Class Exercise 6

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

1. Download `agency.sas` from the website into a file with the same name (make sure a file extension hasn't been added on to the name). In SAS Studio, select the new file icon (a page with a star in the upper-right corner) in the left-hand frame under the Server Files and Folders tab and select SAS program. A frame labeled Program 1 will appear on the right with tabs for CODE, LOG and RESULTS. Open `agency.sas` in Notepad or Wordpad (not SAS), then copy-and-paste the contents of agency.sas into the CODE window. Click the *Running Man* to execute the program. Several things should happen, including output in the RESULTS and LOG windows and addition of an OUTPUT DATA tab; the same data in the OUTPUT DATA tab will also be saved as a new SAS data set in the `WORK` library.

    - To see the SAS data set, click the Libraries tab in the left-hand frame. Then select My Libraries-Work. There should be a SAS data set named **Agency1374**; click on that to open it as a worksheet. Confirm that the worksheet contains three variables, and then click on the name of each of the variables in the left-hand frame named **Columns** to see how SAS input each variable; their properties will be highlighted in the frame below. 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. Note that you can also select the Output Data tab for a similar display, though this only works for the most recently created data set.

    - Look in the Results Viewer window quickly (we're not in this class to study autoregression); expand Table of Contents to see how the output has been arranged as a series of HTML objects. 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 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.

2. Let us load the program a different way. Reselect Server Files and Folders and choose the Upload icon (an upward-pointing arrow). The dialog window lists a default directory (\home1\our_user_name); choose agency.sas and upload it to the default directory. Note that the file system is not your local directory, but an online directory exclusive to SAS OnDemand; this is one of the biggest differences between SAS OnDeman and SAS Display Manager. Any program or data files you need to use in SAS OnDemand must first be uploaded to your file system. Right-click on `agency.sas` under Server Files and Folders, and select Properties; note the Unix-style directory reference for the file location. Double-click on `agency.sas` and a new tab for this program will open in the right-hand frame. Run the program, then let's look at saving output.

   - As mentioned earlier, the Table of Contents under the Results tab contains the output in digest form. You can select a folder, expand it, then select Open in New Browser Window (the icon with an arrow pointing to the upper right), though this reproduces the entire display in Results, so it is not as selective as you would like. You can save the entire contents of the Results window by selecting one of three icons to Download results as an HTML file, PDF file or RTF file, respectively.

   - Individual objects can then be selected and copied into other documents. You can also click-and-drag to highlight a table (but not a graph)–don't worry if you picking up a couple leading/trailing blanks) and paste a table from this window in a Word document. Try it for a couple objects; how does the output look?