Class Exercise 6

This exercise is based upon Chapter 1 of Delwiche and Slaughter's "The Little SAS book". The session is based on the Display Manager used by The SAS System for Windows; a separate exercise is available if you are using SAS Studio in SAS OnDemand, based upon the text's supplementary material for Sections 1.6-1.12 posted under Class Documents in Blackboard. Some of the features below (e.g., the Output Window) are not available in Studio, but Studio also includes features (saving output automatically as pdf or rtf files) that are not available in Display Manager.

1. Save `agency.sas` into a file with the same name (make sure a file extension hasn't been added to the name), and then right-click on the file name in your file directory and select Open with SAS 9.4 or Open with The SAS System for Windows (if you double-click, the program may well open in SAS Enterprise Guide). The code will appear in the Program Editor window with its original name. Click the *Running Man* to execute the program. Several things should happen, some that you will immediately see (output in the Results Viewer window and graphs in the Graphics window) and some you will not (a new data set in the `WORK` library).

   - To see the SAS data set, click the Explorer tab in the left-hand frame. Then double-click the Libraries folder and double-click Work. There should be a SAS data set named **Agency13741**; click on that to open it as a worksheet. Confirm that the worksheet contains three variables, and then close the Worksheet (leaving worksheets open sometimes will cause SAS to abort a run). Your text discusses several other options for learning about SAS worksheets.

   - Look in the Results Viewer window quickly (we're not in this class to study autoregression). The Results tab in the left-hand frame can be used to display output from this window as well. If you expand the tabs fully, you'll see that each output has a pair of formats–an HTML version and an appropriate graphics or table version.

   - Look in the LOG window. The messages here can be cryptic and a single mistake can create of cascade of red-highlighted code, which likely represent the consequence of the first error, not errors in and of themselves. I like to use it to check that all my intermediate data sets have actually been created; one way to detect such errors is to find that your data sets has 0 records.

   - The Output window used to be the default display, but is no longer displayed unless activated. To activate it, you can select Tools → Options → Preferences → Results and check Create listing (Create HTML should already be checked). Run the program again and you should see output displayed in the Output window. How does it compare to the output in the Results Viewer window? Clear the window using the following steps: right-click in the window and select Edit, then select Clear All. The Output window can get cluttered quickly and needs to be cleared frequently.

2. Let us load the program a different way. Close the tab for `agency.sas`. From SAS, select **File → Open Program**, then browse to find `agency.sas`; a new tab for `agency.sas` should open in your right-hand frame. Run the program, then let's look at saving output.

   - The Results tab in the left-hand frame contains the output in digest form. You can select a folder, expand it, then right-click on a file and select Open in New Window, though this reproduces the display in Results Viewer, so it is not as selective as you might like.

   - You can copy graphs and tables directly from the Results Viewer window. If you right-click on a graph, SAS offers only a couple options for saving the graph. Select **Save Picture as** and you can save it as a .png (portable network graphics) file or .bmp (bitmap) file; the former is preferred. If you right-click on a table, you have the option to **Export to Microsoft Excel**. You can also click-and-drag to highlight a table/graph (don't worry if you picking up a couple leading/trailing blanks) and paste a table/graph from this window in a Word document. Try it for a couple objects; how does the output look?