *OK*. The syntax for this sequence of pointing and clicking specifying the variable “cohever”, and “N of cases” looks like:

```
GRAPH      /PIE=COUNT BY cohever      /MISSING=REPORT.
```

- If your variable has a large number of missing cases, your pie chart can be a bit misleading. Unless we have some substantive interest in these missing cases, it may be better to exclude them from the graph. To do this, you need to go through the process again, but at the dialogue box titled *Define Pie: Summaries for Groups of Cases*, click on the *Options...* button. A new dialogue box will open showing a box next to the option *Display groups defined by missing values*. Remove the check mark in this option box by clicking on it and then click the *Continue* button. Then hit the *OK* button as usual. The syntax for this series of pointing and clicking, specifying “% of Cases” rather than “N of Cases” looks like:

```
GRAPH      /PIE=PCT BY cohever .
```

### **Enhancing your Graph Prettier and Adding Titles**

- You can add a titles and footnotes with syntax and by pointing and clicking in the graph menu. In the lower right of the “Define Pies” box, you will see a “Titles” option. If you click on this, you will see room for two lines of title, a subtitle, and two footnotes. The syntax for including these titles is:

```
GRAPH      /PIE=PCT BY cohever  
/TITLE= 'Line 1 of title' 'Line 2 of title'      /SUBTITLE= 'Subtitle'  
/FOOTNOTE= 'Line 1 of Footnote' 'Line 2 of Footnote'.
```

- More changes can be made interactively using the SPSS Chart Editor. To access this, double click on the chart displayed in the SPSS Output Viewer. This opens an editor window that allows for all kinds of modifications to your chart. In this menu you will be able to change the colors of the pieces of pie, change font sizes, SPSS offers the options of showing percentages along with labels, changing titles, changing fonts, and many other ways of enhancing the appearance of your graph.

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1/8/2001 C:\all\help\helpnew\piespss.wpd