# Core supporters and long-term party switchers in U.S. Presidential Elections*

Stefan Krasa† Mattias Polborn‡

March 3, 2016

**Abstract**

We analyze long term voter migration induced by an ideological realignment of Democratic and Republican elites on economic, moral and other issues. When party positions change to create sharper contrasts on social issues, and/or less sharp differences on economic issues, then voters with socially-conservative, but economically-liberal preferences are likely to switch their support from Democrats to Republicans, and vice versa. Using data from the National Election Survey, we analyze the demographic characteristics, intelligence, ideological preferences and media consumption of these two groups of "switch voters." We also compare them with the two parties' core supporters, and analyze the central ideological conflicts between and within each party's coalition of supporters.

*Keywords:* Polarization, policy divergence, ideology, voter migration.

*We authors gratefully acknowledge financial support from National Science Foundation Grant SES-1261016. Any opinions, findings, and conclusions or recommendations expressed in this paper are those of the authors and do not necessarily reflect the views of the National Science Foundation or any other organization.

†Department of Economics, University of Illinois, 1407 W. Gregory Dr., Urbana, IL, 61801. E-mail: skrasa@uiuc.edu

‡Department of Economics and Department of Political Science, University of Illinois, 1407 W. Gregory Dr., Urbana, IL, 61801. E-mail: polborn@uiuc.edu.

# 1 Introduction

After an election, political commentators often debate how the winning candidate managed to form a sufficiently large coalition of supporters. Which demographic groups that favored his opponent in the last election was the winner able to bring into the fold? Was there an ideological realignment of the electorate, and if so, what were the political issues that precipitated it?

These questions are even more interesting in a long run perspective than for any particular election. For example, a central argument of Thomas Frank's bestseller "What's the matter with Kansas?" is that a large number of white working class voters have turned away from the Democrats and towards the Republicans because Democrats became more similar to Republicans on economic issues, and because their preferences on cultural issues such as abortion or gay marriage are often more closely aligned with Republicans:

> "The Democratic Leadership Council has long been pushing the party to forget blue-collar workers and concentrate instead on recruiting affluent white-collar professionals, who are liberal on social issues. [...They] stand rock solid on, say, the pro-choice position while making endless concessions on economic issues, on welfare, NAFTA, social security, labor law, privatization, deregulation and the rest of it" (p. 243). "By dropping the class language that once distinguished them sharply from Republicans they have left themselves vulnerable to cultural wedge issues like guns and abortion and the rest whose hallucinatory appeal would ordinarily be far overshadowed by material concerns." (p.245)

Of course, this analysis is far from uncontroversial (see our literature review in Section 3), and the fundamental reason for this controversy is that it is not straightforward to analyze long-run voter migration. No opinion polls ask respondents which party they voted for more than 4 years ago (let alone, several decades earlier), and which issues, if any, made them change their mind – and even if those opinion polls existed, we would probably distrust the respondents' recollection.

In this article, we analyze long term voter migration induced by an ideological realignment of the two major parties on economic, moral, and other policy issues. When party positions change

to create sharper contrasts on social issues, and/or less sharp differences on economic issues, then voters with socially-conservative, but economically-liberal preferences – the white working class, traditional values voters in Frank's quote – are likely to switch their support from Democrats to Republicans. Conversely, voters with socially-liberal, but economically-conservative preferences are likely to migrate in the opposite direction.

Using data from the National Election Survey, our method first identifies, for each election, how likely different voters are to vote Democratic or Republicans, given their respective preferences on a relatively small number ($\sim 10$) of fundamental policy issues, such as the respondent's opinion on the legal status of abortion, or how involved government should be in the economy. (These issues are included in the National Election survey in every election since the 1970s.)

We determine the most likely "switch voters" for a given pair of elections — a base year in the past and a current year — by taking the voter type distribution of the current year, and calculating, for each voter type, the probability of supporting the Democrats in the base year *and* the Republicans in the present year. We then categorize the 20 percent of individuals for whom this probability is highest as "New Republicans." "New Democrats" are defined analogously. Similarly, we characterize the most loyal supporters of each party, which we refer to as core liberals and conservatives.

Existing research typically uses voters' self identification to identify moderates and extremists. This approach can be problematic if a significant number of individuals does not properly understand the liberal to conservative classification. In fact, in Section 5.2 we show that about 14% of respondents believe that Democrats are strictly "more conservative" than Republicans. If, of those respondents who do not know which party is more conservative, half get the answer correct by chance, this means that more than a quarter of voters does not really understand the liberal to conservative classification. In addition, to identify switch voters we would have to assume that respondents remember correctly who they voted for in a number of previous elections. We would also have to assume the individual's policy preferences have not shifted. Our approach avoids both of these issues.

It is crucial that our model allows for voters' policy preferences to be multidimensional. In a

model that constrains preferences to be one-dimensional – in particular the one underlying most political reporting that divides voters and candidates into "liberals", "moderates" and "conservatives" –, the most likely switch voters for both parties are necessarily the most moderate voters. For example, some analysts argue that Donald Trump is a moderate in the 2016 Republican Presidential primary because he does not have "consistently conservative" positions.[1] But rather than having moderate positions on all issues, Trump seems to combine relatively moderate or even liberal positions on economic issues with very right-wing positions on immigration and nationalism, and thus is attractive to voters with these policy preferences, while being unpopular with the "country-club Republicans" (i.e., social moderates or even liberals who mostly care about lower taxes). Considering these two voter groups, as well as those who are moderate on all issues, as one "moderate" group would obfuscate their fundamentally different policy preferences. Our method, instead, allows us to clearly distinguish different groups that are between the parties for different reasons.

We also identify the parties' "core supporters" as the 20 percent ideologically most liberal and most conservative voters, who, in the current election, have the highest predicted likelihood of voting Democrat and Republican, respectively. We show that core supporters constitute a disproportionate part of both parties' primary electorates, and therefore it is also important to know how they differ from the average supporter of these parties. We can then compare the switch voter groups and the core supporters to each other, and to the average voter of each party, both in terms of their demographic make-up and their preferred policies on current issues.

We find that, demographically, switch voters look very much like some of the core supporters of the party they left: New Republicans are heavily blue-collar, lower middle class voters who are economic moderates, but are very socially conservative and religious. They are less well-educated, and score relatively poorly on the Wordsum verbal intelligence test. New Democrats, instead, are wealthy (just like core Republicans), but are very secular and socially liberal. They are the most well-educated among all groups, and have the largest percentage of top-scorers on the Wordsum test.

[1] See, e.g., https://www.washingtonpost.com/news/monkey-cage/wp/2015/12/16/donald-trump-is-a-textbook-example-of-an-ideological-moderate/.

We also analyze what unites and divides the groups that make up both parties' core supporters. Among Republicans, we consider the cleavages between those who are enthusiastic Tea Party supporters and those who are not. Among Democrats, we focus on the split between white liberals for whom social issues are paramount, and racial minority liberals who are more socially conservative, but economically liberal.

Finally, we show that there is substantial polarization in media consumption between the different groups. The audience of almost all TV news or programs with a significant political content (as well as some non-political shows!) tilts usually strongly into one ideological direction. This effect is even more pronounced for radio, creating an echo chamber in which partisans only receive "news" that confirms their ideological leanings.

# 2 Switch voters, core liberals and core conservatives

Fundamentally, we are interested in the economic and social-cultural positions that parties adopt in order to appeal to voters and win elections. Almost all formal models of party competition focus on the spatial model pioneered by Downs (1957), in which all policy questions are just manifestations of some one-dimensional "liberal-to-conservative" policy preference spectrum. Elections are decided by one particular voter type, the "median voter." Moreover, in two-party plurality systems, to the extent that the parties take non-identical positions, one of them appeals to the liberal side and the other one to the conservative side of the voter spectrum.

If parties, for whatever reasons, do not position themselves always at the median voter, and/or if there are different party valence (quality) shocks in different elections, then some voters may sometimes switch parties. However, these switch voters are always the same types, and in the long run, they switch back and forth between parties, depending on which party is "more moderate" or "better" in each particular election.

Specifically, consider a probabilistic voting model with one policy dimension in which candidates take differentiated positions[2] and voters, in addition to their policy payoffs, receive id-

[2]We do not explain here why candidates do not converge to the same position because the reason for policy

iosyncratic payoffs from the different candidates in each election. Formally, let a voter's ideological position be denoted by $\theta \in \mathbb{R}$. Voter $\theta$'s utility from candidate $P$ in position $x$ is given by $u_\theta(x) = -(x-\theta)^2 + \xi_P$, where $\xi_P$ is a normally distributed idiosyncratic preference shock.

In this framework, consider two elections that both end in a 50/50 split of the electorate because the set of voters who changes from Democrats to Republicans (because of their idiosyncratic shocks) is just as big as the group that travels in the opposite direction. The voters who switch their party allegiance are predominantly ideological "moderates" who only switch because they happen to have a slight non-policy preference for the Democrat in the first election and for the Republican in the second one, or vice versa.

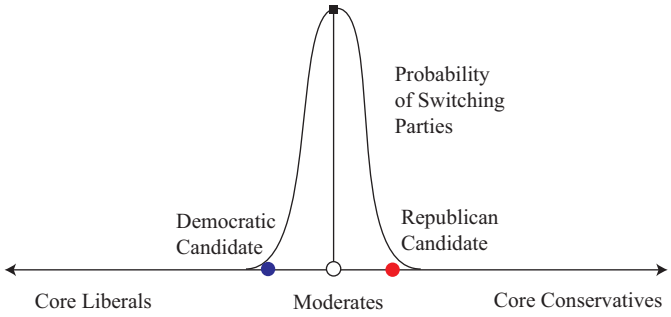



Figure 1: Voter Migration in One Dimension

A voter whose ideal position is far to the left of the median is highly likely to support the Democrat in both elections; to switch his allegiance to the Republican would require a very large (and thus very unlikely) idiosyncratic preference shock. Analogously, very conservative voters are highly likely to vote for the Republican candidate in both elections. In contrast, a moderate voter who is indifferent between the two candidates' policy positions, has a probability of $1/2$ of idiosyncratically favoring either candidate, and therefore, when considering two elections, has relatively high probabilities (of $1/4$ each) of switching from Democrats to Republicans, or vice versa. So, the set of switch voters will predominantly consist of these moderates (see Figure 1).

divergence is immaterial for the present article. There is a large theoretical literature on the factors (e.g., candidate with policy motivation (Wittman (1983); Calvert (1985); Londregan and Romer (1993); Martinelli (2001); Gul and Pesendorfer (2009); entry deterrence (Palfrey (1984); Callander (2005)); incomplete information among voters or candidates (Castanheira (2003); Callander (2008); and differential candidate valence (Aragones and Palfrey (2002); Groseclose (2001); Soubeyran (2009); Krasa and Polborn (2010, 2012); Bierbrauer and Boyer (2013)).

Moreover, given two 50/50 elections, for each voter type $\theta$ – not just for the median – the probability of switching from Democrat to Republican equals the probability of switching from Republican to Democrat. Because switching is driven only by personal preference shocks, the ideologically preferred positions of voters who switch from Democrats to Republicans and those who switch from Republicans to Democrats should be very similar.

What the one-dimensional model of party competition does not allow for is a systematic realignment of the parties in terms of their policy positions, and a systematic stream of some voter types who change from Democrats to Republicans, and others who move in the opposite direction.

In a model with many policy dimensions, this equivalence result breaks down: Relatively extreme voter types may well be switch voters. To see this, consider a setting with two policy dimensions. A voter's type is now given by $\theta = (\theta_1, \theta_2)$, where $\theta_1$ is his overall position on cultural issues (such as abortion or gay marriage), while $\theta_2$ is his overall position on economic issues. Preferences are now given by $u_\theta(x_{1,P}, x_{2,P}) = -\lambda_1(x_{1,P} - \theta)^2 - \lambda_2(x_{2,P} - \theta_2)^2 + \xi_P$, where $(x_{1,P}, x_{2,P})$ is the policy position of candidate $P \in \{D, R\}$ on the two issues, and $\lambda_i$ are issue weights.

Figure 2 illustrates a situation where both issues are equally important. The horizontal axis measures cultural positions, from socially-liberal on the left to socially-conservative on the right, while the vertical axis measures economic positions. When the Republican candidate takes more conservative positions than the Democratic candidate in both dimensions, core liberals such as D (i.e., voters who are both economically and socially liberals) will likely support the Democrat, and core conservatives such as E likely support the Republican.

In contrast, the set of voters who are policy-wise almost indifferent between the candidates – and are therefore the most likely switch voters – contains individuals with very different policy preferences: There are some, such as A, who are socially-liberal and economically conservative; others, such as B, who are social *and* economic moderates; and still others, such as C, who are socially-conservative and economically-liberal. Among these close-to-indifferent voters, only B should be called a moderate, while both *A* and *C* hold extreme, albeit offsetting, positions.

Consider again two close elections, and assume that in the second election, candidates take more divergent positions on social issues, as indicated in Figure 3. In this case, the line that

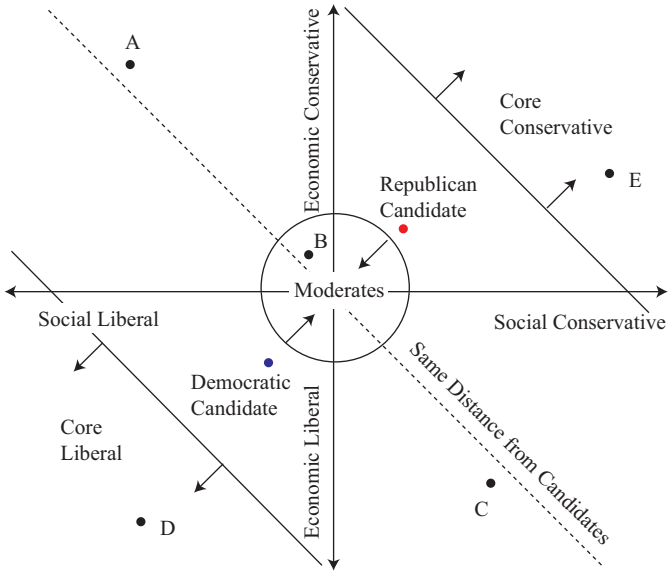



Figure 2: Moderates and Core Supporters in Two Dimensions

divides voters who are more likely to support the Democratic candidate from those who are more likely to support the Republican candidate rotates in a clockwise direction. True moderates, such as B, may still go in either direction, but socially-liberal and economically-conservative voters such as A become more likely to support the Democratic candidate, and socially-conservative and economically-liberal voters such as *C* become more likely to support the Republican candidate.

Unlike in the one-dimensional case, the policy preferences of these *New Democrats* and *New Republicans* differ dramatically if they are mostly composed of voter types like A and C, respectively. In contrast, if most switch voters look like *B* instead of *A* and *C* then the average New Democrat and average New Republican would again be ideologically moderate on both dimensions (i.e., close to the average of all voters), and relatively similar to each other. Whether the typical swing voter is a moderate on both dimensions or an "offsetting extremist" is a crucial empirical question, especially because candidates may select positions to appeal to these swing voters.

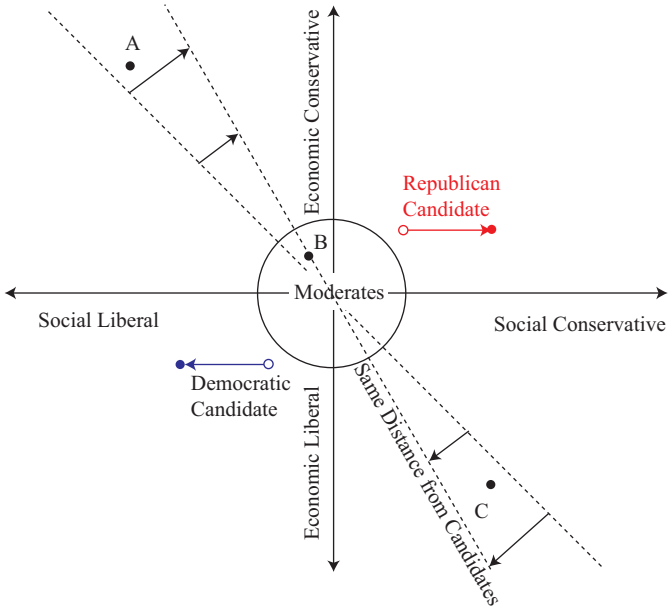



Figure 3: Voter Migration in Two Dimensions

# 3 Literature review

The core insight from economic models of political competition is that candidates compete for the support of swing voters in order to win elections, and put much more emphasis on the preferences of swing voters than on those of other voters (Downs (1957); Lindbeck and Weibull (1987, 1993); Calvert (1985)). Understanding the political preferences of this group is therefore of crucial for our understanding of the politico-economic equilibrium.

As Krasa and Polborn (2014b) point out, swing voters in a multidimensional world are a continuum of often non-moderate preference types – from social liberals who are economically conservative to social conservatives who are economically liberal. Any policy that is attractive to some swing voters will also disgruntle other swing voters. This model therefore provides a theoretical framework in which an ideological realignment of the parties leads to long-term voter migration of different groups from Democrats to Republicans, and others in the opposite direction.

There is a relatively large popular literature that deals with the notion of a "culture war" on issues such as abortion or gay marriage and specifically argues that, starting with Ronald Reagan's election in 1980 and the subsequent realignment of evangelicals, poor people often vote

for Republicans because of cultural issues (in addition to Frank (2005), see, e.g. Hunter (1992), Shogan (2002) and Greenberg (2005)). However, books and articles in this literature often have only anecdotal evidence, and there are many political science papers that challenge the culture war thesis, and emphasize the primary importance of economic issues in explaining voter preferences for candidates (e.g., Bartels (2006); McCarty et al. (2006); Gelman et al. (2008); Bartels (2010)). Ansolabehere, Rodden, and Snyder (2006) provide some mixed evidence, and show a substantially increased importance of moral issues for vote choices in the 1990s relative to the 1970s and 80s, but also find that economic factors are still more important for voters than purely moral ones.

While these papers look at the determinants of voting behavior and how they change over time, none of these papers provides a structural model in which one can derive the probability with which a particular voter type votes for a party in different elections, and this is our main contribution. Our approach is based on an intuition first formulated in chapter 9 of Fiorina et al. (2006), and first rigorously developed into a structural model in Krasa and Polborn (2014a), which shows how one can analytically disentangle the contributions of elite polarization and mass radicalization, and how changes in the voting behavior of different voter preference types allow inferences about politicians' positions. The present paper generalizes the methods developed in Krasa and Polborn (2014a) to estimate the voting probabilities of different voter preference types to define core supporters and switch voters.

# 4 Model and data

## 4.1 Model

Consider a policy space in which voters have ideal positions in $K$ different dimensions. The candidates in the election at time $t$ have position $x_t^D \in \mathbb{R}^k$ and $x_t^R \in \mathbb{R}^k$, respectively. A voter with ideal positions $\theta \in \mathbb{R}^k$ prefers the Republican candidate over the Democrat in election $t$ if and only if

$$-\sum_{k=1}^{K} \lambda_{k,t}(\theta_k - x_{k,t}^R)^2 \geq -\sum_{k=1}^{K} \lambda_{k,t}(\theta_k - x_{k,t}^D)^2 + \xi_{\theta,t}, \tag{1}$$

where $\xi_{\theta,t}$ is voter $\theta$'s net non-policy utility shock in favor of the Democratic candidate (i.e., the difference between the voter's non-policy utility from the Democrat and from the Republican) and $\lambda_{k,t}$ is a weight factor measuring the importance of issue dimension $k$ at time $t$, where we allow the relative weight of issues to change over time. In particular, a person's preferences on issue $k$ can be a better predictor of his voting behavior because of two different effects: First, the individual may care more about the issue, e.g., environmental issues because they may matter more now than in the past, i.e., $\lambda_{k,t}$ increases. Second, the issue has become a wedge issue between parties, because the difference in the parties' policy positions has increased. Our model allows us to remain agnostic as to which of these effects matters more.

We can think of $\xi_{\theta,t}$ as capturing the voter's idiosyncratic like or dislike of the candidates, which is orthogonal to his policy preferences, and has the effect that some voters vote for the candidate who is farther away from them policy-wise, though the extent to which this happens is, of course, decreasing in the difference of policy utility that the voter gets from the two candidates.

Note that the probability of voting Republican depends on the candidate positions that are unobservable for us. Also, we do not observe a voter's $\theta_i$ directly. However, we have voters' responses to survey questions, and assume that each $\theta_i$ is linearly related to responses to a particular set of survey questions, i.e., $\theta_i = \sum_{j=1}^{k_i} \mu_j y_j$, where $y_j$ denotes the answer to question $j$ and $\mu_j$ is a weight factor for question $j$, to be estimated.[3] The weights of different questions for the purpose of mapping answers into the type components $\theta_i$ is assumed stable over time – for example, if we use the answers to three questions to determine a voter's position on economic issues, then the relative weights of these three questions for the determination of the voter's economic position remain constant over time. We estimate the factors $\mu_j$ and $\alpha_i^t$ from a maximum likelihood problem, described formally in the Appendix.

In the election at time $t$, the probability of voting Republican is a function of $\sum_{i=1}^{n} \alpha_i^t \theta_i$, where the values of $\alpha_i$ are allowed to change from election to election because they depend on the respective candidate platforms $x_D^t$ and $x_R^t$ in election $t$.

[3] In practice, we normalize the answers to be in $[0, 1]$ and order answers such that higher answers correspond to more conservative positions. Then, the weight $\mu^j$ can be interpreted as the resulting increase in $\theta$ if a respondent's answer on question $j$ were to change from the most liberal answer to the most conservative one.

Simplifying (1), we obtain that the Republican candidate is preferred if and only if

$$\xi_{\theta,t} \leq \sum_{k=1}^{K} \lambda_{k,t} \left( (x_{k,t}^{D})^2 - (x_{k,t}^{R})^2 + 2\theta_k (x_{k,t}^{R} - x_{k,t}^{D}) \right). \tag{2}$$

Note that the right-hand side of (2) defines a $K-1$-dimensional hyperplane, with any two voters on the same hyperplane having the same probability of voting Republican. In particular, if the right-hand side of (2) equals zero — in two dimensions, this corresponds to the dashed in lines in Figures 2 and 3 — then the voter types on this hyperplane are equally likely to vote for each party.

In order to identify the voters who switch parties, we follow the approach suggested in the discussion of Figure 3 above. Specifically, using (2), we can, for each voter, determine the probabilities of voting Republican $p_{R,t_0}$, $p_{R,t_1}$ for two different election years $t_0$ and $t_1$. The probability that a particular voter switches from Republican in $t_0$ to Democrat in $t_1$ is $p_{R,t_0}(1 - p_{R,t_1})$. Similarly, the probability of switching from Democrat to Republican is given by $(1 - p_{R,t_0})p_{R,t_1}$. We then rank voters according to these probabilities and select the top 20% of them as the respective switch voter groups.

Ranking voters in period $t$ according to their $p_{R,t}$, we can define a set of voters with the highest probabilities as core conservatives, and a set of voters with the lowest probabilities as core liberals. (In Figure 2, the set of core conservatives would be given by those types $\theta = (\theta_1, \ldots, \theta_k)$ that are to the right of the right solid line, and analogously for core liberals). In the empirical section, we choose the size of these two groups to be 20 percent of all voters, respectively.

The formal details of our estimation approach are explained in the Appendix.

## 4.2 Data

Our objective is to identify, for the 2012 U.S. Presidential election, core liberals and conservatives, as well as the switch voters relative to the 1976 U.S. Presidential election, using data from the American National Election Survey (henceforth NES). Our characterization of voter preferences is based on respondents' answers to different policy issue questions, as well as some demographic

information, which we map into a vector of five different positions, i.e., $\theta \in [0, 1]^5$. This mapping takes into account all issue questions (or questions that plausibly proxy for a voter's preferred issue positions) that were asked in all years between 1976 and 2012.

The first component is the respondent's economic position, and is based on the answers on questions about attitudes towards business and unions, as well as the government's role in the economy. The second component measures the respondent's position on social-cultural issues, based on a question about abortion, as well as on church attendance. While church attendance is not a policy issue per se, all we need is that answers are plausibly be correlated with a person's view on moral issues in politics, for example gay marriage, which are actual policy issues, but have not been asked about sufficiently often to enable us to include them in the computation of $\theta_i$. The third component captures a voter's attitude on racial issues and is based on a question about affirmative action in hiring, as well as the respondent's thermometer score for blacks. The fourth component proxies for a position on the pacifism-militarism spectrum and uses the respondent's thermometer score for the U.S. military. The fifth and final component is a function of the respondent's demographic characteristics such as education, gender, and race.

# 5 Switch voters and core supporters

## 5.1 Overview

In this section, we analyze the demographic characteristics and political preferences of the two switch voter groups (New Republicans and New Democrats) and the two core supporter groups (Core Liberals and Core Conservatives). We first show that our method allows for a very precise categorization of voters, making hardly any mistakes when predicting the votes of core supporters.

In many of their demographic characteristics, switch voters are very similar to the core supporters of the parties they left. For example, New Democrats are *even less likely* to identify as working class than the average Republican voter. Conversely, New Republicans are more likely to identify as working class than the average Democrat. (Of course, taking the average over all

voters, Democrats are still more working class than Republicans). Even more strikingly, New Democrats are more highly educated than all other groups including core Republicans, while the exact opposite is true for New Republican.

In terms of their economic policy preferences on government spending, social programs, and the role of government, the groups indeed line up as one would expect in a one-dimensional policy model, with New Democrats and New Republicans being considerably more moderate than the corresponding core supporters. In contrast, in terms of their religious orientation and social policy preferences, switch voters are as extreme (or even more so) than the parties' respective core supporters. For example, New Democrats are less religious and more agnostic than any other group. The reverse is true for New Republicans. Similarly, New Democrats are the most pro choice, while New Republicans favor stronger restrictions than the average Republican. This suggests that religious and culture preferences are the fundamental reason why switch voters changed their party allegiance.

Thus, in terms of our discussion in Section 2, switch voters appear more like types *A* and *C* in Figure 3 (i.e., are not moderate on all issues), rather than the one-dimensional "moderate" voter in Figure 1.

From a candidate perspective, appealing to switch voters would be much easier in a one-dimensional world (where all switch voters agree that they like a more moderate position) than in a multidimensional setting where different switch voter groups disagree vehemently with each other.

When real-life candidates adopt extreme policies on some issues, the interpretation in a traditional one-dimensional framework is that they aim to maximize the turnout of core supporters, while accepting the obvious cost of deterring moderate swing voters. In a multidimensional framework, the positive effect on turnout is equally plausible, but the cost of deterring swing voters is muted because some swing voters actually agree with those extreme positions.

In a multidimensional framework, it is also more difficult to define unambiguously who is a moderate. For example, as mentioned above, there is some argument to be made that Donald Trump's economic platform is quite moderate in the Republican party (see footnote 1). On the

other hand, from a perspective that focuses more on foreign policy and human rights, a candidate who announces that he would deport 11 million illegal immigrants and would bring back water-boarding appears less moderate than, say, Rand Paul, who might lower government spending more dramatically, but whose foreign policy is more moderate. The point is that these are fundamentally different types of moderates.

## 5.2 Detailed Results

Table 1 looks at the politics of the groups in the 2012 U.S. Presidential election. In addition to the core and swing voter groups defined above, the tables in this section also provide information about average Democrats/Republicans (i.e., averaging over all voters who voted for Obama/Romney in the 2012 Presidential election).

We observe first that our measure of core liberalism and conservatism does very well in terms of predicting voting behavior in the presidential election. Of the voters that we identify as core liberals, more than 98 percent voted for Barack Obama, and less than 2 percent voted for Romney. Similarly, 97 percent of core conservatives voted for Romney. Even the predictions for the groups of New Democrats and New Republicans are quite sharp, with more than three-quarters voting for their "new" party's candidate, even though these are voters types who, by construction, would have had a relatively high chance of voting for the other party in the 1976 election.

An approach that is used in many studies to identify "extreme" voters is to classify voters according to their self-identification on the liberal-to-conservative scale. However, this approach is problematic if many voters do not understand the concept of "liberal" and "conservative." For example, 13.7 percent of respondents thought that Obama was strictly more conservative than Romney, and another 7.2 percent thought that Obama and Romney had the same ideological position. Similarly, 12.4 percent believe that the Democratic party is strictly more conservative than the Republican party, and another 10.1 percent believe that they have the same ideological position.

The ignorance of a significant fraction of voters about the liberal-conservative scale is also reflected in voter behavior. Of the voters who think that they are extremely conservative or conser-

vative – 24 percent of the ANES electorate –, 9.3 percent vote for Obama, and of the voters who think that they are (any type of) liberal – another 24 percent of the ANES electorate –, 6.7 percent vote for Romney. This is an error rate that is about 4 times higher than with our classification of core liberals and conservatives. Our measure has the advantage that it is based on relatively concrete questions that are easier to understand for respondents who rarely think in terms of the spatial model of the ideological spectrum.[4]

Table 1: Politics

| Question | (1) Core Liberal | (2) Aver. Democrat | (3) New Democrat | (4) New Republican | (5) Aver. Republican | (6) Core Conservative |
|---|---|---|---|---|---|---|
| Presidential Vote Republican | 1.6*** | (0.0) | 22.9*** | 74.7*** | (100) | 97.0 |
| Vote for Republican Congressman | 4.8*** | 10.9*** | 24.9*** | 78.8*** | 92.2 | 93.7 |
| Democrat | 78.1*** | 66.6*** | 49.8*** | 20.1*** | 5.8** | 3.5 |
| Republican | 2.0*** | 3.8*** | 13.1*** | 46.0*** | 61.6*** | 68.5 |
| Placement Liberal-Conservative (Dummy) | 9.8** | 13.1*** | 17.8*** | 59.8*** | 74.9*** | 87.4 |
| Placement Liberal-Conservative | 33.6*** | 38.5** | 42.2*** | 64.7*** | 72.1*** | 79.1 |
| Interest in Election | 63.6*** | 57.5 | 57.9 | 52.5*** | 63.2*** | 73.2 |

Stars in column $n$ indicate the significance level for the difference between the values in column $n$ and $n + 1$ (1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively).
All questions scaled so that answers lie between 0 and 100.

Core liberals and conservatives are also very likely to vote for their respective party's House candidate and to identify as members of their ideologically congruent party. Interestingly, among New Democrats and New Republicans, party registration indicates a slightly delayed response relative to voting behavior: For example, among our New Republican group, there are about 3

[4]Another, conceptual, problem with the self-classification approach is that we do not learn *why* respondents think that they are liberal or conservative – is it because of their economic or social preferences, and how are these traded off against each other if a voter is more liberal on one of these dimensions than on the other? Moreover, do these categories remain stable over a long time, or is there a systematic drift in what preferences are perceived as conservative?

Romney voters for every Obama voter, but only 2.3 registered Republicans for every registered Democrat. This is exactly what we would expect among voters whose ideological attachment moves from one party to the other, if there are (psychological or real) costs of switching parties.

Finally, self-reported interest in the election is significantly higher among the two partisan groups than among more moderate voters, probably because more is at stake for partisans than for ideological moderates who are closer to indifference between the two candidates.

Political preferences on some key issues are summarized in Table 2. We normalize answers to general policy questions such that the "most liberal" answer translates into 0 and the most conservative answer to 100, irrespective of how the answers are coded in the NES; however, spending questions are coded in the same way as in the NES, i.e., higher numbers indicate a desire for higher spending.

The first block of Table 2 contains different economic issues that deal with variations of the fundamental state versus free market trade-off. The groups' ordering is as expected, with core liberals and conservatives taking the most pro-government and pro-market positions, respectively, while New Democrats and New Republicans take more intermediate positions. The two moderate groups are farther apart from each other when the question is on an abstract philosophical level ("Should there be less government involvement in the economy?") than when it is about more concrete issues ("Should spending on social security be increased?"; "Should the government see to it that everybody has a decent job?"), where there is sometimes no significant difference between New Democrats and New Republicans.

The second block deals with race relations. The first of these questions asks whether the government should help blacks and other minority groups, or they should help themselves. The second one asks specifically about affirmative action in hiring. The pattern of responses is very similar to that on economic issues, with core liberals being most in favor and core conservatives most opposed to minority support policies.

The third block contains some of the moral "hot-button issues" of abortion and gays where the New Democrats and Republicans appear anything but moderates, but rather look as or more extreme than their respective party's core supporters. For example, the NES question on abortion

Table 2: Key cultural and economic policy preferences

| Question | (1) Core Liberal | (2) Aver. Democrat | (3) New Democrat | (4) New Republican | (5) Aver. Republican | (6) Core Conservative |
|---|---|---|---|---|---|---|
| Less Gov. Better | 19.0*** | 31.9*** | 45.9*** | 71.5*** | 85.7*** | 93.5 |
| Against Gov. Health Insurance | 27.1*** | 35.4*** | 42.5*** | 64.2*** | 75.0*** | 83.5 |
| Against Gov. Job Guarantee | 32.5*** | 44.7*** | 52.8** | 61.0*** | 73.4*** | 86.3 |
| Spending Scale | 67.1*** | 59.1*** | 52.9*** | 38.1*** | 27.7*** | 18.4 |
| Spending Social Security | 79.5*** | 75.3*** | 71.2 | 68.3*** | 62.3*** | 56.4 |
| Against Gov. Aid to Blacks | 35.6*** | 52.3 | 54.3*** | 79.4 | 81.2*** | 90.6 |
| Against Affirmative Action in Hiring | 49.3*** | 69.6*** | 85.3* | 90.9*** | 95.3*** | 98.4 |
| Abortion Scale | 13.8*** | 20.8*** | 7.1*** | 64.2** | 47.7*** | 63.3 |
| Gays in Military | 8.9 | 8.1** | 2.4*** | 24 | 21.6*** | 29.4 |
| Gays Not Allowed to Adopt | 24.4 | 23.0*** | 12.0*** | 53.8 | 53.9*** | 66.5 |

Stars in column $n$ indicate the significance level for the difference between the values in column $n$ and $n+1$ (1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively). Boldface entries denote statistically significant violations of monotonicity (i.e., "moderate" group takes more extreme position than average supporters of the same party.
All questions scaled so that answers lie between 0 and 100.

policy allows for several answers, ranging from "should be always legal" (which we normalize to 0) to "should be always illegal" (100), with the intermediate positions favoring different degrees of restrictions. An overwhelming majority of New Democrats believe that "by law, a woman should always be able to obtain an abortion as a matter of personal choice," while the average of New Republicans is very close to the second-most restrictive position, "The law should permit abortion only in case of rape, incest, or when the woman's life is in danger."

A similar picture emerges for the questions whether gays should be allowed to serve in the military and to adopt children, where New Democrats are substantially more liberal than both core

liberals and average Democrats, while New Republicans are very close to the average Republican. While a one-dimensional model would have difficulty explaining these patterns, the multidimensional model suggests that party polarization on cultural issues is crucial for why New Democrats and New Republicans have changed their party allegiance.

Table 3: Fundamental beliefs and values

| Question | (1) Core Liberal | (2) Aver. Democrat | (3) New Democrat | (4) New Republican | (5) Aver. Republican | (6) Core Conservative |
|---|---|---|---|---|---|---|
| Church Attendance | 28.6 | 27.8*** | 15.3*** | 55.7* | 45.1*** | 57.3 |
| Evangelicals thermometer | 39.4 | 39.5 | 36.5*** | 57.8 | 60.4*** | 68.2 |
| Bible Literal | 28.7*** | 22.9*** | 8.8*** | 40.9* | 34.9*** | 42.7 |
| Agnostic | 30 | 27.5 | 28.2*** | 11.6 | 13.7 | 12.3 |
| Is Religion Important | 62.7 | 59.2** | 50.9*** | 82.7 | 78.7*** | 84.4 |
| Better party for women | 99 | 98.8*** | 94.3*** | 45.8*** | 25.0*** | 14.9 |
| New Lifestyle Social Breakdown | 40.6 | 41.7 | 39.2*** | 79.4 | 81.0*** | 88.8 |
| Government Waste | 75.3*** | 78.5*** | 83.4*** | 89.5*** | 93.4*** | 97.3 |

Stars in column $n$ indicate the significance level for the difference between the values in column $n$ and $n + 1$ (1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively).

Table 3 contains more information about fundamental beliefs and values of the different voter groups. As a group, New Democrats are very secular, and only few of them attend church almost every week or think that the Bible is the "actual Word of God, to be taken literally, word for word," while the values for New Republicans on these questions are much higher and essentially the same as for core conservatives.

A significant majority of all groups feel that "the government wastes a lot of the money that we pay in taxes," but the fraction of those who disagree with this assessment is much higher among core liberals.

All three liberal groups agree almost unanimously that the Democratic party is "better for women", and the majority of them disagree with the (somewhat cryptic) statement that "New lifestyles have lead to social breakdown," which is very popular among all conservative groups.

Table 4: Demographics

| Question | (1) Core Liberal | (2) Aver. Democrat | (3) New Democrat | (4) New Republican | (5) Aver. Republican | (6) Core Conservative |
|---|---|---|---|---|---|---|
| White | 32.9*** | 59.6*** | 87.1 | 82.9** | 89.9*** | 94.7 |
| Black | 51.5*** | 23.4*** | 0.2 | 1.6 | 1.0*** | 0 |
| College | 33.6 | 36.3** | 43.1*** | 25.0*** | 35.2* | 38.4 |
| Wordsum Test | 69.5 | 71.0*** | 76.6*** | 68.7*** | 73.4 | 74.7 |
| Wordsum Test=100% | 18.4 | 19.6* | 24.7*** | 11.9* | 15.3 | 16.8 |
| Wordsum Test<= 40% | 9.6 | 8.0*** | 4.2 | 7.3*** | 3.5 | 3.1 |
| Working Class | 42.6** | 38.3** | 32.1** | 40.6*** | 34.1*** | 28 |
| Union Member | 14.3** | 11.5 | 9.9 | 12.6** | 9.2*** | 3.9 |
| Union thermometer | 72.7*** | 63.2*** | 57.0* | 49.1*** | 34.0*** | 18.1 |

Stars in column $n$ indicate the significance level for the difference between the values in column $n$ and $n + 1$ (1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively).

Table 4 explores the composition of the different groups in terms of their demographic characteristics. Remarkably, both switch voter groups have a much higher proportion of whites (and a correspondingly lower percentage of blacks and other minorities) than the population at-large. New Democrats are more likely to be college educated (43 percent versus an average around 36 percent for both Democrats and Republicans).

The "Wordsum" Test is a small verbal intelligence test administered as part of the NES that asks 10 multiple choice synonym questions of varying difficulty. Other testing has found that the correlation between the wordsum score and a full-fledged general intelligence test is about 0.75. The overall average score of Democratic and Republican voters in this test is fairly similar (71% Democrats, versus 73.4% for Republicans). However, within each party, there are large differences:

New Democrats perform significantly better than core liberals, while New Republicans perform significantly worse than core conservatives.

Democrats have a higher incidence of very high and of very low IQ supporters than Republicans. In particular, almost a quarter of New Democrats, but less than 1/8th of New Republicans manages a perfect score on the Wordsum test, while core liberals and core conservatives are approximately equally likely to be top performers.

New Democrats are less likely to identify as "working class" than both Republicans and Democrats. They are also less likely to be union members than any other voter group except core conservatives. Nevertheless, they have a more positive attitude towards unions than New Republicans.

In summary, our results provide substantial support in favor of the "culture war theory" broached by Frank's "What's the matter with Kansas?" and other books that stipulates that the realignment of parties of moral and cultural issues has moved culturally conservative blue collar white voters ("Reagan Democrats") from the Democrats to the Republicans. Economically and demographically, New Democrats look like Republicans and New Republicans look like Democrats, but their ideological inclinations on social and moral issues are very similar to (and sometimes even more extreme than) those of the core supporters of their respective new parties.

In contrast, in terms of their economic preferences, these groups are in fact quite moderate. New Democrats are more liberal than New Republicans, which is somewhat surprising since New Democrats are, on average, from higher economic classes than New Republicans.

Another line of interpretation that is frequently heard is that racial divisions and disappointment over the Democratic party's support of the civil rights movements turned away their previously solid white supporters in the South, and that they were aggressively courted by the "Southern strategy" of the Republican party. Richard Nixon's political strategist Kevin Phillips said in an interview with the New York Times in 1970 that "From now on, the Republicans are never going to get more than 10 to 20 percent of the Negro vote and they don't need any more than that...but Republicans would be shortsighted if they weakened enforcement of the Voting Rights Act. The more Negroes who register as Democrats in the South, the sooner the Negrophobe whites will quit

the Democrats and become Republicans. That's where the votes are."[5]

This raises the question whether racial animosity is also an important motivator for the party switch of New Republicans. While New Republicans are more conservative on the racially-charged two last questions of Table 4 than New Democrats, both switch voter groups are the "most moderate" groups within their party on these issues; qualitatively, the pattern of the racial questions is similar to the pattern of the economic preferences. Of course, this does not mean that the civil rights policy did not lead to a massive realignment of the American electorate, in particular in the South. However, the base year of our study is 1976, so it is quite conceivable that, by this time, the most racially motivated voters were already likely Republican voters and therefore would not qualify as switch voters for the 1976–2012 comparison.

Finally, one caveat concerning the interpretation of our results: Our approach identifies first swing voters and then analyzes their demographic make-up and issue preferences. This way, we can say, for example, that among New Republicans, there are disproportionately many white working class voters with socially conservative preferences. Our approach does not say anything about the other direction, for example, "What proportion of the white working class voters moved to the Republicans?" or " How many white working class voters are socially conservative?"

While this is quite obvious from the construction of our method, it is important to point this out because some influential papers in the literature – such as Bartels's (2006) "What the matter with 'What's the matter with Kansas?' " – "refute" Frank's argument by analyzing related, but different questions, showing, for example, that many white working class voters still support the Democrats, or that white Evangelicals do not "put more weight" on social issues such as abortion than other voters. These results are entirely plausible, they just analyze different questions.

[5]James Boyd, "Nixon's Southern strategy: 'It's All in the Charts". The New York Times, May 17, 1970.

# 6 Core supporters and Intra-Party Rifts

## 6.1 Overview

We now focus on the core supporters of each party. These are particularly interesting groups because many observers and political pundits suspect that ideological core supporters ("the crazies") constitute a disproportionate part of the primary electorate in both parties, and are therefore prime suspects for the polarization of the political system. For example, Fiorina and Levendusky (2006) blame polarization on "primary elections, where turnout is often extremely low and less representative than in general elections," coercing candidates into extreme positions that appeal to their party's primary electorate.[6]

However, there are also scholars who dispute the notion that primaries are dominated by ideological extremists. Norrander (1989) compares primary and general election voters in the 1980 U.S. Presidential election to test the primary election polarization theory, and finds very little difference between the ideological self-placement of each party's primary voters and their respective general election voters. However, this result may be somewhat suspect as it relies on voters correctly identifying whether they are "conservative", "moderate" or "liberal," as well as whether they are "extreme," and as argued above, many voters seem to have problems with these concepts. A similar result is obtained by Abramowitz (2008) for the 2000 U.S. Presidential election.

In this section, the groups that we look at among Democrats are white core Democrats, minority (i.e., non-white) core Democrats, non-core Democrats (i.e., voters, of any race, who voted for Barack Obama, but do not belong to the Democratic core supporters).

The racial dimension is interesting as a potential fault line within the Democratic camp because their motivations for supporting Democrats could conceivably be very different, with more affluent whites caring predominantly about social and cultural issues such as abortion, and minorities caring about economic issues, affirmative actions, and conceivably being much more socially conservative than white core liberals.

[6] See also Crotty and Jackson (1985); Polsby (1983); Fiorina et al. (2006); Levendusky (2009).

Among Republicans, about half of the core supporters identify strongly with the "Tea Party," while the other half opposes it or supports it at most mildly. Many pundits have speculated that House Speaker John Boehner resigned in October 2015 because of a deepening split between Tea Party supporters and more traditional conservatives in the Republican caucus. Similarly, the early stages of the 2016 Republican Presidential primary contest indicate a strengthening of the Tea Party wing of the party that favors political outsiders over politicians with government experience, making the question about the heterogeneity of the core supporters highly relevant. Apart from Tea Party and Non-Tea Party core conservatives, we also report on non-core Republicans, defined in analogy to the non-core Democrats described above.

## 6.2 Detailed Results

Table 5 summarizes the political involvement of the different groups. First, it is evident that core supporters are much more likely to donate money than non-core supporters (and that they give almost exclusively to their ideologically aligned party). On the Republican side, it is interesting to note how much more likely core conservative Tea Party supporters are to donate to Republicans, especially considering that Non-Tea Party core conservatives have a substantially higher share of affluent voters.

White core liberals and Tea Party conservatives are considerably more likely than non-core supporters to state that they are interested in the election, and to have undertaken certain activities like contacting their Congressman or posting political messages on Facebook or Twitter.

This is also reflected in the primary participation and voting behavior of the different groups. Core liberals and conservatives in the NES sample do, in fact, vote significantly more often in their party's primary than its average general election voters. Moreover, the difference is not just statistically significant, but also quantitatively quite large.

Consider, for example, the rate at which core conservatives have voted in the Republican primary. This is the more relevant case here since only Republicans had a contested Presidential primary in 2012. On average, core conservatives participate in the primary at a rate that is about 50

percent higher than non-core Republican voters. Among core conservatives, Tea Party supporters participate even more than those core conservatives who are cooler towards the Tea Party.

The attentive reader will notice that the rate at which Republican voters in the NES claim to have participated in the primary process is very high among all groups: Approximately 61 million voters voted for Romney in the general election, but only about 19 million ($\sim$ 30 percent of its general election voters) cast votes in the Republican Presidential primary. This may be due to imperfect recall because the NES interview takes place several months after the primaries. Our results are strengthened if, in each group, the same fraction of primary non-voters mistakenly claims that they did vote. In that case, the real share of core conservatives among Republican primary voters will be even higher than in our calculations.

Table 5: Political involvement

| Question | Core Liberal, White | Core Liberal, Minority | Non-core Dem. | Non-core Rep. | Core Cons., Non-Tea Party | Core Cons., Tea Party |
|---|---|---|---|---|---|---|
| Donated to Dems | 26.2** | 17.6 | 11.4 | 1.3 | 1.7 | 0.3 |
| Donated to Reps | 0.0** | 0.7 | 0.6 | 8.5 | 10.8*** | 24.4 |
| Interest in Election | 71.9** | 59.6 | 53.9 | 56.1 | 63.2*** | 85.5 |
| Contacted Congressman | 46.1*** | 19.4 | 19.6 | 20.9 | 29.0*** | 41.8 |
| Political messages on social media | 37.5** | 25.4 | 22.7 | 20.7 | 17.9*** | 32.6 |
| Voted in Democratic primary | 41.5 | 41.8 | 29.6 | 2 | 3.4*** | 0 |
| Voted in Republican primary | 4.0*** | 0.7 | 5.2 | 37.7 | 52.9* | 63.6 |

Stars in columns (1) and (5) indicate significant differences between the two core supporter groups. 1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively.

Our next question is how socially and demographically homogeneous core supporters are. Table 6 provides information about social status and other characteristics.

Except for minority liberals, core supporters are less likely to identify as working class than

non-core Democrats and Republicans. While very few respondents (in all groups) are willing to identify as rich or upper-middle class, it is interesting that Non-Tea Party Republican core voters have a substantially higher proportion of respondents who received stock grants from their employer than any other group. Among core liberals, whites are considerably more affluent and less working class than minority voters. Interestingly, they are also considerably more likely to be a union member than respondents from any other group, which is probably due to a high proportion of government workers and teachers in this group.

The second batch of questions in Table 6 relates to groups' educational achievements and intelligence. Core liberal whites are clearly more likely to have graduated from college, and, on average, they score 87 percent on the (verbal) intelligence "Wordsum" test, with over 40 percent achieving a perfect score, significantly more than those in any other group. In contrast, minority core liberals score worse than any other group.

Table 6: Demographics

| Question | Core Liberal, White | Core Liberal, Minority | Non-core Dem. | Non-core Rep. | Core Cons., Non-Tea Party | Core Cons., Tea Party |
|---|---|---|---|---|---|---|
| Working Class | 30.1*** | 49.2 | 35.7 | 38.2 | 25.2 | 31.4 |
| Union Member | 20.1** | 11.4 | 9.7 | 12.7 | 4.5 | 3 |
| Stock Investments | 53.4*** | 21.3 | 48.2 | 52.4 | 67.3 | 58.8 |
| Received Stock Grants | 10.2 | 6.6 | 11.5 | 13 | 23.8*** | 13.1 |
| College | 48.1*** | 26.4 | 38 | 33 | 41.6 | 34.6 |
| Wordsum Test | 87.0*** | 60.9 | 72 | 72.3 | 75.4 | 73.8 |
| Wordsum Test<=40% | 0.8*** | 13.9 | 6.9 | 3.8 | 1.6* | 5 |
| Wordsum Test=100% | 40.4*** | 7.7 | 20.2 | 14.3 | 16.8 | 16.8 |

Stars in columns (1) and (5) indicate significant differences between the two core supporter groups. 1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively.

Table 7 summarizes values and attitudes. Core liberals are deeply divided in their religious practices, with whites being a very secular group where agnostics outnumber those who attend church weekly or almost weekly by more than 3-to-1. Among white core liberals, even the majority of frequent church attendees do not believe that "the Bible is the actual Word of God, to be taken literally, word for word." In contrast, minority liberals are substantially more religious. Tea Party and Non-Tea Party Republicans are similarly religious, which bolsters the view that the Tea Party supporters are not just fiscal conservatives concerned with budget deficits. The extent to which the groups differ in their feelings about evangelicals and Muslims is also quite remarkable.

Liberals, and in particular white ones, are considerably more likely to be gay (or to admit to it), and they have substantially more positive attitude towards gays than conservatives. On questions related to racial minorities (a rather open-ended "Have we gone to far with equal rights in this country" question, and the feeling thermometer for illegal aliens), liberals and conservatives disagree sharply with each other, but both groups are internally very homogenous. The two core conservative groups are also very homogeneous on questions related to the U.S. military and the status of women, while white core liberals are significantly less militaristic and more feminist than all other groups, including minority liberals.

In terms of their abstract economic policy preferences, white and minority liberals are very similar, except in the issue of whether there should be universal government-provided healthcare, which is, surprisingly, substantially more popular with white liberals than with minority liberals. In contrast, there are significant (though not huge) economic policy differences among the two core conservative groups, with Tea Party Republicans holding more conservative positions.

In the abstract, Tea Party conservatives are for massive federal spending cuts, although they want (on average) to increase spending on the two biggest spending blocks in the federal budget, social security and military spending. Unfortunately, the National Election Survey does not ask directly whether respondents believe in the theory that there exists a budget constraint, so interpreting respondent's reported spending preferences is somewhat challenging. Still, the preference difference among the two conservative groups, as well as between core liberals on the one side and core conservatives on the other one is quite remarkable.

Table 7: Values and attitudes

| Question | Core Liberal, White | Core Liberal, Minority | Non-core Dem. | Non-core Rep. | Core Cons., Non-Tea Party | Core Cons., Tea Party |
|---|---|---|---|---|---|---|
| Church Attendance | 13.7*** | 35.9 | 27.3 | 37.3 | 61.1 | 52.9 |
| Agnostic | 44.7*** | 22.8 | 25.8 | 14.6 | 12.1 | 12.6 |
| Bible Literal | 5.8*** | 40.1 | 19.6 | 30 | 38.6* | 47.4 |
| Evangelicals thermometer | 16.6*** | 51.1 | 39.5 | 54.9 | 64.4*** | 72.9 |
| Muslim thermometer | 57.1* | 52.7 | 49.8 | 39.6 | 33.2 | 29.6 |
| Gay | 12.1** | 4.3 | 5.5 | 1.2 | 0.2 | 1.5 |
| Gays thermometer | 74.8*** | 60.7 | 61.8 | 47.8 | 37.2 | 37.3 |
| Gone too Far with Equal Rights | 10.4 | 13.7 | 23.2 | 46.1 | 70.6 | 74.8 |
| Alien thermometer | 55.1 | 55.9 | 44.3 | 30.1 | 25.1 | 22.3 |
| Military thermometer | 65.1*** | 79.2 | 80.3 | 86.2 | 91.1 | 90.9 |
| Women president would be good | 86.3*** | 73.2 | 74.4 | 60.4 | 53.2 | 52.1 |

Stars in columns (1) and (5) indicate significant differences between the two core supporter groups. 1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively.

While white and minority liberals' preferences are very homogeneous on economic issues, they differ significantly on some social issues (abortion, gays). In contrast, conservatives are more homogeneous on these issues. On gun control and civil liberties, Tea Party Republicans take significantly more libertarian positions than the other core conservatives.

Quite expectedly, affirmative action is very unpopular with all conservatives, and does divide white liberals from minority liberals (the only population group where affirmative action has majority support).

Table 8: Policy preferences

| Question | Democratic Core White | Democratic Core Non White | Democrat Not Core | Republican Not Core | Republican Core Not Tea Party | Republican Core Tea Party |
|---|---|---|---|---|---|---|
| Gov vs Free Market | 7.8 | 9.9 | 16.2 | 59.4 | 82.1*** | 93.6 |
| Less Government Better | 18.7 | 19.2 | 40.5 | 79.8 | 90.9** | 96.8 |
| Gov Guaranteed Jobs | 31.4 | 33 | 52.4 | 64.5 | 83.1*** | 90.1 |
| Against Gov Health Insurance | 17.1*** | 32.9 | 41 | 69 | 80.5*** | 87 |
| Spending Scale | 69.1 | 65.9 | 53.8 | 34.2 | 23.0*** | 12.8 |
| Spending Social Security | 76.1* | 81.5 | 72.6 | 66.3 | 60.7*** | 51.2 |
| Spending on Defense | 26.8*** | 45 | 45.6 | 59.1 | 61.3*** | 70.6 |
| Spending on Schools | 91.4 | 92 | 85.1 | 71 | 55.4*** | 29.2 |
| Abortion Scale | 2.8*** | 19.2 | 25.1 | 37 | 62.4 | 65 |
| Gays Allowed to Adopt | 5.9*** | 33.4 | 22.5 | 45.1 | 63.7 | 69.8 |
| Gays in the Military | 99.1*** | 86.7 | 92.5 | 83.8 | 70 | 71.5 |
| Gun control opposed | 30 | 31.9 | 37.9 | 70.1 | 79.9*** | 93.7 |
| Post 9/11 security too much | 39.1*** | 14.7 | 23.8 | 17.2 | 24.1*** | 43.3 |
| For Affirmative Action in Hiring | 37.0*** | 57.5 | 17.6 | 6.7 | 0.7* | 2.6 |

Stars in columns (1) and (5) indicate significant differences between the two core supporter groups. 1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively.

# 7 Media sources

We now analyze the media consumption of the different voter groups, which is potentially crucial for the functioning of our democratic system, because the quality of voters' electoral choices is bounded by the level of information that voters have on candidates' quality. Segregated news consumption conceivably fosters news outlets distorting the news they report, and in particular omitting information that would be perceived as not favorable for the side that the news outlet is aligned with (Mullainathan and Shleifer, 2005; Baron, 2006; Gentzkow and Shapiro, 2006).

Biased reporting creates two types of fundamental problems for the efficiency of our democratic system. First, listeners may not hear information that is relevant to their vote choice. While this is less likely to be a problem for core liberals and conservatives, who would most likely vote for their party's nominee in the general election no matter what information they learned from the media, there are also more moderate listeners to these biased outlets whose vote choice may be affected (see Bernhardt et al. (2008)).

Second, though, in the primary election, the support of core supporters is decisive for their party. If core supporters only hear news that trashes the other party's potential candidates, they may end up with unrealistic expectations that diminish their willingness to compromise and nominate a moderate candidate who has a better chance of winning: If the other party's potential nominees are all believed to be "crooks" or "crazy," compromising is not necessary in order to remain competitive, and so core supporters may nominate more extreme candidates.

For these reasons, it is important to know to which extent liberals and conservatives receive their news from very different sources. Table 9 summarizes the percentages of the different groups who say that they sometimes watch the respective programs.

The weekday cable political talk shows, in the first block, provide the starkest example of ideological self-segregation among viewers: Chris Matthews is attractive to core liberals, and Sean Hannity and Bill O'Reilly for core conservatives, in particular Tea Party supporters. Well over 90 percent of the viewers of these programs will vote for the ideologically corresponding party.

In contrast, there is no talk show – or, generally, any political program – that attracts more

Table 9: Media consumption: Television

| Program | Liberal Core, White | Liberal Core, Minority | Dem., Not Core | Rep., Not Core | Cons. Core, Not Tea Party | Cons. Core, Tea Party |
|---|---|---|---|---|---|---|
| Chris Matthews Show (MSNBC) | 19.4 | 14.1 | 6.3 | 2.4 | 1.5 | 1.6 |
| Hannity (Fox News) | 0.3 | 0.9 | 0.5 | 13.8 | 18.6*** | 44.5 |
| O'Reilly Factor (Fox News) | 0.9** | 3 | 3.1 | 18.6 | 28.4*** | 52.1 |
| ABC Worldnews Tonight | 19.9 | 24.2 | 19.8 | 18.5 | 13.1 | 8.1 |
| CBS Evening News | 19.0*** | 31.7 | 25.9 | 25.4 | 24.9*** | 11.4 |
| NBC Nightly News | 28.6 | 28.8 | 32.2 | 27.4 | 25.8*** | 12.7 |
| Anderson Cooper (CNN) | 15.4 | 15.6 | 14.2 | 9.3 | 7.5 | 5.5 |
| Special Report (Fox News) | 0.1*** | 2 | 1.1 | 7.6 | 12.3*** | 34.6 |
| This Week (ABC) | 11.1 | 14.8 | 13.1 | 14.2 | 11.2** | 5.9 |
| Face the Nation (CBS) | 8.8* | 13.4 | 10.9 | 9.8 | 9.7 | 8.7 |
| Meet the Press (NBC) | 15.2 | 16.6 | 13.5 | 9.4 | 10.6 | 12.8 |
| Colbert Report (Comedy Central) | 37.7*** | 11.5 | 11.2 | 4.7 | 2.3 | 2.7 |
| Daily Show (Comedy Central) | 42.1*** | 14.7 | 16.3 | 4.2 | 2.2 | 3.2 |
| Late show (David Letterman) | 16.7 | 13.3 | 14.9 | 7.3 | 6.2*** | 1.3 |
| Saturday Night Live | 29.5*** | 12 | 19 | 9.3 | 9.5 | 5.8 |
| American Idol | 8.4* | 13.9 | 13.3 | 16.5 | 8.9 | 8.3 |
| Dancing with the stars | 12.2 | 14.5 | 16.2 | 15.5 | 13.2 | 12.4 |
| Big Bang Theory | 26.6** | 16.2 | 26.5 | 25.3 | 21.6 | 21.1 |
| NCIS | 15 | 18 | 23.4 | 24.2 | 26.8 | 24.2 |

Stars in columns (1) and (5) indicate significant differences between the two core supporter groups. 1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively.

viewers from the moderate groups than from both extreme groups. Only the audience of some entertainment programs in the fourth block, such as American Idol or Dancing with the Stars, is heavily weighted towards moderates, but these programs obviously do not help to improve the political information status of moderates.

Among evening news programs, the viewing preferences of core conservatives differ a lot from those of everybody else, including non-core Republicans. Tea Party supporters watch Fox News Special Report at a much higher rate, and the three network evening news at a lower rate than everybody else. While Non-Tea Party conservatives are more similar to the other groups, this implies that ABC, CBS, NBC and CNN News attract considerably more liberals than conservatives, while Fox News tilts very strongly in the opposite direction. In the second block, all Sunday morning talk shows attract a relatively balanced viewership (unfortunately, the NES did not ask about Fox News Sunday).

The Daily Show with Jon Steward, the Colbert Report and Saturday Night Live are a lot more popular with white core liberals than with anybody else. As mentioned, apolitical entertainment enjoys bipartisan support, though it is interesting that this applies even to the Big Bang Theory.

Similarly, Table 10 demonstrates very cleanly separated radio and newspaper consumption by liberals and conservatives. Liberals listen to NPR, and conservatives to talk radio.[7] Liberals read the New York Times and the Huffington Post, while conservatives read the Wall Street Journal and Drudge.

It is important to point out that the fact that a particular program is consumed primarily by certain partisans does not, by itself, prove that the program is biased in a partisan way; or that a more unbalanced partisan audience composition shows a stronger bias. The reason is that individuals' media consumption decisions always depend on the whole set of options that are available.

[7]According to NPR's own research, its audience is much more ideologically balanced than Table 10 indicates, with 37 percent identifying as liberal, 23 percent as moderate, and 26 percent as conservative (see `http://www.npr.org/sections/ombudsman/2011/04/28/135775694/views-of-nprs-credibility-tend-to-be-partisan-based`). The difference may be due to the fact that Table 10 reports audiences for specific news programs rather than for the station as a whole, and that, as explained above, people may have a fuzzy understanding of the meaning of "liberal" and "conservative"; in particular, they may over-report being moderate because they think of themselves as perfectly reasonable.

Table 10: Media consumption: Radio and newspapers

| Program | Liberal Core, White | Liberal Core, Minority | Dem., Not Core | Rep., Not Core | Cons. Core, Not Tea Party | Cons. Core, Tea Party |
|---|---|---|---|---|---|---|
| Morning Edition (NPR) | 28.8*** | 7.3 | 10.9 | 3.6 | 3.8 | 2.2 |
| All Things Considered (NPR) | 34.8*** | 7.6 | 14.4 | 5.8 | 3 | 4.4 |
| Rush Limbaugh | 0.1*** | 3.5 | 1.3 | 11.5 | 17.6*** | 42.5 |
| Sean Hannity | 1.1 | 0.5 | 0.6 | 10.2 | 12.7*** | 35.4 |
| Glenn Beck | 0.8 | 0.8 | 0.8 | 6.4 | 7.8*** | 29.5 |
| Mark Levin | 0.5 | 0.7 | 0.1 | 2.1 | 3.1*** | 17.8 |
| NY Times | 11.8*** | 2.1 | 4.2 | 2.3 | 1.9*** | 0 |
| Wall Street Journal | 2.3 | 1.7 | 2.9 | 3.4 | 4.5 | 3.7 |
| Drudge Report | 1 | 2.2 | 0.7 | 4 | 7.7*** | 16.3 |
| Huffington Post | 31.3*** | 10.5 | 8.4 | 4.8 | 5 | 5.9 |

Stars in columns (1) and (5) indicate significant differences between the two core supporter groups. 1, 2 and 3 stars for the 10, 5 and 1 percent level, respectively.

For example, the fact that the ratio between the New York Times' liberal and conservative readership is larger than the corresponding figure for the Wall Street Journal should not necessarily be interpreted as showing that the NYT is more liberal-biased than the WSJ is conservative-biased; the strong market position of the WSJ in reporting financial news implies that liberals may have a harder time to substitute away from the WSJ than conservatives have from substituting away from the NYT. Similarly, the skewed partisan composition of the NPR audience may not be due to intrinsic liberal bias at NPR, but rather due to the fact that commercial talk radio provides a larger choice set of radio substitutes for conservatives than for liberals.

# 8 Discussion

In this paper, we apply a simple structural model of elections in which voter behavior reflects the extent and direction of party platform divergence, to analyze which voter types are the parties' core supporters today, and which voter types are the most likely to have switched parties from the Democrats to the Republicans, and vice versa.

In one-dimensional models, party switchers in both directions are moderates and should be *very similar* to each other (on all issues). The fact that they switch is driven by idiosyncratic preferences for candidates in different elections, rather than by a systematic relationship between a voter's policy preferences and a change in the two parties' platforms.

In contrast, in a multidimensional setting, there is a systematic relationship between a voter's policy preferences and the probability of moving over time from Democrats to Republicans, or vice versa. If the policy difference between Democrats and Republicans has increased on social and cultural issues, while decreasing or remaining constant on economic issues, this affects different voter types differentially: Voters who are socially conservative and economically liberal are likely to move from the Democrats to the Republicans , and the reverse is true for voters who are socially liberal but economically conservative.

Our model calculates the probability that each type would vote for Democrats or Republicans in each election, and then identifies the switch voter groups as those types for whom the probability of voting for one party in the first election, and then for the other one in the second election, is maximal. We analyze the demographics and policy preferences of these voters. We find that they conform to the informal descriptions in the qualitative literature, for example, Thomas Frank's bestseller "What's the matter with Kansas."

New Republicans, the voters who are most likely to have switched from Democrats to Republicans are economically more liberal than the average Republican, but have staunchly conservative social policy preferences that are, in many cases, more extreme than those of core conservatives. Conversely, New Democrats are also more right-wing than the average Democrat on most economic issues, but they are actually more liberal than even core liberals on some social-cultural is-

sues. Interestingly, demographically, New Democrats look very much like Republicans, and New Republicans look very much like Democrats: New Democrats are overwhelmingly white, and disproportionately well-educated and upper-middle-class, while New Republicans disproportionately belong to the (white) working class and have low education levels.

Our results, together with our earlier work in Krasa and Polborn (2014a), thus confirm the notion that the realignment of the American electorate was triggered by a repositioning of the parties that emphasized social and cultural differences, and de-emphasized, at least relatively speaking, the economic differences between the parties; and that this has resulted in the migration of strongly religious, traditional-values, working class whites from the Democrats to the Republicans, and of migration of more secular, tolerant and well-educated whites from the Republicans to the Democrats.

# 9 Appendix A: Solving and Estimating the Model

## 9.1 Determining Voter Types

The remaining problem is determining voters' positions $\theta$. To do so, we generalize the method developed in Krasa and Polborn (2014a) to an arbitrary number of policy dimensions;[8]

We cannot directly observe a voter's ideal position on issue $k$, but we assume that it is correlated with responses to a set of survey question $Y_{i,k}$, $i = 1, \ldots, n_k$ that we observe. In particular, we assume that $\theta_k = \sum_{i=1}^{n} \mu_{i,k} Y_{i,k} + b_k + \varepsilon_k$, where $b_k \in \mathbb{R}$ and $\varepsilon_k$ is a noise term which is normally distributed with mean zero. We assume that the mapping of questions into positions is constant over time so that (2) implies

$$\xi_{\theta,t} - 2\sum_{k=1}^{K} \lambda_{k,t}\varepsilon_k \leq \sum_{k=1}^{K} \lambda_{k,t}\left((x_{k,t}^D)^2 - (x_{k,t}^R)^2 + 2(x_{k,t}^R - x_{k,t}^D)b_k + 2(x_{k,t}^R - x_{k,t}^D)\sum_{i=1}^{n_k} \mu_{i,k} Y_{i,k}\right). \quad (3)$$

Multiply both sides of (3) by a common factor $s_t$ such that the variance of $s_t(\xi_{\theta,t} - 2\sum_{k=1}^{K} \lambda_{k,t}\varepsilon_k)$ equals 1 in every period $t$. Let

$$a_t = \sum_{k=1}^{K} s_t \lambda_{k,t}\left((x_{k,t}^D)^2 - (x_{k,t}^R)^2 + 2(x_{k,t}^R - x_{k,t}^D)n_k\right).$$

Let $\rho_{k,t} = 2s_t\lambda_{k,t}(x_{k,t}^R - x_{k,t}^D)$. Further, define $D_t$ to be a time dummy, i.e., $D_t = 1$ for an observation at time $t$, and is zero otherwise. Then the probability of voting Republican is given by

$$\Phi\left(\sum_{t=1}^{T} D_t\left(\sum_{k=1}^{K} \rho_{k,t}\sum_{i=1}^{n_k} \mu_{i,k} Y_{i,k} + a_t\right)\right), \quad (4)$$

where $\Phi$ is the cdf of a standard normal distribution with mean 0 and variance 1. Suppose there are $L$ observations. Let $v_\ell$, $\ell = 1, \ldots, L$ denote the person's vote, and denote by $d_{t,\ell}$ and $y_{i,k,\ell}$ realization $\ell$ of random variables $D_t$ and $Y_{i,k}$, respectively. Then maximum likelihood estimation identifies parameters $\mu_{i,k}$, $\rho_{k,t}$, and $a_t$ by solving

[8] In Krasa and Polborn (2014a), there are only two policy dimensions.

**Problem 1**

$$\begin{aligned}\max_{\mu_{i,k},\rho_{k,t},a_t} \sum_{\ell=1}^{L} v_\ell \ln\left(\Phi\left(\sum_{t=1}^{T} d_{t,\ell}\left(\sum_{k=1}^{K}\rho_{k,t}\sum_{i=1}^{n_k}\mu_{i,k}y_{i,k,\ell}+a_t\right)\right)\right) \\ +(1-v_\ell)\ln\left(1-\Phi\left(\sum_{t=1}^{T} d_{t,\ell}\left(\sum_{k=1}^{K}\rho_{k,t}\sum_{i=1}^{n_k}\mu_{i,k}y_{i,k,\ell}+a_t\right)\right)\right)\end{aligned} \tag{5}$$

*subject to*

$$\sum_{i=1}^{n_k}\mu_{i,k}=1,\ for\ \ k=1,\dots K. \tag{6}$$

Rather than solving this constrained optimization problem, we solve the following unconstrained problem:

**Problem 2**

$$\begin{aligned}\max_{\tilde{\mu}_{i,k},\tilde{\rho}_{k,t},a_t} \sum_{\ell=1}^{L} v_\ell \ln\left(\Phi\left(\sum_{t=2}^{T}(1+d_{t,\ell})\sum_{k=1}^{K}\sum_{i=1}^{n_k}\tilde{\rho}_{k,t}\tilde{\mu}_{i,k}y_{i,k,\ell}+\sum_{t=1}^{T}d_t a_t\right)\right) \\ +(1-v_\ell)\ln\left(1-\Phi\left(\sum_{t=2}^{T}(1+d_{t,\ell})\sum_{k=1}^{K}\sum_{i=1}^{n_k}\tilde{\rho}_{k,t}\tilde{\mu}_{i,k}y_{i,k,\ell}+\sum_{t=1}^{T}d_t a_t\right)\right)\end{aligned} \tag{7}$$

It is easy to see that the solutions of the two problem coincide if we set

$$\mu_{i,k}=\frac{\tilde{\mu}_{i,k}}{\sum_{k=1}^{n_k}\tilde{\mu}_{i,k}},\ \rho_{k,1}=\frac{1}{\sum_{k=1}^{n_k}\tilde{\mu}_{i,k}},\ \text{and}\ \ \rho_{k,t}=\frac{1+\tilde{\rho}_{k,1}}{\sum_{k=1}^{n_k}\tilde{\mu}_{i,k}},\ \text{for}\ \ t>1. \tag{8}$$

Absent any normalization of the survey responses, the resulting set of estimated position is some arbitrary interval of $\mathbb{R}$. By normalizing all $Y_{i,k}$ such that the lowest answers are 0, and the highest answers are 1, and by ordering the responses in such a way that "higher" answers correspond to a more conservative position, we can ensure that all $\theta_k \in [0,1]$. In particular, given that $\sum_{i=1}^{n_k}\mu_{i,k}=1$, a response of zero to all question would result in $\theta_k=0$, while a response of 1 to all question would yield $\theta_k=1$.

The coefficient $\mu_{i,k}$ indicates whether $Y_{i,k}$ is ordered correctly, In particular, if $\mu_{i,k}<0$ the higher answers correspond to a more liberal positions, and the ordering is incorrect. In this case,

the question should be coded as $1 - Y_{i,k}$. Since

$$-\tilde{\mu}_{i,k}(1 - Y_{i,k}) = \tilde{\mu}_{i,k}Y_{i,k} - \tilde{\mu}_{i,k} \tag{9}$$

the new solution to the optimization problem 2 would replace the negative coefficient $\tilde{\mu}_{i,k}$ by the positive coefficient $-\tilde{\mu}_{i,k}$, and the intercept terms $a_1$ would change by $-\tilde{\mu}_{i,k}$ and $a_t$ by $-\rho_{k,t}\tilde{\mu}_{i,k}$. Thus, (8) and (9) imply

$$\theta_k = \frac{\sum_{i=1}^{n_k} \tilde{\mu}_{i,k}Y_{i,k} - \min\{\tilde{\mu}_{i,k}, 0\}}{\sum_{i=1}^{n_k} |\mu_{i,k}|}. \tag{10}$$

## 9.2 Determining Switch Voters and Core Supporters

We can now translate question responses into types and then estimate the hyperplane connecting the set of all types that are equidistant from the two candidates by a simple probit estimation. In particular, (2) indicates that the hyperplane at time $t$ is of the form

$$\sum_{k=1}^{K} \beta_k \theta_k + a = 0, \tag{11}$$

where $\beta_k$, $k = 1, \ldots, K$ and $a$ solve

**Problem 3**

$$\max_{\beta_k, a} \sum_{\ell=1}^{L} v_\ell \ln\left(\Phi\left(\sum_{k=1}^{K} \beta_k \theta_{k,\ell} + a\right)\right) + (1 - v_\ell) \ln\left(1 - \Phi\left(\sum_{k=1}^{K} \beta_k \theta_{k,\ell} + a\right)\right), \tag{12}$$

where $v_\ell$ is person $\ell$'s vote at $t$, and $\theta_{k,\ell}$ the person's ideal point on issue $k$.

Note that the location of the hyperplane in (11) does not depend on $\varepsilon_k$, the error in measuring $\theta_{k,\ell}$. However, when we compute the probability $p_R$ that a type $\theta = (\theta_1, \ldots, \theta_K)$ votes Republican, then this probability is affected by measurement error through $\varepsilon_k$ as (3) indicates. In particular, if we knew the correct values of $\theta$ then only term $\xi_{\theta,t}$ would be present on the left-hand side of equation (3) and the type $\theta$ would be a better predictor of voting behavior. In other words, if the survey questions were poorly correlated with the policy issues then we would get a large

estimation errors for $\theta$. As a consequence, if we use the model to identify the top 20% of most likely Democratic and Republican voter's respectively, a large number of them would in practice vote for the other party. As we show below, this is not the case, as less than 5% of the voters identified as being in these core groups vote for the wrong party. Since this "error" is the sum of the idiosyncratic shock $\xi_{\theta,t}$ as well as the measurement error of $\theta$, this tell us that this latter error is very small.

## 9.3 Computing Solutions for Problem 2

Problem 2 is a non-linear probit model, which poses some numerical challenges. In particular, there are many saddle points, at which the standard Newton method can get stuck. In addition, if one does not start sufficiently close to the true optimum, the Newton method may diverge, resulting in an underflow problem, i.e., $\Phi(\cdot)$ becomes zero, resulting in a division by zero when computing the first and second derivatives of problem 2.

In order to get a good enough starting point for the Newton method, we first apply a subspace search method. In particular, we alternate by optimizing only over $\tilde{\mu}_{i,k}$ and $a_t$, and then only over $\tilde{\rho}_{k,t}$ and $a_t$. The argument of $\Phi$ in this restricted optimization problems are linear, and therefore well behaved (like standard probit models). We proceed with the subspace search until the gradient of Problem 2 is sufficiently small. Then we employ the Newton method, allowing all arguments to vary.

# References


Abramowitz, A. (2008). Don't blame primary voters for polarization. *The Forum 5*, 1–11.

Ansolabehere, S., J. Rodden, and J. M. Snyder (2006). Purple America. *Journal of Economic Perspectives 20*(2), 97–118.

Aragones, E. and T. R. Palfrey (2002). Mixed equilibrium in a downsian model with a favored candidate. *Journal of Economic Theory 103*(1), 131–161.

Baron, D. P. (2006). Persistent media bias. *Journal of Public Economics 90*(1), 1–36.

Bartels, L. M. (2006). What's the matter with 'What's the matter with Kansas?'. *Quarterly Journal of Political Science 1*(2), 201–26.

Bartels, L. M. (2010). *Unequal democracy: The political economy of the new gilded age*. Princeton Univ Pr.

Bernhardt, D., S. Krasa, and M. K. Polborn (2008). Political polarization and the electoral effects of media bias. *Journal of Public Economics 92*(5-6), 1092–1104.

Bierbrauer, F. J. and P. C. Boyer (2013). Political competition and mirrleesian income taxation: A first pass. *Journal of Public Economics 103*, 1–14.

Callander, S. (2005). Electoral competition in heterogeneous districts. *Journal of Political Economy 113*, 1116–1145.

Callander, S. (2008). Political motivations. *Review of Economic Studies 75*(3), 671–697.

Calvert, R. L. (1985). Robustness of the multidimensional voting model: Candidate motivations, uncertainty, and convergence. *American Journal of Political Science 29*, 69–95.

Castanheira, M. (2003). Why vote for losers? *Journal of the European Economic Association 1*(5), 1207–1238.

Crotty, W. J. and J. S. Jackson (1985). *Presidential primaries and nominations*. Congressional Quarterly Press.

Downs, A. (1957). *An economic theory of democracy*. Harper.

Fiorina, M. P., S. J. Abrams, and J. C. Pope (2006). *Culture war? The myth of a polarized America*. Pearson Longman.

Fiorina, M. P. and M. S. Levendusky (2006). Disconnected: The political class versus the people. In P. S. Nivola and D. W. Brady (Eds.), *Red and Blue Nation: Characteristics and Causes of America's Polarized Parties*, pp. 49–71. Brookings Institution Press: Washington, D.C.

Frank, T. (2005). *What's the matter with Kansas?: How conservatives won the heart of America*. Holt Paperbacks.

Gelman, A., B. Shor, J. Bafumi, and D. Park (2008). Rich state, poor state, red state, blue state: What's the matter with Connecticut? *Quarterly Journal of Political Science 2*, 345–367.

Gentzkow, M. and J. Shapiro (2006). Media bias and reputation. *Journal of Political Economy 114*(2), 280–316.

Greenberg, S. B. (2005). *The two Americas: Our current political deadlock and how to break it*. St. Martin's Griffin.

Groseclose, T. (2001). A model of candidate location when one candidate has a valence advantage. *American Journal of Political Science 45*(4), 862–886.

Gul, F. and W. Pesendorfer (2009). Partisan politics and aggregation failure with ignorant voters. *Journal of Economic Theory 144*, 146–174.

Hunter, J. D. (1992). *Culture wars: The struggle to define America*. Basic Books.

Krasa, S. and M. Polborn (2014a). Policy divergence and voter polarization in a structural model of elections. *Journal of Law and Economics 57*(1), 31–76.

Krasa, S. and M. K. Polborn (2010). Competition between specialized candidates. *American Political Science Review 104*(4), 745–765.

Krasa, S. and M. K. Polborn (2012). Political competition between differentiated candidates. *Games and Economic Behavior 76*, 249–271.

Krasa, S. and M. K. Polborn (2014b). Social ideology and taxes in a differentiated candidates framework. *American Economic Review 104*(1), 308–322.

Levendusky, M. (2009). *The partisan sort: How liberals became Democrats and conservatives became Republicans*. University of Chicago Press.

Lindbeck, A. and J. Weibull (1987). Balanced-budget redistribution as the outcome of political competition. *Public Choice 52*, 273–297.

Lindbeck, A. and J. Weibull (1993). A model of political equilibrium in a representative democracy. *Journal of Public Economics 51*, 195–209.

Londregan, J. and T. Romer (1993). Polarization, incumbency, and the personal vote. In W. Barnett, M. Hinich, and N. Schofield (Eds.), *Political economy: Institutions, competition, and representation*, pp. 355–377. Cambridge Univ. Press Cambridge.

Martinelli, C. (2001). Elections with privately informed parties and voters. *Public Choice 108*(1), 147–167.

McCarty, N., K. T. Poole, and H. Rosenthal (2006). *Polarized America: The dance of ideology and unequal riches*. MIT Press.

Mullainathan, S. and A. Shleifer (2005). The market for news. *American Economic Review 95*, 1031–1053.

Norrander, B. (1989). Ideological representativeness of presidential primary voters. *American Journal of Political Science 33*, 570–587.

Palfrey, T. R. (1984). Spatial equilibrium with entry. *Review of Economic Studies 51*, 139–156.

Polsby, N. W. (1983). *Consequences of party reform*. Oxford University Press.

Shogan, R. (2002). *War without end: cultural conflict and the struggle for America's political future*. Basic Books.

Soubeyran, R. (2009). Does a disadvantaged candidate choose an extremist position? *Annals of Economics and Statistics/Annales d'Économie et de Statistique 93/94*, 327–348.

Wittman, D. (1983). Candidate motivation: A synthesis of alternative theories. *American Political Science Review 77*, 142–157.