

Voting Restrictions and Representation in Congress*

James Szewczyk
Department of Political Science
Emory University
james.szewczyk@emory.edu

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Abstract

State and local governments have implemented a number of election administration policies that restrict access to the ballot. What are the effects of these electoral reforms on who votes and the behavior of elected officials? In this paper, I trace out the effects of restrictive voting laws on voter behavior in congressional elections, the outcomes of these elections, and, consequently, the behavior of members of the House of Representative using two complimentary identification strategies. First, I use the *Shelby County v. Holder* Supreme Court decision, which struck down the preclearance formula of the Voting Rights Act, as an instrument for the implementation of voting restrictions. Second, I collect a panel dataset of election laws in the American states and exploit cross-sectional and over time variation in election administration to estimate the within-congressional district and within-legislator effects of restrictive voting laws. I find that voting restrictions cause the median voter in congressional districts to shift to the right on the ideological spectrum. As a result, the implementation of voting restrictions causes the election of more conservative legislators that are also less likely to cosponsor legislation related to civil rights issues.

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Throughout the history of American democracy, who is able to access the ballot has been a contested issue. Indeed, although suffrage was granted to Black men in the United States with the 15th Amendment in 1870, the right to vote for many Black citizens would not be fully realized until the passage of the Voting Rights Act in 1965. Further, it was not until 1920 that women were extended the franchise nationally. Both of these episodes of the extension of the franchise had profound impacts on who turned out to vote and, as a result, the representation of diverse interests and policy outcomes across all levels of government (e.g. Abrams and Settle, 1999; Cascio and Washington, 2013; Husted and Kenny, 1997). However, many have raised concerns that in the modern United States electoral reforms are being implemented that restrict access to the ballot and disproportionately affect turnout among certain demographic groups (e.g., Berman, 2015). State governments, for example, have enacted laws that require photo identification before voting and local governments have engaged in practices such as the elimination of polling places, and a large political science literature examines how these voting restrictions affect voter turnout. But, there is still considerable debate about whether electoral reforms that restrict access to the ballot affect the composition of the electorate, and we know very little about how restrictive voting laws affect the behavior of elected officials and policy outcomes.

I contribute to our understanding of these electoral reforms by asking two questions in this paper. What are the effects of voting restrictions on the ideological composition of the electorate in congressional elections and congressional election outcomes? And, consequently, what are the effects of these electoral reforms on representation in the United States Congress? I examine these questions by estimating the effects of restrictive voting laws - including voter ID laws, ex-felon disenfranchisement policies, not allowing early voting, strict voter registration policies, and polling place closings - on the ideological position of the median voter in congressional districts. Then, I document how the implementation of voting restrictions affects the electoral security of Republican candidates for Congress and the behavior of legislators in office. In order to overcome the concern that the restrictiveness of voting laws is endogenous to the outcome variables of interest and credibly estimate the causal effects of voting restrictions, my analyses use two complimentary estimation strategies.

First, I exploit the *Shelby County v. Holder* Supreme Court decision that struck down a key provision of the Voting Rights Act of 1965. In 2013, the Supreme Court effectively dismantled the

preclearance requirement of the law, which mandated that certain jurisdictions with a history of discriminatory voting practices must gain approval from the federal government before changing any policy related to election administration. This led to the proliferation of voting restrictions in these previously covered jurisdictions. Thus, my first identification strategy uses the *Shelby County v. Holder* decision as an exogenous source of variation in election administration policy to instrument for the restrictiveness of voting laws in congressional districts. Second, I exploit the over time and cross-sectional variation in election laws that is the result of the devolution of election administration to state and local governments in the United States. Specifically, using panel data and a two-way fixed effects design I leverage within-congressional district changes in the restrictiveness of voting laws to document their consequences.

The analysis identifies three main results. First, I provide evidence that the removal of preclearance resulted in more restrictive voting laws. Particularly, on average the *Shelby County v. Holder* decision caused an additional voting restriction to be implemented in congressional districts that were previously covered by preclearance. Second, although voting restrictions do not appear to cause a decrease in aggregate levels of voter turnout, I find that the implementation of voting restrictions causes the median voter in a congressional district to shift to the right as well as an increase in the probability that Republican candidates win congressional elections. Third, I show that these electoral reforms also affect the behavior of members of Congress. Particularly, implementing a restrictive voting law causes a rightward shift in legislators' W-Nominate scores and a decrease in their propensity to vote in favor of or cosponsor legislation related to civil rights issues.

This paper makes a number of important contributions. First, there is a large literature on the effects of voting restrictions, including voter ID laws (Alvarez, Bailey and Katz, 2010; Barreto, Nuno and Sanchez, 2009; Grimmer et al., forthcoming; Hajnal, Lajevardi and Nielson, 2017; Highton, 2017; Hood and Bullock, 2008; Stewart, 2013), ex-felon disenfranchisement (Miles, 2004; Hjalmarsson and Lopez, 2010; Haselswerdt, 2009; Burch, 2011; Klumpp, Mialon and Williams, 2017; Uggen and Manza, 2002), early voting (Burden et al., 2014, 2017; Giammo and Brox, 2010; Gronke, Galanes-Rosenbaum and Miller, 2007), and election day voter registration (Burden et al., 2014, 2017; Brians and Grofman, 2001; Highton, 2004; Knack and White, 2000). This research, however, focuses almost exclusively on how voting restrictions affect voter turnout among different groups of voters and occasionally election outcomes. Therefore, I expand our knowledge of the

consequences voting restrictions by documenting how these reforms affect the electoral incentives of elected officials and, consequently, their behavior. Similarly, this paper builds on other research that documents the effects of electoral institutions on politician behavior and public policy (e.g. Fowler, 2013; Fujiwara, 2015) by examining how a different set of electoral reforms affects similar outcomes.

Further, my analyses contribute to our understanding of how the electoral environment affects the behavior of members of Congress (e.g. Martin, 2003; Martin and Claibourn, 2013; Griffin and Newman, 2005; Miler, 2016). Particularly, I provide further evidence that who turns out to vote in congressional elections is consequential for legislative outcomes. In sum, this paper builds on our understanding of the consequences of electoral reforms that restrict access to the ballot in a number of different ways. It is essential that we understand the results of these policies as state legislatures and local governments continue to implement these laws and battles over their legality make their way through the courts.

This paper proceeds as follows. First, I discuss the theoretical expectations of how voting restrictions affect voter turnout and, as a result, the ideological position of the median voter in a congressional district. Then, I argue that this may affect legislative behavior through the selection of new representatives or the changing electoral incentives of incumbent legislators. Next, I discuss the data used in my analyses before I present the details of my research design. Then, I present my results on the effects of voting restrictions on the outcome variables of interest. Finally, I discuss implications of these findings and conclude.

Voting Restrictions and Turnout

Scholars typically study the decision to turnout to vote in an election as a cost-benefit calculation (e.g. Riker and Ordeshook, 1968). In these models voters will choose to cast a ballot when the benefits of voting outweigh the costs. Therefore, if institutions are put into place that make it more difficult to vote, such as restrictive voting laws, this will cause fewer citizens cast their ballot because the costs of voting are too high. There is empirical evidence that reforms as simple as increasing the distance between where a voter lives and his polling place significantly dampens voter turnout (Gimpel and Schuknecht, 2003; Haspel and Knotts, 2005). However, restricting access to the ballot

will only have an impact on who the median voter is and the incentives of elected officials if the reforms disproportionately affect voters with particular demographic characteristics and ideological dispositions.

There is reason to suspect that increases in the costs of voting as a result of restricting access to the ballot are not evenly distributed across the population. For example, laws that require voters to present photo identification before casting their ballot will disenfranchise groups that do not have access to these documents. Scholars have found that less affluent as well as Black, and Latino voters are less likely to have the documentation necessary to cast their ballot in states with strict voter ID laws (Barreto, Nuno and Sanchez, 2009; Hood and Bullock, 2008; Stewart, 2013). Research also shows that this causes fewer Black and Hispanic voters to turnout when voter ID laws are implemented (Hajnal, Lajevardi and Nielson, 2017).¹ Other voting restrictions such as ex-felon disenfranchisement policies tend to disproportionately impact access to the ballot for Black male voters (Harvey, 1994; Shapiro, 1993). Further, the adoption of election day registration reduces turnout inequality across age groups and socioeconomic statuses (Knack and White, 2000) and especially increases turnout when it is implemented in conjunction with early voting (Burden et al., 2014). This suggests that not having these policies in place hurts these potential voters' share of the electorate and decreases turnout.² This previous research indicates that restrictive voting laws that increase the costs of casting a ballot decrease turnout and that this drop in turnout is disproportionately driven by racial minorities and potential voters of a low socioeconomic status.

Consequently, restrictive voting laws may affect the ideological composition of the electorate, because these groups of voters that are disenfranchised by restrictive election laws are more likely to hold liberal policy preferences. For example, Black citizens are more likely to support liberal policies such as higher welfare spending and increased government services (Gilliam and Whitby, 1989), and voters of a low socioeconomic status are also more supportive of redistributive government programs. Further, to the extent that voting restrictions deter marginal voters who are more likely to support the Democratic party from voting (Fowler, 2015), these reforms may shift the median

¹There is, however, still a considerable debate over the effects of voter ID laws on the composition of the electorate. See Highton (2017) for a review and Grimmer et al. (forthcoming) for a critique of Hajnal, Lajevardi and Nielson (2017). Further, the effects of these reforms may be conditioned by the efforts of government officials to disseminate information about the new policy (Hopkins et al., 2017).

²However, the independent impact of early voting on turnout is less clear. Burden et al. (2017) find that early voting in combination with election day registration increases Democratic vote shares in presidential elections, but early voting on its own actually decreases Democratic vote shares.

voter to the right. I formulate that first hypothesis that I test in this paper based on this previous literature on the effects of the costs of voting on voter behavior.

Hypothesis 1: *As the restrictiveness of voting laws in a congressional district increases, voter turnout will decrease and the median voter will shift to the right.*

As a result of this change in the ideological composition of the electorate, I also expect that voting restrictions will affect the electoral security of Republican candidates for Congress. If voters are more conservative, they will be more likely to support the Republican party. As a result, Republicans will be more likely to win and their vote shares will increase. This is consistent with the logic that electoral reforms that restrict access to the ballot will bolster support for elected officials that are more conservative. Indeed, voting restrictions in the United States are typically passed by state governments that are controlled by Republican majorities. For example, Biggers and Hanmer (2017) find that one the biggest predictors of the adoption of a voter ID law is when there is a switch in control of the legislature or governor’s office to the Republican party. Presumably, Republicans pass these laws because they believe it will increase their electoral security and help them achieve conservative policy goals. This leads me to the next hypothesis that I test in this paper.

Hypothesis 2: *As the restrictiveness of voting laws in a congressional district increases, the Republican candidate’s win probability and percent of the two-party vote will increase.*

Elections and Representation in the U.S. Congress

Does shifting the median voter in congressional districts affect the behavior of members of Congress? Scholars of congressional politics have long argued that representatives are constantly motivated by reelection and, as a result, who votes conditions their behavior while in office. For example, in his seminal essay on the topic Mayhew (1974) says, “Whether they are safe or marginal, cautious or audacious, congressmen must constantly engage in activities related to reelection. There will be difference in emphasis, but all members share the root need to do things - indeed, to do things day in and day out during their terms” (49). Further, there is substantial empirical evidence that structural changes in voter turnout, like electoral reforms that restrict access to the ballot, have a significant effect on the behavior of elected officials and policy outcomes across a wide variety of

contexts (Terry, 2016). Therefore, I expect that implementing restrictive voting laws will result in changes in legislative behavior among members of Congress.

I briefly outline my argument about how voting restrictions affect legislator ideology using the logic of a spatial voting model (e.g., Black et al., 1958; Downs, 1957). The idea is simple. If voters choose politicians based on the ideological position of the candidates, then we should expect to see that when reforms are implemented that shift the median voter to the right there will be a rightward shift in the ideological position of elected officials. Take, for example, a district with a Democratic incumbent and a Republican challenger. If voting restrictions are implemented and the median voter shifts to the right, there are two ways that policy could also shift rightward. First, the Democrat can shift his ideological position to the right in order to win the vote of the median voter who is now more conservative.³ This within-legislator change in behavior is referred to as an incentive effect. Alternatively, if the incumbent does not behave more conservatively and the change in the position of the median voter is large enough, the Republican challenger will win the election. The replacement of legislators as a result of an electoral reform is a selection effect.

Both of these processes could result in more conservative legislators serving in Congress after voting restrictions are implemented, and there are a wide variety of observable activities that representatives can engage in order to tailor their behavior to the composition of the electorate in their congressional district. For example, members of Congress cultivate personal relationships with their constituents (Fenno, 1978) and bring valuable federal grants back to their districts (Martin, 2003). In this paper, I look at how a member of Congress's roll-call voting and bill cosponsorship behavior is affected by electoral reforms that change the median voter in his district. First, the roll-call voting behavior of a member of Congress is an important determinant of his chances of reelection. Previous work shows that voters punish representatives at the ballot box whose roll-call votes do not match their preferences (Canes-Wrone, Brady and Cogan, 2002; Burden, 2004). Therefore, members of Congress have an incentive to vote on bills in a way that voters in their district will find desirable, and if there is a change in who turns out in elections, legislators may change how they cast their roll-call votes as a result.

Second, members of Congress frequently use the process of bill sponsorship and cosponsorship

³Although some previous work suggests that a legislator's ideology may evolve over the course of his career (e.g. Stratmann, 2000; Kousser, Lewis and Masket, 2007; Martin and Claibourn, 2013), others argue that this is not the case (e.g., Poole and Romer, 1993).

in order to aid their electoral prospects. Representatives expend an enormous amount of time and resources on deciding which bills they would like to cosponsor as well as on recruiting cosponsors for their own bills (Campbell, 1982). This effort is spent on bill cosponsorship because legislators believe that it will be beneficial to their goals, including reelection. Through interviews with members of Congress, Koger (2003) finds that incumbents cosponsor bills in order to signal their position on issues that they believe will be electorally beneficial. This indicates that representatives have an incentive to adapt their cosponsorship activity to fit the preferences of those who vote in their district. As a result, if voting restrictions disproportionately cause decreases in turnout among liberals, their interests will be less likely to be reflected by members of Congress and legislators' roll-call and cosponsorship behavior will be more conservative. In addition, because restrictive voting laws are also likely to disenfranchise Black and other minority voters, as discussed above, and previous research finds the electoral institutions that protect minorities' right vote increases their representation in Congress (Schuit and Rogowski, 2016), I expect that implementing voting restrictions will also result in a decrease in support for legislation related to civil rights issues. This discussion leads me to the main hypothesis regarding legislative behavior that I test in this paper.

Hypothesis 3: *As the restrictiveness of voting laws in a congressional district increases, the ideological position of members of Congress will shift to the right and legislators will be less likely to support legislation related to civil rights issues.*

Finally, it should be the case that these changes in behavior are most prominent among legislators that represent relatively competitive districts. These are the electoral contexts where elected officials will be most concerned with reelection, because legislators out of step with their constituents are more likely to be replaced if there is a viable competitor and a large portion of the electorate is from the opposing political party. Consequently, representatives will tailor their behavior in office to appeal to the voters in their district even if it does not match their sincere preferences when they represent more competitive districts (Snyder and Ting, 2003). Given the fact that the partisan composition of a congressional district should condition how responsive legislators are to their constituents, I expect the following.

Hypothesis 4: *The marginal effect of voting restrictions on legislative behavior will be largest in congressional districts that have competitive elections.*

Data

In this section, I discuss the data that I use to test these hypotheses. I first describe how I construct an index of the restrictiveness of voting laws in congressional districts before discussing the dependent variables and control variables used in the analyses. Summary statistics of the data are displayed in the Appendix.

Voting Restrictions Index

The main independent variable of interest in my analyses is the $RestrictionsIndex_{d,t}$, which is an additive index of a number of election administration policies that restrict access to the ballot in each congressional district from 2006 to 2016. Theoretically, the variable can range from 0 to 15, with 0 indicating that a congressional district does not have any voting restrictions and 15 indicating that a district's representative is selected in an election with all of the voting restrictions. A summary of the components of the voting restrictions index is displayed in Table 1.

Table 1: Components of the Voting Restrictions Index

Policy Category	Voting Restriction
Voter ID	1 = non-photo ID required (not strict) 2 = photo ID required (not strict) 3 = non-photo ID required (strict) 4 = photo ID required (strict)
Ex-Felon Disenfranchisement	1 = until after release from prison 2 = until after sentence complete 3 = for a time period after sentence 4 = forever
Voter Registration	1 = no election day registration 1 = no preregistration for youth [0,1] = time before election voter registration closes
Voting Convenience	1 = no in-person early voting 1 = no absentee voting without excuse 1 = no vote-by-mail
Local Policies	1 = decrease in number of polling places

The first component of the voting restrictions index is a measure of the presence and stringency

of voter ID laws in the state in which each congressional district is located. This measure ranges from 0 to 4 and uses the classification system from the National Council of State Legislatures. Particularly, this aspect of the index is equal to 0 if a state does not require any ID at the polls, 1 if a state has a non-strict, non-photo ID requirement, and 2 if a state has a strict non-photo ID requirement. States classified as having a non-strict, photo ID law receive a 3 and those with a strict photo ID law receive a 4.

Second, I also collect data on the severity of felon disenfranchisement policies in each state. I code each state-year into five categories. The least restrictive classes of felon disenfranchisement restrictions are those states that allow all felons to vote, including those in prison, as well as states that allow voting immediately after release from prison. These states are coded as 0 and 1, respectively, for the restrictiveness of their felon disenfranchisement policies. Next, states that allow ex-felons to vote after they have completed their sentence - including prison, parole, and/or probation - are coded as a 2 on this measure. Finally, there are many states that continue to disenfranchise ex-felons even after they have served their sentences. These states are split into two categories: those that allow ex-felons to vote after a certain number of years and those that disenfranchise ex-felons forever. The former are coded as a 3 on this dimension of the restrictions index and the latter are coded as a 4.

The third set of election administration policies pertain to voter registration practices. States that do not allow election day registration are coded as 1 and those states that do allow eligible voters to register on election day are coded as 0. Further, I include a continuous measure of how long before election day citizens can register to vote in the restrictions index. This variable ranges from 0 to 1 with higher values indicating more restrictive voter registration policies. It is calculated by dividing the number of days before an election that voter registration closes and dividing it by the maximum of this value across all states in the data. Finally, if a state does not allow preregistration for 16 or 17 year old citizens they are assigned an additional point on the restrictions index.

Fourth, the restrictions index captures if states allow voters to cast their ballots prior to election day either in person or via a mail-in absentee ballot without an excuse. States receive an additional point on the voting restrictions index for each one of these voting methods that they do not allow. Therefore, states where voters can vote absentee or in-person prior to election day without an excuse are coded as 0 and states that have neither of these options are coded as 2. I include an

additional component of the index that is equal to 1 if a state does not use a vote-by-mail electoral system.

The final measure included in the voting restrictions index is intended to capture changes in election administration at the local level. With the largely decentralized governance of elections in the United States, local jurisdictions wield a great deal of discretion when administering elections. Using data from the Election Administration and Voting Survey (EAVS), which is a survey of local jurisdictions (counties or towns) that administer elections that has been collected by the U.S. Election Assistance Commission since 2004, I generate a variable measuring changes in the number of polling places in a congressional district. For each year from 2004 - 2016 I use this data along with a crosswalk procedure⁴ to enumerate the number of polling places in each congressional district.⁵ I then calculate the change in the number of polling places in each district by subtracting the number of polling places for the previous election from the number of polling places for the current election. If this value is negative, it means that there was a decrease in the number of polling places in a congressional district and the district receives a 1 for this component of the voting restrictions index.

Figure 1 displays the distribution of the restrictions index in congressional elections from 2006 to 2016. I display the density plots separately for congressional districts that were and were not covered by the preclearance requirement of the Voting Rights Act. This figure indicates that there is significant cross-sectional variation in the restrictiveness of voting laws in a given election year. In addition, this variation appears to be increasing over time and is mainly driven by a large increase in voting restrictions in 2014 and 2016 among congressional districts that were covered by preclearance prior to the *Shelby County v. Holder* Supreme Court decision in 2013. This provides visual evidence that the removal of the preclearance requirement of the Voting Rights Act caused more restrictive voting laws to be implemented, which is essential for the empirical strategy discussed in the next section.

⁴I match each county in the EAVS data to the congressional district that it is in using relationship files from the United States Census for each Congress. For counties that are in multiple districts, the number of polling places in the county is assigned to each district that falls in the county.

⁵The EAVS unfortunately has missing data due to non-reporting from jurisdictions that administer elections. To reduce the amount of missing data, for missing county-year observations within the EAVS data I linearly interpolate the value for the number of polling places if the county had appeared in the data in a previous year and appears in a future year before matching counties to their congressional districts. If congressional districts have counties within it that did not report the number of polling places or if I was not able to interpolate the data, the district in that year is excluded from my analyses.

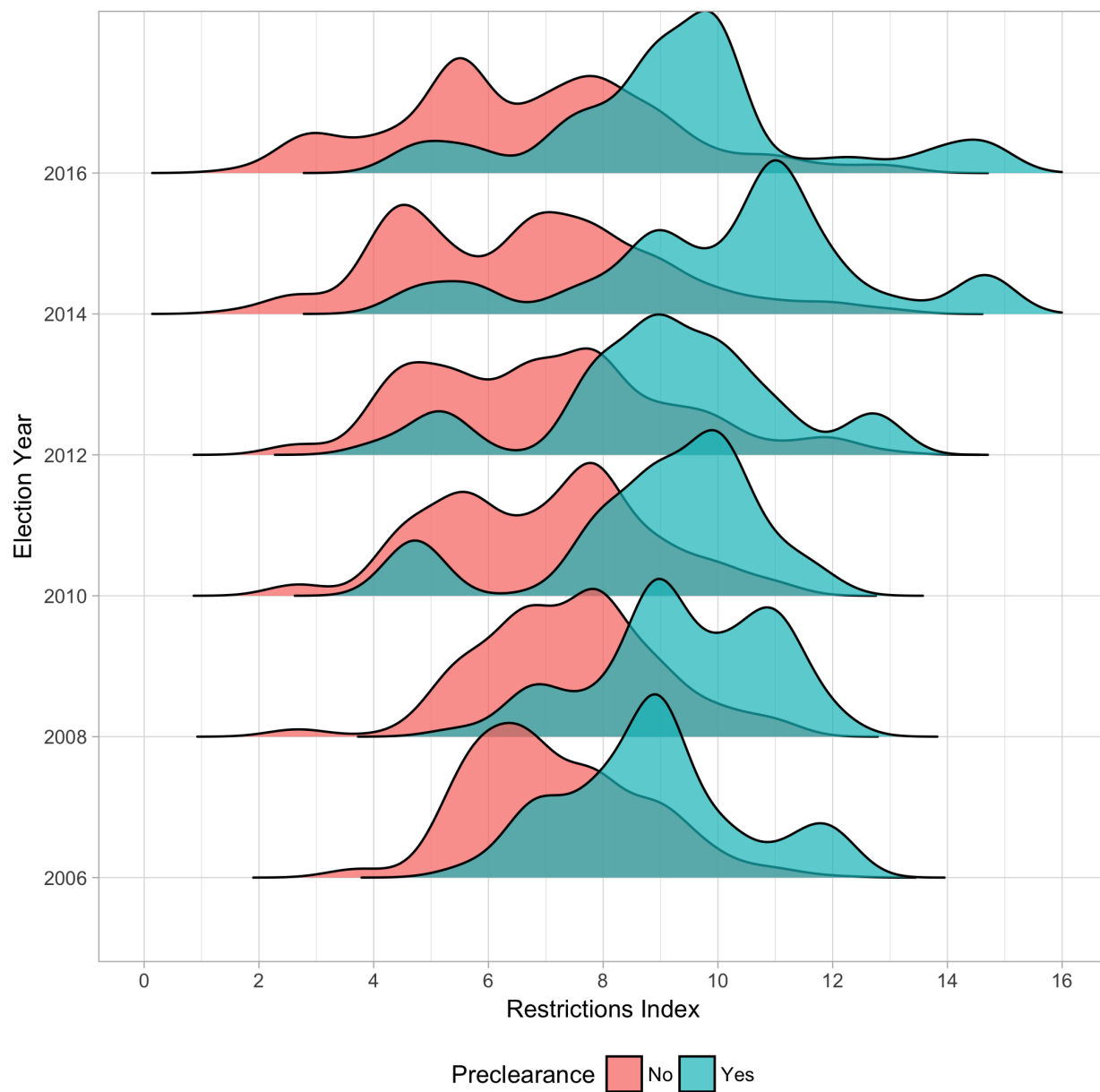


Figure 1: Distributions of the restrictions index in each election year from 2006 - 2016 for congressional districts not covered by preclearance and those covered by preclearance prior to the 2014 election.

Dependent Variables

Voter Behavior. I examine two dependent variables to look at the effects of voting restrictions on voter behavior. First, I calculate the turnout as a percentage of the Citizen Voting Age Population (CVAP) in each congressional district. This variable, $VoterTurnout_{d,t}$ is calculated by taking the total number of ballots cast in each congressional election from 2006 to 2016 from the CQ Voting and Elections Collection and dividing it by the Citizen Voting Age Population from the United State Census.

Second, to measure the ideological position of the median voter in a congressional district I draw on data from the Catalist voter file, which is frequently used in political science applications (e.g. Ansolabehere and Hersh, 2012). Catalist is a voter list vendor that matches individual states' public voter files with commercial data, which is used to estimate a number of characteristics of registered voters including the likelihood that an individual holds progressive policy views. The particular data used in this paper is a 1% sample of Catalist's national voter file with over 3 million registered voters that includes their voting history in all even-year elections from 2008 to 2016. In order to estimate the ideology of the median voter in each congressional district, I first identify the district that each registered voter lives in⁶ and whether or not he voted in each election. To create the variable $MedianVoter_{d,t}$, I take the inverse of the median of Catalist's ideology measure among all individuals in a congressional district who cast a ballot in a given election. Higher values of this variable indicate that the median voter in a district is more conservative.

Legislator Electoral Security. Using the congressional election data from the CQ Voting and Elections Collection I generate two additional variables. First, I create the variable $RepublicanWins_{d,t}$, which is equal to 1 if the Republican candidate in a congressional election wins and 0 otherwise. Second, I calculate the percentage of the two-party vote share that is won by Republican candidates to generate the variable $RepublicanVoteShare_{d,t}$.

Legislative Behavior. I generate three different variables to capture multiple dimensions of

⁶The Catalist data includes a variable indicating which congressional district that individuals live in, which is used to identify congressional districts in the 2012, 2014, and 2016 elections. Because of redistricting in 2012, I identify an individual's congressional district using the census tract that he lives in for the 2008 and 2010 elections. Observations that were missing the census tract identifier or that lived in a census tract that is in more than one congressional district are dropped from the data for the years prior to the 2012 redistricting.

congressional behavior in my analyses. First, I measure the ideological position of legislators using their $W\text{-Nominate}_{i,t}$ score. W-Nominate is a measure of ideology recovered from the roll-call voting behavior of members of Congress (Poole and Rosenthal, 1985). Larger (more positive) values of this variable indicate increasingly conservative legislators. Using the roll-call vote data from Lewis et al. (2017), I estimate House members' W-Nominate scores separately for each congressional term from the 110th Congress to 115th Congress with the `wnominate` package in **R**.⁷ Because the composition of roll-call votes varies between congressional terms, the W-Nominate scores will not be directly comparable over time. However, the use of congressional term fixed effects in the analyses presented in this paper account for unobserved differences between congresses that affect which bills make it to a roll-call vote.

Next, I gather two measure of legislators' representation of the interests of minority voters in Congress. Note that for these two dependent variables I do not have data for the 115th Congress. I first use the Civil and Human Rights voting record from the Leadership Conference on Civil and Human Rights (LCCR), which is a frequently used measure in the literature on the representation of the interests of Black voters in Congress (e.g., Cameron, Epstein and O'Halloran, 1996; Washington, 2012). The $LCCR\text{Score}_{i,t}$ is a measure of the roll-call voting behavior of legislators on a sample of bills identified by the LCCR in each congressional term that pertain key civil rights issues. The variable can be interpreted as the percentage of bills that a member of Congress votes for in accordance with the position of the LCCR, and it ranges from 0 to 100 with a score of 100 indicating that a representative voted in the direction supported by the LCCR on 100% of the bills.

Finally, I create a measure of the propensity of representatives to sponsor or cosponsor bills related to civil rights issues. In order to generate the variable I obtain all bills introduced in the 110th Congress through the 114th Congress from the Congressional Bills Project.⁸ Following a procedure similar to that used by Schuit and Rogowski (2016), I then identify pro-civil rights bills using the coding scheme from the Comparative Agendas Project. Specifically, I subset the Congressional Bills Project data to only include bills pertaining to general civil rights issues, minority discrimination, and voting rights issues. In order to ensure that all of the identified bills deal with civil rights issues, I read summaries of the bills and remove any that are not relevant.⁹ I then obtain the names of

⁷W-Nominate scores for the 115th Congress include all roll-call votes prior to April 25, 2018.

⁸This dataset was downloaded from <http://congressionalbills.org/download.html>.

⁹For example, bills relating to privacy rights are coded in the Comparative Agendas Project as being in the

all sponsors and cosponsors for each bill by scraping the information from the bill’s *congress.gov* website.¹⁰ Using this information I generate the variable $CosponsorScore_{i,t}$, which is simply the number of civil rights bills that a member of Congress sponsored or cosponsored divided by the total number of civil rights bills identified for each congressional term. Like the LCCR scores, it ranges from 0 to 100, with increasing values indicating that more bills are being cosponsored.

Control Variables

The analyses presented in this paper use two different sets of control variables. First, I control for a variety of time-variant demographic characteristics of congressional districts that may affect the restrictiveness of voting laws and the behavior of members of Congress. Particularly, using data from the U.S. Census American Community Survey and the Decennial Census, I control for the racial characteristics of congressional districts using variables measuring the percentage of constituents that are Black, Hispanic, Native American, or Asian. I also include variables measuring the percentage of the constituency that is older than 65, female, and that holds a college degree as well as a variables measuring the median income and total population of congressional districts. Further, I control for the competitiveness and partisan leanings of congressional districts using The Cook Political Report’s Partisan Voting Index (PVI), which measures the degree to which congressional districts lean towards the Democratic or Republican party. When this variable is equal to 0 it indicates that a district is considered a toss-up, while more positive values indicate that the district leans towards the Republican party and more negative values mean that the district leans towards Democrats.

Second, in the instrumental variables models that I describe below, I include controls for the historical determinants of whether or not a congressional district was covered by the preclearance provision of the Voting Rights Act. The first element of the set of historical control variables is voter turnout as a percentage of the voting age population in the state where the district is located in 1964, 1968, and 1972. Second, because a district was covered by preclearance if a county within it was covered (even if the entire state was not), I include a variable measuring voter turnout as a percentage of the voting age population for the county with the lowest level of turnout within each

“general civil rights issues” category but are excluded from my sample after examining the content of the bills.

¹⁰An example of a bill’s website containing cosponsorship information can be found at the following link: <https://www.congress.gov/bill/112th-congress/house-bill/108>

congressional district in 1964, 1968, and 1972. This turnout data is obtained from Crocker (1988) and ICPSR (2006). Finally, I control for whether or not each jurisdiction was determined to have a test or device in 1964 using information in the Federal Register from the Department of Justice (30 Fed. Reg. 9897).¹¹

Empirical Strategy

It is challenging to credibly identify the effects of restrictive voting laws on the behavior of political actors. Particularly, there are likely unobserved variables that affect both whether or not a particular political jurisdiction adopts a voting restriction and the behavior of both voters and elected officials in that jurisdiction. Thus, simply regressing some measure of the behavior of members of Congress or voter turnout on the restrictiveness of voting laws in a given congressional district would lead to biased estimates of the effects of these electoral reforms. I use two different estimation strategies to overcome these issues.

First, I use an instrumental variables design that exploits the removal of the preclearance requirement of the Voting Rights Act, which was a consequence of the *Shelby County v. Holder* Supreme Court decision in June of 2013. Section 5 of the Voting Rights Act requires that certain jurisdictions with a history of discriminatory voting practices receive approval from the federal government before making any changes to election administration, which is known as preclearance. The formula that determines which political jurisdictions were covered by Section 5 is defined in Section 4(b) of the Voting Rights Act.¹² A jurisdiction was covered by preclearance and required to receive approval from the federal government before making any changes to how it administered elections if two conditions were met: (1) the jurisdiction had a test or device (such as a poll tax or literacy device) the restricted individuals' ability to register to vote or cast a ballot, and (2) less than 50% of the voting age population were registered to vote or if voter turnout was below

¹¹Unfortunately, the Federal Register only contains information on all of the jurisdictions that were determined to have a test or device in 1964. So, I only include indicators for a test or device in this year. Further, preclearance coverage was only ever determined by voter turnout figures and not registration in practice, so I do not include control variables for historical voter registration levels.

¹²There are also bail-in and bail-out provisions of the Voting Rights Act, so the composition of the jurisdictions that were covered by Section 5 changed over time. At the time of the *Shelby County v. Holder* decision Alabama, Alaska, Arizona, Georgia, Louisiana, Mississippi, South Carolina, Texas, and Virginia were covered as a whole. Further, California, Florida, New York, North Carolina, South Dakota, and Michigan were partially covered.

50%.¹³ A jurisdiction was initially covered if it met these conditions in 1964, but when the the Voting Rights Act was later renewed by Congress the coverage formula was expanded to include jurisdictions who met these conditions in 1968 or 1972. Further, for the coverage determined based on 1972 data, the formula was revised to include protections for members of language minority groups, which expanded the definition of a test or device to practices such as providing election information and ballots only in English.

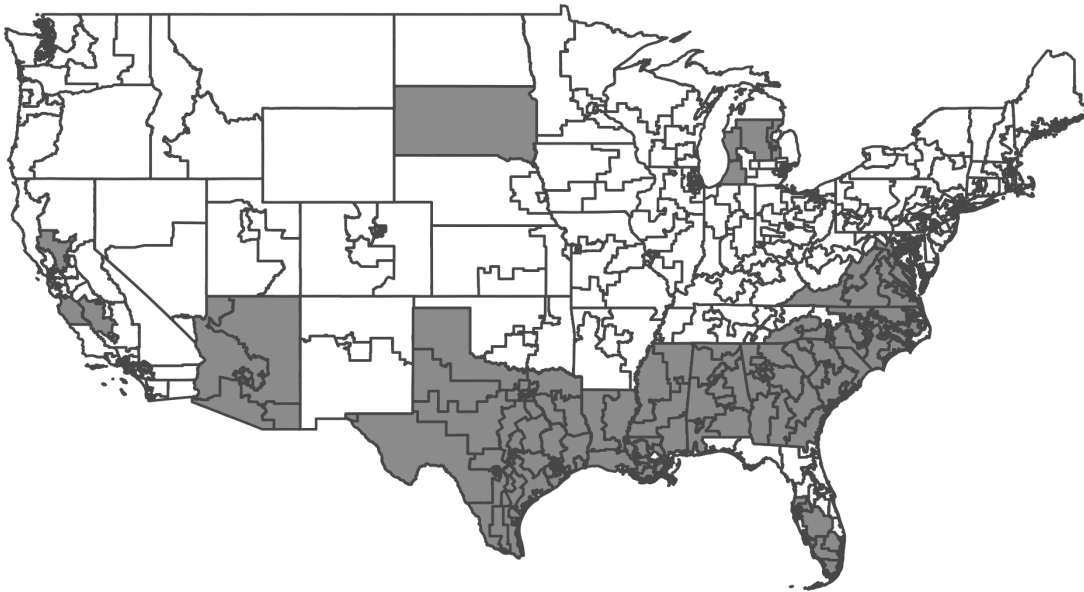


Figure 2: Map of congressional districts in the United States. Districts shaded in grey were covered by the preclearance provision of the Voting Rights Act prior to *Shelby County v. Holder* (N=133). Alaska and Hawaii are omitted from the map, but note that the entire state of Alaska was covered by preclearance.

In the Supreme Court case *Shelby County v. Holder*, the constitutionality of the provisions of the Voting Rights Act pertaining to the preclearance requirement, Section 5 and Section 4(b), were in question. On June 25, 2013 the Supreme Court ruled that Section 4(b) of the Voting Rights Act was unconstitutional. The opinion of the Court was that the formula determining preclearance status did not reflect present day conditions but relied on measures of historical discrimination that were no longer relevant. Although the Court did not invalidate the process of preclearance itself, this ruling effectively ended the preclearance requirement until Congress is able to approve

¹³<https://www.justice.gov/crt/section-4-voting-rights-act>

a new formula for covered jurisdictions, which they have yet to do. This gave a number states and counties the ability to change their election laws without approval from the federal government for the first time since 1965, which caused an exogenous shock that increased the number of voting restrictions in previously covered jurisdictions. I use this Supreme Court decision to instrument for the restrictiveness voting laws in congressional districts and estimate the effects of these reforms on the behavior of voters and representation in Congress.

Figure 1 displays a map showing the congressional districts that were covered by preclearance at the time of *Shelby County v. Holder*. I classify a district as being covered by preclearance if any part of it was covered by Section 5 of the Voting Rights Act.¹⁴ A total of 133 districts were covered by preclearance directly prior to the decision. As can be seen, the covered districts are largely in the southeast United States. However, some southern states, such as Tennessee, were excluded from preclearance while congressional districts in other states, including California, Michigan, and New York, were covered. In sum, this indicates that there is indeed a good amount of geographic diversity in the legislators that were treated with increased voting restrictions after the *Shelby County v. Holder* decision.

The specific equations used in the instrumental variables estimation are as follows. To begin, the first-stage and reduced form models takes the following form,

$$RestrictionsIndex_{d,t} = \beta_1 FormerPreclearance_{d,t} + \zeta' \mathbf{Z}_{d,t} + \delta' \mathbf{X}_{d,t} + \lambda_t + \epsilon_{s,t} \quad (1)$$

$$Y_{i,t} = \beta_1 FormerPreclearance_{d,t} + \zeta' \mathbf{Z}_{d,t} + \delta' \mathbf{X}_{d,t} + \lambda_t + \epsilon_{s,t} \quad (2)$$

where Equation 1 represents the first-stage model and Equation 2 represents the reduced form model.¹⁵ On the left-hand side of the first-stage equation, the variable *RestrictionsIndex_{d,t}* is an

¹⁴Therefore, in states where only certain counties or municipalities were covered by preclearance, a congressional district is coded as being a preclearance district if any county or municipality that was covered by preclearance falls at least partially within the borders of the district. The information on which jurisdictions were previously covered by the preclearance formula are obtained from the Department of Justice's website (<https://www.justice.gov/crt/jurisdictions-previously-covered-section-5>). I determine whether previously covered sub-state jurisdictions are within congressional districts using the county-congressional district relationship files from the United State Census.

¹⁵In the Appendix, I display reduced form models with district and legislator fixed effects rather than the historical control variables.

index of the restrictiveness of voting laws in each congressional district. The dependent variable in Equation 2, $Y_{i,t}$, represents the measures voter behavior, election outcomes, and legislative behavior.

$FormerPeclearance_{d,t}$ is an indicator equal to 1 for congressional districts that were previously covered by Section 5 of the Voting Rights Act in the time period after the *Shelby County v. Holder* decision. Further, λ_t represents either election year or congressional term fixed effects to control for factors that are constant across observations within a given election year or congress. $\mathbf{Z}_{d,t}$ is a vector of time-varying demographic characteristics of congressional districts. $\mathbf{X}_{d,t}$ represents the set of historical control variables that determined whether or not any of the political jurisdictions within a congressional district would have been covered by preclearance in 1964, 1968, or 1972. I include these control variables, because we may be concerned that preclearance coverage, and consequently the removal of the provision, is not randomly assigned. Consequently, these control variables are necessary to meet the conditional independence assumption required for unbiased instrumental variables estimates. The assumption in this context is that after conditioning on these variables that the assignment of the instrument, preclearance removal, is independent of the restrictiveness of voting laws and the outcomes of interest. Finally, $\epsilon_{s,t}$ is the error term. Because many of the voting restrictions vary at the state level and best practice is to cluster standard errors at the highest aggregate level (Cameron and Miller, 2015), I present robust standard errors clustered by state for all of my analyses.

Next, the second stage models take the following form,

$$Y_{i,t} = \beta_1 \hat{RestrictionsIndex}_{d,t} + \boldsymbol{\zeta}' \mathbf{Z}_{d,t} + \boldsymbol{\delta}' \mathbf{X}_{d,t} + \lambda_t + \epsilon_{s,t} \quad (3)$$

where $\hat{RestrictionsIndex}_{d,t}$ is the fitted voting restriction index from Equation 1. Therefore, the causal effect of interest is the estimated value of β_1 . As before, the outcome variables of interest are represented by $Y_{i,t}$. Further, $\mathbf{Z}_{d,t}$ is the vector of demographic control variables, $\mathbf{X}_{d,t}$ is the vector of historical control variables, and λ_t is a set of congressional term or election year fixed effects.

Although the *Shelby County v. Holder* decision presents an excellent opportunity to estimate the effects of electoral reforms that restrict access to the ballot, there are at least two potential drawbacks to the approach. First, we may be concerned that certain assumptions of the instru-

mental variables model do not hold in this setting. The exclusion restriction requires that this Supreme Court decision only affects voter behavior and representation through changes in election law. This assumption is potentially violated if my measure of voting restrictions does not capture every change at both the state and local level in election policy after *Shelby County v. Holder*. As I have discussed, the calculation of the variable $RestrictionsIndex_{d,t}$ includes a wide variety of measures across multiple levels of government, but due to the great deal of discretion that local election officials are given in the United States, there are potentially changes in election administration in local jurisdictions after *Shelby County v. Holder* that I am unable to observe. Second, the instrumental variable estimates uncover the local average treatment effect, which in this setting is the effect of a restrictive voting law in congressional districts where the removal of preclearance caused additional voting restrictions. This is, indeed, a quantity of substantive interest due to the historical importance of the preclearance provision of the Voting Rights Act and the contention over the *Shelby County v. Holder* decision. However, we may be interested more generally in the effects of voting restrictions or the effects of a particular restrictive voting policy.

Therefore, in a panel data setting I estimate the within-unit effects of changes in election laws.¹⁶ Specifically, using observations of voters and legislators over time and a panel dataset of restrictive voting laws, I implement a two-way fixed effects design to estimate the effects of voting restrictions. The identifying assumption in this set of analyses is that after controlling for a variety of demographic variables, any systematic differences between members of Congress or voters (depending on the model) is constant over time and that any differences between election cycles or sessions of congress is constant across members of Congress or voters. The specific models that I estimate are of the following form,

$$Y_{i,t} = \beta_1 RestrictionsIndex_{d,t} + \boldsymbol{\zeta}'\mathbf{Z}_{d,t} + \lambda_t + \gamma_g + \epsilon_{s,t} \quad (4)$$

where γ_g represents either congressional district or individual legislator specific fixed effects. The sets of congressional district and legislator fixed effects include a dummy variable for each congres-

¹⁶An additional benefit of the ordinary least squares with two-way fixed effects estimation strategy is that I can estimate models with indicators for the various electoral reforms that make up the restrictions index. This relaxes the implicit assumption in the models with the voting restrictions index that the effect of each additional voting restriction is constant. The results of these alternative models are displayed in the Appendix.

sional district or legislator within a redistricting cycle, because the borders of congressional districts, and consequently legislators’ constituencies, typically change after redistricting. The models with legislator fixed effects give the ability to determine if any observed effects of voting restrictions are due to individual legislators changing their behavior, or incentive effects, as opposed to the combination of both selection and incentives. Further, λ_t represents either election year or congressional term fixed effects. As before, $Y_{i,t}$ is the outcome variable of interest and the *RestrictionsIndex* $_{d,t}$ is a measure of the restrictiveness of voting laws in a congressional district. In order to control for time varying variables that may affect both the restrictiveness of voting laws in a given district and the behavior of legislators, these models include a vector of control variables, represented by $\mathbf{Z}_{d,t}$. The control variables include measures of the demographic characteristics of congressional districts.

Results

Before presenting the results regarding the effects of voting restrictions on the behavior of voters and legislators, I show the estimates from the first-stage of the instrument variables models to assess the validity of the instrumental variables design. The first-stage describes how the removal of the preclearance requirement for certain political jurisdictions in the United States affected the restrictiveness of voting laws in congressional districts, which itself is a quantity of substantive interest. As discussed, the logic of the instrumental variables model in this context is that removing preclearance as a result of the *Shelby County v. Holder* decision was an exogenous shock that caused jurisdictions that were previously covered to implement electoral reforms that restrict access to the ballot.

The results of two specifications of the first-stage models are displayed in Table 2. In Column 1, the first-stage is estimated with the full set of data from 2006 to 2016 (110th Congress to 115th Congress). For two of the legislative behavior dependent variables I do not have any data for the 115th Congress, so I also show the first-stage after excluding the 2016 data. Across both of the first-stage estimates there is a clear theme: the removal of the preclearance requirement of the Voting Rights Act caused more restrictive voting laws to be implemented. Particularly, the *Shelby County v. Holder* decision is associated with a 1.366 to 1.783 increase in the number of restrictive

Table 2: First Stage: The Effects of Preclearance Removal on Voting Restrictions

	2006 - 2016 Elections	2006 - 2014 Elections
	(1)	(2)
<i>DV: Restrictions Index</i>		
Former Preclearance	1.366*** (0.420)	1.783*** (0.502)
Observations	2,471	2,095
Adjusted R ²	0.468	0.477
Model	OLS	OLS
Congress FE	Yes	Yes
District FE	No	No
Legislator FE	No	No
Historical Controls	Yes	Yes
Other Controls	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.

voting laws in congressional districts that were previously covered by Section 5 of the Voting Rights Act. In addition, the Wald F-statistic on the excluded instrument is greater than 10 across both specifications of the model.

These results are important for at least two reasons. First, the estimates show that the first-stage of the instrumental variables model exists and that this instrument is strong, which is essential for minimizing potential bias in two-stage least squares (2SLS) estimates. Second, these results are of substantive interest. There was an intense debate around the Supreme Court’s decision in *Shelby County v. Holder* and many have warned that the removal of preclearance would lead to an increase in electoral reforms that restrict access to the ballot. The analyses presented here provide evidence that this is indeed the case.

The Effects of Voting Restrictions on Voter Behavior

In this section, I test Hypothesis 1 by examining how voting laws that restrict access to the ballot affect the behavior of voters. First, I document the effects of the voting restrictions index on turnout. The top panel of Table 3 displays the results of models with voter turnout as a percentage of the CVAP as the dependent variables. Looking first at the ordinary least squares (OLS) models with district and election year fixed effects that are shown in Columns 1 and 2, the coefficient on the restrictions index is negative but is not statistically significant either with or without control

variables. Further, the reduced from and second stage of the instrumental variables model are shown in Columns 3 and 4 of Table 3 and the coefficient the independent variables of interest are actually positive but imprecisely estimated. These results provide little evidence that the index of voting restrictions has a negative effect on voter turnout.

Table 3: The Effects of Voting Restrictions on Voter Behavior

	(1)	(2)	(3)	(4)
<i>DV: Turnout as Percentage of CVAP</i>				
Restrictions Index	-0.241 (0.215)	-0.235 (0.208)		
Former Preclearance			0.908 (1.242)	
Restrictions Index (Instrumented)				0.665 (0.989)
Observations	2,512	2,512	2,471	2,471
Adjusted R ²	0.858	0.873	0.758	0.741
<i>DV: Median Voter Ideology</i>				
Restrictions Index	0.176*** (0.052)	0.181*** (0.054)		
Former Preclearance			0.672 (0.704)	
Restrictions Index (Instrumented)				0.509 (0.524)
Observations	2,117	2,117	2,088	2,088
Adjusted R ²	0.974	0.974	0.619	0.616
Model	OLS	OLS	OLS	2SLS
Congress FE	Yes	Yes	Yes	Yes
District FE	Yes	Yes	No	No
Historical Controls	No	No	Yes	Yes
Other Controls	No	Yes	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Even if voting restrictions do not change aggregate levels of turnout in congressional elections, it is still possible that these electoral reforms will decrease turnout among particular groups of voters. As discussed, previous research finds that electoral reforms that restrict access to the ballot cause a decrease turnout among racial minorities as well as less affluent citizens. Therefore, because minorities and individuals of a lower socioeconomic status are typically more liberal than other potential voters, I expect that implementing restrictive voting laws will result in the median voter in

a congressional district being more conservative. The results of the analyses testing this hypothesis are displayed in the bottom panel Table 3. Recall the polarization of the voter ideology dependent variable is such that higher values indicate more conservative voters, so a positive coefficient in these models indicates that voting restrictions cause the median voter to be more conservative.

First, Column 1 displays the results from a model with district and election year fixed effects. In this model, I estimate that the implementation of an additional restrictive voting law in a congressional district causes a 0.176 increase in the ideological score of the median voter in the district. This result is significant at the 0.01 level. Column 2 shows the results of models that add a set of time-varying demographic control variables to the specification in Column 1, and the effect of the restrictions index maintains similar levels of substantive and statistical significance. This provides evidence that within district changes in voting restrictions cause a rightward shift in the electorate. Turning next to the results of the reduced form model in Column 3, the coefficient on the restrictions index remains positive but is not statistically significant. Similarly, the results of the 2SLS model displayed in Column 4 are null. This indicates that the *Shelby County v. Holder* decision and the removal of preclearance did not affect the ideological composition of the electorate.

The results presented in this section provide some tentative evidence that the implementation restrictive voting laws cause some changes in voter behavior. In particular, although voting restrictions do not appear to result in a decrease in aggregate voter turnout these electoral reforms do cause a change in the ideological composition of the electorate. That being said, it is important to note that the magnitude of these effects is quite small considering range of the measure of voter ideology. Nevertheless, this is consistent with the theoretical argument in the paper: electoral reforms that restrict access to the ballot results in a more conservative electorate.

The Effects of Voting Restrictions on Election Outcomes

Next, I estimate the effects of restrictive voting laws on the electoral security of Republican members of Congress. The results of these analyses are displayed in the top panel of Table 4. Like in the previous section, the results of the panel models are displayed in Columns 1 and 2 while the reduced form and 2SLS estimates are shown in Columns 3 and 4, respectively. Looking first at the models with congressional district fixed effects, I find that the implementation of an additional restrictive voting law causes a 0.02 increase in the probability that a Republican candidate wins a

congressional election. Moreover, the results of the reduced form instrumental variable models are both at least marginally significant and substantively larger. This set of results provides evidence that the implementation of voting restrictions and the *Shelby County v. Holder* Supreme Court decision increased the likelihood that Republicans are elected to Congress.

Table 4: The Effects of Voting Restrictions on Election Outcomes

	(1)	(2)	(3)	(4)
<i>DV: Republican Wins</i>				
Restrictions Index	0.020*** (0.007)	0.021*** (0.006)		
Former Preclearance			0.092** (0.036)	
Restrictions Index (Instrumented)				0.069* (0.037)
Observations	2,530	2,530	2,488	2,488
Adjusted R ²	0.711	0.740	0.355	0.309
<i>DV: Republican Vote Share</i>				
Restrictions Index	0.231 (0.393)	0.225 (0.359)		
Former Preclearance			1.219 (1.491)	
Restrictions Index (Instrumented)				0.907 (1.160)
Observations	2,530	2,530	2,488	2,488
Adjusted R ²	0.724	0.751	0.449	0.443
Model	OLS	OLS	OLS	2SLS
Congress FE	Yes	Yes	Yes	Yes
District FE	Yes	Yes	No	No
Historical Controls	No	No	Yes	Yes
Other Controls	No	Yes	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.

That being said, it appears that there is not a significant effect of voting restrictions on the number of votes that Republican candidates receive. In the bottom panel of Table 4, I estimate the effects of voting restrictions on the percent of two-party vote share won by Republican candidates for Congress. Although the sign of the coefficients on the restrictions index and the indicator for former preclearance districts are in the expected direction, they are imprecisely estimated and never achieve standard levels of statistical significance.

The Effects of Voting Restrictions on Representation in Congress

I have shown in the previous two sections that there is some evidence that restrictive voting laws affect voter behavior and who is elected to Congress. Although voting restrictions do not affect aggregate turnout and the vote shares of Republican candidates, it appears that these electoral reforms cause the median voter to shift to the right and increases the probability that Republicans win congressional elections.

I expect that because of the rightward shift in the electorate and the increased likelihood that Republicans are elected, members of Congress will also behave more conservatively after these reforms are implemented. Further, because of the disproportionate impact of voting restrictions on racial minorities, I also expect that there will be a decrease in support for civil rights legislation among members of Congress. Table 5 displays the results of analyses looking at how voting restrictions affect legislative behavior. Each panel displays the effects of voting restrictions on one of the outcomes of interest across a number of specifications of the model. The top panel shows the estimated effects of voting restrictions with W-Nominate scores as the dependent variable. The middle panel and bottom panel display the results with LCCR and civil right cosponsorship scores as the dependent variables, respectively. Within each panel Column 1, 2, and 3 display OLS models with a number of different specifications of fixed effects and explanatory variables of interest. The reduced form models are shown in Column 4 and the 2SLS models are shown in Column 5.

Let us first examine the models with W-Nominate scores as the dependent variable. The OLS estimates with district fixed effects, in Columns 1 and 2 of Table 5, indicate that voting restrictions have a statistically significant but modest effect on the ideological disposition of members of Congress. In particular, an additional point on the restrictions index in a congressional district causes a 0.018 to 0.016 increase in legislators' W-Nominate scores. It appears that these effects are not due to within-legislator changes in behavior over time, because the coefficient on the restrictions index in the models with legislator fixed effects is not statistically significant (Column 3). Next, the reduced form model in Column 4 shows that the removal of the preclearance requirement of the Voting Rights Act decision caused rightward shift in the ideological position of members of Congress. The results of 2SLS models in Column 5 are substantively similar and indicate that in congressional districts where the *Shelby County v. Holder* decision caused the implementation

of restrictive voting laws, each additional restriction caused a 0.104 point increase in legislators' W-Nominate scores. In sum, in this set of analyses I find that the implementation of electoral reforms that restrict access to the ballot causes the election of more conservative legislators.

Table 5: The Effects of Voting Restrictions on Legislator Behavior

	(1)	(2)	(3)	(4)	(5)
<i>DV: W-Nominate Score</i>					
Restrictions Index	0.018** (0.007)	0.016** (0.006)	0.004 (0.004)		
Former Preclearance				0.087* (0.048)	
Restrictions Index (Instrumented)					0.104** (0.045)
Observations	2,566	2,566	2,566	2,521	2,521
Adjusted R ²	0.814	0.866	0.988	0.724	0.435
<i>DV: LCCR Score</i>					
Restrictions Index	-1.140* (0.631)	-1.043** (0.498)	-0.271 (0.371)		
Former Preclearance				-4.370 (2.979)	
Restrictions Index (Instrumented)					-4.721** (2.137)
Observations	2,121	2,121	2,121	2,079	2,079
Adjusted R ²	0.857	0.861	0.982	0.657	0.393
<i>DV: Cosponsorship Score</i>					
Restrictions Index	-0.460* (0.267)	-0.379* (0.196)	-0.370* (0.210)		
Former Preclearance				-2.500*** (0.478)	
Restrictions Index (Instrumented)					-1.429*** (0.448)
Observations	2,139	2,139	2,139	2,095	2,095
Adjusted R ²	0.758	0.771	0.767	0.525	0.470
Model	OLS	OLS	OLS	OLS	2SLS
Congress FE	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	No	No	No
Legislator FE	No	No	Yes	No	No
Historical Controls	No	No	No	Yes	Yes
Other Controls	No	Yes	Yes	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.

In the middle panel of Table 5, I show models with legislators' LCCR scores as the dependent

variable. Recall that LCCR scores measure the percentage of civil rights related bills on which a legislator votes in the pro-civil rights direction. I find that the implementation of a restrictive voting law causes about a 1.1% decrease in the percentage of civil rights bills that a member of Congress votes in favor of (Columns 1 and 2, middle panel). As with the ideological position of legislators, this effect cannot be explained by within-legislator changes in roll-call voting behavior. Further, the reduced form model, displayed Column 4, shows that the effect preclearance removal is in the expected direction but not statistically significant. However, the 2SLS estimates in Column 5 indicate a substantively large and negative effect of voting restrictions after the *Shelby County v. Holder* decision on civil rights related bills roll-call votes. In particular, a voting restriction caused a 4.721% decrease in LCCR scores in congressional districts where removal of the preclearance provision of the Voting Rights Act caused the implementation of an additional electoral reform that restricts access to the ballot.

In the final set of analyses regarding legislative behavior, I look at the effects of voting restrictions on civil rights bill cosponsorship. Across all of the specifications of the OLS models with the restrictions index as the explanatory variables of interest, the results consistently indicate that increasing the restrictiveness of voting laws decreases the percentage of bills related to civil rights issues that a legislator cosponsors. Specifically, according to the OLS models with district and congressional term fixed effects, the estimated effect of an additional voting restriction in a congressional district is -0.460 when demographic control variables are excluded from the model (Column 1) and -0.379 when they are included. (Column 2). Further, at least some of these effects are being driven by within-legislator changes in behavior. In Column 3, I find that when I replace the district fixed effects with legislator fixed effects that the effect of the restrictions index on cosponsorship scores is still substantively and statistically significant. Moreover, both the reduced form and 2SLS models show that *Shelby County v. Holder* caused changes in civil rights bill cosponsorship. Indeed, I estimate that there is a 1.429% decrease in the percentage of civil rights bills cosponsored by members of Congress after the implementation of a restriction in jurisdictions where the removal of preclearance caused more restrictive voting laws.

In all, these results show that the implementation of restrictive voting laws has an impact on the behavior of legislators and the representation of the interests of minority voters in Congress. Indeed, across nearly all specifications of the models, the restrictions index has an effect on the

outcomes of interest that is statistically significant and in the expected direction. These results also make it apparent that any changes in incumbent legislator behavior over time do not seem to manifest in the incumbent's roll-call votes and ideological position. Indeed, in the panel models with legislator fixed effects the coefficient on the restrictions index is not statistically significant when W-Nominate and LCCR scores are the dependent variables, which are variables that are both generated from legislators' roll-call votes. On the other hand, within-legislator cosponsorship of civil rights bills changes over time in response to the implementation of restrictive voting laws. These incentive effect findings are, perhaps, not surprising considering previous work that argues legislator ideology is relatively stable over time (e.g., Poole and Romer, 1993). In addition, this result in combination with the finding that voting restrictions increase Republican win probabilities is consistent with a selection effect, because if legislators were effectively changing their ideological behavior in response to these electoral reforms we should not observe changes in the likelihood that more conservative candidates win (Terry, 2016). In sum, the analyses thus far are consistent with at least some of the expectations outlined in the theory. Restrictive voting laws change the composition of the electorate, which, in turn causes changes in the behavior of elected officials.

Voting Restrictions and the Partisan Composition of Congressional Districts

In this section, examine how the competitiveness and partisan leaning of congressional districts conditions the effects of voting restrictions on legislative behavior. As discussed, I expect that the effects of electoral reforms that restrict access to the ballot will be driven by legislators that are electorally vulnerable. Members of Congress will be more likely to either be replaced by a viable competitor or change their behavior in response to a change in the electorate if elections are competitive. Therefore, the marginal effect of the voting restrictions index should be largest in districts in which voters are evenly split between the two parties and smallest in districts that consist of a large majority of Democrats or Republicans. Recall that I measure the partisan composition of the electorate using the Cook Political Report's Partisan Voting Index (PVI). More positive values of the variable mean that a district favors the Republicans and more negative values indicate that the district favors Democrats. Estimating a simple interaction model, however, where I interact the PVI and the voting restrictions index may mask how the partisan composition of congressional districts conditions the effects of voting restrictions, because it would restrict the interaction effect

to be linear.

I overcome this issue by using the kernel smoothing estimator of marginal effects described in Hainmueller, Mummolo and Xu (Forthcoming). This method relaxes the linearity assumption of a typical interaction model and allows me to flexibly estimate the marginal effect of the voting restrictions index across different levels of the PVI. The kernel smoothing estimator is based on the following model,

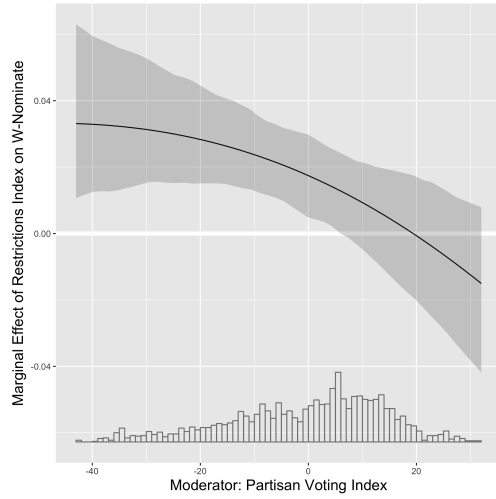
$$Y_{i,t} = f(PVI_{d,t}) + g(PVI_{d,t})RestrictionsIndex_{d,t} + \gamma(PVI_{d,t})\mathbf{Z}_{d,t} + \epsilon_{s,t}$$

such that $g(PVI_{d,t})$ is a smooth function of the PVI and represents that marginal effect of voting restrictions on the outcome variables of interest across different values of the PVI. Weighted least squares with a Gaussian kernel is used to estimate the functions $f(PVI_{d,t})$, $g(PVI_{d,t})$, and $\gamma(PVI_{d,t})$.¹⁷ Confidence intervals are calculated using 200 block bootstrap samples, and I estimate separate models with congressional district and legislator fixed effects.

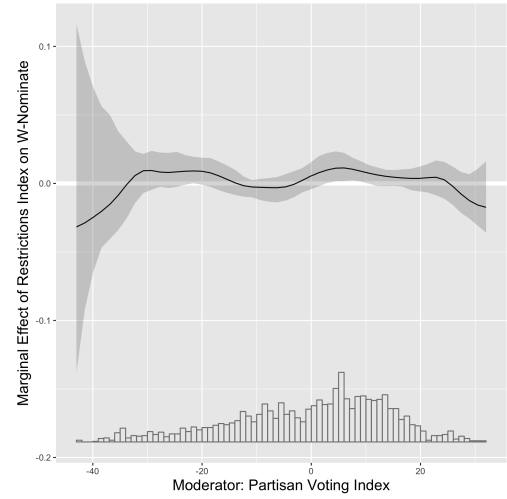
I display plots of the flexibly estimated marginal effects of voting restrictions on the three legislative behavior outcome variables in Figure 3. Looking first at the model with W-Nominate scores as the dependent variable with district fixed effects in Panel A, I find that the effects of restrictive voting laws on the ideological position of legislators is driven by competitive districts along with those districts that favor the Democratic party. Similarly, the marginal effect of voting restrictions on LCCR scores, shown in Panel C, is not distinguishable from 0 in congressional districts that heavily favor Republicans. These findings are consistent with the logic that legislators elected to these extremely Republican districts are already sufficiently conservative so they are very unlikely to be replaced with a more extreme challenger. However, somewhat surprisingly there are large changes in behavior in districts heavily favored by Democrats.

Turning next to the results when legislator fixed effects are included in the model, I find that there are no within-legislator changes in LCCR scores when conditioning on the PVI (Panel D), which is consistent with the baseline specification of the model in Table 5. However, in the model with legislator fixed effects when W-Nominate scores are the dependent variable, there is some

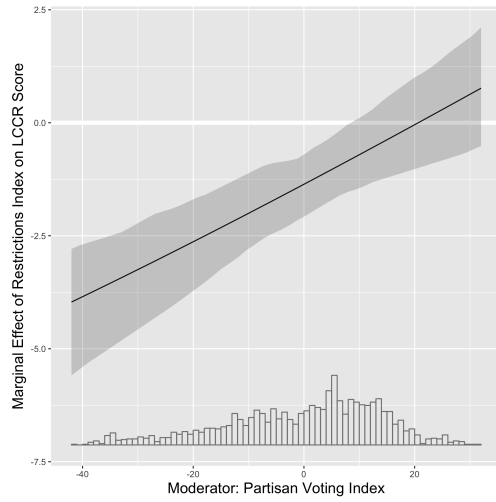
¹⁷For additional details on the model see Hainmueller, Mummolo and Xu (Forthcoming).



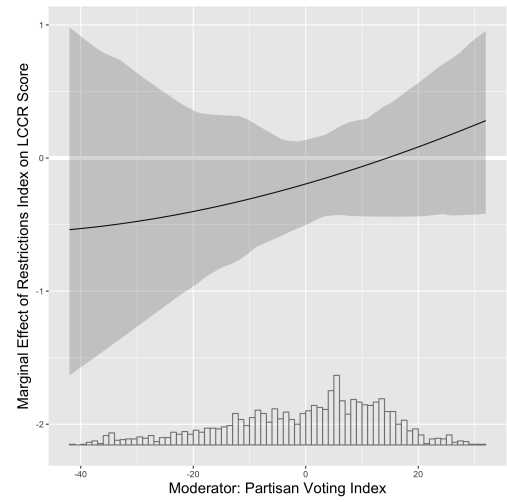
(a) W-Nominate Score (District FE)



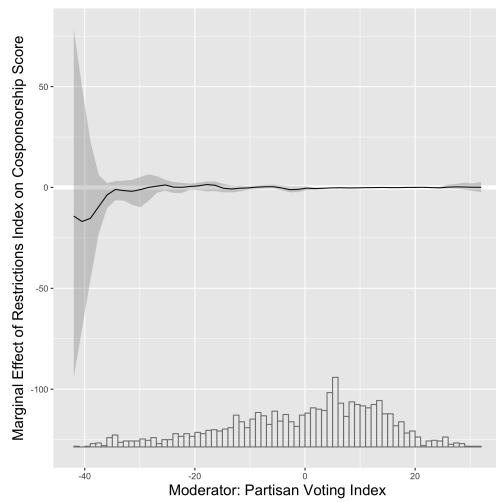
(b) W-Nominate Score (Legislator FE)



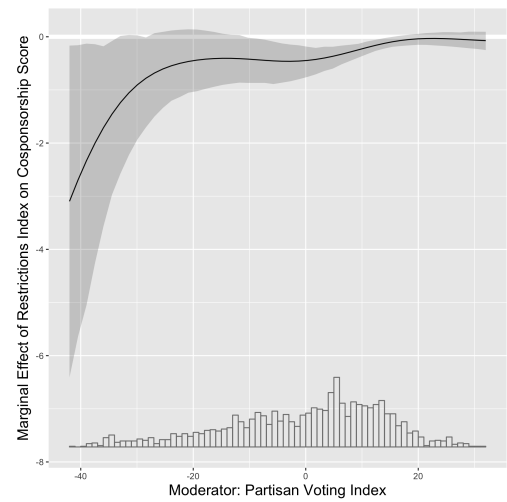
(c) LCCR Score (District FE)



(d) LCCR Score (Legislator FE)



(e) Cosponsorship Score (District FE)



(f) Cosponsorship Score (Legislator FE)

Figure 3: The marginal effects of voting restrictions on legislative behavior.

evidence of a statistically significant marginal effect of voting restrictions on legislators' ideological positions. In particular, the confidence interval on the marginal effect of the restrictions index does not cross 0 when the PVI is between 2.9 and 8.0. This indicates that there is support for the argument that there will be within-legislator changes in ideological behavior in marginally competitive districts. The effects on this range of the PVI, however, are substantively very small.

Somewhat surprisingly, the plot in Panel D of Figure 3 indicates that the marginal effect of voting restrictions on civil rights bill cosponsorship scores is 0. However, in the models that only exploit within legislator variation in the restrictions index the marginal effect is negative and statistically significant among more moderate and competitive congressional districts, which provides additional support for Hypothesis 4.

In sum, for the models with legislator fixed effects, the results regarding W-Nominate and cosponsorship scores support the theoretical expectation that legislators in more moderate and competitive districts will be more likely to tailor their behavior to the composition of those who vote from their constituency. Additionally, across all specifications of the models and dependent variables the marginal effects are null in districts where Republicans are heavily favored. This is consistent with (Snyder and Ting, 2003) who find that retiring legislators from more competitive districts change their behavior to be more in line with their own preferences in their final term, because they are no longer concerned with reelection. Further, it appears that the selection of new conservative members of Congress that are less supportive of civil rights legislation occurs in competitive congressional districts as well as in districts that favor the Democratic party.

Conclusion

Understanding how the rules that govern how elections are held is essential for ensuring democratic responsiveness. In a democracy, elected officials are ideally held accountable through regular elections in which incumbents that are effectively representing their constituents are retained while those that are performing poorly are replaced. However, this accountability mechanism has the potential to break down when access to the ballot is restricted, because who actually turns out to vote impacts the incentives and behavior of incumbent politicians as well as the who is selected to hold elected office. Throughout the history of the United States there have been intense debates

over how elections should be run and who has access to the ballot. Over the past few decades, in particular, there has been an increase in the implementation of election administration policies that make it more difficult to vote for certain portions of the population. In this paper, I document the effects of these voting restrictions on the electoral incentives of members of the House of Representatives and their behavior in office.

My analyses exploit multiple sources of variation in election law in the United States and identify a number of key results. First, the first stage of the instrumental variables model shows that the Supreme Court's *Shelby County v. Holder* decision substantially increased the restrictiveness of voting laws in the United States. Further, I find that restrictive voting policies, and especially voter ID laws, result in the median voter in congressional districts becoming more conservative. Consequently, in congressional districts with more voting restrictions, members of Congress are more conservative and less likely to cosponsor civil rights related legislation. These results are robust to multiple estimation strategies, but it is important to note that they are substantively small. Further, I find that the changes in cosponsorship behavior are at least partially the result of incentive effects while the effects on ideology are largely due to selection. This may be the case because ideology is more stable characteristic of legislators (Poole and Romer, 1993). That being said, there is tentative evidence of some within-legislator changes in ideology in Republican leaning districts. Finally, the consequences of restrictive voting laws for representation are also conditioned by the relative competitiveness of congressional districts. Particularly, these effects are driven by districts that are more competitive or lean Republican.

This paper presents a number of promising avenues for future research. The results regarding how the competitiveness of elections conditions the effects of voting restrictions indicate that at least some of their effect on ideology is being driven by legislators in safe Democratic districts. But, it does not appear that this is due to within-legislator changes in behavior after reforms are implemented. Future work, thus, could consider the particular dynamics of how legislators are being replaced as a result of restrictive voting laws. Are Democrats that were elected to safe Democratic districts defeated in general elections once voting laws become more restrictive? Or, does the electorate in the Democratic primary select more conservative candidates? Further, future research should examine how voting restrictions affect other classes of outcomes. For example, due to the substantively small nature of the effects of voting restrictions on representative behavior documented here, it is

unclear if implementing these reforms affects actual policy outcomes. Future work should consider if restrictive voting laws have an impact on the distribution of federal resources in Congress. That is, are jurisdictions where higher proportions of voters are disenfranchised by voting restrictions less likely to receive discretionary federal expenditures like grants and procurement contracts? The study of these topics will be of increased importance as state and local governments continue to implement policies that restrict access to the ballot.

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Appendix

A Summary Statistics

Table A.1: Summary Statistics of Election Data

Statistic	N	Mean	St. Dev.	Min	Max
Turnout	2,512	47.779	12.752	4.787	94.989
Republican Wins	2,530	0.529	0.499	0	1
Republican Vote Share	2,530	49.051	23.582	0.000	100.000
Restrictions Index	2,530	7.635	2.259	1.677	14.677
Percent Female	2,530	50.739	0.976	45.500	55.000
Percent 65 and Older	2,530	13.901	3.287	5.300	36.500
Percent Black	2,530	13.655	14.515	0.700	70.900
Percent Hispanic	2,530	16.297	17.658	0.500	88.000
Percent Native American	2,530	1.629	2.422	0.200	26.700
Percent Asian	2,530	5.648	7.176	0.200	68.100
Median Income	2,530	54,814.290	15,071.120	26,824	125,790
Percent with Bachelors Degree or Higher	2,530	28.738	10.046	6.600	72.200
Total Population	2,530	719,729.300	64,020.020	395,592	1,060,651

Table A.2: Summary Statistics of Catalist Data

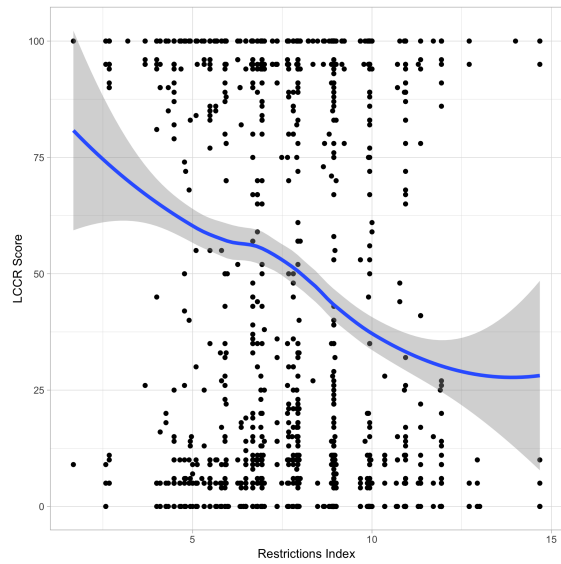
Statistic	N	Mean	St. Dev.	Min	Max
Median Voter Ideology	2,117	-42.239	9.841	-73.000	-19.100
Restrictions Index	2,117	7.630	2.355	1.677	14.677
Percent Female	2,117	50.746	0.960	45.500	54.400
Percent 65 and Older	2,117	14.160	3.300	5.500	36.500
Percent Black	2,117	13.568	14.274	0.700	70.900
Percent Hispanic	2,117	16.666	17.796	0.600	88.000
Percent Native American	2,117	1.665	2.455	0.200	26.700
Percent Asian	2,117	5.801	7.271	0.200	68.100
Median Income	2,117	55,366.570	15,227.950	27,179	125,790
Percent with Bachelors Degree or Higher	2,117	29.125	10.089	6.600	72.200
Total Population	2,117	725,408.100	60,940.600	506,036	1,060,651

Table A.3: Summary Statistics of Legislative Behavior Data

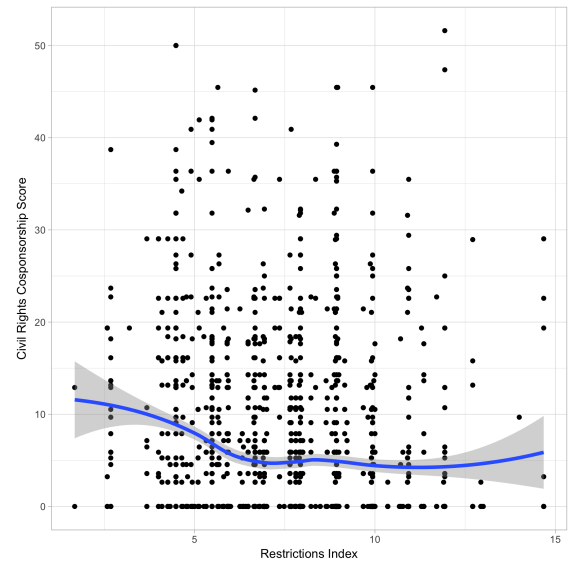
Statistic	N	Mean	St. Dev.	Min	Max
W-Nominate Score	2,566	0.017	0.689	−1.000	0.997
LCCR Score	2,121	49.725	45.266	0	100
Cosponsorship Score	2,139	5.573	8.777	0.000	51.613
Restrictions Index	2,581	7.640	2.260	1.677	14.677
Percent Female	2,581	50.744	0.977	45.500	55.000
Percent 65 and Older	2,581	13.916	3.302	5.300	36.500
Percent Black	2,581	13.546	14.388	0.700	70.900
Percent Hispanic	2,581	16.277	17.669	0.500	88.000
Percent Native American	2,581	1.626	2.413	0.200	26.700
Percent Asian	2,581	5.701	7.356	0.200	68.100
Median Income	2,581	54,853.570	15,016.810	26,824	125,790
Percent with Bachelors Degree or Higher	2,581	28.785	10.019	6.600	72.200
Total Population	2,581	720,136.400	63,661.930	395,592	1,060,651
Partisan Voting Index	2,581	0.170	14.265	−43	32

B Relationship between Restrictions Index and Legislative Behavior

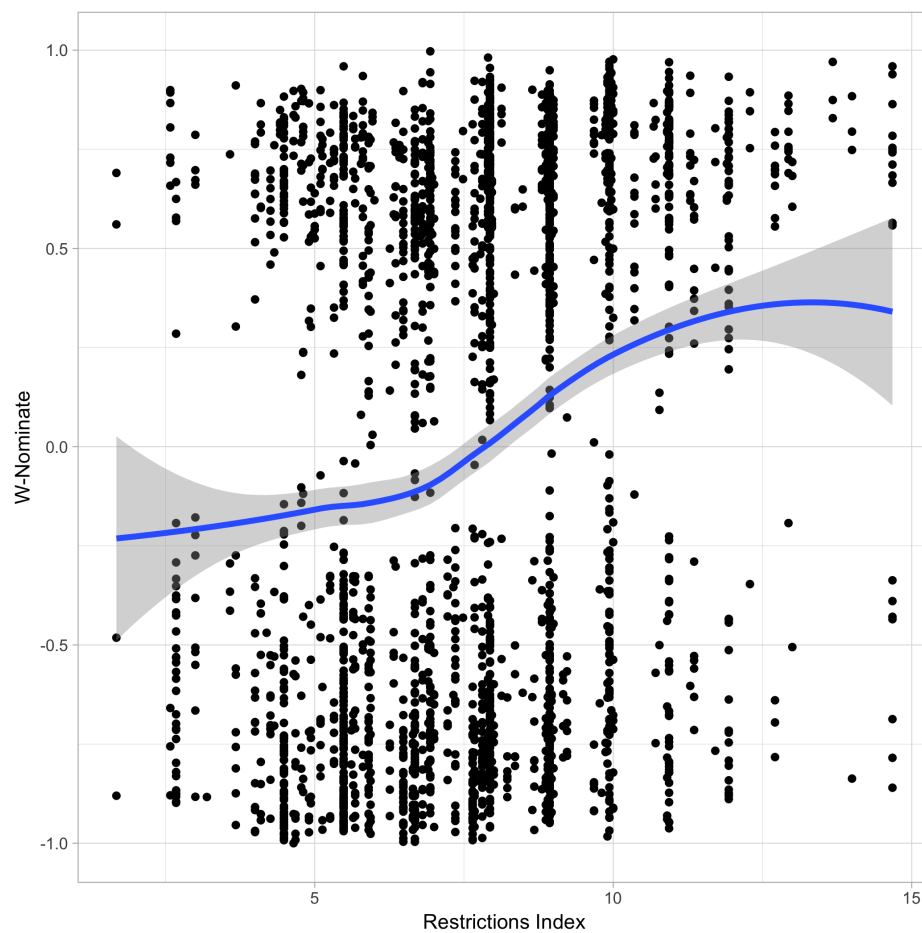
Figure C.1 displays scatterplots of the measures of the behavior of members of Congress and the voting restrictions index. The blue curve displays the fitted locally weighted (LOESS) regression line with 95% confidence intervals shaded in gray. These plots indicate that there is a strong association between the restrictiveness of voting policies in congressional districts and legislative behavior.



(a) LCCR Score



(b) Cosponsor Score



(c) W-Nominate Score

Figure B.1: The cross-sectional relationship between voting restrictions and legislative behavior outcome variables.

C Additional Results

C.1 Effects of the Components of the Restrictions Index

In order to examine how particular electoral reforms that restrict access to the ballot affect voter turnout and representation, I estimate models with individual indicators for each component of the restrictions index. This relaxes the assumption that the addition of any given restriction has the same effect on the outcome variables of interest. The results of these analyses are displayed in Table D.1 and Table D.2.

Table C.1: The Effects of Voting Restrictions on Voter Behavior and Election Outcomes

	Turnout (1)	Median Voter Ideology (2)	Republican Wins (3)	Republican Vote Share (4)
Voter ID	0.171 (0.405)	0.285*** (0.066)	0.014 (0.012)	−0.604 (0.598)
Felon Disenfranchisement	−0.411 (1.295)	−0.711*** (0.187)	0.084 (0.091)	−4.642*** (1.309)
No Election Day Registration	−0.330 (1.201)	0.211 (0.350)	0.066 (0.064)	0.132 (1.553)
No Early Voting	−0.282 (1.886)	0.172 (1.139)	−0.090 (0.080)	0.601 (2.460)
Excuse Required Absentee	0.513 (0.809)	0.614 (0.402)	0.070 (0.056)	2.454 (1.799)
No Vote-by-Mail	−3.331** (1.350)	−1.031* (0.584)	−0.171* (0.100)	−3.116 (2.823)
Registration Period	−1.248 (1.621)	0.484 (0.591)	−0.006 (0.084)	−0.011 (2.387)
No Youth Preregistration	−1.634 (1.174)	0.999** (0.430)	0.106* (0.064)	6.218*** (2.266)
Polling Places Closed	−0.180 (0.418)	−0.107 (0.122)	0.004 (0.013)	0.055 (0.713)
Observations	2,512	2,117	2,530	2,530
Adjusted R ²	0.875	0.974	0.744	0.755
Model	OLS	OLS	OLS	OLS
Congress FE	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes
Historical Controls	No	No	No	No
Other Controls	Yes	Yes	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table C.2: The Effects of Voting Restrictions on Legislator Behavior

	W-Nominate Score		LCCR Score		Cosponsorship Score	
	(1)	(2)	(3)	(4)	(5)	(6)
Voter ID	0.007 (0.012)	-0.005 (0.005)	-0.309 (0.666)	0.111 (0.606)	-0.322** (0.151)	-0.388** (0.174)
Felon Disenfranchisement	0.051 (0.110)	-0.045* (0.024)	-5.670 (3.477)	-3.255** (1.558)	2.287*** (0.866)	1.779 (1.375)
No Election Day Registration	0.012 (0.068)	-0.019 (0.024)	-1.341 (2.867)	0.239 (1.209)	0.695 (1.733)	1.120 (1.961)
No Early Voting	-0.063 (0.066)	-0.007 (0.036)	4.695 (7.416)	-0.094 (1.398)	-1.207 (1.496)	-2.453 (1.899)
Excuse Required Absentee	0.078 (0.077)	0.066** (0.031)	-0.161 (5.341)	-2.103 (2.918)	0.531 (1.040)	0.348 (1.948)
No Vote-by-Mail	-0.112 (0.102)	0.040 (0.035)	7.460* (4.514)	4.235* (2.347)	3.368 (2.081)	3.131 (2.321)
Registration Period	0.001 (0.079)	0.008 (0.022)	4.758 (5.274)	-1.930 (3.563)	0.530 (1.115)	-0.470 (1.789)
No Youth Preregistration	0.093 (0.062)	0.032 (0.023)	-7.531*** (2.509)	-1.232 (1.660)	-3.114*** (0.982)	-2.498** (1.154)
Polling Places Closed	0.013 (0.015)	0.008 (0.007)	-1.083 (1.266)	-0.467 (0.535)	-0.174 (0.253)	-0.100 (0.311)
Observations	2,566	2,566	2,121	2,121	2,139	2,139
Adjusted R ²	0.866	0.988	0.861	0.982	0.774	0.768
Model	OLS	OLS	OLS	OLS	OLS	OLS
Congress FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	No	Yes	No	Yes	No
Legislator FE	No	Yes	No	Yes	No	Yes
Historical Controls	No	No	No	No	No	No
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.

C.2 Alternative Reduced Form Models

In Table C.3 and Table C.4, I present the results of reduced form models that replace the historical control variables with district or legislator fixed effects. These models are similar to regression difference-in-differences estimates of the effect of the removal of preclearance on voter and legislator behavior.

Table C.3: The Effects of Voting Restrictions on Voter Behavior and Election Outcomes

	Turnout	Median Voter Ideology	Republican Wins	Republican Vote Share
	(1)	(2)	(3)	(4)
Former Preclearance	1.536* (0.877)	0.265 (0.255)	0.039 (0.046)	-0.814 (1.687)
Observations	2,477	2,093	2,494	2,494
Adjusted R ²	0.875	0.974	0.740	0.752
Model	OLS	OLS	OLS	OLS
Congress FE	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes
Historical Controls	No	No	No	No
Other Controls	Yes	Yes	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table C.4: The Effects of Voting Restrictions on Legislator Behavior

	W-Nominate Score		LCCR Score		Cosponsorship Score	
	(1)	(2)	(3)	(4)	(5)	(6)
Former Preclearance	0.015 (0.043)	-0.018 (0.018)	-1.913 (1.995)	-0.820 (1.211)	-1.653*** (0.514)	-1.923*** (0.677)
Observations	2,566	2,566	2,121	2,121	2,139	2,139
Adjusted R ²	0.863	0.987	0.859	0.981	0.765	0.762
Model	OLS	OLS	OLS	OLS	OLS	OLS
Congress FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	No	Yes	No	Yes	No
Legislator FE	No	Yes	No	Yes	No	Yes
Historical Controls	No	No	No	No	No	No
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes

Note: Robust standard errors clustered by state in parentheses. *p<0.1; **p<0.05; ***p<0.01.