

Hierarchical models: week 0 assignment

December 28, 2015

Preparing for the first day of class

On the first day of class January 15, we'll begin with the material from week 1, corresponding to chapter 1 in the [course notes](#) which covers linear models. Throughout the semester, you should read the relevant chapters in the course notes before class, and we also recommend the readings at the end of each chapter, prioritizing the chapters from Gelman and Hill.

We are going to assume that everyone has read at least the course notes each week, and we will not spend much time rehashing the conceptual material from the course notes in class. We will instead try to maximize the amount of time that you spend gaining skills. Most class sessions will involve a short introduction to the activities for the day where we provide you with some data and some objectives, and then we will transition to working on the activities/problems for the week. These are designed to reinforce the concepts while developing analytical skills and intuition in realistic data analysis scenarios.

Setting up your computing environment

Be sure to install [R](#) on your machine before class starts. I strongly recommend using [RStudio](#) rather than the command line or the GUI that comes with R.

We will use a bunch of R packages this semester. The following code will install any of these packages that aren't already installed.

```
pkgs <- c("ggplot2", "car", "effects", "dplyr", "tidyr", "rstan", "knitr",  
         "scales", "vegan", "reshape2", "grid", "lme4", "sjPlot", "arm")  
needed <- pkgs[!(pkgs %in% installed.packages()[,"Package"])]  
if(length(needed)) install.packages(needed, dependencies = TRUE)
```

If you're having trouble installing any of these packages, we will probably not be of much use because of different platforms, dependencies, etc. However, there is usually great support online for the most common problems, so try searching for solutions before giving up or e-mailing us.