Homework 7

1. Using the Prestige database (from the car library), estimate the regression model defined by the following R code:

$$lm(prestige \sim income + education + income * education)$$

   Substantively describe the effects of the independent variables on the dependent variable. In other words, describe the relationships implied by the interactive terms. Does this interaction make sense to you? Why or why not? No table needed.

2. Estimate the regression model defined by the following R code:

$$lm(prestige \sim income + type + income * type)$$

   Interpret the results of this model. Calculate predicted levels of prestige for professional, white collar and blue collar jobs at various levels of income. Report these predicted levels by making a graph (no table needed). What have you learned about prestige thanks to the interactive variable? Use the effects command to assess the same model. What additional information can you learn about the interactive variable through graphs created with the effects library?