INTRODUCTION TO SPSS

The first step is to get access to SPSS. As a University of Utah student, you can establish a connection with the online version in case you end up needing assistance from the College of Social and Behavioral Sciences computer help desk (they are usually swamped at the beginning of the semester and can take a few days to respond). Or if you are in the Marriott library, the software is installed in the desktop folder named, ‘Class Software’. If you are off campus you can also access the program from the College of Social and Behavioral Sciences website.

Below is the College of Social and Behavioral Science (CSBS) website to access their virtual commuting lab. Your User name and password is the same used to login on the campus computers.

You may need to download the Client Software.
Now select SPSS 20

If you haven’t run SPSS before then you may want to do the first part of the tutorial that comes with SPSS. An option to run the tutorial is given when the program first opens, and you may also access the tutorial at any time through the SPSS help menu. **Note:** you may not be able to access the tutorial if using the virtual computing lab.

- The smaller window is called the **dialog box**.
- On the right hand side, we want to first select ‘**Type in Data**’

**Step 1: Typing in and Saving Data**

SPSS can accept data from a variety of sources and then converts them to a form it can read.

The most **straightforward way of entering data** is to do it “by hand” directly into the SPSS Data Editor window (the one that looks like a spreadsheet with many empty rectangles referred to as “cells”).
Each row is referred to as a ‘case’ – and each row (‘case’) typically contains all the scores for an individual subject. The columns are the various variables for which scores are recorded.

Now ... go to SPSS, in the opening dialog box indicate that you wish to ‘Type in Data’, if you are already in SPSS go to the File menu and select New. At the bottom of the data window there are two tabs; ‘Data View’ and ‘Variable View’. Variable view is used for naming and setting up your variables, click on it. For variable 1 give it the name ‘Score’ and hit the enter button, various default attributes will appear. Drag the right edge of the window to make it wider so that you can see all of the default attributes for your variable.

1. Under ‘Type’ the default is ‘Numeric’, that is what we want for this example, but click on the ‘...’ next to Numeric to see what other options are available.
2. Set the Width to ‘3’ (**the maximum number of digits in each value of that variable**), and ‘Decimals’ to ‘0’ (**with these exam score we don’t need any digits to the right of the decimal point**). Note that you can either type in the value you want or step the value up and down with the arrows.

![Variable Type dialog box]

3. SPSS enforces strict rules on the Names of the variables (length, capitalization, etc…try some out and see), the ‘Label’ field allows you more freedom in labeling your variable in a meaningful way, and later in your output you can ask SPSS to use either the name or the label of the variable. Click in the **Label** area and type in ‘English Exam’.

![Variable View dialog box]

4. The last attribute of interest today is ‘Measure’. Click on it to see what other options are available. We will be looking at various types of measures in the second lecture, note that SPSS refers to cardinal variables (defined in the next lecture) as ‘Scale’ variables, this default value is fine for this assignment.

![Variable View dialog box]
Now switch back to ‘Data View’ and enter several exam scores (0-100), one for each person in a small class (remember each line is a different person).

Just for the fun of it, go to the Analyze menu and select the Descriptive Statistics menu item and within that select Descriptives (as a shortcut in these assignments I will abbreviate instructions like that to Analyze>>DescriptiveStatistics>>Descriptives). When the box appears click on English Exam to select it, then click on the arrow to move it over to the list of variables to be analyzed, then click on OK. You will then be able to see some info about your variable.
Finally, save your data to your hard drive. First make sure that your data window (not the output window) is selected (by clicking on it), then go to the File Menu and select Save. When the Save Data As window appears look at the rectangle in the upper left called ‘Look in:’, click on the down arrow next to it to get a list of places where you can save the data. A lot of directories appear, many of which state they have a ‘desktop’ but are not actually your computer. You may have to try a few options to see what directory actually pulls up your hard drive. The most likely option will either be 'C$((\Client)(V:)’ or ‘H$((\Client)(H:)’. One hint that you are in the right place is that the program will ask a couple of times if you really want to let it have access to your hard drive. Note that when you save data the default format is for SPSS to save it with the suffix ‘.sav’, indicating that it is an SPSS data document.

Step 2. Opening a Data File

There are two data files available. You will need to save these two files to the directory (folder) of your choice on your hard drive. Your browser may give you the option of saving the files when you click on them, if it doesn’t, then either right click on the link (PC) or hold the control key down while clicking on the link (Mac).
It is a little tricky to open data files once you have saved them to your computer. You can't simply double click on a data file to open SPSS. Instead, you have to open SPSS first and have SPSS open the file. Your computer's hard drive is not all that easy to find in SPSS (see above or look at the SPSS Section of the technical help page).

Open up the ‘data1.sav’ file in SPSS. This is the file I created using step 1 above. Take a look at it, then answer the following two questions (designed to simply insure you’ve gotten this far).

- What is the first score in the data? _____
- What is the last score in the data? _____

Step 3. Opening up Data Saved as a Text Document.

Open up the ‘data2.txt’ file in a word processing program and take a look at it (or click on the link and it will open as an html page on your browser). Notice that its top line consists of the variable names and the subsequent lines contain the data. In some programs there will be a lot of boxes between the data, this has to do with their being no universal agreement among programs and platforms regarding how to handle tabs and carriage returns, don’t worry about it, it should still be fine for the next step. Close the file.
Open SPSS (if needed) and pull down the “File” menu. Select “Read text data” and choose the “data2.txt” file you just saved. You will get a series of dialog boxes that walk you through the process of helping SPSS figure out what in the world is in this file. Read each dialog box and proceed carefully forward, giving SPSS feedback as needed. It will help to know that this text file does not fit a predefined format, it uses tabs as ‘delimiters’ to separate scores on the same line, and it does have the variable names as the first line of the file. Everything else should fit the default choices. When you are done, you will have a lovely finished data file in your data editor window. The data should contain three variables; ID, Test1, Test2.

- Don’t worry about completing the 3 steps for this assignment.
- Just select ‘Next’ until you get to ‘Finish’.
If you pull down and click the “File>Open>Data” menu, and then pull down the “Files of type” arrow, you will see that SPSS will accept files directly from some other programs (notably, Excel, for those of you who prefer to enter data in that program instead). If you pull down and click the “File>Save As” menu and pull down the “Files of type” arrow, you will see all the different file types you can save SPSS data into.

Step 4. Sorting Data

It is often very convenient to be able to sort your data. Go to the Data>>SortCases menu item, click on Test1 and use the arrow to move it over to the ‘Sort by’ box, note that the data will be sorted in ascending order based upon the values of the Test1 scores. Click OK.
What is the ID number of the first subject listed who had a score of 91 on Test1? ____

How many subjects had a score of 91 on Test1? ____

What was the highest score on Test1? ____

Note that if you wanted to return the scores to their original order you can go back and sort them by ID number.

That’s it for now.