

# Politics in Forgotten Governments: The Partisan Composition of County Legislatures and County Fiscal Policies

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## Abstract

County governments are a crucial component of the fabric of American democracy. Yet there has been almost no previous research on the policy effects of the partisan composition of county governments. Most counties in the United States have small legislatures, usually called commissions or councils, that set their budgets and other policies. In this study, we examine whether counties with Democratic legislators spend more than counties with Republican ones. We assemble an original dataset of 10,533 elections in approximately 296 medium and large counties over the past 25 years. Based on a regression discontinuity design, we find that electing a Democratic legislator rather than a Republican one leads the average county to increase spending by about 5%. Overall, our findings contribute to a growing literature on the policy consequences of partisan control of state and local government. They show that the partisan selection of county legislators has important policy effects in county governments.

Keywords: Local politics, representation, elections, institutions

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# Introduction

Counties have often been called “forgotten governments” by scholars of local politics (Marando and Thomas, 1977; Schneider and Park, 1989). The bulk of the modest prior literature on county governments has been conducted by scholars of public administration (e.g., Benton, 2002, 2003).<sup>1</sup> As a result, despite the fact that 48 states have county elected officials and 39 states hold partisan elections in either all or some of their counties (National Association of Counties, 2008), we know little about the impact of public opinion, elections, and legislative partisanship on county policies and other political outcomes (Benton, 2005).

This is an important gap in our knowledge of local politics because county governments are a crucial component of the fabric of American democracy. They spend nearly 400 billion dollars each year and employ over 2.5 million people (U.S. Census of Government, 2012). Most counties in the United States have small legislatures, usually called commissions or councils, that set their budgets and other policies. Moreover, counties have continued to grow in size — both in terms of the number of employees and their expenditures — relative to cities and townships, indicating a greater role over the last half century (Cigler, 1995; Benton, 2002). Increasingly since the 1970s, counties have taken over service delivery for citizens even in metropolitan areas with central municipalities (Benton and Rigos, 1985; Benton and Menzel, 1993).

The longstanding wisdom in local politics research has been that local-level politics is devoid of the type of partisan conflict that dominates national policy-making. According to this line of thinking, local governments primarily deal with nonpartisan issues because there is “no Republican way to pave a street and no Democratic way to lay a sewer” (Adrian, 1952, 766). Indeed, one study describes elections in counties as “centered less on ideology than are

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<sup>1</sup> The work in the public administration literature has focused on the structure of county institutions, political leadership, and the role of counties within the federal system in the United States. Counties have been used to examine how reformed government structure affects policy (DeSantis and Renner, 1996; Menzel, 1996; Morgan and Kickham, 1999; Schneider and Park, 1989), the causes of adopting home rule charters (Martin and Nyhan, 1994; Salant, 1993), and how to improve the efficiency of service delivery when confronted with growing populations (Palumbo and Hallett, 1994; Park, 1996).

most American electoral contests” (Cigler, 1995, 65). Taken to their logical extension, these arguments suggest that partisan control of local governments might not matter for policy. A growing body of evidence, however, suggests that partisanship might matter in local politics in much the same way that it matters in national politics (Tausanovitch and Warshaw, 2014; Einstein and Kogan, 2015; de Benedictis-Kessner and Warshaw, 2016).<sup>2</sup>

While we might expect that the partisanship of county officials should matter for policy just as the partisanship of other elected officials affects policies, counties face a number of constraints which could limit the impact of partisanship (Peterson, 1981, 1995; Rae, 2003; Self, 2003). Because a large proportion of counties’ funding is provided by states and their autonomy is often restricted by statutes, scholars have argued that counties have little policymaking leeway (Benton, 2003; Marando and Reeves, 1991). Counties also receive a greater share of their revenues from intergovernmental aid than municipalities. Finally, counties face economic constraints due to the ability of citizens and businesses to move to nearby lower tax counties. The partisanship of elected officials may matter less in counties than at other levels of government as a result of these constraints.

In this paper, we conduct the first comprehensive analysis of the effect of the partisan composition of county legislatures on county fiscal policies. Focusing on counties with more than 150,000 people in 2010, we build an original dataset of 10,533 election returns in 296 counties. We then merge these data with information on legislators’ ideology based on their campaign contributions and data on county fiscal policies from the Census of Local Governments. We use regression discontinuity models to estimate the causal effect of the partisan outcome of county elections on the ideology of the winning legislator and the subsequent fiscal policies of county governments.

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<sup>2</sup> A number of studies have found an association between public opinion and local fiscal policies in cities (Tausanovitch and Warshaw, 2014; Einstein and Kogan, 2015; Palus, 2010) and counties (Choi et al., 2010; Percival, Johnson, and Neiman, 2009; Ybarra and Krebs, 2016). While there has been an active debate about the effect of municipal officials’ partisanship on local fiscal policies (e.g., Ferreira and Gyourko, 2009; Gerber and Hopkins, 2011), recent work shows that mayoral partisanship has an important effect on policy. Democratic mayors spend more than Republican mayors in medium and large cities, largely through increases in debt (de Benedictis-Kessner and Warshaw, 2016).

We find that Democratic legislators that win narrow elections are far more liberal than Republican winners. The median ideology of county legislatures also shifts to the left when Democrats are elected. Turning to the policy effects of county elections, we find that the election of Democratic legislators rather than Republican legislators leads to about 5% larger county expenditures, and it has even larger effects on some individual policy areas. For instance, the election of Democratic legislators leads to large increases in redistributive expenditures, such as health, hospitals, housing, and welfare. More Democratic county legislatures also increase revenue relative to Republican ones. Our results indicate that although counties are constrained by higher-level governments (states) and lower-level governments (cities), these constraints still allow for partisan elections to have a meaningful impact on county policy.

We also examine factors that might moderate the effect of partisanship on policy. We find suggestive evidence of several moderators. First, partisanship has a greater influence on policy when the legislature is closer to evenly split between parties. Second, the partisanship of legislators matters more in smaller legislatures. Third, it matters more in counties with a commission form of government. Finally, we find suggestive evidence that the partisanship of county legislators has larger effects in states where counties are less dependent on inter-governmental revenue. Overall, these results show that the influence of partisan selection of county legislators on policy may be driven in part by the power those legislators wield, either via independent authority due to their form of government, the size of their legislature, or their reliance on state funding.

This paper contributes to the growing literature on the policy effects of the partisan composition of local governments, and extends this literature in a number of important ways. Our results provide the first evidence that the partisan composition of *county* governments has policy effects. Future work could extend our analysis by examining the effect of the partisan composition of county governments on non-fiscal policies. Our paper is also one of the first to examine local *legislatures* rather than executives. Future research could use a

similar approach to examine the policy effects of the partisan or ideological composition of city councils, school boards, and other local legislatures.

The paper proceeds as follows. First, we discuss the previous literature on representation, elections, and partisanship in local government — and the surprising lack of research on this question at the county level. Next, we discuss our original data and research design. Then, we present our findings on the impact of partisanship in county government on county expenditures. We then discuss institutional moderators for these effects. Finally, we conclude and discuss implications for the study of representation and local politics.

## Theoretical Framework

Despite the constraints on county governments, there are an array of reasons to expect that the partisan composition of county government should affect county fiscal policies. Democrats generally prefer a greater amount of government expenditures than Republicans. A variety of research has shown that Democratic legislators have more liberal preferences than Republicans in both Congress and state legislatures (Lee, Moretti, and Butler, 2004; Shor and McCarty, 2011). Moreover, the election of Democratic governors and state legislatures leads to more liberal state policies (Caughey, Warshaw, and Xu, 2017).<sup>3</sup> This may be especially true for redistributive policies, where Democrats at the national level are likely to prefer higher redistributive spending.

At the local level, Einstein and Glick (2018) show that Democratic mayors tend to have more liberal preferences on fiscal issues. Other work has shown that the election of a Democratic mayor leads to greater municipal spending (de Benedictis-Kessner and Warshaw, 2016).<sup>4</sup> We expect these same tendencies to be true at the county level. Indeed, previous

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<sup>3</sup> Early research done on state governments tended to show very weak evidence of effects of partisan control (e.g., Erikson, Wright, and McIver, 1993). However, polarization between the parties at the elite level has clearly grown over time. As a result, the policy effects of the partisan composition of government have also grown (Caughey, Warshaw, and Xu, 2017).

<sup>4</sup> It is worth noting that these recent findings stand in contrast to earlier work, such as Ferreira and Gyourko (2009) and Gerber and Hopkins (2011), which found largely null effects of the partisanship of government

research shows that politicians across levels of government form coalitions via political parties (Aldrich, 1995). We therefore expect that the election of Democratic county legislators will similarly result in elected representatives with more liberal preferences. Moreover, we expect that the election of individual legislators has the potential to change the ideology of the median voter in the legislature and have an effect beyond simply changing the partisan seat share in the legislature (Krehbiel, 1998). This could be especially true if the ideological preferences of Democratic legislators are far from the preferences of Republican legislators. Theoretically, this ideological difference should be the driving mechanism behind the changes in policy that result from the election of legislators from different parties.

Given this, the election of a Democratic legislator rather than a Republican legislator should lead to an increase in county spending. In addition, we expect that these effects may be concentrated in some of the most contentious areas of local-level policy. In line with Einstein and Glick's (2018) findings that Democratic mayors tend to favor more redistributive policies than Republican mayors, we expect that Democratic county politicians will be more likely to spend more on redistributive policies.

## Moderators

The effect of electing a Democrat versus a Republican may be stronger under certain conditions than others. In other words, there may be factors that moderate the effect of partisanship on policy. Here we examine four such factors: whether an election is likely to influence the majority coalition, the relative voting power of an individual legislature, the form of county government, and the degree of constraints on county fiscal policies.

First, the election of individual legislators might have the potential to change the majority party in control of the chamber. This effect could go beyond simply changing the pivotal vote or the partisan seat share in the legislature if the majority party holds significant

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on city fiscal policy. Part of the discrepancy may be due to the time period examined, the size of cities in the data used by different authors, model specification in Ferreira and Gyourko (2009), and a lack of power in Gerber and Hopkins (2011) (de Benedictis-Kessner and Warshaw, 2016, p. 1133-1134).

power — above and beyond their numerical advantage — through their ability to control the agenda using procedural rules (e.g. Cox and McCubbins, 2005). Second, we might expect the effect of electing a Democratic legislator to be larger in counties with small legislatures since each legislator has more voting power than in a legislature with many members (Muzzio and Tompkins, 1989; Riker, 1962). Thus, each election is likely to have a larger effect on the ideological composition of the legislature than in larger chambers. Third, individual legislators may also wield more power in counties with the commission form of government, in which legislators often lead a certain department of county government, relative to counties with elected executives or the council-manager form of government, in which a singular other officer (elected or appointed) may wield more power than individual legislators (ACIR, 1972). Finally, county elections might have larger policy effects in counties that have fewer constraints and more policy flexibility. Specifically, counties that rely less on intergovernmental revenue may make fiscal policy decisions that are less constrained by their state government, resulting in more variable spending (Benton, 2003; Marando and Reeves, 1991).<sup>5</sup>

## Data and Research Design

In order to examine the policy effects of the partisan composition of county governments, we collect data on county legislative elections and fiscal policy in medium and large counties with partisan elections and with a population of more than 150,000 people in 2010.<sup>6</sup> We focus on medium and large counties because these counties are likely to have more fiscal flexibility than smaller ones. In addition, it is much easier to collect elections data for medium and large counties than for smaller counties.<sup>7</sup> In all, there are 319 counties in our target universe,

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<sup>5</sup> In fact, in 2012, approximately 35% of the average county's aggregate revenues came from the state and federal government (U.S. Census of Government, 2012).

<sup>6</sup> Our target universe also does not include counties that are consolidated with cities (e.g., counties in New York City) and counties in Rhode Island, Connecticut, and Vermont that lack elected governments.

<sup>7</sup> In our preliminary research, we found that it was nearly impossible to find election results for many counties with fewer than 150,000 people since elections in these rural counties are often not covered by the news

which cover 47.9% of the U.S population. We then merge these data with information on legislators’ ideology based on their campaign contributions and fiscal information from the Census of Local Governments. Finally, we use regression discontinuity models to assess the causal effects of legislative partisanship on county fiscal policies.

## County Election Data

The study of local elections has long been stymied by a lack of centralized publicly-available data (Trounstine, 2009). In particular, there is no publicly available dataset of county election outcomes. This makes it impossible to examine the causes and consequences of these elections. To address this gap, we build the first large-scale dataset of county election outcomes. In order to assemble this original dataset, we gathered data from a number of different sources. First, we scraped data on county elections from OurCampaigns.com (OC), a crowd-sourced political information website that allows users to contribute information on candidates and campaigns at all levels of government.<sup>8</sup> Next, we collected data on election returns from county websites and by contacting local election officials. Then, we added information from local newspaper archives.<sup>9</sup> We also obtained data that Jessica Trounstine generously shared on elections in Arizona, Idaho, New Jersey, and South Carolina. We obtained data on elections in California, Kentucky, and Louisiana from the Local Elections in America Project (Marschall and Shah, 2016).

The final dataset that we use in our analysis consists of 10,533 individual elections in large counties with partisan elections. Our dataset includes election results from 296 counties in 36 states, which cover over 45% of the United States’ total population.<sup>10</sup> Our counties

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media and they usually have only a handful of election results on their website. Hopkins and Pettingill (forthcoming) also note the difficulty of obtaining election results for smaller local governments.

<sup>8</sup> Data from OC have been previously used by de Benedictis-Kessner and Warshaw (2016), Miller (2013), and Vogl (2014). Local elections listed here have the date of the election, candidate names and partisanship, vote totals, and often even more detailed information on the candidates. These user-contributed sources ranged from archived newspaper articles to official county election returns.

<sup>9</sup> We used newspapers archives available through NewsLibrary, Newspapers.com, ProQuest Archiver, Access Newspaper Archive, and Google News.

<sup>10</sup> In parallel, we also assembled data on the overall partisan composition of county legislatures in our target



closely match the demographics of our target universe of medium and large counties (see Supplementary Appendix A).<sup>11</sup> The top panel of Figure 1 shows the size of the legislatures in the counties in our dataset. Most counties have very small legislatures. The median size of county legislatures in our data is 5. Less than 20% of the counties have more than 10 members and only a handful have more than 25 members.

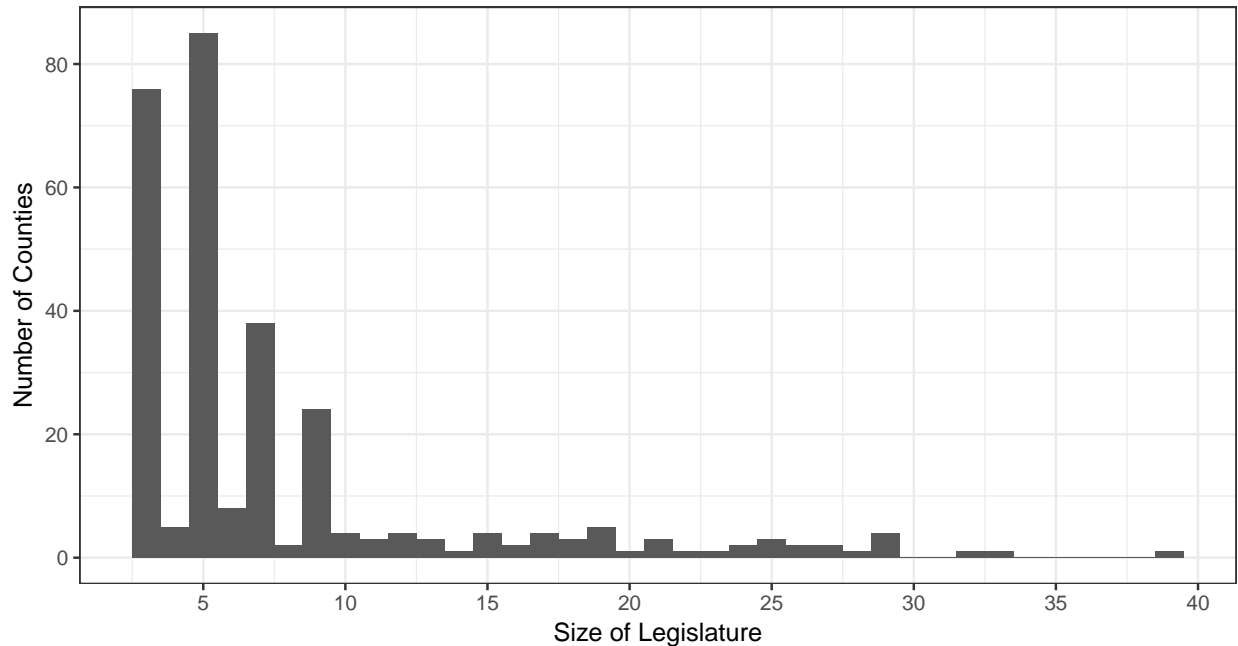


Figure 1: Size of County Legislatures in our Dataset

Figure 2 shows how the partisan composition of counties in our dataset has changed over the past 25 years.<sup>12</sup> The black solid line plots the local average, while the individual smaller lines plot the average in each year split by southern counties and non-southern counties. On the whole, the Democratic seat share of county councils trends from 51% Democratic in 1990 to only 40% Democratic by 2014. The trends in county legislatures also follow national electoral tides: when Republicans increased their presence in Congress after both the 1994

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universe. In some of these counties, we were unable to find district-level election returns, but we found information on the overall partisan composition of the county legislature.

<sup>11</sup> In spite of this, one limitation of our data is that the coverage is uneven over time. We have election results on 289 counties in the post-2000 period. Yet due to the limitations of archival data sources, our coverage shrinks as we move backwards in time. For example, we only have data from about 150 counties going all the way back to the early 1990s.

<sup>12</sup> We plot data here only for counties in which we have data for at least a span of 25 years.

and 2010 elections, county legislatures also became more Republican on average. And with the Democratic victories in Congress and the presidency in 2008, county legislatures also had a corresponding trend toward Democrats. Just as state-level and national elections correspond, county legislative elections follow similar patterns to the nation overall (Rogers, 2016; Hopkins, 2018). This overall stability in the partisan composition of county councils masks significant geographic heterogeneity, however. As shown by the turquoise dashed line, counties in the South were quite Democratic in the beginning of our time period — higher than the average across all counties — but are less Democratic by 2014. The long-term trend towards more Republican county councils is driven mainly by these counties in the South.

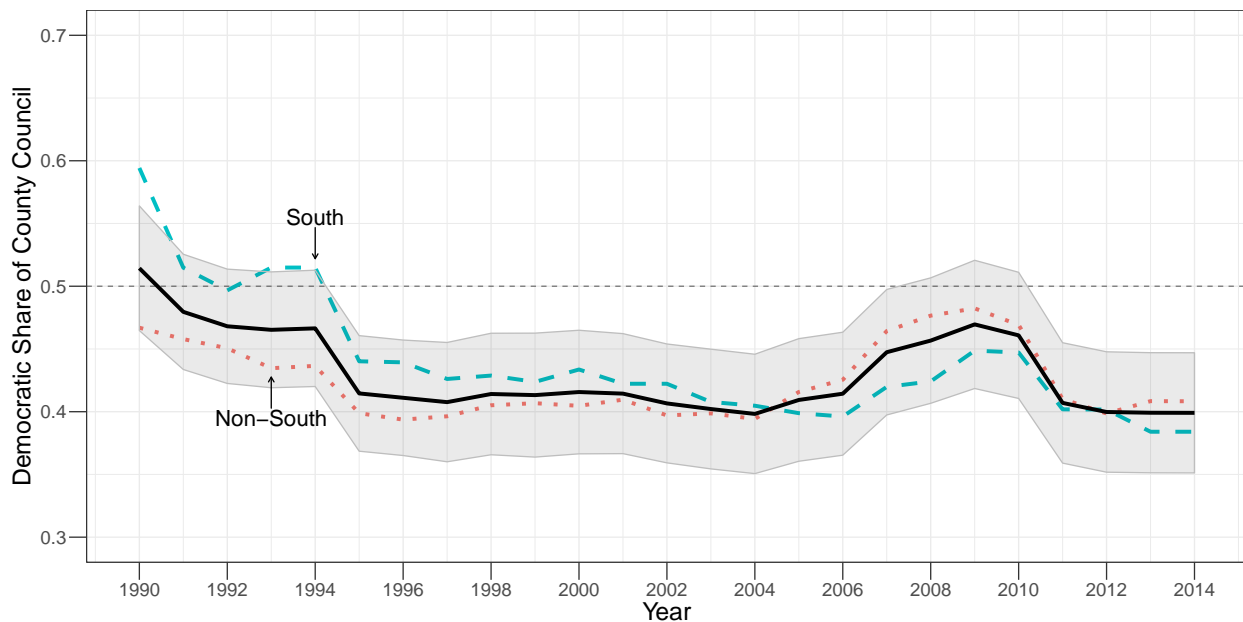


Figure 2: Average National and Regional-level Democratic Seat Share Across Time

## Ideology of County Legislators

To measure the ideological preferences of the candidates running in these individual county legislative races, we merge our elections data — the names and locations of candidates — with campaign donations data from the Database on Ideology, Money in Politics, and Elections (DIME, Bonica, 2013).<sup>13</sup> We approximate the ideology of county elected officials

<sup>13</sup> Specifically, we match the candidates in each county legislative election to the names in the DIME database of 15 million campaign contributors in the 1980-2012 election cycles. We were able to match 2,316 of the

who contribute to campaigns using the “CFscores” in these contributor-level data.<sup>14</sup> We also use them to estimate the median ideology in each county legislature.<sup>15</sup>

## County Fiscal Data

To study the impact of the partisan composition of county legislatures on county fiscal outcomes, we use fiscal data from the Historical Data Base of Individual Government Finances. These data are based on a Census of Governments conducted every five years and the Annual Survey of Governments collected in every non-census year. These data provide detailed expenditure and revenue data for U.S. local governments.<sup>16</sup> We adjusted all monetary figures into 2012 dollars based on the consumer price index. In our main analysis, we use per capita expenditures and revenues to account for population differences across counties.

On average, counties in 1990 spent approximately \$1,101 per capita and their revenue totaled \$1,123 per capita, with an outstanding debt level of \$1,062 per capita (all in 2012 dollars). By 2014, expenditures had grown to an average of \$1,689 per capita while revenues totaled \$1,953 per capita on average and debt totaled \$1,005 per capita. Big counties in the U.S. spend a little more than half the per capita amount that large cities do, have less than half the amount of debt that large cities do, but raise more in revenue (de Benedictis-Kessner and Warshaw, 2016). This suggests that while cities may fund much of their expenditures with debt, counties tend to spend much more in line with their current revenues.

Within these totals, counties divided their expenditures among a variety of categories,

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total 8,476 winning legislators in our data to valid unique contributors.

<sup>14</sup> These scores are based on the linkages between all campaign contributors and candidates in federal and state elections. The assumption behind this measure is that contributors donate, on average, to more ideologically-proximate candidates rather than more distant ones. The result of this is a measure of revealed behavior that can be used as a proxy for county legislative candidates’ ideology, much in the way that other researchers have used these scores to compare the ideology of candidates in federal, state, and city elections, as well as corporate executives, judges, agency appointees, lawyers, and medical professionals (Bonica, 2014; Bonica, Rosenthal, and Rothman, 2014; Bonica, Chilton, and Sen, 2015; Bonica, 2016).

<sup>15</sup> For this analysis, we impute the ideology of legislators we are unable to match to their CF-Score using the average CF-Score among same-party legislators in their county.

<sup>16</sup> For our analysis on the causal impact of legislators, it is crucial to accurately assign fiscal data to the appropriate year. As a result, we dropped a small number of observations from the Annual Survey of Government Finances where we could not determine the year in which fiscal data was collected.

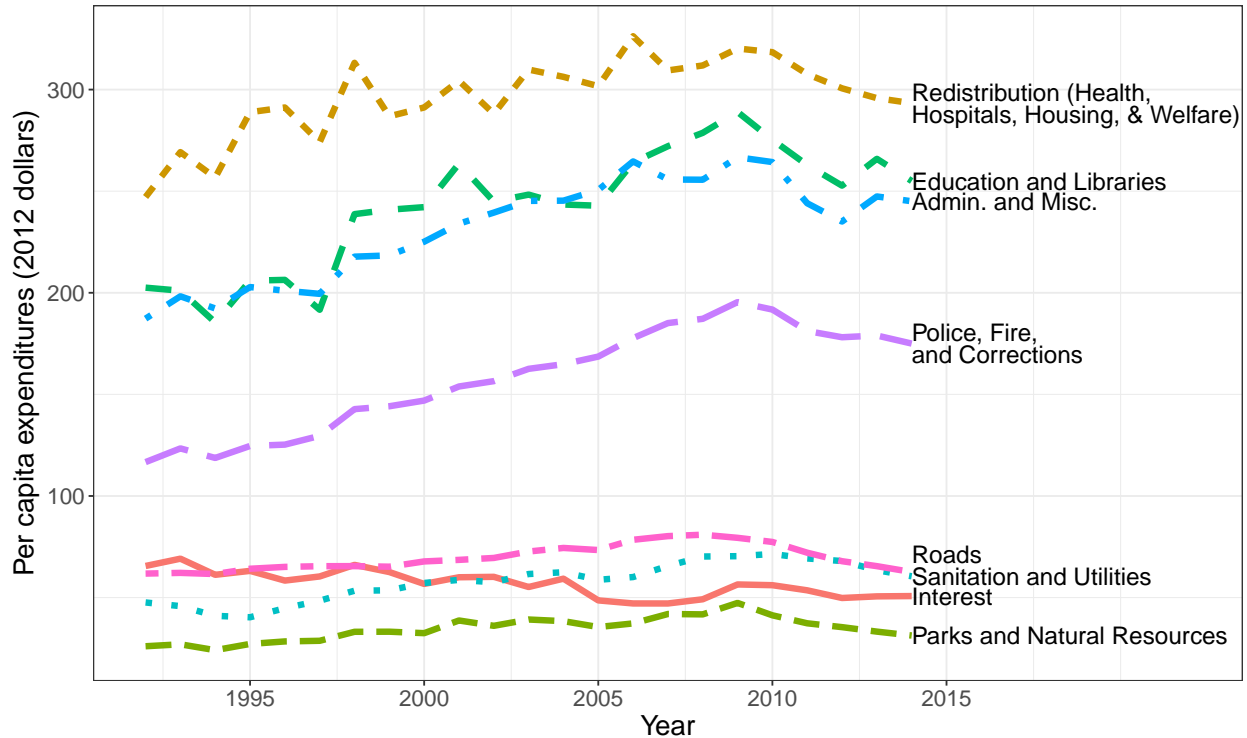


Figure 3: Expenditures per capita over time, individual categories (target universe)

and similarly raised their revenue from a variety of sources. Figure 3 shows the division of total expenditures into various categories in counties in our target universe of large counties from 1990 to 2014. Across the entire time period, counties spent the largest amount on redistribution (a combination of healthcare, hospitals, housing, and welfare), education, and administration. While the level of many of these spending areas is relatively constant over time, public safety expenditures rise steadily by more than 65% between 1990 and 2012 in the average county. Redistributive spending and education and libraries spending also rise steadily by more than 26% and 22%, respectively, during the same period.<sup>17</sup>

Figure 4 similarly shows revenue raised from specific categories as well as debt in the average county in our target universe from 1990 to 2014. Their total revenues are divided between taxes, intergovernmental revenue, and charges. This division stays fairly consistent across the time period from 1990 to 2014. Generally, counties tend to raise most of their revenues through taxes — primarily the property tax. The average overall outstanding debt

<sup>17</sup> See Supplementary Appendix A for more detailed information on trends in expenditures.

fluctuates over time. In 1990, the average county in our target universe had debt of about \$1,005 per capita. After 2006, the outstanding debt rises compared to overall revenue, even surpassing revenue at a maximum of \$1,280 per capita in 2009.

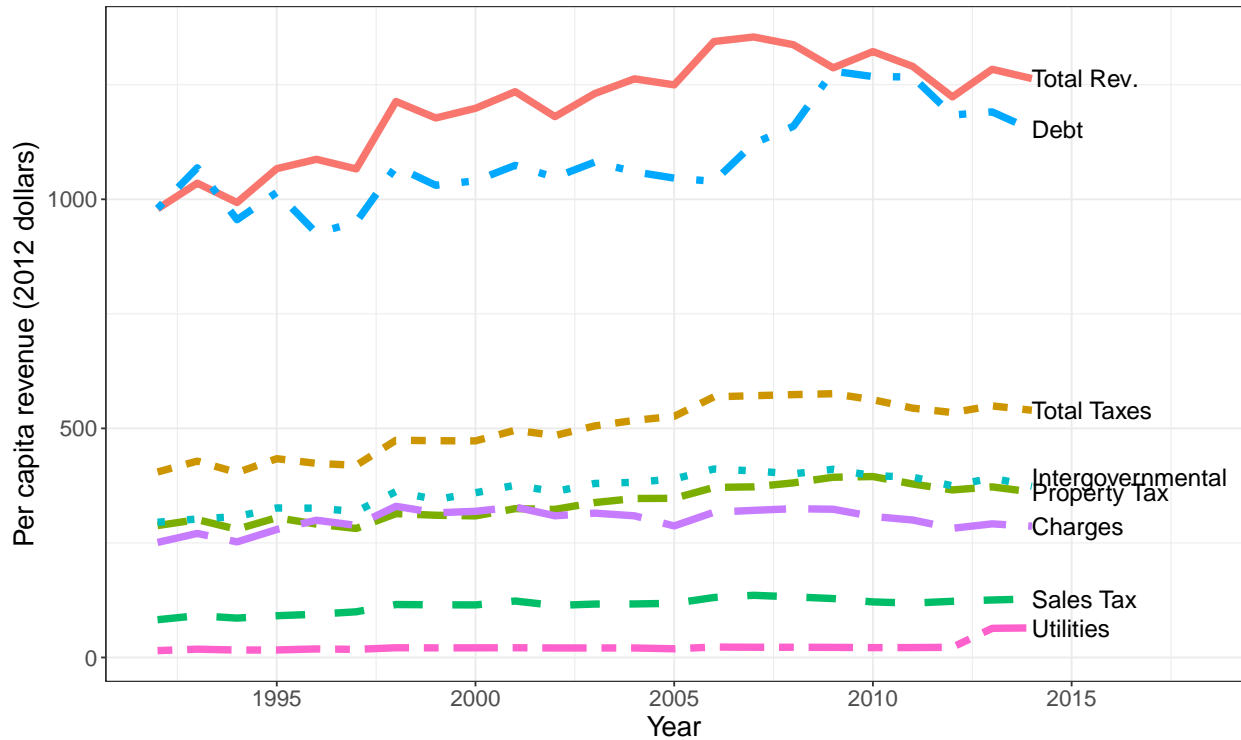


Figure 4: Revenue per capita over time, individual categories (target universe)

The overall stability in the average levels of spending and revenue mask quite a great deal of variation in the data within each year. This massive cross-sectional variation in both expenditures and revenue across counties could allow a small number of outliers to drive our results. To reduce this possibility, we focus on the natural log of changes in spending and revenue in our main analyses. The results for logged values of the outcome variables can be interpreted approximately as the percentage change in expenditures or revenue due to electing a Democratic legislator (Gelman and Hill, 2007, 60-61). However, the results are substantively similar for non-logged values of the outcome variable.

## Regression Discontinuity Design

We use a regression discontinuity (RD) design to identify the effect of electing county legislators of different parties on county fiscal policy.<sup>18</sup> We exploit the fact that a sharp electoral threshold, 50% of the two-party vote share, determines which party wins county legislative elections.<sup>19</sup> The validity of the RD design depends on the assumption that only the winning candidate – and not the distribution of units’ potential outcomes – changes discontinuously at the threshold (Hahn, Todd, and Klaauw, 2001; Lee and Lemieux, 2010). Consistent with the large-scale validation of electoral regression discontinuity (RD) design studies conducted by Eggers et al. (2015), we observe no significant discontinuities in lagged values of the running variable or other key placebo variables (Appendix B). In order to increase statistical efficiency, we estimate treatment effects on changes in expenditures rather than on levels (Lee and Lemieux, 2010).<sup>20</sup>

We estimate the effect of electing a Democratic county legislator rather than a Republican legislator based on the “jump” in outcome variables at the threshold. We model the relationship between the assignment and outcome variables with local linear regression, using the default optimal bandwidth options in the `rdrobust` package in R (Calonico, Cattaneo, and Titiunik, 2014a).<sup>21</sup> The optimal bandwidth is chosen to minimize mean-square-error

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<sup>18</sup> Previous studies in the urban politics literature have also used the regression discontinuity design to examine the local incumbency advantage (de Benedictis-Kessner, 2018; Ferreira and Gyourko, 2009; Trounstein, 2011), the effects of mayoral partisanship on policy (Ferreira and Gyourko, 2009; Gerber and Hopkins, 2011; de Benedictis-Kessner and Warshaw, 2016), black mayors on city policies (Hopkins and McCabe, 2012), and partisan selection in school boards on segregation (Macartney and Singleton, 2018).

<sup>19</sup> In multimember districts, we compare the winners and runner-up for the last seat in the district (e.g., in a district with three legislators, we compare the votes of the 3rd and 4th placed candidates).

<sup>20</sup> Specifically, our main analysis focuses on the difference between logged fiscal outcomes in the year the county legislator was elected and the average of outcomes measured two and three years after the election. Gerber and Hopkins (2011) and de Benedictis-Kessner and Warshaw (2016) use a similar approach.

<sup>21</sup> In our main analysis, we use the default local linear regression in `rdrobust` because Calonico, Cattaneo, and Titiunik (2014b) show that local linear regression models perform well in RD designs with optimal bandwidth selection (see also Cattaneo, Idrobo, and Titiunik, 2017, 41-42). Moreover, Gelman and Imbens (2017) show that “controlling for global high-order polynomials in regression discontinuity analysis is a flawed approach with three major problems: it leads to noisy estimates, sensitivity to the degree of the polynomial, and poor coverage of confidence intervals.” They “recommend researchers instead use estimators based on local linear or quadratic polynomials or other smooth functions.” It is worth noting, however, that we obtain similar results using higher-order polynomials in our analysis (see Appendix C).

(MSE) and confidence intervals are adjusted to account for remaining bias (Calonico, Cattaneo, and Titiunik, 2014b; see also Imbens and Kalyanaraman, 2012).<sup>22</sup> In order to address the fact that there are often multiple elections in a given year for a particular county, we cluster standard errors by county-year.<sup>23</sup>

A final complication for our analysis is that while the vast majority of county legislatures are very small (see Figure 1), with five or fewer members, our dataset is heavily skewed toward the small number of counties with larger legislatures. For example, fewer than 20% of counties in our data have ten or more members in their legislatures. But over half of the elections in our dataset come from these counties. Moreover, the handful of counties with 25 or more members constitute over 16% of our dataset. We are not as interested in the effect of a legislator’s election on policy as we are in the effect in an average county council of electing an additional partisan legislator. To address the over-representation of counties with large legislatures in our dataset, we weight our regression discontinuity analyses based on the number of legislators in each county legislature relative to the average number of legislators. This enables us to interpret the results as the effect of elections in the average *county* rather than the average *election*. This approach prevents the handful of counties with very large legislatures from driving our results. In Appendix C, however, we show that the unweighted results are substantively similar to the weighted results.

## Results

In this section, we examine the effects of partisanship in county legislative elections. First, we examine whether the partisanship of county legislators affects their ideological orientation. We then examine whether the partisanship of county legislators affects county fiscal policies.

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<sup>22</sup> Our results are robust to this choice of bandwidth, however. We show our effects for other bandwidths than the optimal-MSE one in Appendix C.

<sup>23</sup> We use the ‘cluster’ option in `rdrobust`.

## Partisan Effects on Ideology of County Legislators

What are the ideological consequences of electing a Democrat rather than a Republican to the county legislature? In order to examine this question, we use a regression discontinuity design (RDD) to isolate the causal effect of electing a Democratic legislator rather than a Republican on the CF-Scores of the winning legislator.

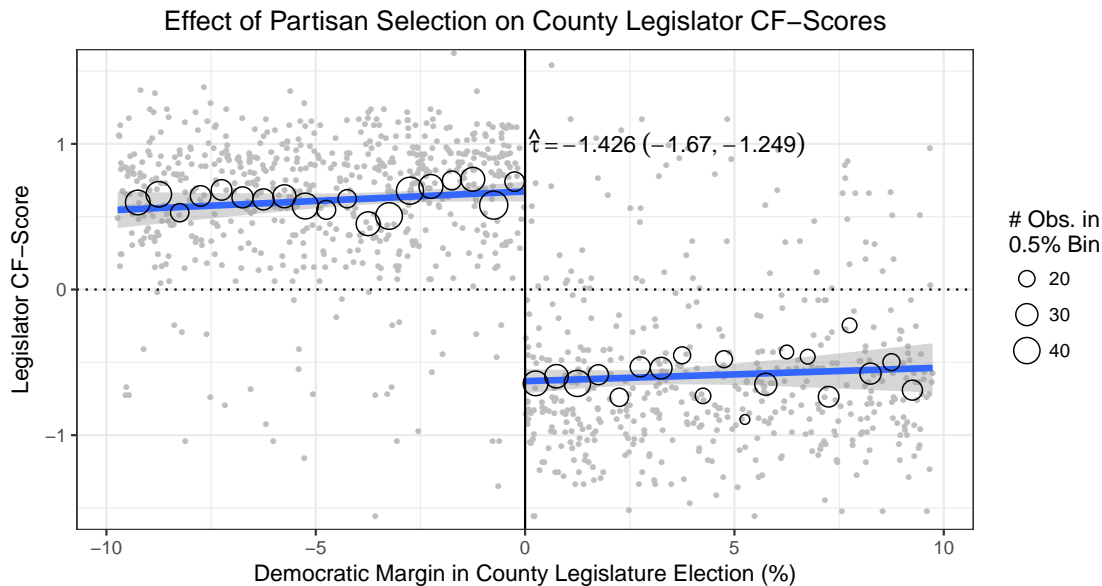


Figure 5: The effect of legislative partisanship on legislator CF-Score.

We plot these results in Figure 5 with the Democratic margin in the election plotted along the horizontal axis — meaning that elections in which the Democrat won are to the right of zero, while those elections where the Republican won are to the left — and the campaign-finance-based ideology score plotted along the vertical axis. The trend lines plot local linear regressions within the bandwidth selected to minimize mean-squared error (Calonico, Cattaneo, and Titiunik, 2014b). As indicated by the difference between the two regression lines at the 0% threshold, we find that electing a Democrat rather than a Republican county legislator causes conservatism to decrease by about 1.4 units (1.7 standard deviations). This indicates that even in very close elections where the Democratic and Republican candidates both received close to 50% of the vote, there are very large differences between Democrats and Republicans.



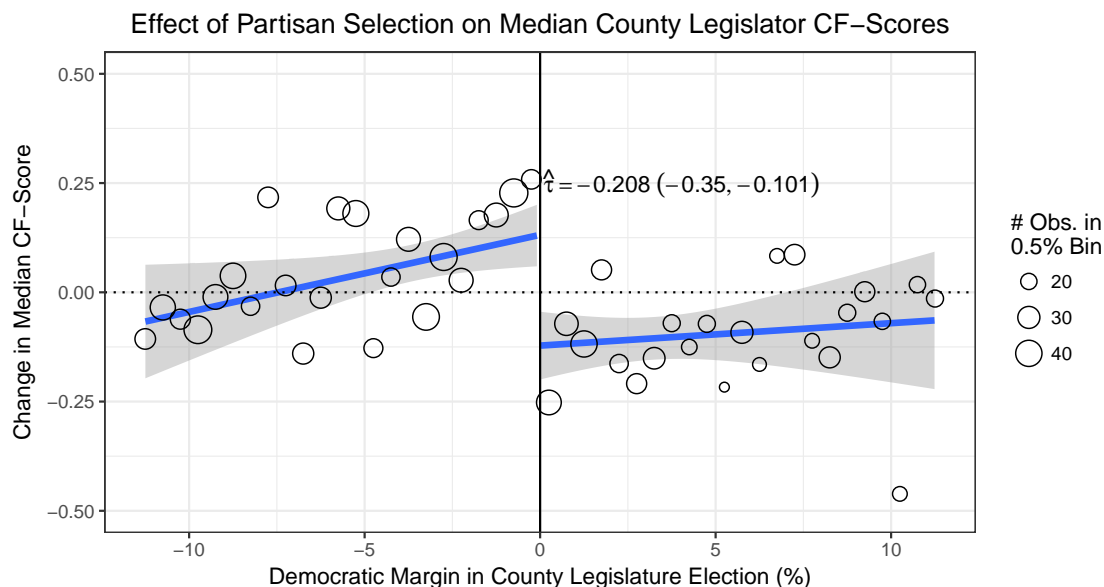


Figure 6: The effect of legislative partisanship on the median legislator’s CF-Score.

We now consider the effects of the partisan outcome of elections on the median CF-Score in the county legislature as a whole. Since new legislation cannot pass without the median’s support, the ideological location of the median is likely to have an important influence over the policymaking process. Figure 6 shows that when Democratic candidates narrowly win an election, on average this shifts the median of the legislature by approximately 0.2 units – approximately a sixth of the ideological effect of a Democratic victory in individual elections.

## Partisan Effects on County Fiscal Policies

Next we move to our main results on the policy effects of county legislative elections. First, we show the descriptive association between changes in the partisan composition of county legislatures and changes in county spending. Then, we examine the causal effect of electing a Democratic legislator rather than a Republican legislator using a regression discontinuity design. Both of these analytical strategies yield similar results indicating that the partisan composition of county legislatures has a significant effect on county spending.

In order to conduct a first cut at the relationship between the partisan composition of county legislature and county spending, we examine the association between *changes* in the

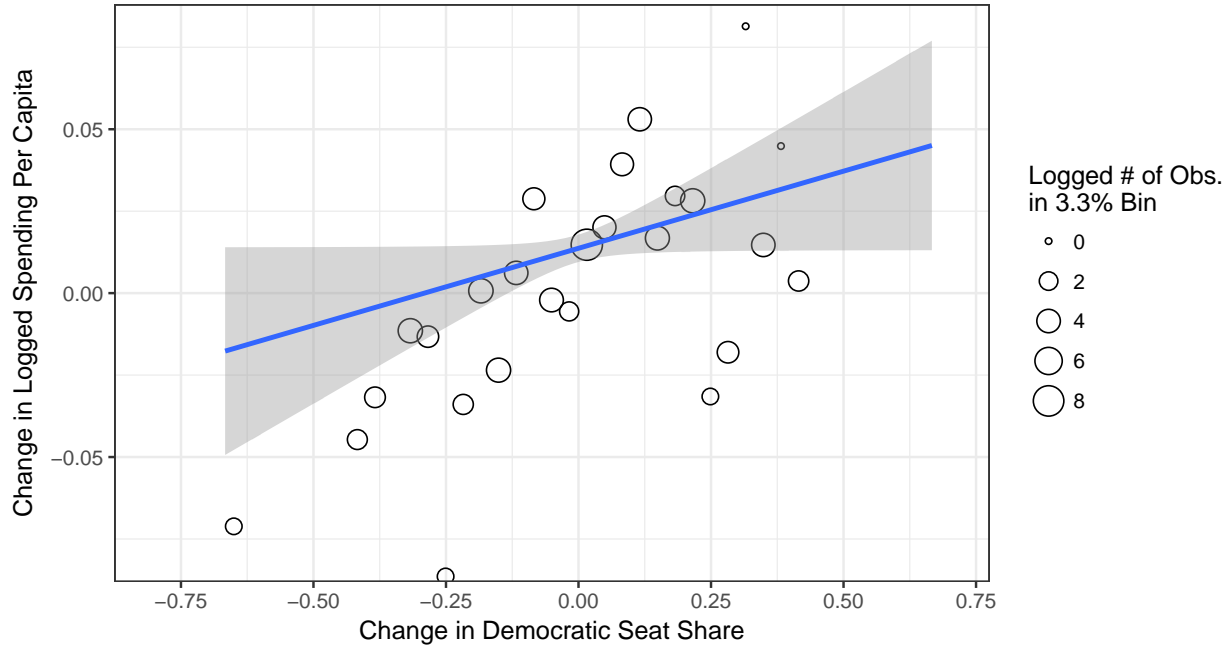


Figure 7: Association between Changes in Partisan Composition of County Legislators and Changes in County Spending. The bubbles show average changes in expenditures in each 3.33% bin.

partisan composition of county legislatures and *changes* in county spending. By examining changes rather than levels, this analysis controls for many of the potential confounders. We plot these results in Figure 7, with open circles indicating binned means of the change in Democratic seat share, along the horizontal axis, and change in logged spending along the vertical axis. The positive slope of the trend line indicates that when counties become more Democratic in the makeup of their legislators they spend more money per capita. Of course, the association between changes in the partisan composition of county legislatures and county expenditures could be confounded by any number of omitted variables. This leads us to pursue our second analytical strategy.

In order to determine the causal relationship between changes in the partisan composition of county legislatures and county spending, we turn to a regression-discontinuity design. This enables us to isolate the causal effect of electing a Democratic legislator, rather than a Republican, on county spending. We plot these results in Figure 8 using the same presentational strategy as in Figure 5 and 6, with the Democratic margin in the election plotted along

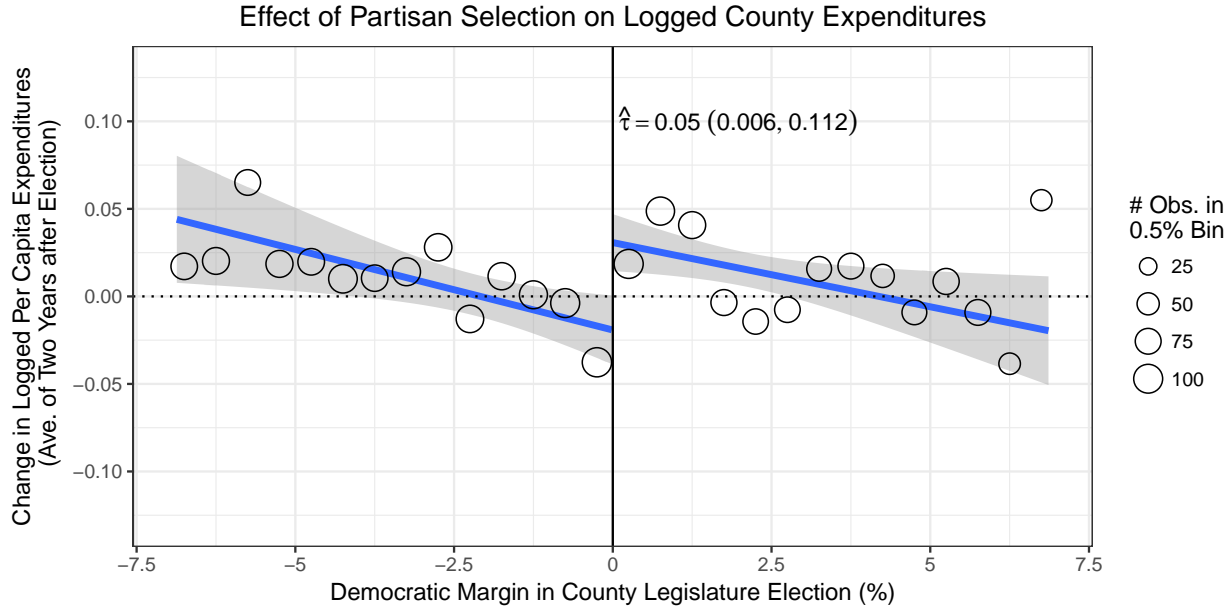


Figure 8: The effect of legislative partisanship on changes in logged per capita county expenditures in the fiscal years two and three years after an election

the horizontal axis — with Democratic victories to the right of zero and Republican victories to the left. Along the vertical axis we plot the change in logged per capita expenditures, with positive values meaning an increase in spending over previous years’ level of spending and negative values meaning a decrease in spending. The trend lines plot local linear regressions within the bandwidth selected to minimize mean-squared error (Calónico, Cattaneo, and Titiunik, 2014b). The large vertical jump between the two lines at the threshold value of zero along the horizontal axis indicates the effect of electing a Democrat rather than a Republican on policy. In the average county, electing a Democratic legislator increases average per capita spending in the fiscal years two and three years after an election by about 5% relative to electing a Republican legislator.<sup>24</sup> We next explore the persistence of the effect of partisan selection in county legislative elections on spending (Figure 9).<sup>25</sup> We find that

<sup>24</sup> In Appendix C, we demonstrate the robustness of this result to different modeling choices. First, we show that it is robust to different bandwidths for the RD model. We also show that we obtain similar results using higher order polynomials for our RD models. Finally, we show that we obtain similar results using local randomization in a narrow 1% bandwidth close to the discontinuity using the default options in the `rdlocrand` package in R (Cattaneo, Titiunik, and Vazquez-Bare, 2016).

<sup>25</sup> For this analysis, we subset our data to elections held between 1990-2010 to ensure that each time horizon

it takes legislators two years to have an effect on county expenditures.<sup>26</sup> The effects peak three years after the election. Then the effect gradually decays until it largely disappears by the sixth year after an election. The eventual decay in these effects could be the result of endogenous political responses to policy changes whereby voters punish legislators for large changes in the status quo.

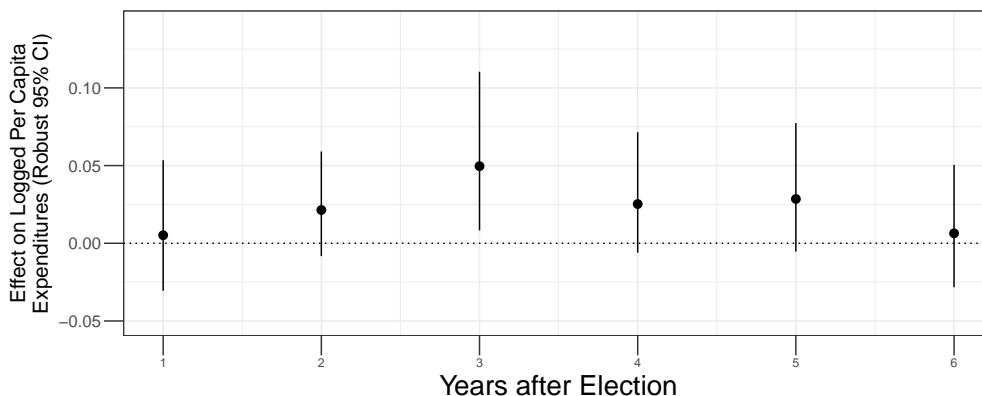


Figure 9: The effect of legislative partisanship on per capita county expenditures 1-6 years after an election.

Next, we turn to the effect of legislative partisanship on spending across different policy areas. Figure 10 shows the effect of legislative partisanship in the average county on overall spending as well as individual categories of county spending. The top row shows our main result that electing a Democrat rather than a Republican leads to an increase of 5% in the average county’s spending. Moving down from the top row, each point shows the effect of electing a Democrat in the average county on changes in spending per capita in a given spending area. We group individual spending categories into more coherent categories to reduce noise due to massive variation in many of the spending categories.<sup>27</sup> While the statistical significance of different spending areas varies, the point estimates for individual

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uses a similar dataset.

<sup>26</sup> The lack of an effect in  $t+1$  can be seen as a placebo effect since new legislators generally cannot affect the budget in the first fiscal year after they’re elected. Thus, it is not surprising that we see no effect there.

<sup>27</sup> Even within county, this variation is enormous in many of the spending categories in the Census Fiscal Data. For example, the standard deviation in our main outcome of logged changes in total expenditures is 0.16. In contrast, the standard deviation of logged changes in library spending is 1.2 and the standard deviation of logged changes in welfare spending is 1.1. It is possible that this variation stems from measurement error in counties’ reporting for individual spending categories, or is driven by the many counties that spend little or nothing on many of the individual spending categories.

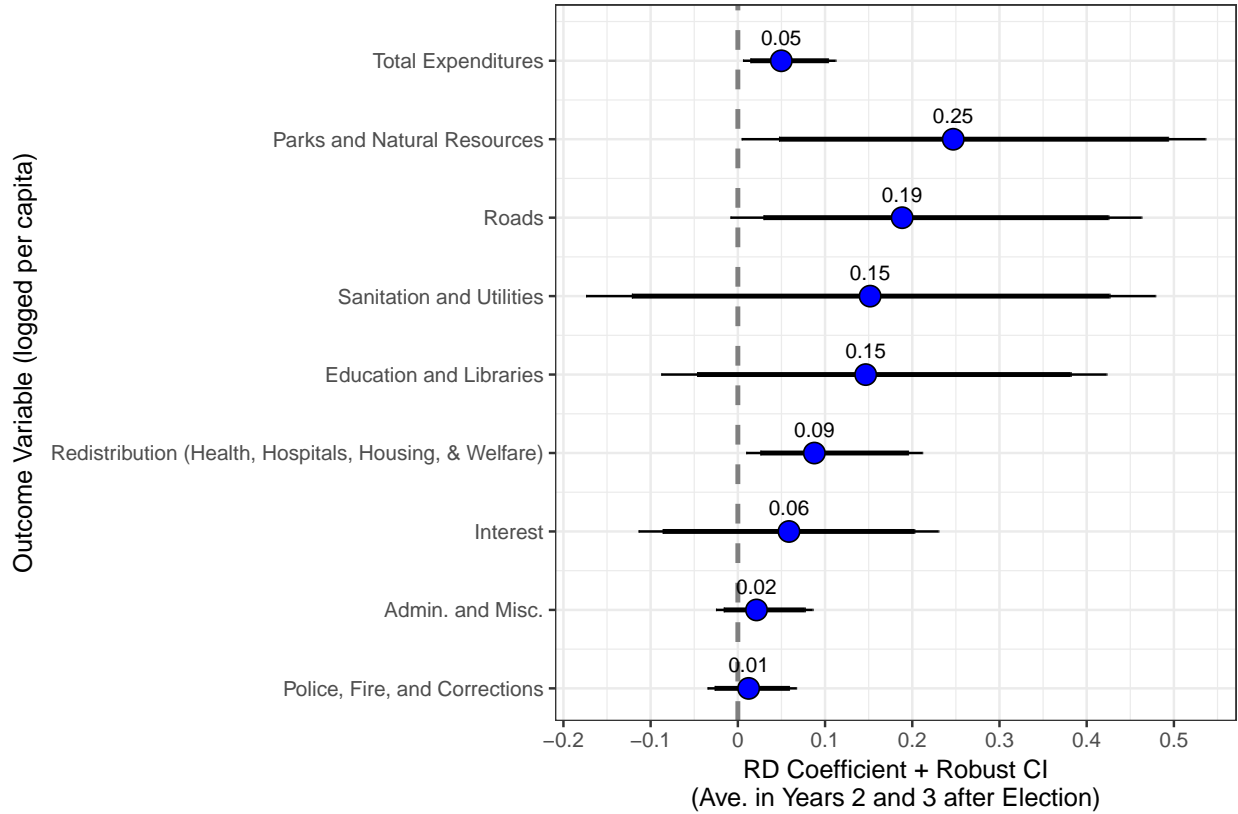


Figure 10: The effect of legislative partisanship on changes in logged program-area per capita expenditures in the fiscal years two and three years after an election. Thick bars show 90% confidence intervals and thin bars show 95% confidence intervals.

spending areas are almost all positive. Consistent with our theoretical expectations, we find that Democratic legislators increase spending on social programs, such as health, hospitals, housing and welfare, by about 9% relative to Republicans. We find robust evidence that Democratic legislators substantially increase spending on parks and natural resources. There is also borderline significant evidence that Democratic legislators increase spending on roads.<sup>28</sup> We also find large, but insignificant, point estimates of the effect of electing a Democratic legislator on education and libraries, and sanitation and utilities.<sup>29</sup> However, we

<sup>28</sup> These results are all significant at the  $p=0.1$  level.

<sup>29</sup> Full tabular results for these spending areas are in Appendix D. This table also shows the details of the models, such as the bandwidth, robust confidence intervals, and p-values. In Appendix D, we also break down these results into even broader categories originally developed by Peterson (1981), who argued that local expenditures can be categorized as as developmental, allocational, and redistributive policy. We find that the point estimates for redistribution and developmental expenditures are both positive

find little evidence that the election of Democratic legislators influences the amount of money spent on interest, administration, and public safety. This null result on the final category of spending is especially interesting, as the evidence from cities indicates that Democratic politicians may spend *less* on policing than Republicans. This may be due to the independent authority exerted by separately elected county officials, such as sheriffs, who often wield significant control over the implementation of criminal justice policy within counties, even if they have no direct control over the budget (Farris and Holman, 2015, 2017).

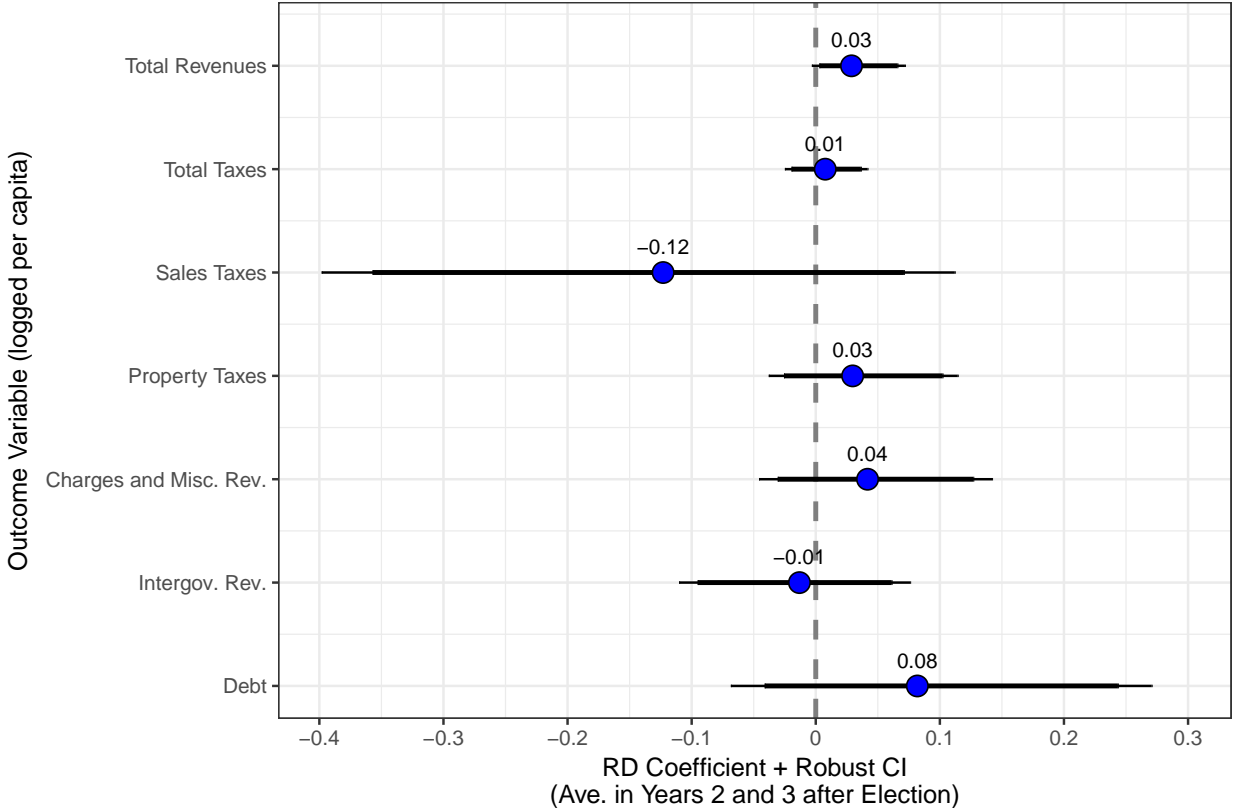


Figure 11: The effect of legislative partisanship on changes in logged per capita revenues in the fiscal years two and three years after an election. Thick bars show 90% confidence intervals and thin bars show 95% confidence intervals.

We next address the effect of the partisanship of legislators on changes in county revenues (Figure 11). We find that the election of a Democratic legislator in the average county

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and significant at the 10% level, while the effect on allocational expenditures is much smaller, and not statistically distinguishable from zero.

increases total county revenues an average of about 3% in the fiscal years two and three years after an election. Figure 11 also shows the effects on individual revenue sources. We find no evidence that Democratic legislators increase taxes or intergovernmental revenues. Consistent with the findings in de Benedictis-Kessner and Warshaw (2016) for municipal governments, we also find suggestive evidence that Democratic legislators increase debt, but this result is not statistically significant.

## Moderators

In this section, we examine circumstances and institutional characteristics of counties that might moderate the effect of partisanship on policy. Overall, we find that the influence of the partisan election of county legislators on policy may be driven in part by the power those legislators wield due to the pivotality of elections for partisan control, counties' form of government, the size of their legislature, or their reliance on state funding. However, there are two important caveats to these results. First, these differences are not causally identified and might be confounded by any number of omitted variables. Second, the differences across institutions never reach the level of statistical significance. Thus, we regard these results on moderators of partisan effects as suggestive rather than the last word on this subject.

First, we examine whether the effect of individual legislators is larger when they have the potential to influence partisan control of the legislature. Specifically, we analyze whether the effect of partisan selection on county spending is larger in legislatures where, at the time of the election, the partisan majority is small compared to the effect when one party controls a large proportion of the legislature.<sup>30</sup> In closely divided legislatures, an additional Democratic legislator could influence majority control of the body, while in more extreme legislatures the partisan majority is unlikely to change. We might therefore expect to observe a larger effect of electing a Democratic legislator rather than a Republican legislator in these more evenly

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<sup>30</sup> To divide up our county legislatures in this way requires knowing how pivotal seat<sub>*i*</sub> in that legislature is – that is, whether or not the election in a given seat has the potential to change the majority. We assess pivotality by calculating the partisan majority that exists after removing seat<sub>*i*</sub>.

split legislatures. In line with this theoretical expectation, we find that electing an additional legislator of a given party has a greater effect on the median ideology of the legislature (as measured by the legislators' CF-scores) when there is a closer partisan majority.

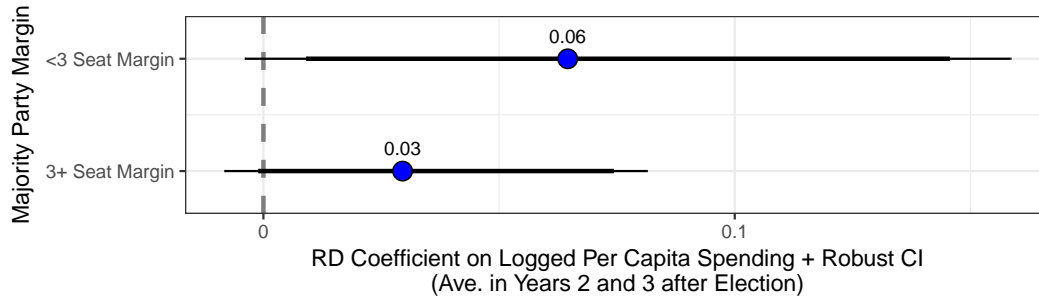


Figure 12: The effect of legislative partisanship on changes in logged per capita expenditures by the partisan majority's margin. Thick bars show 90% confidence intervals and thin bars show 95% confidence intervals.

Although the differences are not statistically significant, we find suggestive evidence that the election of partisan legislators has a larger influence on policy when the legislature is closer to evenly split between parties. The top line in Figure 12 indicates the effect of electing a Democratic legislator rather than a Republican legislator in these closely-split legislatures (i.e., where a swing of 1 or 2 seats determines majority control), while the second line indicates this effect in legislatures with three or more seats majority. In the closely-split legislatures electing one more Democrat leads to an increase in spending of about 6.5%, while in legislatures that lean more heavily to one party or the other this effect is only 3% — less than half the size of the effect in more closely divided legislatures. This subgroup difference is suggestive evidence that when there are closer partisan majorities, electing an additional legislator of a given party can have a greater effect on policy.

Second, we might expect the effect of electing a Democratic legislator to be larger in counties with small legislatures since each legislator has more voting power than in a legislature with many members. To assess this, Figure 13 shows the effect of electing a Democrat rather than a Republican legislator on county spending, broken down by the overall size of the legislature. Consistent with our expectations, we find that the partisanship of county



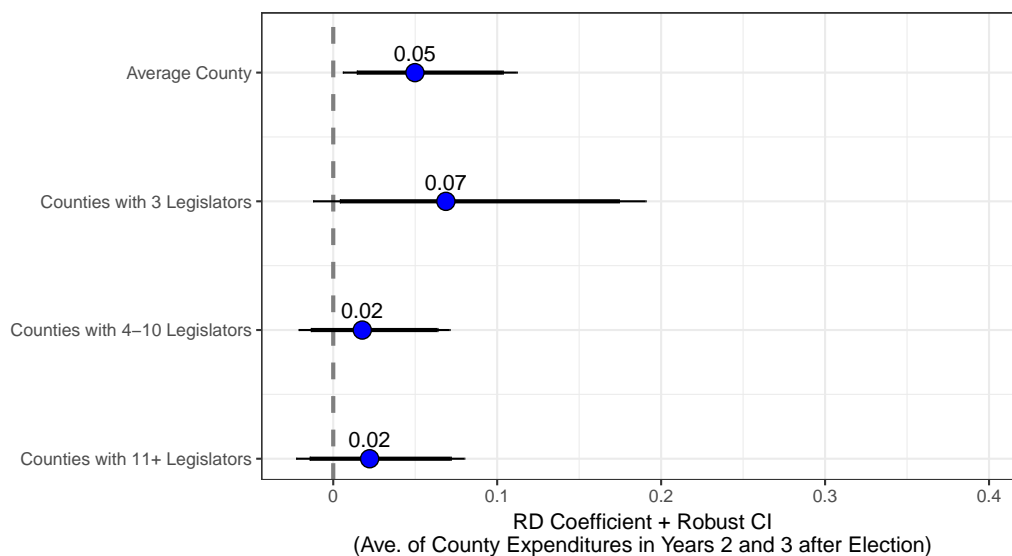


Figure 13: The effect of legislative partisanship on changes in logged per capita expenditures by the size of the county legislature. Thick bars show 90% confidence intervals and thin bars show 95% confidence intervals.

legislators has a large effect on county spending in counties with only 3 members of the legislature. In these counties, electing a Democratic legislator increases spending by about 7%. In larger counties, electing a Democratic legislator has smaller effects on spending. This may be partially due to the larger impact of a single election on the chamber’s median ideology in small legislatures.<sup>31</sup>

Third, individual legislators may also wield more power in counties with the commission form of government, in which legislators often lead a certain department of county government, relative to counties with elected executives or the council form of government.<sup>32</sup> Figure 14 shows suggestive evidence that the effects of electing a Democratic legislator are larger in counties with commissions than in other counties. Moreover, we find that electing a Democrat has essentially no effect in counties with an elected executive.<sup>33</sup>

<sup>31</sup> Electing a Democratic legislator shifts the median ideology of the legislature  $-0.245$   $[-0.537, 0.032]$  in counties with 3 legislators and  $-0.162$   $[-0.291, -0.042]$  in counties with more than three legislators.

<sup>32</sup> We gathered form of government data from the ICMA, the 1987 Census of Governments, and manual research. It is worth noting that our coding of form of government may have measurement error. For example, we found it very difficult to determine the difference between commission and council-manager governments in our manual research.

<sup>33</sup> However, it is hard to disentangle whether the larger effect in counties with commissions is truly driven by the form of government or the small size of these legislatures (see the Appendix for more details).

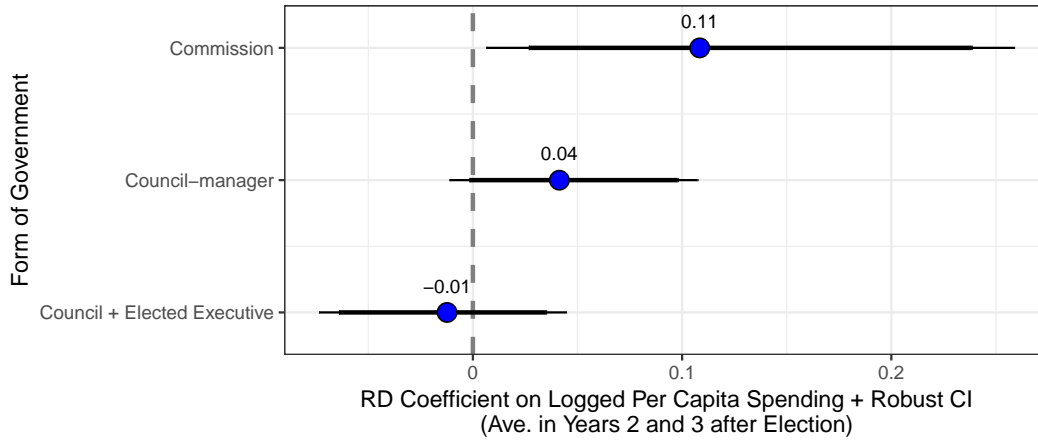


Figure 14: The effect of legislative partisanship on changes in logged per capita expenditures by the county’s form of government. Thick bars show 90% confidence intervals and thin bars show 95% confidence intervals.

Finally, county elections might have larger policy effects in counties that have more budgetary flexibility. Counties with less reliance on intergovernmental revenue may have more independent power. In Figure 15, we compare counties in states where the average proportion of county revenue that comes from intergovernmental sources is more than 35% and less than 35%. This shows suggestive evidence that the partisanship of county legislators matters more in states where counties are less dependent on intergovernmental revenue.<sup>34</sup>



Figure 15: The effect of legislative partisanship on changes in logged per capita expenditures by the percent of revenue from intergovernmental sources. Thick bars show 90% confidence intervals and thin bars show 95% confidence intervals.

In Appendix E, we further explore other potential moderators by examining heterogeneity in the effect of partisan selection by region, by time period, by urban vs. rural counties,

<sup>34</sup> However, the difference between these two subsets is not statistically significant.

by population size, and by partisan control of the state government. We find suggestive evidence that the effects of electing a Democratic county legislator are larger in the past decade than during the 1990s.<sup>35</sup>

## Conclusion

County governments play an important role in American democracy. However, there has been little previous research about the effect of elections on county fiscal policies. In this paper, we have shown that the partisan composition of county legislatures has a significant effect on county fiscal policies. Counties with more Democratic legislators spend more than counties with Republican legislators. We find this effect using two separate analytical strategies applied to an original dataset of nearly ten thousand county elections. This effect is especially large on redistributive policies — in contrast to the argument made by Peterson that redistribution is an area where local governments are particularly constrained and “where certain kinds of citizen needs and preferences seldom become demands” (Peterson, 1981, p. 182). Counties with more Democratic legislators also raise more revenue than counties with Republican legislators.

Why do county policies exhibit these effects, when the bulk of the previous literature on counties has emphasized the constraints on local policymaking? There are several possible explanations. One simple explanation may be that counties operate much like other local governments, such as cities — where recent research indicates that constraints do not eliminate the effects of partisanship. In addition, the constraints on county governments might not be as significant as previously argued. Perhaps receiving a large portion of funding from states and federal governments is not that constraining for counties at the margin, and so they have some degree of leeway within their budget to adjust policy when local representatives from different parties are elected. In addition, our exploration of moderators suggests

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<sup>35</sup> The increase in the policy effects of the partisan composition over time is consistent with the findings of Caughey, Warshaw, and Xu (2017) at the state-level.

that certain institutional configurations of counties may allow for more flexibility by county governments to change policy. In particular, when individual elected officials are afforded more power via the design of county government or rely less on other levels of government, the election of partisans has larger effects on fiscal policy. The institutions of government may affect the quality of representation in counties in the United States.

Overall, our findings contribute to a growing literature on the policy consequences of partisan control of state and local government. The partisan composition of county governments matters. Despite the lack of attention on the *politics* of county governments, we demonstrate that county-level policy is influenced by some of the same political patterns evident in the United States as a whole. Much as it does in Congress, states, and cities, partisan selection plays a powerful role in county politics. When voters elect Democratic county legislators rather than Republican legislators, the county policies that result will change in accordance with the leanings of those partisan representatives. County elections, then, may be a vehicle by which policy responsiveness operates at the local level. Since counties spend hundreds of billions of dollars of taxpayer money and conduct thousands of elections each year, the health of county democracy is important for democracy *writ large* in the United States.

While we demonstrate one role that elections play in representation in county governments here, the politics of local governments remains an area of study with numerous questions still open. For one, the results of this paper leave unanswered the impact of elections and partisanship on other policies that are not easily measured with fiscal data. Moreover, it is unclear exactly what role partisanship and ideology play in representation via city councils, school boards, and many of the other legislatures and boards that make decisions in local politics. Research on counties — as well as these other local governments — has the potential to expand the overall body of knowledge about local politics and democratic governance in the United States.

## References

- Adrian, Charles R. 1952. "Some General Characteristics of Nonpartisan Elections." *American Political Science Review* 46(3): 766–776.
- Advisory Commission on Intergovernmental Relations. 1972. *Profile of County Government*. Washington, DC: U.S. Government Printing Office.
- Aldrich, John H. 1995. *Why Parties? The Origin and Transformation of Party Politics in America*. University of Chicago Press.
- Benton, J. Edwin. 2002. *Counties as Service Delivery Agents: Changing Expectations and Roles*. Westport, CT: Praeger Publishers.
- Benton, J. Edwin. 2003. "County Government Structure and County Revenue Policy: What's the Connection?" *State and Local Government Review* 35(2): 78–89.
- Benton, J. Edwin. 2005. "An Assessment of Research on American Counties." *Public Administration Review* 65(4): 462–474.
- Benton, J. Edwin, and Donald C. Menzel. 1993. "County Services: The Emergence of Full-Service Government." In *County Governments in an Era of Change*, ed. David R Berman. Westport, CT: Greenwood Publishing Group pp. 53–69.
- Benton, J. Edwin, and Platon N. Rigos. 1985. "Patterns of Metropolitan Service Dominance: Central City and Central County Service Roles Compared." *Urban Affairs Quarterly* 20(3): 285–302.
- Bonica, Adam. 2013. "Database on Ideology, Money in Politics, and Elections: Public version 1.0 [Computer file].".
- Bonica, Adam. 2014. "Mapping the Ideological Marketplace." *American Journal of Political Science* 58(2): 367–386.

- Bonica, Adam. 2016. "Avenues of Influence: On the Political Expenditures of Corporations and Their Directors and Executives." *Business and Politics* 18(4): 367–394.
- Bonica, Adam, Adam S Chilton, and Maya Sen. 2015. "The Political Ideologies of American Lawyers." *Journal of Legal Analysis* 8(2): 277–335.
- Bonica, Adam, Howard Rosenthal, and David J Rothman. 2014. "The Political Polarization of Physicians in the United States: An Analysis of Campaign Contributions to Federal Elections, 1991 through 2012." *JAMA Internal Medicine* 174(8): 1308–1317.
- Calonico, Sebastian, Matias D. Cattaneo, and Rocío Titiunik. 2014a. "rdrobust: Robust Data-Driven Statistical Inference in Regression-Discontinuity Designs." R Package. Available at: <http://CRAN.R-project.org/package=rdrobust>.
- Calonico, Sebastian, Matias D. Cattaneo, and Rocío Titiunik. 2014b. "Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs." *Econometrica* 82(6): 2295–2326.
- Cattaneo, Matias D, Nicolás Idrobo, and Rocio Titiunik. 2017. "A Practical Introduction to Regression Discontinuity Designs: Part I."
- Cattaneo, Matias D, Rocio Titiunik, and Gonzalo Vazquez-Bare. 2016. "Inference in Regression Discontinuity Designs under Local Randomization." *Stata Journal* 16(2): 331–367.
- Caughey, Devin, Christopher Warshaw, and Yiqing Xu. 2017. "Incremental Democracy: The Policy Effects of Partisan Control of State Government." *Journal of Politics* 79(4): 1342–1358.
- Choi, Sang Ok, Sang-Seok Bae, Sung-Wook Kwon, and Richard C. Feiock. 2010. "County Limits: Policy Types and Expenditure Priorities." *American Review of Public Administration* 40(1): 29–45.

- Cigler, Beverly A. 1995. "County Governance in the 1990s." *State and Local Government Review* 27(1): 55–70.
- Cox, Gary W, and Mathew D McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the US House of Representatives*. New York: Cambridge University Press.
- de Benedictis-Kessner, Justin. 2018. "Off-Cycle and Out of Office: Election Timing and the Incumbency Advantage." *Journal of Politics* 80(1): 119–132.
- de Benedictis-Kessner, Justin, and Christopher Warshaw. 2016. "Mayoral Partisanship and Municipal Fiscal Policy." *Journal of Politics* 78(4): 1124–1138.
- DeSantis, Victor S., and Tari Renner. 1996. "Structure and Policy Expenditures in American Counties." In *The American County: Frontiers in Knowledge*, ed. Donald C. Menzel. Tuscaloosa, AL: University of Alabama Press pp. 80–91.
- Eggers, Andrew C, Anthony Fowler, Jens Hainmueller, Andrew B Hall, and James M Snyder, Jr. 2015. "On the Validity of the Regression Discontinuity Design for Estimating Electoral Effects: New Evidence from Over 40,000 Close Races." *American Journal of Political Science* 59(1): 259–274.
- Einstein, Katherine Levine, and David M Glick. 2018. "Mayors, Partisanship, and Redistribution: Evidence Directly from US Mayors." *Urban Affairs Review* 54(1): 74–106.
- Einstein, Katherine Levine, and Vladimir Kogan. 2015. "Pushing the City Limits: Policy Responsiveness in Municipal Government." *Urban Affairs Review* 52(1): 3–32.
- Erikson, Robert S, Gerald C Wright, and John P McIver. 1993. *Statehouse Democracy: Public Opinion and Policy in the American States*. Cambridge University Press.
- Farris, Emily M, and Mirya R Holman. 2015. "Public Officials and a "Private" Matter: Attitudes and Policies in the County Sheriff Office Regarding Violence Against Women." *Social Science Quarterly* 96(4): 1117–1135.

- Farris, Emily M, and Mirya R Holman. 2017. “All Politics is Local? County Sheriffs and Localized Policies of Immigration Enforcement.” *Political Research Quarterly* 70(1): 142–154.
- Ferreira, Fernando, and Joseph Gyourko. 2009. “Do Political Parties Matter? Evidence from US Cities.” *The Quarterly Journal of Economics* 124(1): 399–422.
- Gelman, Andrew, and Guido Imbens. 2017. “Why high-order polynomials should not be used in regression discontinuity designs.” *Journal of Business & Economic Statistics* .
- Gelman, Andrew, and Jennifer Hill. 2007. *Data Analysis Using Regression and Multi-level/Hierarchical Models*. New York: Cambridge University Press.
- Gerber, Elisabeth R, and Daniel J Hopkins. 2011. “When Mayors Matter: Estimating the Impact of Mayoral Partisanship on City Policy.” *American Journal of Political Science* 55(2): 326–339.
- Hahn, Jinyong, Petra Todd, and Wilbert Klaauw. 2001. “Identification and Estimation of Treatment Effects with a Regression-Discontinuity Design.” *Econometrica* 69(1): 201–209.
- Hopkins, Daniel J. 2018. *The Increasingly United States*. Chicago: University of Chicago Press.
- Hopkins, Daniel J, and Katherine T McCabe. 2012. “After It’s Too Late: Estimating the Policy Impacts of Black Mayoralties in US Cities.” *American Politics Research* 40(4): 665–700.
- Hopkins, Daniel J., and Lindsay M. Pettingill. forthcoming. “Retrospective Voting in Big-City U.S. Mayoral Elections.” *Political Science Research and Methods* .
- Imbens, Guido, and Karthik Kalyanaraman. 2012. “Optimal Bandwidth Choice for the Regression Discontinuity Estimator.” *Review of Economic Studies* 79(3): 933–959.



- Krehbiel, Keith. 1998. *Pivotal Politics*. Chicago: University of Chicago Press.
- Lee, David S., and Thomas Lemieux. 2010. "Regression Discontinuity Designs in Economics." *Journal of Economic Literature* 48(2): 281–355.
- Lee, David S., Enrico Moretti, and Matthew J. Butler. 2004. "Do Voters Affect Or Elect Policies? Evidence From the U.S. House." *Quarterly Journal of Economics* 119(3): 807–859.
- Macartney, Hugh, and John D Singleton. 2018. "School Boards and Student Segregation." *Journal of Public Economics* 164: 165–182.
- Marando, Vincent L., and Mavis Mann Reeves. 1991. "Counties as Local Governments: Research Issues and Questions." *Journal of Urban Affairs* 13(1): 45–53.
- Marando, Vincent L, and Robert Daniel Thomas. 1977. *The Forgotten Governments: Country Commissioners as Policy Makers*. University Presses of Florida.
- Marschall, Melissa, and Paru Shah. 2016. "The Local Elections in America Project." [database]. Available at: <http://www.leap-elections.org/>.
- Martin, Lawrence L., and Ronald C. Nyhan. 1994. "Determinants of County Charter Home Rule." *International Journal of Public Administration* 17(5): 955–970.
- Menzel, Donald C. 1996. "The American County." In *The American County: Frontiers in Knowledge*, ed. Donald C. Menzel. Tuscaloosa, AL: University of Alabama Press pp. 203–214.
- Miller, Michael K. 2013. "For the Win! The Effect of Professional Sports Records on Mayoral Elections." *Social Science Quarterly* 94(1): 59–78.
- Morgan, David R., and Kenneth Kickham. 1999. "Changing the Form of County Government: Effects on Revenue and Expenditure Policy." *Public Administration Review* 59(4): 315–324.

- Muzzio, Douglas, and Tim Tompkins. 1989. "On the Size of the City Council: Finding the Mean." *Proceedings of the Academy of Political Science* 37(3): 83–96.
- National Association of Counties, Research Division. 2008. *County Elections – Partisan or Non-Partisan?* National Association of Counties.
- Palumbo, Dennis J., and Michael A. Hallett. 1994. "Politics and Implementation of Criminal Justice Policy Among County Justice Agencies: An Arizona Case Study." *International Journal of Public Administration* 17(5): 831–849.
- Palus, Christine Kelleher. 2010. "Responsiveness in American Local Governments." *State and Local Government Review* 42(2): 133–150.
- Park, Kee Ok. 1996. "Determinants of County Government Growth." In *The American County: Frontiers in Knowledge*, ed. Donald C. Menzel. Tuscaloosa, AL: University of Alabama Press pp. 34–50.
- Percival, Garrick L, Martin Johnson, and Max Neiman. 2009. "Representation and Local Policy: Relating County-Level Public Opinion to Policy Outputs." *Political Research Quarterly* 62(1): 164–177.
- Peterson, Paul E. 1981. *City Limits*. Chicago: University of Chicago Press.
- Peterson, Paul E. 1995. *The Price of Federalism*. Washington, D.C.: Brookings Institution Press.
- Rae, Douglas W. 2003. *City: Urbanism and Its End*. New Haven, CT: Yale University Press.
- Riker, William H. 1962. *The Theory of Political Coalitions*. New Haven, CT: Yale University Press.
- Rogers, Steven. 2016. "National Forces in State Legislative Elections." *The ANNALS of the American Academy of Political and Social Science* 667(1): 207–225.

- Salant, Tanis J. 1993. "Shifting Roles in County-State Relations." In *County Governments in an Era of Change*, ed. David R Berman. Westport, CT: Greenwood Publishing Group pp. 107–121.
- Schneider, Mark, and Kee Ok Park. 1989. "Metropolitan Counties as Service Delivery Agents: The Still Forgotten Governments." *Public Administration Review* 49(4): 345–352.
- Self, Robert O. 2003. *American Babylon: Race and the struggle for postwar Oakland*. Princeton University Press Princeton, NJ.
- Shor, Boris, and Nolan McCarty. 2011. "The Ideological Mapping of American Legislatures." *American Political Science Review* 105(3): 530–51.
- Tausanovitch, Chris, and Christopher Warshaw. 2014. "Representation in Municipal Government." *American Political Science Review* 108(03): 605–641.
- Trounstine, Jessica. 2009. "All Politics is Local: The Reemergence of the Study of City Politics." *Perspectives on Politics* 7(03): 611–618.
- Trounstine, Jessica. 2011. "Evidence of a Local Incumbency Advantage." *Legislative Studies Quarterly* 36(2): 255–280.
- U.S. Census of Government. 2012.
- Vogl, Tom S. 2014. "Race and the Politics of Close Elections." *Journal of Public Economics* 109: 101–113.
- Ybarra, Vickie D., and Timothy B. Krebs. 2016. "Policy Responsiveness in Local Government: Adoption of Smoke-free Policies in U.S. Counties." *State and Local Government Review* 48(1): 6–20.

Politics in Forgotten Governments:  
The Policy Effects of the Partisan Composition of  
County Legislatures  
Supplementary Appendix

July 19, 2018

## A Descriptive Statistics on Sample of Counties

Descriptive statistics for the counties that we use in our final sample of elections are presented in Table A1. In the first column, we report summary statistics (mean and standard deviation) for several characteristics. Since we choose to focus on counties over a population threshold of 150,000 people and which have partisan elections, we present the same descriptive statistics for this universe of counties in the second column.<sup>1</sup> Our final sample consists of 296 of these 319 counties. Our sample of counties does not have significant differences relative to our target set of counties in any of these descriptive characteristics.

We also present these same statistics for all counties in the U.S. in the third column of Table A1. Because we focus our sample on larger counties, our sample is unsurprisingly biased in its average size relative to all counties in the U.S. Relative to the entire country, our sample is also somewhat regionally weighted towards the northeast. It is made up of counties that are slightly less white and slightly more black than cities across the entire country, as well as more educated, of higher income, and with a higher median home value.

Table A1: City Summary Statistics

	Final Sample	>150k population	All U.S. counties
Population	434138 (510961)	422507 (495874)	89733 (292675)
% West	14 (35)	13 (34)	14 (35)
% South	42 (49)	42 (49)	45 (50)
% Northeast	21 (41)	22 (41)	7 (25)
% White	80 (13)	80 (13)	84 (17)
% Black	11 (11)	11 (11)	9 (15)
% College degree or more	17 (6)	17 (6)	11 (5)
Median household income	45929 (10300)	45608 (10183)	35374 (8906)
Median home value	120526 (41747)	119266 (41539)	81327 (42236)
Number of counties	296	319	3136

Statistics are from 2000 U.S Census data. Standard deviations in parentheses.

<sup>1</sup>This excludes counties in CA, MN, WI, AK, SD, ND, and LA, as well as some counties in FL.

We also compute descriptive statistics on the finances of the counties that we use in our final sample of elections, presented in Table A2 for those that had finances data available for 2012. In the first column, we report summary statistics (mean and standard deviation) for per capita expenditures and revenue across several categories. We present the same descriptive statistics for the target universe of large counties with partisan elections in the second column, and again for all counties in the U.S. in the third column of Table A2. Our sample of counties closely resembles our target universe of counties.

Counties divided their expenditures among a variety of categories, and similarly raised their revenue from a variety of sources, but this also changed over time. Figure A1 shows the division of total expenditures into a variety of categories in counties in our target universe of large counties from 1990 to 2014. Across the entire time period, counties spent the largest amount on education, administration, welfare, and healthcare. While the level of most of these spending areas is relatively constant over time, education expenditures rise by a large degree between 1990 and 2012 in the average county. In line with national trends, healthcare costs also rise steadily from 1990 to the present.

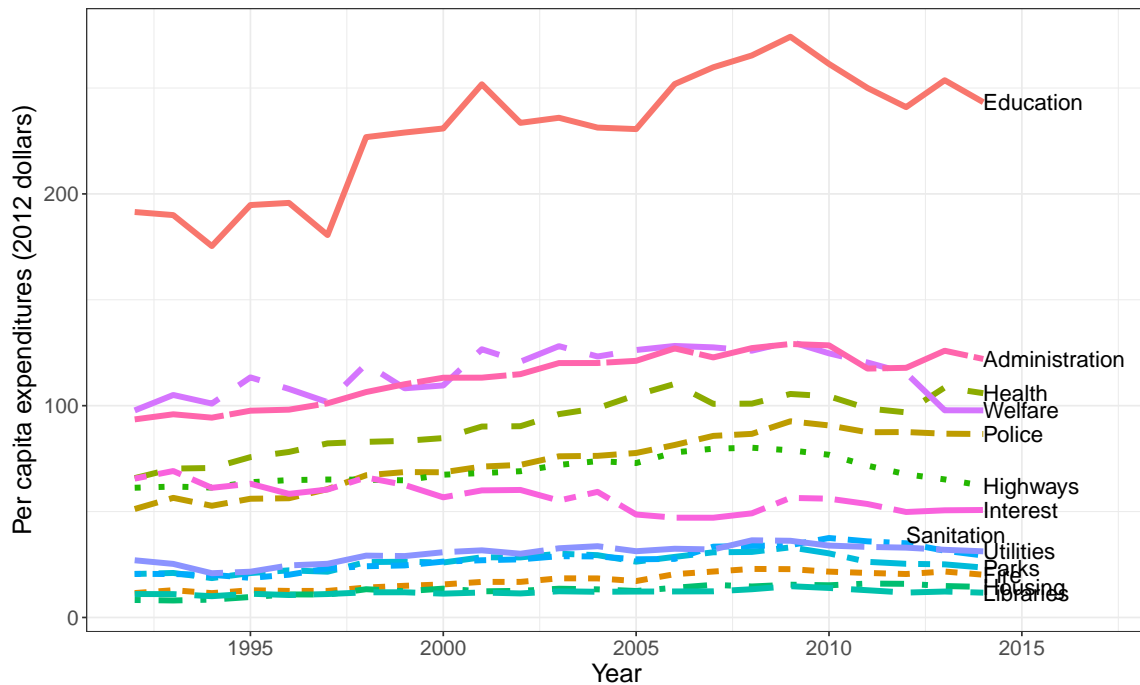


Figure A1: Expenditures over time, individual categories (target universe)

Table A2: City Finances Summary Statistics, 2012 dollars per capita

	Final Sample	>150k population	All U.S. counties
Total Expenditures	1265 (1050)	1239 (1039)	1469 (1755)
Education	249 (604)	241 (591)	215 (608)
Fire	22 (48)	21 (46)	18 (58)
Police	90 (79)	88 (78)	106 (112)
Health	99 (114)	97 (112)	87 (149)
Highways	67 (59)	68 (58)	189 (313)
Housing	17 (35)	16 (34)	9 (28)
Libraries	12 (18)	12 (18)	10 (31)
Parks	26 (37)	25 (36)	19 (61)
Sanitation	36 (126)	35 (123)	12 (58)
Utilities	34 (76)	33 (74)	25 (214)
Welfare	113 (164)	115 (172)	91 (171)
Interest	51 (61)	50 (59)	41 (288)
Administration	120 (75)	118 (74)	156 (203)
Total Revenues	1249 (1018)	1223 (1005)	1492 (1765)
Own Sources	868 (760)	849 (747)	993 (1342)
Total Taxes	544 (502)	535 (493)	572 (920)
Sales Taxes	122 (160)	123 (164)	104 (198)
Property Taxes	374 (329)	366 (321)	432 (868)
Debt	1216 (1257)	1184 (1235)	897 (5039)
Intergovernmental	382 (367)	375 (363)	499 (736)
Number of counties	290	309	2793

Statistics are from the Census of Governments Finances data in 2012, and therefore eliminate counties that did not report financial data in 2012. Standard deviations in parentheses.

## B Further Details on Validity of Regression Discontinuity Design

The key identifying assumption of the RD design is that the distribution of units' potential outcomes is continuous at the treatment threshold (Hahn, Todd, and Klaauw, 2001; Lee and Lemieux, 2010). In some electoral settings the continuity assumption appears to be violated due to incumbents' ability to win narrow victories (Caughey and Sekhon, 2011). However, Eggers et al. (2015) find no evidence of pro-incumbent sorting in a variety of electoral contexts. Consistent with Eggers et al.'s (2015) findings, we find no statistically significant discontinuities (i.e., placebo effects) using similar RD models as in our main paper.

Table B1: Covariate continuity tests for the County Legislative RD design

Outcome Variable	Estimate	Pr >  z	Eff. N	BW
Lagged Running Variable (Dem. Vote Share)	-0.007	0.632	2509	10.78
Lagged Treatment Variable (Dem. Legislator)	0.093	0.207	2475	10.365
Contemporaneous Logged Per Capita Expenditures	-0.102	0.23	3520	11.748
Contemporaneous Change in Logged Per Capita Exp.'s	0.016	0.144	2908	9.595
Contemporaneous Democratic Seat Share	0.05	0.321	2573	9.35

Estimated using the default local-linear regression bandwidth (BW) and robust confidence intervals calculated by `rdrobust` (Calonico, Cattaneo, and Titiunik, 2014).



## C Robustness of Main Results

This appendix shows the robustness of our main results on total county expenditures to different modeling choices. First, Table C1 shows that the main results are substantively similar using a variety of different bandwidths for the RD model. Second, Table C1 shows that we obtain similar results using higher order polynomials for our RD models. Finally, the last line of Table C1 shows that we obtain similar results using local randomization in a narrow 1% bandwidth close to the discontinuity using the default options in the `rdlocrand` package in R (Cattaneo, Titiunik, and Vazquez-Bare, 2016).

Table C1: Robustness of Main Results to Different Modeling Choices.

Model	Polynomial	<i>Weighted RD</i>				<i>Unweighted RD</i>			
		Estimate	Pr $> z $	Eff. N	BW	Estimate	Pr $> z $	Eff. N	BW
Main Results (optimal BW)	1	0.05	0.03	2209	6.899	0.036	0.023	2517	8.023
2nd order polynomial	2	0.059	0.015	3928	13.586	0.042	0.017	4018	14.058
3rd order polynomial	3	.062	0.082	4356	15.697	0.047	0.033	4783	18.429
4th order polynomial	4	0.056	0.162	4732	18.142	0.036	0.228	4552	16.877
1% bandwidth	1	0.026	0.418	398	1	0	0.869	398	1
2% bandwidth	1	0.066	0.547	736	2	0.042	0.952	736	2
3% bandwidth	1	0.07	0.32	1056	3	0.044	0.399	1056	3
4% bandwidth	1	0.052	0.065	1370	4	0.034	0.135	1370	4
5% bandwidth	1	0.048	0.076	1674	5	0.036	0.139	1674	5
Randomization Inference	NA	NA	NA	NA	NA	0.037	0.066	398	1

## D Main Results in Tabular Form

In the main text of the paper we present our results in graphical form. Here we present these results for minimally-aggregated categories of expenditures (Table D1) and revenue and debt (Table D2).

Table D1: Expenditure Results.

Outcome variable (all variables are changes)	Estimate	Pr $> z $	Eff. N	BW
Total Expenditures	0.05 (0.006, 0.112)	0.03	2209	6.899
Police, Fire, and Corrections	0.012 (-0.035, 0.067)	0.534	2977	9.651
Redistribution (Health, Hospitals, Housing, & Welfare)	0.088 (0.01, 0.211)	0.032	2073	6.335
Education and Libraries	0.147 (-0.088, 0.423)	0.198	4369	15.786
Roads	0.188 (-0.008, 0.463)	0.059	3292	10.811
Parks and Natural Resources	0.247 (0.004, 0.536)	0.046	2703	8.683
Sanitation and Utilities	.152 (-0.174, 0.479)	0.36	2728	8.778
Interest	0.059 (-0.114, 0.23)	0.507	2741	8.804
Admin. and Misc.	0.021 (-0.025, 0.086)	0.283	2762	8.918

Table D2: Revenue Results.

Outcome variable (all variables are changes)	Estimate	Pr $> z $	Eff. N	BW
Total Revenues	0.029 (-0.003, 0.072)	0.072	2674	8.576
Total Taxes	0.008 (-0.025, 0.042)	0.62	3144	10.268
Sales Taxes	-0.123 (-0.398, 0.112)	0.272	2775	8.961
Property Taxes	0.03 (-0.038, 0.114)	0.324	3463	11.496
Charges and Misc. Rev.	0.042 (-0.046, 0.142)	0.315	2480	7.877
Intergov. Rev.	-0.013 (-0.11, 0.076)	0.72	2742	8.812
Debt	0.082 (-0.068, 0.271)	0.242	2663	8.555

We also further aggregate our spending variables into fewer spending categories to reduce noise and to test existing theories of urban policy, particularly those in

Peterson (1981). Figure D1 aggregates our spending measures into the three categories originally developed by Peterson (1981). He argued that local expenditures can be categorized as as developmental, allocational, and redistributive. He classified education as a separate category since it had both developmental and redistributive aspects. As described by Choi et al. (2010), “Development policy focuses on attracting and stimulating economic growth and development through spending on highways, utilities, water transportation, parking, sewage, and other services that promote the economic position of a locality by facilitating economic growth. Governments must also carry out police power functions as well as provide basic services that do not necessarily have substantial redistributive consequences. These allocational or ‘housekeeping’ services include police, fire, and street maintenance services, employee security, general public buildings, parks and recreation, general government, and financial administration. Allocational policies are neutral in their impact on the economic position of the community, although they may disproportionately benefit property owners... Redistributive policies target benefits to less advantaged residents... including public welfare, housing and community development, health, and hospitals.”

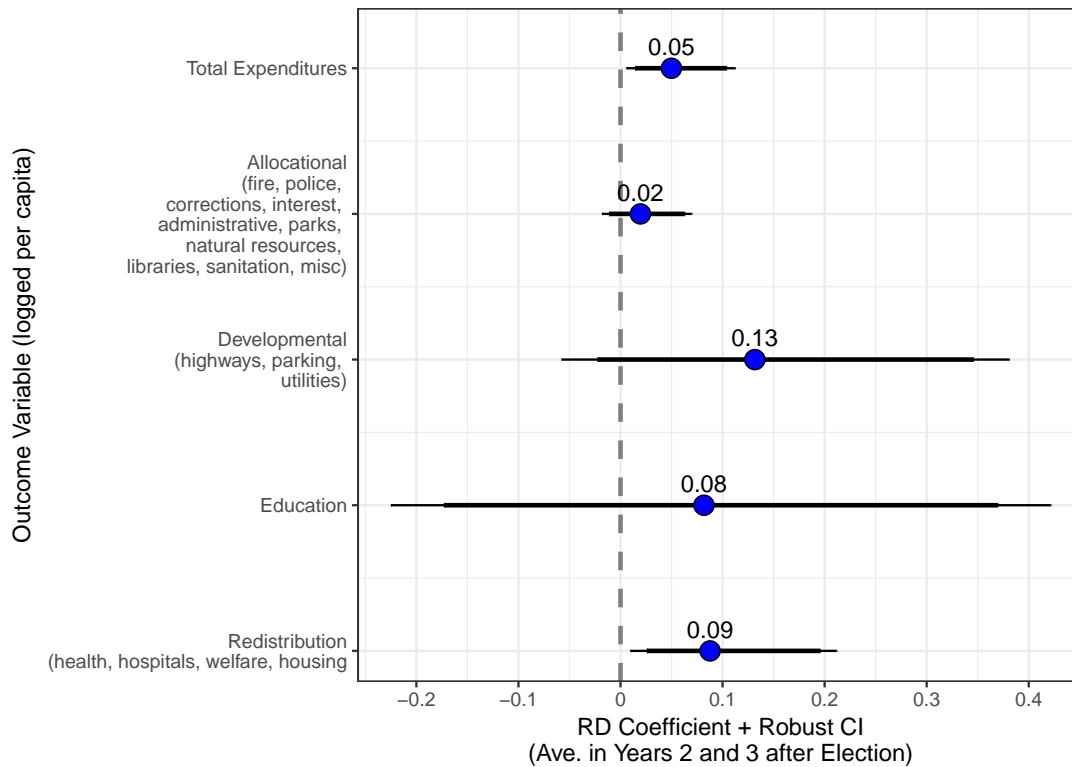


Figure D1: Aggregated spending categories from Peterson (1981).

We find that the point estimates for redistribution and developmental expenditures are similar and large. But the effect on allocational spending is much smaller, and possibly null. As discussed in the main paper, this contrasts with theoretical expectations from Peterson (1981) on redistributive policies, especially.

## E Tests of Moderators

Variation in the institutions and descriptive characteristics of counties may help explain *why* these effects exist — in other words, the moderators for our main effects. In the main text, we examine four such moderators: whether an election is likely to influence the majority coalition, the relative voting power of an individual legislature, the form of county government, and the degree of constraints on county fiscal policies. In this appendix, we examine additional potential moderators: by region, by time period, by urban vs. rural counties, by population size, and by control of state government. However, these results should be interpreted cautiously as none of the institutional variation is causally identified, and therefore any differences in our treatment effects across subgroups could be confounded by any number of omitted variables — even other institutional and descriptive characteristics that we examine here.

### 1) Region

In Table E1, we examine how the size of county legislatures varies between different regions. Here, we find some degree of geographic heterogeneity. Most very large legislatures with more than 10 members are found in the east and midwest. However, these states also have a large number of very small legislatures with only three members. In the west and south, virtually no counties have large legislatures. And in the south, very few have small legislatures either. We can also examine variation in the effect of electing a Democratic legislator between counties in different regions. In Table E2, we find that the effects are broadly similar in different regions, although the results are noisy due to small sample sizes.

Table E1: Proportion of counties in each region with small, medium, and large legislatures

	N	3	4-10	10+
East	61	0.41	0.36	0.23
Midwest	67	0.31	0.34	0.34
South	120	0.03	0.85	0.12
West	41	0.54	0.46	0.00

Table E2: Heterogeneity in effect of legislator partisanship across regions

Outcome variable	Estimate	Pr $> z $	Eff. N	BW
East	0.072 (-0.057, 0.239)	0.229	802	9.288
Midwest	0.055 (-0.007, 0.149)	0.074	818	7.293
South	0.024 (-0.041, 0.109)	0.38	775	9.639
West	0.037 (-0.037, 0.11)	0.333	276	8.197

## 2) Time period

Next, we examine whether the effects of legislators' partisanship on county spending has changed over time, perhaps due to the growth in partisan polarization over the past few decades. Indeed we find that electing a Democratic county legislator had no significant effect on county spending during the period between 1990 and 2002 (Table E3). However, it had a large and significant effect between 2003 and 2012. This supports the evidence found in states that the policy effects of the partisan composition of government have grown over time (Caughey, Warshaw, and Xu, 2017).

Table E3: Heterogeneity in effect of legislator partisanship across time

Outcome variable	Estimate	Pr $> z $	Eff. N	BW
1990-2002	0.013 (-0.034, 0.076)	0.452	1271	7.903
2003-2012	0.090 (0.016, 0.192)	0.021	1171	7.537

## 3) Urban vs. Rural Counties

Here, we examine how the size of our effects varies between urban and rural counties. We divide our dataset into counties with more than 15% of the population is rural compared to counties where less than 15% of the population is rural, and examine variation in the effect of electing a Democratic legislator between urban and rural counties. These results are in Table E4, which shows suggestive evidence that the effect is larger in more urban counties. However, the difference between urban and rural counties is not statistically significant.

We also examine whether this variation could be due to the size of the legislature. In Table E5, we show how the size of county legislature varies between counties with some substantial rural component and those that are almost entirely urban. It indicates that there is little difference in the size of legislatures between urban and

Table E4: Heterogeneity in effect of legislator partisanship across more urban and rural counties

Outcome variable	Estimate	Pr $> z $	Eff. N	BW
Rural	0.029 (-0.019, 0.106)	0.172	800	8.264
Urban	0.056 (-0.005, 0.134)	0.07	1647	7.625

rural counties. This indicates that the size of the legislature is unlikely to be driving the differences between effects in rural and urban counties.

Table E5: Proportion of urban and rural counties with small, medium, and large legislatures

	N	3	4-10	10+
Rural ( $>15\%$ Rural)	108	0.32	0.49	0.19
Urban ( $<15\%$ Rural)	181	0.20	0.62	0.17

#### 4) Population

We also examine heterogeneity in the effect of electing a Democratic legislator across counties with different populations. Consistent with the theoretical expectations we briefly discuss in the paper, we do find some evidence that the effects of electing a Democratic legislator are larger in counties with larger populations. However, the results are very noisy and non-monotonic in their variation according to county size. Moreover, these non-causal differences could be confounded by other differences in the structure of county governments. For instance, they are almost certainly confounded by variation in the size of county legislatures across counties.

Table E6: Heterogeneity in effect of legislator partisanship by county size

Outcome variable	Estimate	Pr $> z $	Eff. N	BW
Main Effect	0.05 (0.006, 0.112)	0.03	2209	6.899
<150,000	0.008 (-0.058, 0.08)	0.756	854	10.456
150,000-250,000	0.011 (-0.052, 0.096)	0.56	731	8.874
250,000-400,000	0.098 (0.017, 0.211)	0.021	558	7.029
400,000-800,000	0.069 (-0.064, 0.235)	0.263	608	9.133
>800,000	0.029 (-0.014, 0.09)	0.155	665	10.712

### 5) Partisan Control of State Government

Finally, we examine whether the partisan control of the *state* government affects the impact of county legislators' partisanship on policy. We might expect that the ability of county legislators to change policy depends on the state government's overall attitude towards county spending, which might differ between Democrats and Republicans. At the national level, Republican legislators have often favored devolution of authority to states in their rhetoric and party platforms.<sup>2</sup> An analogous attitude towards delegation by state politicians to local governments might allow county legislatures under Republican state governments to have more latitude in changing policy.

Table E7: Heterogeneity in effect of legislator partisanship based on partisan control of state government

Outcome variable	Estimate	Pr $> z $	Eff. N	BW
Unified Democratic Control	0.063 (-0.063, 0.221)	0.277	686	9.02
Split Control	0.032 (-0.02, 0.108)	0.176	1159	6.847
Unified Republican Control	0.074 (0.027, 0.15)	0.005	501	8.418

Contrary to this expectation, we find that the effect of electing a Democratic legislator rather than a Republican legislator does not depend on partisan control of the state's government. In Table E7 we show our main effects of the partisanship of

<sup>2</sup> However, see SoRelle and Walker (2016) for evidence that this pattern in rhetoric does not bear out in actual Congressional preemption of state policies.

a county legislator on spending, separated between counties in which there is unified Democratic control of the state government (in the first line), split control (in the middle line), and unified Republican control (in the final line). Under Republican and Democratic state governments, the election of county legislators has an equivalent effect on policy.



## References

- Calonico, Sebastian, Matias D. Cattaneo, and Rocío Titiunik. 2014. “rdrrobust: Robust Data-Driven Statistical Inference in Regression-Discontinuity Designs.” R Package. Available at: <http://CRAN.R-project.org/package=rdrrobust>.
- Cattaneo, Matias D, Rocio Titiunik, and Gonzalo Vazquez-Bare. 2016. “Inference in Regression Discontinuity Designs under Local Randomization.” *Stata Journal* 16(2): 331–367.
- Caughey, Devin, and Jasjeet S. Sekhon. 2011. “Elections and the Regression Discontinuity Design: Lessons from Close U.S. House Races, 1942–2008.” *Political Analysis* 19(4): 385–408.
- Caughey, Devin, Christopher Warshaw, and Yiqing Xu. 2017. “Incremental Democracy: The Policy Effects of Partisan Control of State Government.” *Journal of Politics* 79(4): 1342–1358.
- Choi, Sang Ok, Sang-Seok Bae, Sung-Wook Kwon, and Richard C. Feiock. 2010. “County Limits: Policy Types and Expenditure Priorities.” *American Review of Public Administration* 40(1): 29–45.
- Eggers, Andrew C, Anthony Fowler, Jens Hainmueller, Andrew B Hall, and James M Snyder, Jr. 2015. “On the Validity of the Regression Discontinuity Design for Estimating Electoral Effects: New Evidence from Over 40,000 Close Races.” *American Journal of Political Science* 59(1): 259–274.
- Hahn, Jinyong, Petra Todd, and Wilbert Klaauw. 2001. “Identification and Estimation of Treatment Effects with a Regression-Discontinuity Design.” *Econometrica* 69(1): 201–209.
- Lee, David S., and Thomas Lemieux. 2010. “Regression Discontinuity Designs in Economics.” *Journal of Economic Literature* 48(2): 281–355.
- Peterson, Paul E. 1981. *City Limits*. Chicago: University of Chicago Press.
- SoRelle, Mallory E, and Alexis N Walker. 2016. “Partisan Preemption: The Strategic Use of Federal Preemption Legislation.” *Publius: The Journal of Federalism* 46(4): 486–509.