US Centre Summer Research Grant

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Project title: The Ideological Polarization of Donors: Evidence from North Carolina

Summary of project:

The rise of political polarization in American politics is a central feature of the last two decades. Yet, recent scholarship in political science and economics has suggested very different explanations for this political phenomenon. In this work, I study the relationship between economic inequality and the polarization of donations and voting outcomes in a selected sample of states. I find a strong positive correlation between economic disparities and ideological divergence over time. Then, I zoom in on the increase in ideological polarization of campaign donors, a very politically active group of citizens in North Carolina, where I have a measure of party affiliation over time. In this sense, I match voter registration with campaign donation data and I build time-varying ideological scores for donors, based on the seminal work by Bonica (2014). I describe the rising trend over time, which is stronger for members of the Democratic party. Finally, I look at the subsample of donors with a Twitter account, evaluating whether joining Twitter has contributed to rising polarization. These results aim to contribute to the debate whether social media increases or decreases ideological polarization, using data at the individual level.

INTRODUCTION

The increase in political polarization in American politics in the last two decades is no surprise even to the casual observer of the news. This project aims to describe with micro data the relationship between economic inequality and rising ideological polarization in the last two decades. Then, it focuses on a subset of very active citizens, namely voters that also donate money to political campaigns, exploiting particularly rich data from the state of North Carolina. Finally, this project explores an open question in the literature about social media: has Twitter contributed to the rise in polarization?

Economic inequality and political polarization influence each other in many fashions. Seminal works has shown that this relationship is quite strong at the aggregate level (McCarty et al. 2008). The harsh obstacles for obtaining individual data on income and wealth on one hand and the intrinsic difficulty of measuring both economic inequality and political polarization at a small level of geographic aggregation on the other hand, render the great majority of these works focused at the county if not state level. This project overcomes these difficulties in two fashions. First, it investigates the correlation between rising economic inequality and political polarization, including voting outcomes and patterns of individual donations, at the smallest possible level of analysis, namely census tracts. Then, it studies with individual level data matching voters and donors, the rise in polarization between 2006 and 2018 in North Carolina.

While the literature on political polarization is enormous and it includes very different types of explanations, the rise of broadband internet and the increasing relevance of social media surely belongs to the most cited causes of the rise of polarization in the American democracy (e.g., Lelkes et al., 2017). A simple summary of this argument is that internet and social media users tend to read and watch more partisan content, given that they participate in communication in small groups of very politically homogenous individuals, the so-called echo chambers. By matching the donor and voter registration data with Twitter accounts, I address the following question: does joining Twitter in the period between 2007 and 2015 change the patterns of political participation of voters and donors? To the best of my knowledge, this project is the first that investigates social media and polarization at the individual level without making use of self-reported data. This project aims to deliver a top-journal publication in a political science journal.

SUMMARY OF RESULTS

This paper makes use of four main sources of data: the DIME database of campaign contributions (Bonica 2016), precinct-level election data from the US Elections project and Dave Leip Atlas, socioeconomic variables from the Census Bureau and voter registration and voter history data from the North Carolina Board of Election (NCBE). The DIME database contains amount, date and recipient of each individual donation between 1979 and 2018. It also provides the name of the donor, the geolocalization of the address, including the zip code and the census tract, and in most cases the occupation.

In order to study the association between income and polarization, I collapse all these measures of political polarization at the census tract level and match them with Census Bureau socio-economic data and voting election data. The latter merge is quite complex, as the smallest level of analysis in

which election results are collected is the precinct level (see Figure 1 for a map of precinct boundaries in North Carolina), whose boundaries not always collide with census tracts.[1]

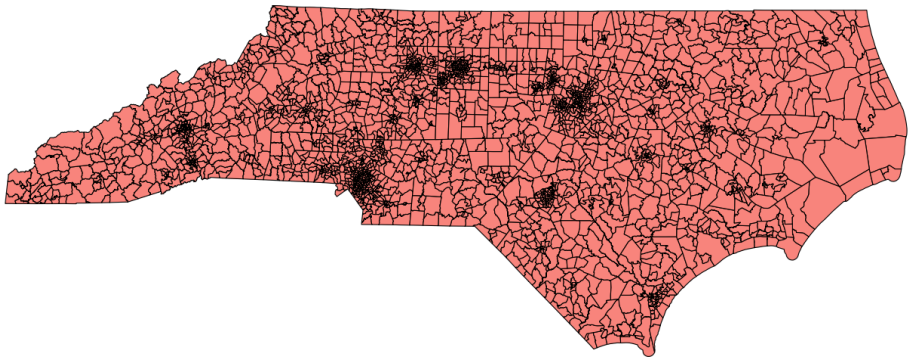

Figure 1: Map of precinct boundaries in North Carolina

I am mostly interested in the relationship between income and polarization, as many studies have pointed to a positive association between income inequality and political extremism (e.g., McCarty et al., 2008). I show that a higher median income in a census tract, after controlling for many other variables that have been found to affect campaign contributions, correlates with a higher extremism of contributions from both Democratic and Republican donors, especially for the latter. This result is greater in tracts characterized by a higher share of votes for the Democrats. Beyond investigating the association with median income of a tract, I want to look at the relationship between the polarization of donations and the income distribution within each unit of analysis, by using the Gini coefficient. I find that higher inequality in income correlates with higher political polarization, even comparing tracts with the same median income (and same values for all the other control variables). There is no distinct pattern in this relationship with respect to vote shares.

In an effort to analyze the relationship between income inequality and another form of political participation, I also calculate turnout rate at the census tract level, simply considering the ratio between citizens turning out to vote and citizens registered at that time. I do find a positive and substantial correlation between median income and turnout, as suggested by a very large literature (e.g., Lijphart, 1996; Schlozman et al., 2012, Leighley and Nagler 2013). Unsurprisingly, I also find that a higher fraction of the population belonging to Black or African American and Hispanic or Latino correlates with lower turnout. Overall, this work finds a strong relationship between median income of very small areas and political participation, at the zip code level, confirming the famous result of a positive income gradient (Wolfinger and Rosenstone, 1980).

Then, I focus on the state of North Carolina. The registration and voting history data comes from the NCBE website. The data includes information for address, age, gender, racial and ethnic characteristics, voting history and crucially party at registration from 2006 to today. North Carolina is indeed one of the thirty-one states in which voters have to indicate a party affiliation[2], or state that they are unaffiliated, at any given election, including local elections. It is then possible to build a panel

[1] The non-trivial procedure to create a crosswalk between precincts and census tracts involves first matching precincts with census blocks, as explained in this link: http://www.publicmapping.org/resources/data#TOC-Disaggregation-of-Election-Data-to-Census-Blocks

[2] For a guide of voter registration and voter history data in all US states, see the Appendix of Fos et al. (2022).

database of voters knowing if they have voted at each election and for which party they were registered for at that time. I make use of this time-varying information about the party at registration to make an analysis of political polarization, by merging this data with the DIME database. I make use of all registered individual contributions from the state of North Carolina from 2006 to 2018 and I develop a two-step fuzzy matching algorithm that uses first name, last name and zip code of individuals. I employ a conservative matching strategy that tries to overcome the problems of double names and surnames and nicknames, spelling mistakes and changes of address. Overall, I match around 60 percent of observations.

Bonica (2013, 2014) has created ideology scores for contributors and recipients on the same ideological scale. These so called *cfscores* are based on a maximum likelihood estimation and hinges on the fact that many individuals are both candidates and donors at the same time. Based on the estimates, I construct a time-varying measure of ideological polarization of contributions for donors, which I can recover for 71 percent of the observations in my data set. This analysis is then focused on a particularly active subset of donors, which we can approximate to the citizens that are most politically involved. I calculate a polarization index as the difference between the median ideological score of contributions of Republicans and Democrats in each election cycle. In this fashion, I document a strong rise in the polarization of donors between 2006 and 2018 (see figure 2). The period under study is one during which American politics has dramatically changed, from the biggest economic crisis after WWII to the election of Donald Trump in the White House. North Carolina has also experienced a turbulent period in state politics, with two close gubernatorial elections, and extreme legislators as Tea Party members elected in Congress from two different districts.

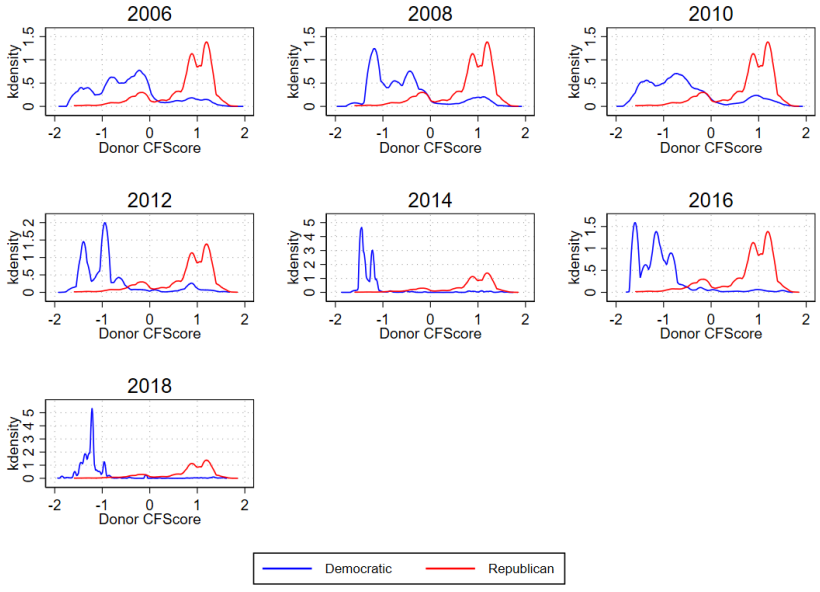

Figure 2: Ideology CFscores of Democratic and Republican donors between 2006 and 2018

Figure 2 shows the evolution of the median ideological scores for both parties in each two-year electoral cycle. Comparing the first years with the last ones, this simple graph exhibits a marked rise in polarization of contributions. It is also easy to detect that the Democratic contributions are the ones that experienced the biggest rise in extremism. Further regression analyses confirm this result and show that the increase regards both existing and new donors.

Comparing the two databases, I find that female donors are underrepresented with respect to voters: according to both the information in the DIME database and in the list of registered voters, 41.14 percent of donors are female, while 53.34 percent of voters are female. Looking at the polarization of donations among ethnic groups, the first thing to note is the massive under representation of minority groups, a classic result in the contribution literature (Grumbach and Sahn, 2019). Only around 8.5 percent of matched donors are Black or African American and less than 5 percent are Hispanic or Latino, according to the classification by the North Carolina Election Board data. In the group of registered voters, these numbers are respectively 20.9 and 10.2 percent. Interestingly, the age of donors is substantially higher than the age of voters. The average (median) age for voters is 52.4 (53), the average (median) age for voters is 59.2 (60). The difference comes from the group of 20-29 years old, with a great underrepresentation of donors of this age group. Unsurprisingly, polarization increases with age.

TWITTER ANALYSIS

Using Python, I have retrieved Twitter accounts data including name and geolocation for tweets geolocated in North Carolina in 2014 and 2015, collected in a repository (GESIS). With a similar matching strategy than above, I have merged this database with the voters database in order to analyze the relationship between Twitter and voting (N=16166), finding that at the individual level registered voters tend to turn out to vote more after joining the social network. Further iterations of this paper will expand the analysis at the individual level for the state of New Jersey and Pennsylvania, which provides similar datasets than North Carolina.[3] The final estimation with a larger sample size aims to answer the following question: has Twitter, especially in the early phases of the social network, increased the extremism of contributions by donors that are also social media users?

[3] The merge between datasets and the procedure to recover tweets are very computationally intensive and required months only for NC.

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