

1. A study of mother's occupational status and children's schooling, published in the American Sociological Review, reported the following prediction equation:

$$\text{logit} \left[\hat{P}(y = 1) \right] = 0.75 + 0.35b + 0.13f + 0.09m + 0.30fo + 0.21mo - 0.92me - 0.16s$$

where $y=1$ if the child obtains a high school degree, b = respondent's year of birth, f = father's education, m = mother's education (0 to 17), fo = father's occupational level, mo = mother's occupational level (1 to 9), me = whether mother employed (1=yes), s = number of siblings. All effects were significant at the 0.01 level.

- a. Interpret the coefficient of mother's education.
 - b. Interpret the coefficient of whether mother is employed.
 - c. The author reported that a one-point increase in mother's occupational level is associated with a 23% increase in the odds of a high school diploma. Explain how he made this interpretation.
2. Use the data of exercise #1 (codebook.doc, gss2006_subset.csv both in P:\QAC\SUMMER10\ASGN) to answer the following questions.
 - a. Create a new variable (G) that takes the value one if the respondent favors a gun permit law (i.e. "gunlaw"=1) and zero if the respondent opposes such law (i.e. "gunlaw"=2) . Develop, estimate and report an appropriate model for (G). Discuss your choice of explanatory variables.
 - b. How does education (capture by "degree") affect the respondent's view regarding gun permit laws? Calculate and report predicted probabilities for different levels of "degree."
 - c. Please submit the do file you used.