Exploration 10B: Complex Gender Interactions at EnPact

1. Simplify the variables in the EnPact data file (C11 EnPact Data.xls [.rda]) until your data spreadsheet looks like the spreadsheet in Step 2 of example 7. By this simplification of our data, we now have only one categorical variable, Ed, with 5 categories. Female and HiJob are now discrete numerical variables with values 0 or 1. This is important to know when we create interaction terms in the next part. We will use Ed1, high-school graduate, as the reference category when we begin building our models.
2. Create the following interaction variables: YrsExp\*HiJob, Female\* YrsExp, Female\* YrsPrior, Female\* HiJob, Female\*Ed. You may need to be careful when constructing regression models, to be sure that you avoid using any reference categories (e.g, do not select Female\*Ed1 since it is the reference category for the Female\*Ed categorical variable.)
3. Create a regression model using the following variables and interaction variables: Base Variables: YrsExp, YrsPrior, Female, HiJob, Ed2, Ed3, Ed4, Ed5 Numerical-Categorical Interactions: YrsExp\*HiJob Female\* YrsExp, Female\* Age, Female\* Yr- sPrior Categorical-Categorical Interactions: Female\* HiJob, Female\* Ed2, Female\*Ed3, Female\* Ed4, Female\* Ed5
4. Explain what goes into determining salary at EnPact and what role gender plays in the salary structure in terms of experience, education and job level. Then give a thumbnail description of life at EnPact for women.