

## Description of POLI 381 Data Projects

The data projects require students to build original data sets to answer a series of research questions that encourage data description, correlation, and conditioning, respectively. The *description* project involves describing the longitudinal or cross-sectional variance of a given variable. The *correlation* project involves illustrating the relationship between two variables. The *conditioning* project involves examining if the correlation between two variables is conditional on a third variable.

The questions that motivate these projects are described below. I have phrased the questions so that they leave open matters of scope and measurement precisely to encourage students to approach the projects in different ways.

### 1. Are elections becoming more competitive or less competitive?

- a. *Description*: Conceptualize and measure electoral competitiveness. Find a data set that contains your measure of electoral competitiveness or the information necessary to construct that measure. Describe that measure using statistical and graphical methods. This involves noting the scope and coverage of your measure. For example, do you limit your sample to certain jurisdictions or time periods or electoral systems?
- b. *Correlation*: Correlate your measure of electoral competitiveness with electoral turnout. Is turnout higher at more competitive elections?
- c. *Conditioning*: Condition the relationship between competitiveness and turnout on a third variable, e.g., the electoral system, nature of the election (legislative, presidential, etc.), or even the weather. Does the relationship between competitiveness and turnout appear to be independent of your controlling variable?

### 2. Is political polarization getting worse?

- a. *Description*: Conceptualize and measure political polarization. Find a data set that contains your measure of political polarization or the information necessary to construct that measure. Describe that measure using statistical and graphical methods. This involves noting the scope and coverage of your measure.
- b. *Correlation*: Correlate your measure of polarization with a measure of social protest or disruption. Are polarized communities subject to more frequent or more severe social disruptions?
- c. *Conditioning*: Condition the relationship between polarization and protest on a third variable, for example, the nature of the political system or the state of the economy. Does the relationship between polarization and protest appear to be independent of your controlling variable?

### **3. Does government bureaucracy always expand?**

- a. *Description:* Conceptualize and measure the size of bureaucracy. Find a data set that contains your measure of bureaucracy size or the information necessary to construct that measure. Describe that measure using statistical and graphical methods. This involves noting the scope and coverage of your measure.
- b. *Correlation:* Correlate your measure of the size of bureaucracy with some measure of the demand for government services. Does government bureaucracy meet, exceed, or fall short of demand?
- c. *Conditioning:* Condition the relationship between the size of government bureaucracy and the demand for government services on the ideology of the governing party or coalition. Is the relationship between the size of government bureaucracy and the demand for government services contingent on the government's ideology?

### **4. Are governments becoming more fragile?**

- a. *Description:* Conceptualize and measure government fragility. Find a data set that contains your measure of government fragility or the information necessary to construct that measure. Describe that measure using statistical and graphical methods. This involves noting the scope and coverage of your measure.
- b. *Correlation:* Correlate your measure of government fragility with a measure of economic growth. Do governments become more fragile when economic growth stalls?
- c. *Conditioning:* Condition the relationship between government fragility and economic growth on regime type or constitutional type (i.e., parliamentary, presidential etc.). Are some types of governments more robust in the face of economic headwinds than others?

### **5. Is there a homelessness crisis?**

- a. *Description:* Conceptualize and measure homelessness (or what constitutes a crisis thereof). Find a data set that contains your measure of homelessness or the information necessary to construct that measure. Describe that measure using statistical and graphical methods. This involves noting the scope and coverage of your measure.
- b. *Correlation:* Correlate your measure of homelessness to housing prices. Do higher housing prices coincide with greater rates of homelessness?
- c. *Conditioning:* Condition the relationship between homeless and housing prices by a third variable, such as the amount of public spending on mental health supports or the prevalence of AirBnB's in the jurisdiction. Is the relationship between homelessness and housing prices disrupted by this third variable?

**6. Are drivers worse / more reckless than ever?**

- a. *Description*: Conceptualize and measure driver recklessness. Find a data set that contains your measure of driver recklessness or the information necessary to construct that measure. Describe that measure using statistical and graphical methods. This involves noting the scope and coverage of your measure.
- b. *Correlation*: Correlate your measure of driver quality / safety with a measure of the stringency (or laxness) of traffic enforcement. Are drivers worse where enforcement is lax or where it is stringent?
- c. *Conditioning*: Condition the relationship between driver quality and traffic enforcement by a variable that measures the driving climate (e.g., the actual weather or the quality of infrastructure). Does driver quality / safety appear to be more strongly related to traffic laws or to environmental factors?