

For data analysis you can use either SAS or R. You do not need to have prior experience in either one. You can choose which one you prefer to use. In this course, we will not try to teach either SAS or R in their entirety (there are other courses that do this including ST597A) but learn enough to read in data and run regression analyses and associated plots and diagnostics.

**Why two programs?** SAS is representative of many commercial statistical software packages which continue to be heavily used in business, government and academia (the other biggest competitors of this type are Stata and SPSS; there are others). These cost money which brings more customized output, often more features, more documentation and support. R is freeware which is now extensively used, especially so in academia but certainly not limited to there. It is a programming environment more than a statistical package. It has a number of nice features (automatically producing all the output you typically need is not one of them) works in a coherent fashion and there are many user supported packages and documentation along with many books on doing statistical analyses in R available. It is worth learning both from the perspective of future use and job opportunities but as noted above for this course you can choose one or the other. I expect that many of you that already know SAS and have access to it may want to keep using it, while those who have seen neither may tend to prefer R for ease of using it on your laptop (for free!).