

Beyond the Core and Periphery:
A New Look at Voter Participation Across Elections

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Abstract

This paper examines the core and periphery of the electorate, as defined by Campbell [1966], using novel data on all registered voters in the US from Catalist and a large-sample panel survey of the American electorate conducted by YouGov. Specifically, we measure the size of the core and periphery of the electorate and the differences between the core and periphery in terms of basic demographics and partisan orientations. We largely confirm the ideas of Campbell, but with some important caveats. We add to the idea of core and periphery as we are able to measure a significant peripheral vote in Midterm elections. Of particular note, we find that 4 percent of voters in the 2010 Midterm election did not vote in the 2012 Presidential election, and they were disproportionately conservative voters.

Introduction

National elections in the United States take place under a variety of different conditions and turnout varies significantly as a result. One of the most commonly understood patterns in electoral turnout is the fact that turnout in presidential elections tends to be much higher than for midterm elections. Traditional analyses of these differential patterns in turnout have focused on the notion of “surge and decline” and “core and peripheral” voters (Campbell 1960). Specifically, this research has generally viewed the electorate as made up of core voters who vote consistently in every election, and peripheral voters who enter and exit the electorate depending on the salience of a particular election. Yet, remarkably little work has focused on the extent to which the core and peripheral definitions easily apply to individuals, why core voters participate more frequently than peripheral voters, and the extent to which this surge and decline in participation produces meaningful biases in the electorate across elections.

To be sure, a great deal is known about the factors that affect turnout (see Leighley 1995 for a review). For example, socioeconomic resources (i.e. education and income) tend to be a strong predictor of an individual’s propensity to vote (Verba and Nie 1972) and political elites tend to magnify these patterns by focusing their mobilization efforts on more educated and wealthier individuals (Rosenstone and Hansen 1993). Scholars have also examined whether these patterns of differential participation cause biases in the electorate (Highton and Wolfinger 2001; Wolfinger and Rosenstone 1980; Rosenstone and Hansen 1993; Citrin et al. 2003). However, it is important to note that most studies of the correlates and consequences of turnout have focused on participation in presidential elections. Much less work has been conducted on the extent to which peripheral voters enter and exit the electorate and the influence that the presence or absence of peripheral voters might have on the composition of the electorate in different elections.

In this paper, we use unique contemporary large-N data sources to provide a new understanding of core and peripheral voters. We first seek to determine the extent to which voters

can easily be categorized into the surge and decline model by tracking their participation across several elections. We then turn to examining explanations for why some individuals participate inconsistently across elections. Finally, we examine the extent to which core and peripheral voters vary across a number of demographic, socioeconomic, and political variables with the aim of identifying the extent to which peripheral voters cause midterm electorates to be more biased than in presidential elections.

Data

In this paper, we utilize two sources of data. The first data source we draw on is the 2010–2012 Cooperative Congressional Election Study Panel dataset. The CCES Panel Study is a nationally representative survey of American adults interviewed in four waves over three years—October 2010, November 2010, October 2012, and November 2012. The CCES was conducted by YouGov using a matched random sample methodology with surveys completed online. The panel includes 19,000 respondents interviewed in both 2010 and 2012.¹

The CCES Panel Study is useful for studying questions of voter types because it tracks respondents during a midterm election (2010) and then a presidential election (2012). As we discuss below, the survey asks a number of questions that are useful for understanding both the causes and consequences of differential turnout across the two elections. Even more importantly, both waves of the survey include voter validation for each respondent; that is, each individual was matched to a national voter file to verify whether or not the individual voted in each election.² This voter validation is essential for our purposes since a large share of individuals tend to misreport whether they voted in any particular election.³

The second source of data we analyze in this paper is a 1% sample (N=2,969,951) of American adults from Catalist. Catalist is a prominent voter file firm typically providing

¹For technical details on the CCES Panel Study see the Guide to the study at <http://dx.doi.org/10.7910/DVN/24416>.

²This matching was conducted by Catalist, the firm we rely on for our second data source.

³In 2010, 63% of individuals who did not, according to voter files, vote in the election responded that they did vote when answering the turnout question.

data to progressive clients, but also to academic institutions under a special subscription plan. Catalist maintains a database of information for nearly every American adult. The database is first built on voter file records acquired from all 50 states, and then a variety of different information is appended to that data from marketing firms, census data, and other sources. Catalist also builds several of its own models into the dataset to distinguish, for example, the partisanship, ideology, and political activism of each individual. The Catalist dataset is ideal for studying voter turnout because it includes precise information on each individual’s turnout behavior and is sufficiently large so that even relatively uncommon voter types can still be studied with precision.⁴

Defining the Core and Periphery

Because Catalist keeps a running record of participation in elections for each individual in its database, we can detect the presence of core and peripheral voters across several election cycles. Specifically, we can examine the vote history of most individuals in our 1% sample for the 2006, 2008, 2010, and 2012 elections. We exclude from this analysis any individual who would not have been old enough to participate in 2006.

Table 1 shows the distribution of voters based on their vote history across these four elections. First, note that over one-third of adults in the Catalist database can be identified as persistent non-voters; that is, these individuals did not cast a ballot in any of the four major general elections from 2006 to 2012. Second, one-fourth of the adults were true core voters—they cast a ballot in each of the four elections during that period. Thus, when combining these two groups, we find that 3 in 5 Americans are consistent in their turnout behavior—they either never vote or they always vote.

The remaining 40% of Americans, thus, are inconsistent in their participation in elections. Only 6% are true “presidential only” voters—those that voted in both presidential elections but neither midterm. Notably, 11% voted in one of the two presidential elections, but

⁴For more information on using Catalist to study voter turnout see Ansolabhere and Hersh (2012).

Table 1: Turnout in Elections from 2006 to 2012 (Catalist)

Voted in...	0 Midterms	1 Midterm	2 Midterms
0 Presidential Elections	36.75%	1.79%	0.13%
1 Presidential Election	10.98%	5.46%	2.47%
2 Presidential Elections	6.23%	11.30%	24.89%

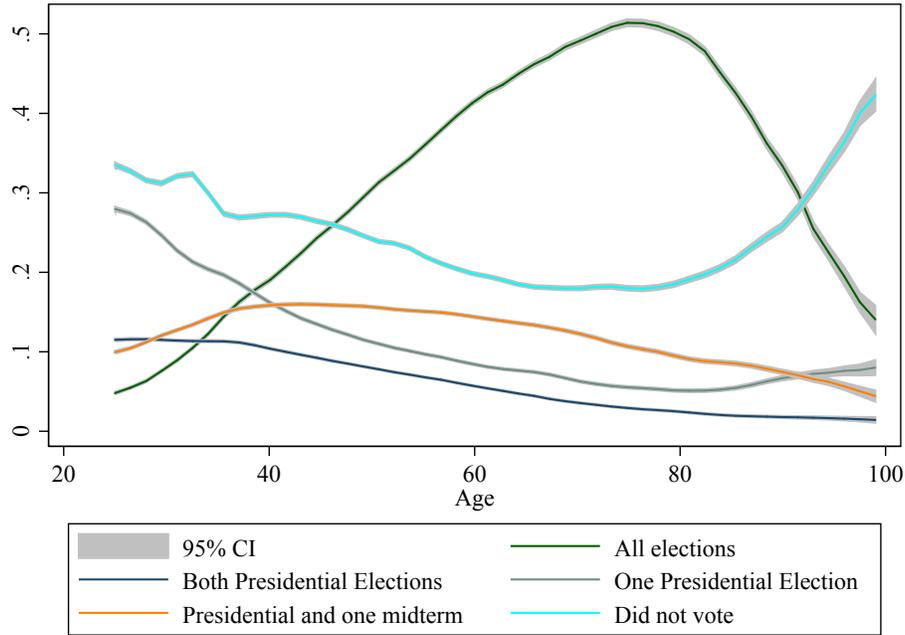
Note: Analysis limited to individuals under the age of 25 in 2013 who could be verified as part of the database for each of the elections analyzed. N = 2,128,163.

neither midterm. We might consider this group “part-time presidential voters.” Note that it is very rare for a voter to participate in more midterm elections than presidential elections. Just .13% of the Catalist sample could be considered “midterm enthusiasts,” voting in both midterm elections but neither presidential year. An additional 4% voted in one more midterm election than presidential election.

When examining differences in whether individuals participate frequently, infrequently, or not at all, we consistently find a strong effect for age. Figure 1 plots the prevalence of each voter type at different age values. The most striking pattern from this figure is the relationship between age and consistent voting. As an individual grows older, his/her probability of becoming a consistent voter increases sharply and monotonically until about the age of 75. While some of this increase can be attributed to the decline in the rate of consistent non-voting as age increases, it is also clear that inconsistent voting tends to decline with age as well. Indeed, before the age of 40, an individual is more likely to be a non-voter or a part-time presidential voter than they are to be a consistent voter. But by the age of 60, there is a 40% chance that the individual will be a consistent voter.

Thus, persistent voting is more influenced by age than persistent non-voting. Persistent non-voting only drops by about 10 points from the age of 30 to the age of 60, but the rate of persistent voting increases by more than 30 points during that same period.

Figure 1: The Relationship Between Age and Voter Type



Note: Figure shows the proportion of voter types across age values. Voter types are determined by participation in elections in 2006, 2008, 2010, and 2012.

Explanations for Non-Voting

The Catalist data provide a precise way of examining participation across many election cycles. However, the Catalist database is more limited when it comes to providing a wide array of detailed information about individuals. To help fill this gap, we turn to the CCES panel study, which provides us not only with verified turnout data from 2010 and 2012, but also a variety of questions designed to understand why individuals voted. We are able to identify four distinct types of individuals in our CCES data—non-voters (including individuals who are not registered to vote), those voting in the 2010 mid-term election, those voting in only the 2012 presidential election, and those voting in both elections (core voters).

Table 2 shows the distribution of individuals into these four categories in both the CCES and Catalist datasets. When applying the sampling weights to our CCES data, non-voters comprise just 13% of the sample, mid-term only voters are 4%, presidential election only voters are 17%, and core voters make up 65%. The second set of figures from Catalist

indicate that the CCES greatly over-states the percentage of core voters while understating the percentage of non-voters. Specifically, Catalist shows 45% of individuals qualifying as non-voters and 34% as core voters.

Table 2: Voter Types in CCES and Catalist Datasets

Voter Type	CCES Panel	Catalist
Non-voter	13.3%	45.1%
Mid-term only	4.3%	3.8%
Presidential only	17.2%	16.6%
Core voter	65.2%	34.4%
N	16,278	2,192,314

The over-representation of core voters in the CCES panel data is not surprising given that non-voters suffered a higher rate of attrition between the 2010 and 2012 wave than voters (see Ansolabehere and Schaffner 2014). While the Catalist data may slightly over-state the share of non-voters since Catalist has a more difficult time locating unregistered individuals, their estimate is much closer to what we would expect based on aggregate turnout figures.

Despite the fact that non-voters are under-represented in the CCES data, we still believe we can gain important insights about this group. First, we still have 1,203 non-voters in our sample, providing us with a more than sufficient sample size for meaningful analysis. Second, as we show in the following section, the demographic and political patterns we find among non-voters in the CCES sample are generally consistent with what we see in the Catalist data. Thus, while we have fewer non-voters in our CCES data than we should, the non-voters we do have appear to be fairly representative of non-voters more generally.

Why do some voters never participate in elections while others only vote in presidential or midterm elections? To gain some insight into this question, we take advantage of a question posed in the 2010 post-election wave of the panel study, asking individuals who admitted that they did not vote why they did not do so.⁵ Table 3 shows the frequency with which

⁵We did not ask this question of those who claimed to have voted but did not in fact do so since we could not complete the validation before the post-election survey was fielded.

respondents selected particular reasons for not voting depending on whether the individual was a persistent non-voter or that individual simply did not vote in the mid-term election (but did vote in the presidential election in 2012).

Table 3: Stated First Reason for Not Voting in 2010 by Voter Type

Reason for not voting	Non-voter	Presidential only
I did not feel that I knew enough about the choices.	10.05	13.66
Did not like the candidates.	12.58	12.50
Too busy.	4.63	11.42
Sick or disabled.	6.36	10.64
Out of town.	6.04	10.43
I am not registered.	23.99	7.39
I'm not interested.	13.96	6.67

Note: Table only shows responses selected by at least 5% of non-voters. N =703 non-voters and 818 mid-term only voters.

Notably, peripheral voters were more likely to cite idiosyncratic excuses such as that they were “too busy” or “out of town” or “sick,” while non-voters were more likely to indicate that they were not interested in the election or were not registered to vote. It is also worth noting that a similar percentage of presidential-only voters as non-voters said that they did not vote because they did not like the candidates or did not know enough about the candidates. Of course, each of these reasons points to less interest for presidential election only voters—they either explicitly indicated a lack of such interest, or their interest was not sufficient to override being busy or sick. But non-voters are more likely to state that they are disinterested while presidential-only voters appeared to think it was more important to provide an “excuse” for why they were not able to vote in 2010.

One of the interesting patterns we uncovered is the presence of a non-trivial share of individuals who only voted in the 2010 mid-term election. As we have shown, mid-term only voters frequently look similar to non-voters. But what reasons did mid-term only voters give for not voting in the 2012 presidential election? Table 4 provides the responses to our question asking respondents why they did not vote in 2012.

As with presidential-only voters, mid-term only voters are more likely than consistent

Table 4: Stated First Reason for Not Voting in 2012 by Voter Type

Main reason not vote	Non-voter	Mid-term only
Did not like the candidates	12.94	14.68
Too busy	3.58	12.23
Sick or disabled	5.11	7.28
Out of town	2.87	6.80
The line at the polls was too long	1.05	5.94
I am not registered	27.90	5.39
I'm not interested	17.49	3.40

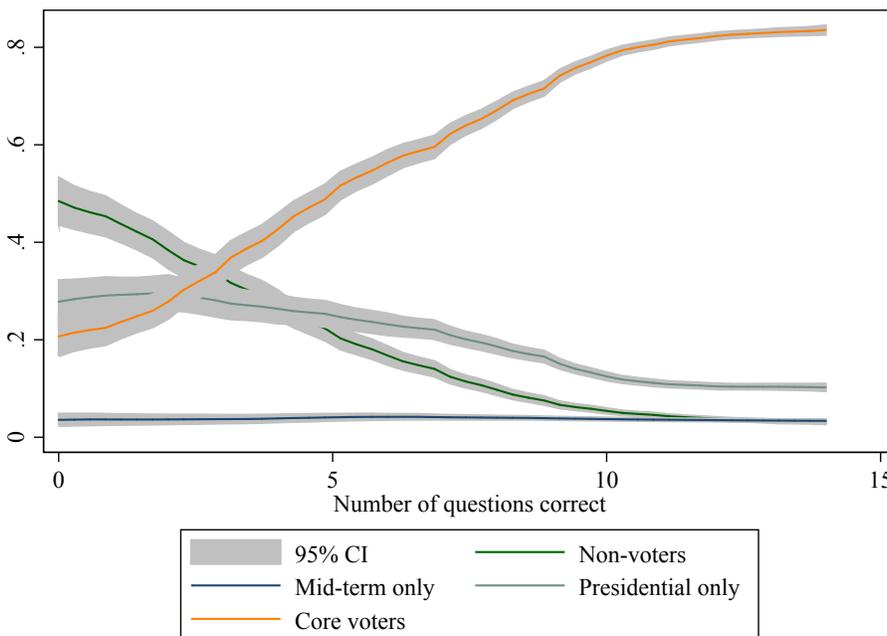
Note: Table only shows responses selected by at least 5% of non-voters. N =569 non-voters and 117 mid-term only voters.

non-voters to give idiosyncratic excuses for not voting, such as being “too busy,” “sick,” or “out of town.” However, mid-term only voters in the CCES data also reported that they did not like the candidates running at roughly the same rate as non-voters. It is also worth noting that very few mid-term only voters actually admitted that they did not vote when responding to the CCES. Specifically, 78% of those who had voted in 2010 but did not vote in 2012 actually claimed to have voted in 2012 when we asked. Among persistent non-voters, 64% claimed to have voted in 2012.

The reasons listed in the previous two tables suggest that being a peripheral voter may be partly a function of interest in politics and partly a function of idiosyncratic issues that come up that preclude an individual from voting in a particular election. To the extent that being a core rather than a peripheral voter is a function of interest, we would expect to find patterns of participation to be related to how much an individual knows about politics.⁶ To test this expectation, we used questions from 2010 and 2012 to construct a measure of political knowledge for each respondent. The knowledge measure is simply the number of correct answers that the individual gave to 14 questions about politics asked across several waves of the survey. These questions generally asked respondents to indicate the party of particular politicians in their state, the party controlling the congressional chambers, the party responsible for appointing more Supreme Court Justices, and the correct

⁶We use knowledge as a proxy measure for interest in politics.

Figure 2: The Relationship Between Knowledge and Voter Type



Note: Figure shows the proportion of voter types across knowledge values. Voter types are determined by participation in elections in 2010, and 2012.

unemployment rate.

Figure 2 shows the relationship between political knowledge and the propensity of individuals to participate in 2010 and 2012. Notably, political knowledge is strongly related to whether an individual was consistent in their turnout behavior. Specifically, the the probability of being a core-voter quadrupled as an individual went from answering no questions correctly to giving the correct answer for 10 of the fourteen knowledge questions. The change in the probability of being a non-voter is nearly as strong—those answering zero questions correct have a probability of about .5 of being a non-voter in both elections, but the probability drops to nearly 0 among those who answered at least 10 questions correctly.

Notably, political knowledge is not as strongly associated with the probability of being a peripheral voter. The incidence of mid-term only voting is so small that there is little in the way of a discernable relationship with knowledge. Presidential only voting is more common, and there is a modest relationship between political knowledge and the probability

of being part of that peripheral voting group. Individuals who answered 0 questions correct had about a .3 probability of being a presidential only voter, but that probability dropped to .15 for those who answered at least 10 questions correctly. But this change is relatively small compared to the patterns among core voters and non-voters.

Thus, core voting and persistent non-voting appear to be strongly driven by both age and knowledge. But the prevalence of peripheral voting is not quite as strongly determined by these factors. Rather, peripheral voting appears to be a function of both interest and age, but also idiosyncratic factors (such as illness and travel) that arise to keep individuals from voting in a particular election.

Patterns of Bias in the Core and Periphery

Studies of voting and turnout in the United States have made note of several socio-economic and political biases that distinguish voters from non-voters. Specifically, voters tend to be more educated and of higher socio-economic status than non-voters. Yet, there is less understanding of the extent to which peripheral voters differ from core voters. In this section, we examine patterns of bias among non-voters, core voters, and peripheral voters based on participation in 2010 and 2012.

Table 5 compares each of the four types of individuals in terms of gender, race/ethnicity, age, education, and income. For the CCES dataset, these variables are all self-reported by the respondent. For the Catalist results, some measures—such as gender and age—were based on either registration or marketing data. Race and ethnicity is based on registration data in some states, and predictive models in other areas. The education variable is based on a model predicting the probability that the individual has a college degree. Finally, for Catalist, the income column actually represents Catalist’s prediction of each individual’s level of wealth.

Consistent with what we know about turnout, non-voters were more likely to be minorities and they were also significantly younger than core voters. Additionally, non-voters were much

Table 5: Demographic Characteristics of Four Voter Types

Voter Type	Female	Black	Hispanic	Age	College	Income
CCES						
Non-voter	0.3987	0.1337	0.0893	48.2909	0.1664	4.9750
Mid-term only	0.5237	0.0972	0.0409	47.0380	0.3460	5.7451
Presidential only	0.4394	0.1312	0.0792	44.4830	0.3144	6.0437
Core voter	0.5147	0.0864	0.0498	53.4978	0.3264	6.5298
Catalist						
Non-voter	0.5283	0.1128	0.1980	49.9096	0.4162	\$218,138
Mid-term only	0.5234	0.0869	0.1524	54.2230	0.4433	\$289,292
Presidential only	0.5674	0.1264	0.1694	47.2881	0.4584	\$261,746
Core voter	0.5342	0.0896	0.1055	57.4086	0.4888	\$387,289

Note: For the CCES analysis, income is the average income category out of 14 categories. For Catalist, income is the individual's estimated wealth.

less likely to have a college degree and tended to have lower levels of income/wealth.

While the characteristics of non-voters match what we generally know from the turnout literature, we also find noteworthy differences and similarities in comparing core and peripheral voters. For example, while there are large differences in education between voters and non-voters, education levels are quite similar among the three groups of voters. Indeed, core voters are about as likely to have a college degree as individuals who only voted in one of the two elections we examined.

While the different types of voters are relatively similar on education, there are significant differences on several other measures. For example, presidential-only voters were more racially/ethnically diverse than core or mid-term only voters. Presidential-only voters were also younger than core voters—approximately 10 years younger, on average. In fact, presidential-only voters were even somewhat younger than non-voters.

Altogether, the results in Table 5 reveal that there are some important demographic differences between core and peripheral voters. This is particularly true when it comes to distinguishing presidential-only voters from core voters. Presidential-only voters are more racially/ethnically diverse, substantially younger, and less wealthy than core voters. But to

what extent do these different types of voters hold distinct political views? To address this question, we turn to two different measures of ideology.

For our analysis of ideology in the CCES panel study, we use answers to 14 issue questions asked of respondents in the 2010 wave of the study. For each liberal response to one of these issue questions, we subtracted one point, and for each conservative answer, we added one point. We then re-scaled the resulting scale so that it ranged from 0 to 1, with a 0 value indicating that the respondent gave liberal responses to every question and a 1 indicating consistent conservative responses.

For the Catalist data, we use a model that Catalist has developed to predict each individual's ideology. The details of the model Catalist uses to predict ideology are proprietary. However, the model is constructed through a series of linear regressions using variables from the database to predict the values of a liberal/conservative ideology index, with the index based on a battery of issues questions selected from national polls and merged into the database. We have also re-scaled the Catalist-generated ideology variable so that 0 would indicate the most liberal individual and 1 would be the most conservative.

Table 6 shows the mean and median ideology for each of the four types of individuals. The table reveals patterns that are robust across the two datasets. According to the mean and median values presented in the table, core voters hold the most conservative views, followed by mid-term only voters. Notably, individuals who only voted in the presidential election were the most liberal in both datasets—even more liberal than non-voters.

Figure 3 plots the CCES issue scale for each of the four types of individuals. The top panel of the figure shows the decidedly liberal tilt of non-voters in the CCES sample. This liberal balance is similar to what is found among presidential-election only voters as well. There are few very conservative individuals among either of these groups, with most holding moderately-liberal views.

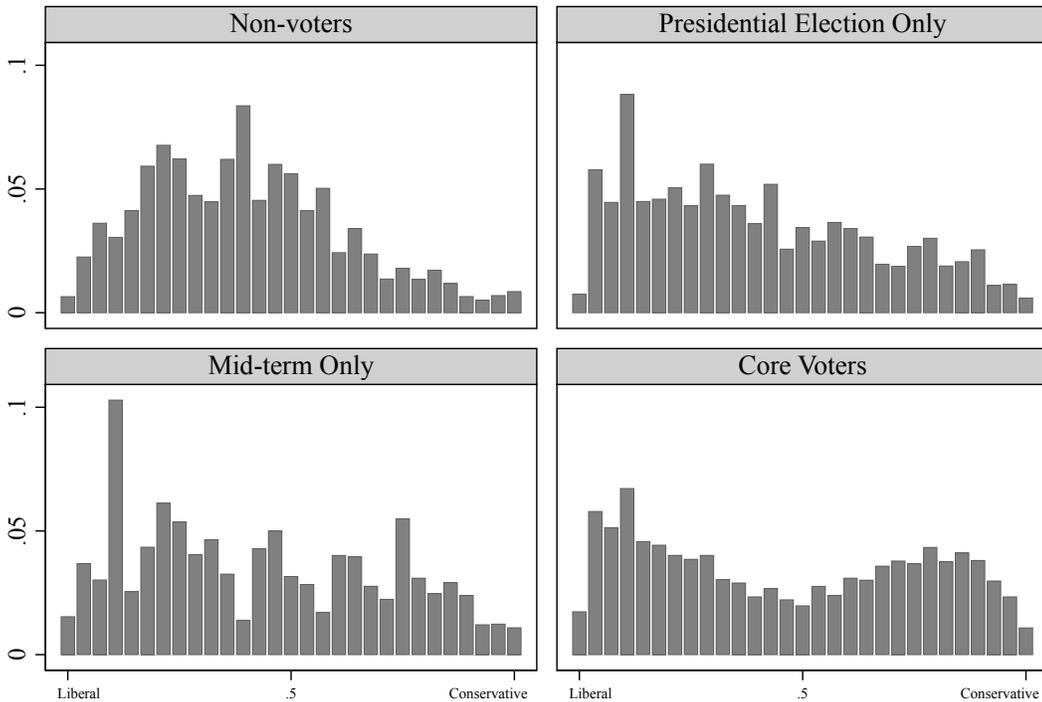
The bottom right panel shows the distribution of ideology among core voters. This group looks quite different from those in the top row, with clear bimodality and individuals

Table 6: Ideology of Four Voter Types

Voter Type	CCES		Catalist	
	Mean	Median	Mean	Median
Non-voter	0.3988	0.3929	.5126	.51
Mid-term only	0.4285	0.3929	.5337	.515
Presidential only	0.3945	0.3571	.4868	.472
Core voter	0.4582	0.4286	.5495	.541

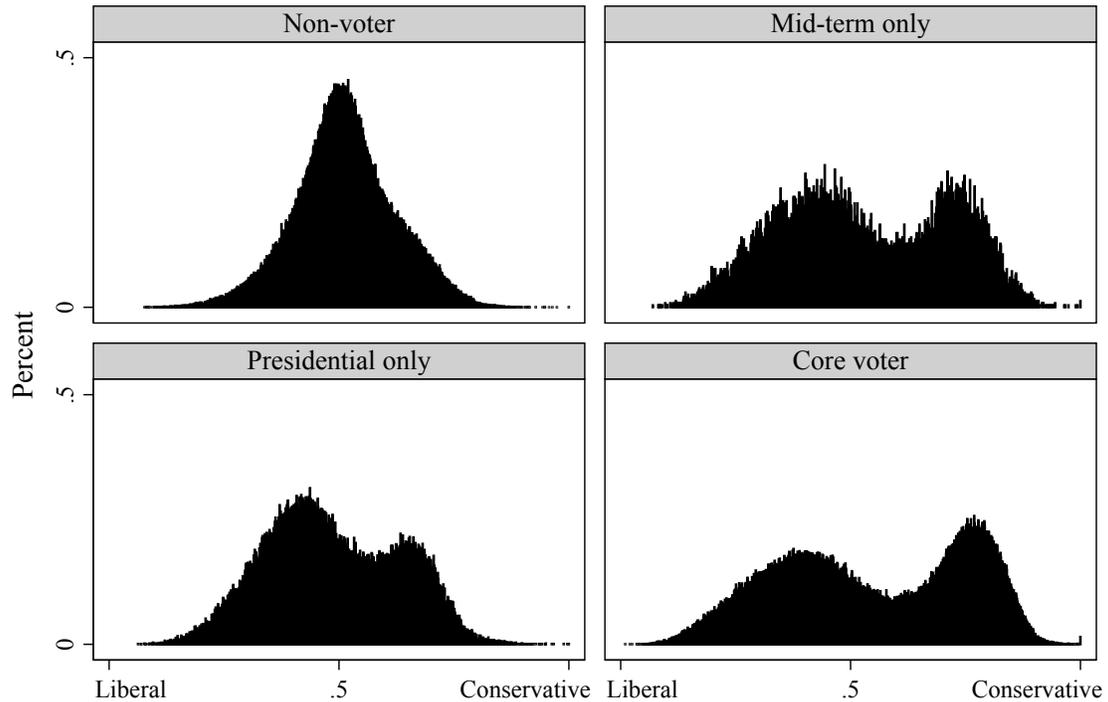
Note: Entries are the average and median ideology. The CCES ideology figure was created using the number of liberal/conservative answers to 14 issue questions. A respondent receives a 0 if they answered each question with a liberal response and a 1 if all questions were answered with a conservative response. The Catalist ideology score is a prediction based on a proprietary model developed by Catalist.

Figure 3: Ideological Distribution of Four Voter Types (CCES)



Note: Figure shows the distribution of voter types on the issue scale.

Figure 4: Ideological Distribution of Four Voter Types (Catalist)



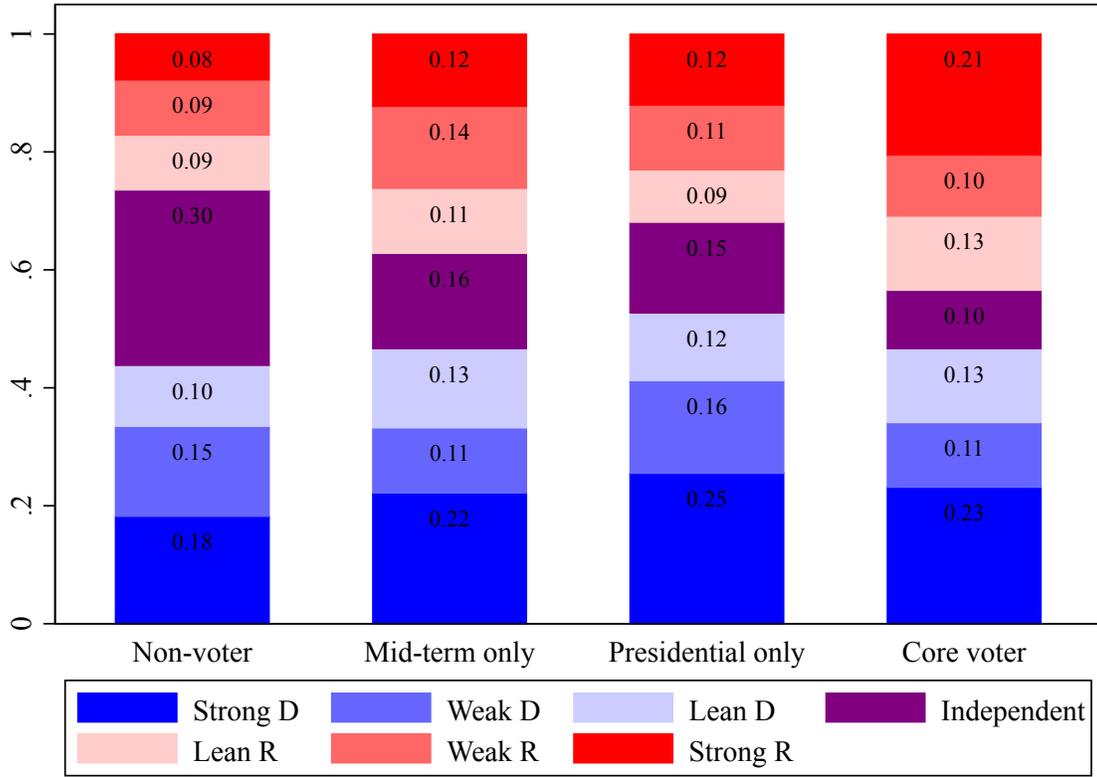
Note: Figure shows the distribution of voter types on the issue scale.

clustered closer to the extremes. In other words, on our issue scale, the core electorate appears to be quite polarized. Finally, mid-term only voters show some signs of bi-modality as well, but it is more muted than what is found among core voters.

Figure 4 duplicates these distributions for the Catalist dataset. The patterns in this figure are similar to those in Figure 3. Core voters tend to skew in the conservative direction, with mid-term only voters following a fairly similar pattern. By comparison, Presidential only voters are distributed more narrowly and towards the liberal end of the scale.

Thus, there are clear ideological differences, particularly between core voters and presidential-only voters. Core voters are both more conservative and more polarized than presidential-only voters. To what extent do these differences extend to partisanship as well? Figure 5 shows the distribution of partisanship among each type of individual based on the individ-

Figure 5: Partisan Distribution of Four Voter Types



Note: Figure shows the partisan distribution of voter types.

ual’s response to the partisanship question in the 2010 wave of the CCES panel study.

Non-voters in our sample tend to be either Independents (30%) or affiliate with (or lean towards) the Democratic Party (43%). This skew is similar to what we found in the ideological plots in Figure 3. There are also several noteworthy differences among the three different types of voters as well. Even moreso than with non-voters, presidential-only voters tilt decidedly toward the Democratic Party, with 53% identifying in some form as Democrats and just 32% affiliating with the Republicans. Among voters who only voted in the 2010 mid-term, the balance between Republicans and Democrats was closer. Core voters were also closely balanced in terms of partisanship. Also notable is that a large share of core voters—44%—are strong partisans, while just 10% are independents.

To what extent are these partisan and ideological differences consequential for electoral

outcomes? Table 7 shows the reported presidential vote preferences/choices for each of the four groups in our analysis. For individuals who voted (or claimed to have voted) in 2012, we tabulated who the individual reported voting for in the presidential election. For individuals who did not vote, we asked which candidate they preferred and tabulated that value.⁷

Table 7: Presidential Vote/Preference by Voter Type

	Non-voter	Mid-term only	Presidential only	Core voter
Barack Obama	51.74	48.58	60.15	48.38
Mitt Romney	32.28	42.78	36.63	49.49
Other	4.54	5.78	3.05	1.95
Not sure	11.43	2.86	0.17	0.18

Note: Entries are the proportion of each voter type who either voted for or, in the case of non-voters, would have voted for each candidate in 2012.

The table reveals significant differences across the four groups. First, non-voters are decidedly Democratic in their vote preferences, preferring Obama by a margin of about 20 points. Second, we also uncover significant differences between core and peripheral voters. For example, individuals who only voted in the presidential election preferred Obama over Romney by a margin exceeding 20 points while those who only voted in the 2010 midterm election preferred Obama by a margin of just six points. Core voters were almost evenly divided in their vote choices.

Thus, Table 7 demonstrates clearly that the surge in turnout during a presidential election year provided a strong boost to Obama’s electoral prospects in 2012. If only core voters turned out, the election would have been very close, with the CCES showing Romney enjoying a slight advantage. Yet, when presidential-only voters are added to the electorate, Obama enjoys a four point advantage (precisely the advantage he enjoyed in the actual popular vote).

Thus, Obama benefited significantly from the participation of peripheral voters in 2012, but did the absence of these voters in the 2010 mid-term election play a similarly influential role in helping Republicans earn a historic seat gain? Table 8 presents the vote

⁷Recall that many individuals who did not vote claimed that they did on the survey. Thus, for those individuals we tabulate who they reported voting for.

choices/preferences in 2010 among each type of individual. Note that the vote preferences of core voters and mid-term only voters were nearly identical, with each preferring the Republican candidate by a margin of about 5 points. Nearly one-third of non-voters reported that they did not know who they would have voted for in 2010, and the remaining non-voter respondents were closely divided between candidates from each party.

Table 8: House Vote/Preference by Voter Type (2010)

	Non-voter	Mid-term only	Presidential only	Core voter
Democratic	33.51	44.15	42.77	45.84
Republican	31.29	49.32	36.72	49.82
Other	3.65	2.70	4.72	3.21
Not sure	31.55	3.83	15.78	1.13

Note: Entries are the proportion of each voter type who either voted for or, in the case of non-voters, would have voted for each candidate in 2010.

The largest distinction in vote preferences in Table 8 is found among individuals who only voted in the presidential election. While 16% of this group indicated that they were not sure who they would have voted for, there was a 6 point Democratic advantage among those who did have a preference. Thus, the fact that peripheral voters tend to sit out midterm elections likely has a significant effect on outcomes in those elections. Using the margins in Table 8 and what we know to be the ratio of core voters to presidential-only voters, we can estimate how important differential turnout might have been in the 2010 midterm election. Specifically, Table 2 indicates that there are 2.3 core or mid-term only voters for every 1 presidential-only voter. Thus, if core/midterm-only voters preferred the Republican House candidate by a margin of about 4 points, and presidential-only voters preferred the Democrat by a margin of 6 points, adding the presidential-only voters to the 2010 electorate would have meant that the Republican margin would have shrunk to about a 3 point margin. Given the fact that there is more than a 1-to-1 translation of votes into seats in U.S. House elections, a 1 point difference in the overall Republican margin may have translated into a non-trivial difference in the number of seats won by Republicans.

Conclusion

Angus Campbell developed the notions of the core and the periphery of the electorate as a simple model to explain the twin observations that in midterm elections turnout declines and the president's party loses votes and seats. The model has been difficult to test owing to the biases and limitations of survey data, especially the misreporting of turnout. With the advent of comprehensive data on all voter registration and vote history in the United States and improvement in matching technology, it is now possible to gauge the size of the core and periphery, as they were originally defined, and to test the conjecture that the peripheral voters indeed differ as speculated by Campbell.

Core and periphery, we conclude, offers a very useful accounting of the vote, but, we find, that there are some important refinements required. It is the case that about one-quarter of the electorate voted in 2006, 2008, 2010 and 2012, and 45 percent of the population voted in none of these races. However, the periphery is much more complicated. Of the 37 percent of people who voted in some of these elections, three quarters were more likely to vote in the presidential election than in the midterm, but one quarter were more likely to vote in the midterm than in the primary. The last group should not exist in the traditional core-periphery model, a fact that indicates that there must be revision of the architecture of the model.

It is also the case that there are substantial differences between the core and the periphery in terms of ideology, party identification, and vote preference. The core voter is somewhat more conservative than the peripheral and non-voter along a left right spectrum. That is, along a continuum from 0 to 1, the average core voter is at .46 and the average peripheral voters is at .39, a 7 percent difference. The partisan differences are also intriguing. As Campbell would predict, the peripheral (President-only) voters are somewhat less Republican than either the core voters or the midterm only voters. This would indicate a degree of either Democratic enthusiasm in 2008 and 2012 or Republican pessimism. The partisan and ideological difference between the midterm-only and President-only voters suggests that

there is an important as yet unnoticed and unexamined effect of midterm enthusiasm and presidential-year discouragement. It appears that in 2008 Democrats were unusually enthusiastic and Republicans somewhat discouraged (and less likely to vote), but in 2010 it was the Democrats who were discouraged and Republicans actually appear to be encouraged or stimulated to vote. The notion of a peripheral midterm voter deserves further inquiry and ought to be the starting point for more robust modeling of the surge and decline of the vote in both the midterm and presidential electorates.