

# CSC433 Scripting for Data Analysis Assignment 5a)

Matt Triano

May 12, 2017

## 1 Macro Errors

For this assignment, I wasn't quite sure how deep we were supposed to cut. I did a fair bit of rewriting, which may have introduced new bugs and I couldn't get it to produce the output I think you wanted (my script fails to read the states with even-number rank, and despite spending about 9 total hours tinkering on the assignment, I wasn't able to work these things out). I'm interested in seeing this worked out in class, and I'm glad to move onto R, which (as a free platform) has a much more robust body of helpful resources online (ie [stackOverflow](#), [Kaggle](#), etc).

### 1.1 Syntax Errors and Typos

```
Line 8: libname states c:/states-datasets;
====> libname states "c:/states-datasets";
Line 9: %DO k = 1 TO &num_states;
====> %DO k = 1 %TO &num_states;
Line 11: infile 'c:/states-files/state&k.txt' dlm=' ';
====> infile "c:/states-files/state&k.txt" dlm="," truncover;
Line 15: dsname = transwrd(trim(state), ' ', '_');
====> dsname = tranwrd(trim(state), " ", "_");
Line 33: end; ====> %end;
Line 34: %END; ====> %MEND create_datasets;
```

Beyond these edits, my code deviates significantly. The first data step in my macro (at least intends to) read the entire line into a string. The first line for each of the state files contains the state name, so I wrote an **IF THEN ELSE** conditional block to handle the first line and all other lines. For the first line, the code replaces any spaces in the state name with an underscore and uses the `symput()` function to put the regular and processed state name strings into macro variables. For all other lines, I wrote a block that splits the line's text on commas and puts the rank, city\_name, and population into macro variables. Outside of the conditional block, I put that line's data into the permanent data set. I think that this is where my bug is.

Outside the data loop, macro code writes that file's data to the correct permanent data set, automatically using the filename that was made in the data loop.

After writing to the permanent data set, the data is printed out in the SAS IDE, again using a macro variable to print the correct state name at the top of each table.