Listed under Homework #2 on our class page is a link to data in comma delimited format on voter turnout in 49 US states (Louisiana is omitted because of an unusual election in 1982) plus the District of Columbia over 11 elections (from 1980 through 2000). The second page of this homework provides a codebook describing each variable.

(1) Regress turnout as a percent of voting age population on the number of days before the general election by which an individual needs to register, state per capita income, the dummy variable for midterm elections, and the dummy variables for West North Central, the South, and the Border states. Describe the results of this regression.

(2) Estimate a fixed effects model with the same specification as in (1). Describe your results, and how they differ from your results in (1). Explain why this model does not have coefficients on some of the variables that were included in the results in (1).

(3) Report the results of an F-test for significant unit specific effects (pooling). Explain what this test tells you about the appropriateness of pooling this data.

(4) Estimate a random effects model with the same specification as in (1). Describe your results, and explain why they differ from your results in (2).

(5) Report the results of an Breusch-Pagan test for the variance of the random effects. Explain what this test tells you about your random effects model in (4).

(6) Estimate a Hausman test comparing your fixed and random effects models. Which model does this test suggest is the most appropriate? Discuss the tradeoffs between using pooled OLS, fixed effects, and random effects for this model.
Codebook for Homework #2 Data

**year**: The year of the election.

**stcode**: The ICPSR state code number.

**state**: The state name.

**vaprate**: The turnout rate as a percentage of the voting age population.

**midterm**: A dummy variable for midterm election years.

**regdead**: The number of days before the general election by which an individual needs to register.

**gsp**: State per capita income in 1000s of dollars.

9 regional dummy variables.