Attitudes and the court project proposal

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Problem Overview

Federal US circuit courts often make rulings in areas that are socially or politically relevant to the American public, such as capital punishment, affirmative action, gay rights, environmental protection, and abortion. In this project, we seek to measure how these rulings may affect Americans' social and political attitudes. Our goal is to determine whether court rulings tend to move attitudes in the direction "intended" by the ruling (e.g., towards acceptance of gays when a ruling expands gay rights), or whether rulings tend to move attitudes in the opposite direction (i.e., cause backlash) or polarize attitudes.

Data sets

We will use two main data sets for our analyses. The first is the US General Social Survey (GSS), which records the social and political attitudes as well as demographic information for a representative sample of 57,061 Americans since 1972. The GSS has about 5,000 questions, though much of the data is missing. The second is a data set of US circuit court decisions for 6,500 cases. These cases are coded by topic (capital punishment, criminal appeals, etc.), and by the proportion of the three-court panel that voted in the more liberal or more conservative direction. The meaning of the ruling coding depends on the topic; for example rulings would be coded as pro-life or pro-choice in the case of an abortion case. The court data also includes demographic information about all judges on the panel, including the party of their appointing president.

Evaluation of performance

Our measure of performance will be the degree to which the inclusion of court ruling data improves the forecasting of attitude trends over time-series analysis using the GSS data alone. This will require two models: one that includes both GSS predictors and court data predictors, and one that uses GSS predictors alone.

Planned approach

We intend to tackle this problem iteratively, by gradually increasing the complexity and size of both the models used and the data to which the models are applied.

Rather than immediately apply our models to the entire set of GSS data or court case data, we plan to begin our analyses with a reduced data set. To do this, we will choose a single court case topic (e.g., affirmative action), and a single composite measure of attitudes (e.g., racism) from the GSS developed by previous researchers. This will allow us to confirm the feasibility of our approach before increasing the dimensionality of our predictors and outcome variables.

While we do not have prior experience in time series analyses, our current plan is to use the ARIMA family of models for our analyses. Our first ARIMA model will simply predict the value of a given attitude over time using past values of that attitude, thus capturing basic trends in the attitude data. We will then add the court case rulings and the time of their occurrence as an additional set of predictors, and estimate the improvement of performance. Following this first step, we will then continue to improve our model by incorporating more predictors of attitudes from the GSS data (e.g., demographic information), as well as including the court predictors in more sophisticated ways (e.g., allowing lagged effects of rulings, allowing rulings to interact with demographics). At all points, we will maintain versions of the model with and without the court data predictors, so we can measure the forecasting power of the court results as opposed to other trends.