**Homework 5 – Answer Key**

ANCOVA - Analysis of Covariance Exercise

For Homework 05, you will be using the HELP dataset, learn more at:

* <https://melindahiggins2000.github.io/N736Fall2017_HELPdataset/> &
* <https://github.com/melindahiggins2000/N736Fall2017_HELPdataset>

Complete the following for these variables:

* OUTCOME VARIABLE (Y): indtot
* INDEPENDENT VARIABLE (X): mcs
* COVARIATES (other X’s): pss\_fr or female

1. Run ANCOVA *(using a regression, ANOVA, or GLM approach - your choice)* for the association between the SF36 Mental Component Score (mcs) and Inventory of Drug Use (indtot) adjusting for perceived social support from friends (pss\_fr). Remember to:
   * mean center continuous variables before computing the interaction term *(i.e. create a new mean-centered variable by subtracting the mean)*
   * check for the assumption of homogenity of variance *(i.e. is the interaction term significant?)*
   * make an “effects plot” plot of the interaction between mcs and pss\_fr
2. Run ANCOVA *(using a regression, ANOVA, or GLM approach - your choice)* for the association between the SF36 Mental Component Score (mcs) and Inventory of Drug Use (indtot) adjusting for gender (female). Remember to:
   * mean center continuous variables before computing the interaction term *(i.e. create a new mean-centered variable by subtracting the mean)*
   * check for the assumption of homogenity of variance *(i.e. is the interaction term significant?)*
   * make an “effects plot” plot of the interaction between mcs and female