17.871
Spring 2015
Group Projects

Assignment summary

Working with your assigned group, answer the question posed to you *with regression analyses*. You will hand in draft slides of your presentation (see the next page) by *noon* on Monday, April 6 and will give a 15-minute presentation on your work in class on that day. Your group will also turn in a 10-page, double-spaced written report on your project on Friday, April 10. (Please e-mail a copy to Tom and me by 5:00 pm as either a Word or pdf document. (Word is preferred because it is easier to make comments.) You will also attach your Stata do file and data file that will allow us to replicate all the tables and graphs in your paper.

The 10-page limit includes tables, figures, and bibliography. The report should be in the form of a (mini) term paper meaning, among other things, that it should follow the format described by Kate Turabian, *A Manual for Writers of Term Papers, Theses, and Dissertations*. The paper should cover the same material as the presentation, which is outlined below ("The five slides").

Data requirements

The data set you create must have least 30 cases and at least *three* explanatory variables.

Analysis requirement

In addition to describing your variables, you must run a multivariate regression and report the resorts in the oral and written presentations.

Statement about Collaboration

You are encouraged to seek and extend as much help as you can, both within and between groups. I expect you to be meticulous in citing the written work of others that you use.

Grading

We will assign a letter grade to each group's project. That will be the grade you receive, plus or minus an adjustment that will be determined as follows: We will ask each member of the group to indicate the relative amount of effort each person contributed to the successful completion of the project. If someone in the group stands out as being a conspicuous over-contributor or under-contributor to the group effort, that person's letter grade will be adjusted upward or downward as appropriate.

Grading rubric

Writing/Organization - 30 points
Literature Review - 15 points
Data Collection - 15 points
Data Analysis - 20 points
Data Presentation - 20 points

Presentations: The five slides

Your presentations should consist of the *five* slides.

1. Research question
    - Pose your question
    - What is the current state of academic thinking about your question?
    - Develop a hypothesis about one key explanatory variable
    - Explain why it's important to democracy, public policy, etc.
2. Research design
    - Describe dependent variable, key explanatory variable, control variables (justify the controls)
    - Descriptive statistics (recode all to 0-1, present means and sds)
3. Bivariate relationship for key variable
    - Scatter plot for continuous variables, box plots or crosstabs for nominal variables, label axes, label data points
    - Present and *interpret* bivariate coeff. (include a sentence on the slide), put regression line on scatter plot
4. Present and *interpret* multivariate regression coefficients
    - Raw Stata output is okay, but only this time!
    - Does adding the control variables to your regression change the results? Why? Interpret the coefficient with a sentence on the slide.
    - Interpret SER (include a sentence on the slide!)
5. Conclusion
    - What's the most important inference?
    - What are the policy implications or implications for democracy?
    - How strong of an inference can we draw? Problems? Alternative explanations?
        - Internal validity? (Nonrandom selection and reverse causation)
        - External validity?

- Please practice your presentations and ensure that you are under 15 minutes!
- Bring copies of your slides for everyone in class.

Some final notes

For variables that have been rescaled to vary between 0 and 1, interpret the coefficient as a shift from the minimum to the maximum leads to a (?) change in (dependent variable). In the past, I noticed a few groups instead using the phrase “one unit change” with rescaled variables. Although this is technically correct, the minimum to the maximum language is more informative for readers.

1. When interpreting your results, be very careful about whether your variables are percentages or not. Sometimes groups will interpret their coefficients and their SER in terms of percent change even though the variables were not percentages. The interpretation of the coefficients and the SER are always in the unit of the variables (with the exception of log variables). So, if your variables aren't percentages (or proportions), don't use percentage language in your interpretations.
2. Don't forget to include a brief literature review. The main point of the literature review is to discuss the most important works relevant to your research question.
3. For this paper, you can paste Stata output straight into the paper. However, make sure you convert the typeface to Courier (or another fixed-width font), so that it will be legible. Please paste in the output of the “summary” command for the variables used in your regressions (so we can see your Ns, means, standard deviations, and ranges).

Finishing group projects can be difficult interpersonally. A surprisingly useful trick is to be kind in all your interactions with group members.

Project 1: Development Aid and Democracy

Names: Betre, Rose, Wolters

Question: Does development aid damage third-world countries by making them less democratic?

Possible explanations for the extent of democracy in different countries

- *Amount of Development Aid.* As countries develop, governments usually need to raise taxes from their citizens, and give them democratic rights in return (remember 'no taxation without representation'). But aid revenue reduces the need for taxes, lowering the pressure to democratize. Aid also undermines democracy by increasing government corruption and inefficiency, empowering autocratic regimes, and encouraging violent coups.
- *Economic Growth.* Democracy emerges naturally as a result of 'modernization' brought about by economic growth.
- *Literacy Rate.* More educated populations are more supportive of democracy, forcing their governments to make democratic reforms.
- *Urban Population Share.* Larger urban populations can more easily mobilize and protest in favor of democracy.
- *Natural Resource Endowments.* As with aid money, regimes with larger oil and gas reserves can use the resource revenues to 'buy off' citizens instead of taxing and democratizing.

Data sources

- *'Polity IV' website*. A widely-used quantitative measure of how democratic a country is
- *Freedom House website*. Provides another popular quantitative measure of democracy
- *World Bank Development Indicators*. Data on the amount of overseas development aid received by countries, as well as economic growth

Bibliographic example

- Knack, Stephen. "Does Foreign Aid Promote Democracy?" *International Studies Quarterly* 48 (2004): 251-266.

Comments/hints: This project relates to a long-running dispute in development studies between enthusiasts such as Jeffrey Sachs, who argue that third-world aid is essential to promote economic development, and critics such as Bill Easterly who claim (amongst other things) that aid is counter-productive, since corrupt governments use aid revenue to undermine democracy and the rule of law. For your study, replicating columns 1-3 of Knack's Table 2 with up-to-date data would be a good start. It is sensible to follow his approach and have one observation per country for your time period. It would be interesting to extend his study: for example, what variables do you think he fails to include in his regressions? You might also consider whether the results differ across different continents or regions.

Project 2: The fall and rise of President Obama's popularity

Names: Crowe, Silberberg, Swasey

Question: What explains the recent rise in popularity of President Obama, and is his popularity greater or less than presidents who are similarly situated?

Possible explanations for changes in presidential popularity

- *State of the economy.* Presidents are regarded more highly when economics are good and blamed when economics are bad. The two most commonly used indicators of general economic health are the unemployment and inflation rates.
- *Rally around the flag.* When the nation is attacked by an outside force, or there is some other unexpected international crisis, presidents might gain in popularity, due to a momentary rise in patriotic fervor.
- *War casualties.* Battle deaths make presidents unpopular.
- *Loss of support from electoral coalition.* Presidents get elected by staging a campaign and assembling a majority coalition that is drawn from disparate interests in society. After the election, the president must make decisions that alienate parts of the electoral coalition.

Data sources

- *American Presidency Project, UC-Santa Barbara.* Keeps track of responses to the Gallup Poll job approval measure. http://www.presidency.ucsb.edu/data/popularity.php?pres=33&sort=time&direct=DESC
- *Huffington Post Pollster.* Keeps track of hundreds of public opinion polls about presidential performance. http://elections.huffingtonpost.com/pollster.
- *U.S. Bureau of Labor Statistics.* The authoritative source of monthly economic data, including price and income data. http://www.bls.gov/data/.

Bibliographic examples

- John E. Mueller. "Presidential Popularity from Truman to Johnson." *American Political Science Review* 64 (1970): 18–34.
- Samuel Kernell. "Explaining Presidential Popularity. How Ad Hoc Theorizing, Misplaced Emphasis, and Insufficient Care in Measuring One's Variables Refuted Common Sense and Led Conventional Wisdom Down the Path of Anomalies." *American Political Science Review* 72 (1978): 506–522.

Comments/hints: There has been much attention paid in recent weeks to the rebound in President Obama's job approval ratings. Much of this has been attributed to a rise in the economy; some of this has been attributed to his taking a bolder stance against Congress. This raises the question of whether Obama's job approval is moving according to its own logic, or if it fits in with past presidential patterns. Luckily the question of what moves presidential approval is a well-studied question, though not so much in the case of Obama. In building a statistical model to explain Obama's job approval, it is probably wise to first build a general model, involving data from several presidents. One thing to think about is what should the unit of observation be? Should data be measured monthly? Daily? Quarterly? There are also many

measures of economic performance, so choose wisely. Finally, commentary on movements in presidential job performance ratings sometimes make reference to factors that are difficult to measure objectively, like being aggressive to Congress or responding to international threats. Think about how such factors have been treated in the existing literature, and see if you can incorporate them into an explanation for the rise and fall and rise again of President Obama's job approval.