

# Intermediate Social Statistics: Assignment 2

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February 19, 2009

This assignment is due in class on Tuesday of week 7. They should be handed in, in hard-copy, to Ray at the beginning of class.

## Question

The data `q3data.dta` has a subset of the data from a study done in the UK in 2004. The following variables are in the dataset:

`trustgov` Trust in government (1=none, 10=complete)  
`econ` Retrospective economic evaluation (1=much better, 5=much worse)  
`demsat` Satisfaction with Democracy (1=not at all, 4=very)  
`labvote` Labour voter (1=labour voter, 0=other)  
`lrself` Left-right self-placement (1=extreme left, 10=extreme right)

1. Estimate an ordered logit model with `demsat` as the dependent variable and the remaining variables as independent variables. Present your results in a proper table.

2. Using the coefficient estimates from the previous step, write out the equation to calculate the probability of being in each category. How many equations should there be?
3. Calculate the probability of being in each of the categories for someone who thinks the economy is the same as it was a year ago, trusts government completely, was a labour voter and places himself at 3 on the left-right scale. You may use SPost to do this.
4. Generate a graph of the predicted probability of being in each category as the values of trust in government change holding the remaining variables constant at their median values. Hint: Use `prgen` from the SPost suite of commands for this.
5. How well does this model fit? Calculate the EPCP this model. How does it compare to the EPCP for the null model?
6. Using the model coefficients, think about what might make people take extreme values on being very satisfied with democracy. For example, if variable X has a big coefficient (either positive or negative), then people at extremes of X should have quite different probabilities. Find two people you think should have quite different predicted probabilities of being very satisfied with democracy. Using SPost, generate confidence intervals for their predicted probabilities and tell us whether they are statistically significantly different from each other.
7. What is the mean effect of moving everyone's left-right self-placement by one unit to the left (in the negative direction)? Would this move change anyone's predicted category membership?