Lame Ducks and Divided Government: How Voters Control the Unaccountable

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Comments are welcome.

ABSTRACT

Voters' ability to make use of the electoral instruments at hand is crucial for the workings of democracies. We show that voters take the institutional environment into account when making electoral decisions. Voters recognize that executives who face a binding term limit, i.e. 'lame ducks', have incentives to deviate from voters' preferences, since they are not subject to a reelection restriction. This weakened accountability can be counterbalanced by an alternative mechanism, namely divided government. By dividing government control between the executive and the legislative voters can force a lame duck to compromise on policy with an opposing legislature. In a panel data analysis for the US states from 1975-2000, we show that the probability of divided government is 10-15 percent higher when governors are lame ducks. This effect remains robust and significant even after controlling for many relevant covariates. The finding is evidence for voters' considerable capacity to process information and use alternative electoral instruments to control an otherwise unaccountable executive.

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1.   Introduction

Voters' ability to use the democratic instruments at hand in an informed and coherent manner is crucial for the working of democracy. Skeptics of democratic institutions argue that the complexity of policy choice and the related cost of information overburden citizens' capacity to make informed decisions. The aim of this paper is to study voters' capacity to process information and make coherent electoral decisions in a rather demanding setup: voters have to take the institutional environment into account when making electoral decisions.

Specifically, we test if voters react systematically to the diluted accountability of a term-limited executive by dividing government control. Voters face a systematic control problem when a term-limited executive is in his last term in office. A so-called 'lame duck' is not eligible to run for reelection and is hence not incentivized by reelection considerations. However, voters have an alternative mechanism at hand to control a lame duck executive: They can divide government control by voting for the opposition party in legislative elections. Divided government is characterized by opposing party majorities in the executive and legislative branch. By dividing government power voters can mitigate the control problem related to a lame duck executive since they force the two branches of government to compromise on policy. Hence, our hypothesis is that voters anticipate the weakened incentives of a lame duck executive to pursue voters' rather than his private agenda and react by voting for divided government.

To test this hypothesis, we take advantage of two factors of the United States' political system. First, US state governors are frequently subject to a binding term limit. Second, the separate election of the executive and the legislative at the US state level allows the emergence of divided government control. In our empirical exercise we test if there is a higher probability of divided government in case the state governor is a lame duck. We find that a lame ducks face a 10 to 15 percent higher probability of divided government.

In the following Section 2 we introduce the main theoretical arguments in order to ground our empirical hypothesis. We review the relevant insights of the literature on divided government as well as on term limit legislation and formulate our testable hypothesis. In Section 3 we introduce our test case at the US state level, present the data and the empirical strategy. In Section 4 we provide empirical results showing that the probability of divided government is significantly higher when US state governors are lame ducks. This is consistent with the view that voters balance a weakened accountability mechanism by voting for a different party in the legislative. Section 5 summarizes and concludes.

2.   Divided Government: Voters reaction to a systematic control problem

To back the main argument of the paper we combine two strands of the literature on 1) the electoral accountability of term limited agents and 2) the causes and consequences of divided government.

2.1.   Electoral accountability of term limited executives

There has been much debate about the causes and consequences of term limit legislation (e.g. Carey, Niemi and Powell 2000). One major disadvantage of term limit legislation stems from the last period in office when the term limit is binding and the executive becomes a lame duck. Executives who care about maintaining a reputation in order to be re-elected must introduce policy in accordance with voter preferences. Not being eligible to run for reelection eliminates this powerful incentive. In most political agency models reelection incentives are the main channel through which to align the preferences of the office holder and the voters. The lack of accountability to voters increases an agent's incentives for opportunistic behavior, which could manifest in low effort, favoring specific interests and legacy building for example. Testing a political agency model, Besley and Case (1995) show that US state governors subject to a binding term limit implement systematically different fiscal policies than governors who can stand for reelection. They suggest that governors eligible to run for reelection care about reputation building and, hence, adjust economic policy choices to this constraint, while lame ducks do not face such incentives. In states with binding term limits, they find fiscal cycles with higher taxes and expenditure in the last term if the governor is a Democrat. Johnson and Crain (2004) extend this analysis to investigate the influence of term limits on fiscal policy in a cross-country setting. They find higher expenditures and taxes and evidence for a fiscal cycle in that expenditures increase in lame duck terms and decrease when the executive can stand for reelection. Furthermore, List and Sturm (2006) explore a political agency model in which policy makers decide on a primary as well as a secondary policy issue and face a binding term limit in the second period. They show that binding term limits even have an influence on secondary policy issues such as environmental policy. Secondary policy issues are often believed to be less important for reelection than primary issues since the only concern policy issues affecting smaller groups and voters remain uninformed due to the multitude of secondary policy issues (List and Sturm 2006: 1249-50). In their empirical analysis they show that incumbents implement environmental policy in order to attract votes if they stand for reelection, but much less when the term limit binds. This again suggests systematically different behavior of

incumbents conditional on a binding reelection constraint.[1]

2.2.   Causes and consequences of divided government

Divided government is a common phenomenon in presidential systems, in which the executive and the legislative are separately elected by the voters. A prime example is the United States' political system with its two main parties, the Republican and the Democratic Party. At the US federal level divided government was the dominant form of government in the period from 1952 to 2010. Roughly 59 percent of all governments were divided in the sense that the Presidency and the US Congress - the Senate and/or the House of Representatives - were dominated by opposing party majorities.

There is an extensive body of research analyzing the causes and consequences of divided government. Fiorina (1992) and Alesina and Rosenthal (1995, 1996) analyze the causes of divided government. They argue that the division of government control is the result of rational voter behavior. Voters at the center of the policy spectrum moderate policy by electing different parties into the branches of government.[2] Alesina and Rosenthal (1995, 1996) build a formal model extending the standard spatial voting theory to include the separate election of the executive and the legislative with the possibility of dividing government control. In their model, policy is seen as a compromise between the executive and the legislative. When both branches are held by one party - as in the case of unified government - the party in power implements its preferred policy, else they have to compromise with the opposing party in the other branch. Voters in between the preferred party positions take advantage of this legislative-executive interaction in order to moderate policy outcome. Alesina and Rosenthal (1995) argue that divided government "[…] is not an undesired result of a cumbersome electoral process, nor is it the result of a lack of rationality or of well-defined preferences of the electorate. Divided government occurs because moderate voters like it, and they take advantage of "checks and

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[1] When it comes to explaining why term limits have been introduced most contributions base their argument on the well documented incumbency advantage (e.g. Gelman and King 1990, 1991, Levitt and Wolfram 1997, Ansolabehere and Snyder 2002, 2004 and Hirano and Snyder 2009), which is reduced by introducing term limits. It has been argued that more senior policymakers can more effectively transfer resources to their electoral districts (e.g. Dick and Lott 1993 Buchanan and Congleton 1994 and Friedman and Wittman 1995), that incumbents exploit office benefits and take advantage of the higher television coverage (e.g. Ansolabehere, Snyder and Stewart 2000, Ansolabehere, Snowberg and Snyder 2006 and Prior 2006), and that incumbents are able to affect the salience of policy issues to their advantage (Hodler, Loertscher and Rohner 2010). Daniel and Lott (1997) show that the introduction of legislative term limits in California dramatically reduced campaign expenditures and increased electoral competition. They attribute these effects to the reduced returns to a political career, which makes it more interesting for new candidates to enter electoral races since campaign expenditures and incumbency advantages are lower.

[2] The idea is inspired by the well documented phenomenon of split ticket voting. For evidence on split-ticket voting see e.g. Fiorina (1992) and Garand and Glaslock Lichtl (2000). An alternative model of split-ticket voting is given in Chari, Jones and Marimon (1997).

balances" to achieve moderation. In dividing government, the voters force the parties to compromise: divided government is a remedy of political polarization." (Alesina and Rosenthal 1995: p. 44).

Policy moderation by means of divided government might come at a cost if the different parties in the executive and the legislative cannot compromise on policy. Divided government gives veto power to opposing parties with a potential gridlock of the policy making process and obscured accountability. The alleged gridlock of the policy making process has been discussed intensively (e.g. Cutler 1988, Sundquist 1988, McCubbins 1991 and Cox and McCubbins 1991). Mayhew (1991), whose contribution has sparked intensive scholarly debate, argues however, that when focusing on "significant" legislative enactments there is no evidence of policy stalemate in the United States. The significant body of subsequent research remained controversial on the issue. It has been shown that the evaluation of the effect of divided government on legislative productivity depends heavily on the definition of "significant" enactments as well as on the definition of gridlock and on additional factors such as party polarization and within party ideological heterogeneity (e.g. Binder 1999, Bowling and Ferguson 2001, Coleman 1999, Howell et al 2000, Jones 2001, Krehbiel 1996, Rogers 2005, Saeki 2009).

When it comes to fiscal policy there seems to be strong evidence that divided governments are less able to respond to fiscal shocks (Alt and Lowry 1994 and Poterba 1994). Alt and Lowry (1994) provide evidence that divided governments in the US states adjust less to deficit shocks. Overall the estimates indicate that divided governments react much less on the revenue, but comparatively more on the spending side. Using a different source of data and a slightly different time period, Poterba (1994) similarly shows that unified governments adjust more quickly to deficit shocks and that their response relies more heavily on changes in taxation.

2.3.   How voters use divided government to control lame duck executives

We take the idea that voters moderate policy by dividing government power one step further and argue that voters also use this mechanism to mitigate control problems. Due to the impaired accountability of lame duck executives, voters should anticipate the weakened incentives of the term limited executive to pursue public rather than private interests. Given the evidence that lame ducks systematically implement different policies when not eligible for reelection, voters are able to react to mitigate these negative effects. Voters can use the electoral mechanism to do so by giving their vote to the opposing party in the legislative in order to divide government control. Divided government constrains a lame duck executive since the

executive and the legislative are forced to compromise on policy.

The decision to moderate policy by divided government depends on the relative cost of divided government: Voters have to trade-off the cost of potential policy gridlock against the cost of a lame duck wielding executive powers. As long as the expected costs of divided government are lower than the expected costs of having a lame duck, voters opt for policy moderation by dividing government control. While the deviation from previous term politics of lame duck executives is well established, the cost of policy making under divided government seems less pronounced. If the cost of divided government is indeed not very high, this should lead us to expect a higher probability of divided government given that the executive faces a binding term limit.

Hypothesis:

The probability of divided government is higher when the executive is a lame duck (ceteris paribus).

In the following empirical exercise, we show that voters use divided government to counterbalance the weakened accountability of term limited executives.

3.   Data and Empirical Strategy

We use data for the 48 US mainland states from 1975 to 2000. The US states are an ideal testing ground to assess our theoretical predictions. First, many US states have implemented executive term limits. Thirty-seven out of the 50 states feature a binding executive term limit, many of which were introduced following voter initiatives. During the period of this study an average of 26 percent of governors were lame ducks. Table 1 provides an overview of term limit legislation in the states. Second, the executive and the legislative are both directly elected by the citizens, enabling voters to divide government control. At the US state level divided government occurred 50 percent of the time in the period from 1975 to 2000. Sixty-three percent of divided governments were such that the executive was in the hands of one party and the majority of both legislative chambers was in the hands of the opposing party. In the remaining 37 percent of divided governments the two legislative chambers were held by different party majorities.

[Table 1 about here]

3.1.   The data

The information on party majorities in the branches of government for the period from 1975 to 2000 stem from Alt, Lassen and Rose (2006). These data include information on which

party holds the executive and which party holds the majority in the two legislative chambers. From this we construct our main dependent variable which is an indicator variable taking the value 1 when there is any form of divided government control, whether between the executive and both chambers of the legislature, or if majorities are split in the legislative. The bulk of our independent variables stem from List and Sturm (2006). They provide information on state term limit legislation (see Table 1), on term limited governors (lame ducks), the electoral margin of the incumbent governor relative to the challenger, real per capita personal income, the population size, and the fraction of the young and the aged population. Information on the timing of legislative elections in the states was provided by Tim Storey from the National Conference of State Legislators (NCSL). Table 2 presents yearly summary statistics of the main variables of interest. Appendix tables A1 and A2 present summary statistics and data sources.

[Table 2 about here]

3.2.   Empirical Strategy

Our empirical approach is mainly based on difference-in-differences estimation, which is the standard method in studies using similar data (e.g. Besley and Case 1995, 2003 and List and Sturm 2006).

We estimate the following general specification:

$$y_{it} = \beta \; LAME \; DUCK_{it} + \zeta \, \boldsymbol{I}_{it} + \lambda \, \boldsymbol{X}_{it} + \mu_i + \tau_t + \varepsilon_{ij}$$

where y_{it} is a dummy variable capturing the form of government (1 if divided government, 0 if unified government) in state i in year t. $LAME \; DUCK_{it}$ is a dummy variable taking the value 1 if the executive is a lame duck, 0 otherwise. Furthermore, $\boldsymbol{I}_{it}$ is a vector including important institutional and political characteristics and $\boldsymbol{X}_{it}$ is a vector of additional economic, socio-demographic, etc. controls. β is the parameter of interest, ζ and λ are parameter vectors, μ_i and τ_t are state and year fixed effects and ε_{ij} is the error term. The subscripts $i = 1,\ldots, n$ and $t = 1,\ldots,T$ indicate the cross-section and year respectively.

Since we have a binary dependent variable, a natural specification would be based on binomial estimators. However, fixed effects logit and probit estimators encounter an incidental parameter problem which renders the maximum likelihood estimator inconsistent (e.g. Neyman and Scott 1948 and Lancaster 2000, Greene 2008).[3] Hence, we mainly base our results on linear

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[3] For details on the (in)consistency of fixed effects logit estimators see Greene (2002, 2008). In a simulation study Greene (2002) shows that the estimation bias is affected by the size of t, the number of within group observations. Increasing $t = 2$ to $t = 20$ reduces estimation bias from roughly 100 percent to approximately 6 percent. Coupé (2005) provides evidence for favorable properties of the conditional fixed effects logit in comparison with the

probability models, but we provide all results from the respective logistic models in Table B1 of Appendix B.[4] The estimates of a linear probability model using OLS are typically good approximations, simple to interpret, and widely used in economic research. When interpreting the size of our estimates we rely on the more conservative and straightforward OLS coefficients.[5]

We first present random effects estimates and then add state and year fixed effects. In the random effects models we assume the cross-section specific effects μ_i to originate from a random draw and follow a normal distribution. Unlike conventional linear random effects estimator, the random effects logit estimator does not depend on the assumption that the random effect is uncorrelated with the independent variables (Wooldridge 2002: 490). It is hence possible to obtain a consistent estimator of our variable of interest without any assumption of how the cross-section component is related to the independent variables. When comparing the estimates from the random effects and fixed effects specifications, it is comforting that also the linear estimates of our main variable of interest do not depend much on whether random or fixed effects specifications are estimated. Since basic difference-in-difference estimates might ignore autocorrelation in US state data (Bertrand, Duflo and Mullainathan 2004), we adjust standard errors for clustering at the state level which allows for arbitrary correlations of the error within states.[6]

Besides our main variable of interest, *LAME DUCK*, we include further important institutional control variables. We always control for the two main factors determining if a governor can actually become a lame duck: 1) if there is a *TERM LIMIT* and 2) a governor's *VOTE MARGIN* in the past election. With this specification the relevant determinants of the *LAME DUCK* variable are included in the model and endogeneity of our variable of interest should not be our main concern. We expect the *LAME DUCK* coefficient to be positive. For the *TERM LIMIT* variable we do not have an *a priori* hypothesis on the direction of the effect.

The variable measuring the *VOTE MARGIN* of the incumbent governor captures how popular an incumbent or candidate is. Therefore, we expect that more popular candidates or incumbents with a higher vote margin should face a lower probability of confronting an opposing party majority in the legislative. Moreover, *VOTE MARGIN* is also an important

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unconditional logit model with cross-section dummies. Hence, in our empirical exercise we implement conditional logit estimators.

[4] Note that the estimates from logistic models produce equivalent results. When correlating the OLS and logit predicted values of our dependent variable ($\hat{y}$) we find corr($\hat{y}_{OLS}$, $\hat{y}_{logit}$) > 0.99.

[5] When estimated significantly, the marginal effects of the logit estimators are close to the coefficients from the OLS specifications.

[6] Our results remain robust also to the inclusion of state-specific time trends (not reported).

control variable from an alternative perspective. It should be an unbiased *ex ante* indicator of how well the (re)election of a candidate is predictable. With greater uncertainty about who will be holding the executive, voters might find it more difficult to moderate policy by means of divided government.[7] In the extension of our empirical analysis we also present regression results including measures of gubernatorial job approval, which is a more direct measure of gubernatorial popularity. However, we believe that the vote margin is a more appropriate measure since it reflects the popularity relative to the alternative candidates in the electoral race. A governor might not be extremely popular but the opponent in the electoral race has to be a superior alternative to the incumbent governor to be elected.

Moreover, we always control for differences in the executive mandate across states. Most governors serve a four-year term and only a few serve a *SHORT TERM* of two-years. As can be seen from Table 2 there are a few states that (for some part of the sample) limit governors to a *ONE TERM LIMIT* in office. Hence, these governors are lame ducks already in the first period and it is thus important to control for this peculiarity. Since not all state follow exactly the same electoral system and electoral rhythm we always control for whether there are *GENERAL* or *MIDTERM ELECTIONS*. Furthermore, we use a standard set of control variables including measures reflecting the economic situation such as the real per capita *INCOME* and the *UNEMPLOYMENT* rate as well as socio-demographic variables such as the size of the *POPULATION*, the fraction of the *AGED* (65+) and the fraction of the *YOUNG* (5-17) population, which might differ in their political preferences and behavior.

After the first set of regressions establishing our basic results, we present a series of regressions addressing important extensions and potential caveats: We repeat the empirical exercise focusing on particular sub-samples, we add a direct measure of gubernatorial popularity as well as further potentially important institutional, political, demographic and economic controls. More details follow after our basic results.

4.   Empirical Results

4.1.   Baseline results

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[7] Following Alesina and Rosenthal (1996), voters who want to moderate policy by dividing government control, would want to hedge the legislative when there is greater uncertainty about who will be holding the executive, and further moderate the government in midterm elections by shifting legislative power even more to the opposition party. Since the vote margin of incumbent governors is in general relatively large there is typically not great uncertainty about who will be holding the executive. To be on the safe side, our indicator includes all possibilities of divided government and the regressions control for years with general elections, in which the executive as well as all or some part of the legislative is up for election, and midterm (legislative) elections.

Table 3 presents our baseline results. Columns 1 to 3 report regression results from linear probability models estimated by OLS, while columns 4 to 6 report logistic regression results. For both estimation methods we start with a random effects specification (columns 1 and 4), introduce state fixed effects (columns 2 and 5), and then add year fixed effects (columns 3 and 6).[8] Lagrange multiplier tests indicate that we should prefer random effects over pooled OLS and Hausman tests indicate that we should prefer fixed over random effects specifications. Likelihood ratio tests suggest that the regression models also including year fixed effects fit the data significantly better than the basic model without year fixed effects. It is reassuring that the differences of the estimated coefficients of our main variable of interest, *LAME DUCK*, do not exhibit great variation. Note that when estimating fixed effect logit models, five states are dropped since they always feature unified government. These states are: Georgia, Kentucky, Maryland, Minnesota and Nebraska.

[Table 3 about here]

We consistently find that *LAME DUCK* governors significantly increase the probability of divided government. This finding is in line with our theoretical prediction that the impaired accountability of the lame duck makes voters more inclined to counterbalance this control problem by dividing government. In the linear regressions the size of the effect suggests a 10.6 to 12.4 percent higher probability of divided government when the governor is a lame duck. When focusing on the logistic regressions, the size of the calculated marginal effects is with 15 to 19 percent higher, though often not precisely estimated. Given the theoretical reservations when estimating fixed effects logit models and the related difficulties in estimating meaningful marginal effects, we will rely on the more conservative linear estimates when interpreting the results. Note however, that the estimated coefficients of both models are robust to specification changes. Since we condition on the systematic factors determining the *LAME DUCK* variable - the existence of a *TERM LIMIT* and the *VOTE MARGIN* - the estimates of our variable of interest should be unlikely to suffer from reverse causality or simultaneity.

The *TERM LIMIT* as well as the *VOTE MARGIN* variables are negative and statistically significant. The negative effect of the *TERM LIMIT* coefficient indicates that term limits *per se* (net of lame duck effects) reduce the probability of divided government. If voters are informed and rational this could be consistent with the observed pattern that a majority of voters seem to be in favor of term limit legislation (Friedman and Wittman 1995 and Carey, Niemi and Powell

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[8] When also including state-specific time trends we find equivalent results for our main variable of interest, *LAME DUCK*. However, the estimated coefficient of the *TERM LIMIT* variable becomes insignificant. This is not entirely surprising given that states do not repeatedly change their term limit legislation in the observed time period.

2000). As the *VOTE MARGIN* is an indicator for how popular the incumbent or the candidate was in the past election, we expect a negative correlation, which is confirmed by the data. We are careful when interpreting the estimated coefficients of the *TERM LIMIT* and *VOTE MARGIN* covariates, since we cannot assertively rule out endogeneity.

Subsamples: Elections years and states with term limit legislation only

In the next step of our analysis we concentrate on specific sub-samples: First, we estimate the previous specifications but exclude all non-election years and only focus on years in which there were general or midterm elections. This reduces our sample by approximately half (Table 4, columns 1-3). Second, we repeat the basic exercise but we only focus on the sub-sample of state with term limit legislation (Table 4, columns 4-6). For the sake of brevity, all following tables only contain results from the linear probability models, while the main results from logistic regressions can be found in Appendix B.

One could worry that the full sample of years between 1975 and 2000 could yield biased estimates since years without elections are also included in the sample. The reason for including all years in the baseline specification is primarily to keep the panel balanced, since not all states follow the same electoral rhythm. The estimates in columns 1 to 3 of Table 4 exclude all non-election years and replicate the specifications of Table 3. The estimates are consequently based on the subsample of years with either general or midterm elections. The estimated effect of a *LAME DUCK* is with a 9.9 to 12 percent higher probability of divided government similar in size and significance to our baseline. The results of all further controls are qualitatively identical to our results in Table 3.

Next we estimate the baseline specifications but only focus on the subset of state, in which term limit legislation is enacted. A potential concern could be that term limit states are in some unobserved respects different from non-term limit states and that this difference is not controlled for by our two term limit variables, *TERM LIMIT* and *ONE TERM LIMIT*. Columns 4 to 6 of Table 4 report regressions on the sub-sample of states with term limit legislation, leaving out any observations in which lame ducks cannot occur. We consistently find positive and significant effects of the *LAME DUCK* variable, which indicate a 11 to 15 percent higher probability of divided government control when the governor is a lame duck. The magnitude of the effect is slightly higher, though still comparable in size to the estimates including the full sample of states.

[Table 4 about here]

4.2.   Extensions of the baseline model

As a first extension, we introduce job approval ratings (*JAR*) of state governors. One might worry that the vote margin does not sufficiently capture gubernatorial popularity, which in turn could bias our estimates (Table 5). Second, one could be worried that the *LAME DUCK* variable just picks up the fact that lame ducks are more senior executives, since they are already - in most cases - in their second term. Third, we take a closer look at political factors: party affiliation of the governor (*DEMOCRATIC GOVERNOR*) and measures of *POLITICAL PREFERENCES* and *POLITICAL HETEROGENEITY* which might have a direct influence on the cost and occurrence of divided government.

Controlling for gubernatorial job approval ratings (JAR)

One might be worried that the vote margin does not fully capture gubernatorial popularity which could result in omitted variable bias. Therefore, we include a direct measure of gubernatorial popularity in our regressions. There is no single job approval rating that regularly covers all the states over the relevant time period. However, Niemi, Beyle, and Sigelman (2001) collected a dataset including a great number of job approval ratings (*JAR*) across states. To our knowledge, this is the most comprehensive dataset on gubernatorial job approval ratings at the state level. They construct two normalized indicators that capture the content of a multitude of different job approval ratings, which are typically scaled along similar but not equivalent scales. They collapse the responses into percent positive *(Positive JAR)* and percent negative *(Negative JAR)* categories. For example, when people are asked how they evaluate a governor's general job performance they might have the options 'excellent', 'good', 'fair' and 'poor'. In this case the first two categories are grouped together. Our measure in this study relies on the standard job performance questions and includes job approval ratings which target citizens or voters generally, but not if specific subgroups such as Republicans or Democrats are asked exclusively.[9] This measure of gubernatorial job approval is available for all years in the sample but not necessarily for all states in all years. Moreover, not all measures are based on the same number of ratings per state and year. Some states have as many as 35 ratings in one year, while other states have none or only a smaller number of ratings. In the subsequent empirical exercise we use the mean of all job approval ratings per state and year.

Since the job approval measures are not available for every year in all the states our sample size shrinks to 635 observations and to 325 if only election years are considered. The

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[9] We use the 'Question type': 01 and the 'Type of sample': 1-4, 10-11, 13, 16-17 and 20 from the dataset by Niemi, Beyle and Siegelman (2001). The question category and sample type follow the coding in Niemi, Beyle, and Sigelman (2010).

results in Table 5 show that including the measure of positive gubernatorial job approval (*Positive JAR*) does not affect our main result. This is also true when both measures, *Positive JAR* and *Negative JAR*, are included jointly or *Negative JAR* is included individually. If anything, including *JAR* into the regression framework increases the size of the estimated coefficient. Given that job approval ratings contain information on gubernatorial popularity, it is reassuring that they are strongly correlated with the vote margin of gubernatorial elections. Due to the reduced sample size and the missing explanatory power of gubernatorial job approval ratings, we do not include this variable as a standard covariate in our baseline regression framework.

[Table 5 about here]

Institutional and political factors

In the following we take further institutional and political factors into account. A first concern is that lame duck governors are more experienced and pre-selected executive. This concern relates to Alt, Bueno de Mesquita and Rose (2011) who argue that lame ducks are typically more competent governors - since they have been reelected and elections weed out incompetent incumbents - but at the same time they have no strong incentives to cater to the principal. They argue that elections not only serve to hold executives accountable but also to select competent executives to serve further terms in office. They use term limits to disentangle accountability from competence effects and argue that term limits, which are not already binding after the first term, allow for a competence effect. They identify accountability effects by comparing reelection eligible vs. ineligible incumbents and competence effects by comparing new vs. reelected incumbents. The electoral process at the end of the first period allows selection of competent and worthy candidates, while below-average candidates are weeded out. An incumbent is re-elected, if he is more competent than the challenger in expectation. Voters benefit from increasing competence of an incumbent due to the accumulated experience in the previous term. In the second period when the term limit is binding, voters have the advantage of a higher quality candidate due to screening, but the candidate has no incentives to exert effort. Hence, voters face a competent (selection effect) but potentially lazy (moral hazard) lame duck incumbent. Alt, Bueno de Mesquita and Rose (2011) show that economic growth is higher and tax and spending growth as well as borrowing cost are lower for incumbents who can run for reelection as well as for governors who have been reelected already. Consequently, the trade-off voters face is with respect to moral hazard, due to the missing reelection incentives, which might be mitigated by dividing government control. Hence, on average lame ducks might be of higher

quality than newly elected governors who stem from a random draw of the population of candidates. In order to identify the influence of the missing accountability we will control for competence effects in our empirical exercise. We compare lame ducks to experienced governors in states without term limit. Table 6, columns 1 and 2 contain our regressions controlling for governors who are not term limited and do not serve their first term (*NO LIMIT TERM>1*). This should clarify the concern that the *LAME DUCK* variable also captures a competence effect reflecting political experience.[10]

We continue the empirical exercise by controlling for the governor's party affiliation (*DEMOCRATIC GOVERNOR*). We do not have an *a priori* hypothesis about the effect of this control variable, but we want to ensure that our variable of interest does not pick up some unobserved party effect.

As has been argued before voters' the decision to moderate policy by divided government depends on the relative cost of potential policy gridlock versus the cost of a lame duck wielding executive powers. Voters have to trade-off these costs in order to make an electoral decision. The cost of divided government is likely to depend on how far the policy preferences of the leading parties lie apart. If party positions are very polarized, moderate voters might feel a greater need for moderation by dividing government control. At the same time the cost of divided government might increase, since it becomes more difficult for the different parties in government to compromise and agree on policy resulting in a higher probability of gridlock. Hence, the cost of policy moderation by means of divided government is likely to be related to political preference heterogeneity and party polarization.[11] Political heterogeneity could influence our main result, if for some reason, e.g., the less heterogeneous states reelect term limited executives more often in their lame duck term and at the same time have a higher probability of divided government due to lower cost of policy gridlock.

When constructing measures of political preferences and heterogeneity we face the problem that there is no standard measure of preferences at the state level. As an approximation, we use the first dimension of the DW-Nominate scores proposed by McCarty, Poole and Rosenthal (2006). These scores measure the liberal-conservative attitudes from all roll-call votes of state delegates in the Federal Congress. This approach has been applied by e.g. Hanssen (2004), Alt, Lassen and Rose (2006) and Garand (2010). Typically, measures of political

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[10] We also controlled for general effects of gubernatorial experience (which does not take the relevant comparison group into account) by including the number of terms in office. Including such a measure has no explanatory power and does not affect any of our results.

[11] On party polarization in the US see Poole and Rosenthal (1991, 1997), McCarty, Poole and Rosenthal (2006) and Garand (2010)

polarization take the absolute difference between Democratic and Republican delegates' scores. When calculating such a measure at the state level, one faces the problem that not all states have delegates of both parties in one or both chambers of the Congress. This makes the appropriate calculation of a polarization measure according to the mean (median) distance of party representatives impossible without making further assumptions. Moreover, it seems that greater political preference heterogeneity in general, be it within a party or across parties, would lead to a more difficult decision making process (e.g. Jones 2001 or Saeki 2009). Therefore, we use the mean and the standard deviation of the DW-Nominate score as measures of *POLITICAL PREFERENCES* and *POLITICAL HETEROGENEITY* respectively.[12] We do not have an *ex ante* hypothesis about the direction of the estimated effect of the political preference measure, since we have no theory about the influence of political ideology (liberal - conservative) on divided government control. The hypothesis on the impact of political heterogeneity is ambiguous. On the one hand, more political heterogeneity and polarization could lead to a higher probability of divided government, since more voters feel a need for moderation. On the other hand, the potential for policy gridlock of divided governments depends on the heterogeneity of policy preferences and political polarization. The more heterogeneous and polarized political preferences are, the higher could be the potential for policy gridlock and hence, the cost of divided government control. We do not have an *a priori* expectation about the direction of the *net* effect.

[Table 6 about here]

For the sake of brevity, we only present fixed effects regressions, though not including state and year effects does not substantially affect the results. In columns 1 and 2 of Table 6 we first test whether our *LAME DUCK* variable only picks up an effect due to the fact that lame ducks are typically not serving their first term. Therefore, we control for governors who are not term limited and are not serving their first term. When comparing the estimated effects of lame ducks on divided government in columns 1 and 2 of Table 5 to the relevant baseline results in columns 2 and 3 of Table 3 including state and year fixed effects we find almost identical results. The estimated coefficient of the variable capturing the influence of governors who are not in their first term in states without term limit legislation (*NO LIMIT TERM>1*) is not statistically different from zero.[13]

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[12] We construct equivalent measures using adjusted ADA scores (Anderson and Habel 2009), which measure liberal-conservative attitudes of members of the Federal Congress according to selected roll-call votes by interest groups (Groseclose, Levitt, and Snyder 1999). Our results are entirely robust to the use of ADA scores instead of the more encompassing DW-nominate scores including all roll-call votes.

[13] We also controlled for a more general gubernatorial experience measure by including the number of terms in office. We do not find any significant effects and our main variable of interest is unaffected.

Columns 3 and 4 control for the party affiliation of the governor and include a dummy variable taking 1 in case there is a *DEMOCRATIC GOVERNOR*. The gubernatorial party affiliation has a direct influence on the probability of divided government, while our estimates of the impact of lame duck governors are unaffected and remain robust. Democratic governors face a 29 percent lower probability of facing an opposing majority in the legislature. This effect is likely to be an artifact of the partisan history of the US. The dominant role of the Democratic party in southern states from the 1900s to the 1960s was eroded by the civil rights movement (e.g. Besley, Persson and Sturm 2010). However, it took some time for the Republicans to establish their contemporary party strength in the states. The negative effect of our party affiliation variable is likely to mirror this strengthening of the Republicans who, over time, began capturing more and more seats in state legislatives.[14]

In columns 5 and 6 we add measures of *POLITICAL PREFERENCES* and *POLITICAL HETEROGENEITY*. Including these two variables does again not affect our main result. While we do not find a significant effect for our measure of political preferences, which is the mean of McCarty, Poole and Rosenthal's (2006) DW-Nominate score, we find that political heterogeneity, measured by the standard deviation of the same variable, has a positive and significant effect on divided government. This positive net effect could indicate that the policy moderation motive of voters is stronger than the negative effects from the expected cost of divided government due to the increasing potential for policy gridlock.

4.3.   Robustness: Demographic and economic factors

In this last section we add potentially important sets of covariates to the baseline specifications. We include demographic and economic covariates including the population *DENSITY*, the fraction of the *AFRO-AMERICAN* population, the fraction of the population holding a *HIGH SCHOOL* diploma, and *INCOME* and *UNEMPLOYMENT GROWTH*. The population, demographic and education measures reflect different dimensions of heterogeneity in the population that might translate into different electoral behavior. The economic variables and their growth rates might affect voter behavior at the ballot if they take the current economic situation as well as the economic development over the past period into account when making electoral decisions.

[Table 7 about here]

The models in columns 1 and 2 of Table 7 contain estimates controlling for further sources

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[14] Thanks to Jim Alt for pointing this out.

for political heterogeneity, such as population *DENSITY*, the fraction of the *AFRO-AMERICAN* population[15], and the fraction of the population holding a *HIGH SCHOOL* diploma. Columns 3 and 4 include growth rates of our main economic variables: the real per capita *INCOME GROWTH* rate and the *UNEMPLOYMENT GROWTH* rate. Only *INCOME GROWTH* is significantly correlated with our dependent variable. All others do not significantly affect the probability of divided government when we control for within state clustering of the standard errors. None of the additional covariates affect our main result that lame duck governors face a roughly 10 to 15 percent higher probability of divided government.

4.4.   Discussion

The results document a clear pattern: We find a strong, robust and statistically significant positive effect of lame duck governors on the probability of divided government. The estimated effect is robust to changes of the empirical specification, be it the estimation method (linear vs. logistic), the inclusion of state and year fixed effects, state-specific time trends (not reported), or additional control variables. The interpretation of the coefficient is that lame ducks face a 10 to 15 percent higher probability of confronting an opposing party majority in the legislative, i.e. divided government. This finding is consistent with our hypothesis building on informed voters who systematically use the electoral process to impose divided government in order to react to the control problem emerging from the impaired accountability of a lame duck governor. Voters seem to realize that the governor is not incentivized by the electoral mechanism to follow voters' interests. They further seem to realize that the electoral process provides them with an instrument to control an otherwise unaccountable executive.

Interestingly, we also find a robust negative correlation between term limit legislation and divided government. This negative effect points to the hypothesis that term limits, (net of last round effects due to lame ducks) reduce voters' need to moderate policy by dividing government control. Several interpretations of the coefficient are possible. On the one hand, the influence of term limits is net of last-round-effects (lame duck). This is compared to the average effect of governors without term limits, which also includes last-period-effects of governors anticipating retirement or expect to be voted out of office. From this perspective we cannot finally interpret the size of the coefficient. On the other hand, the negative effect could originate from voter preferences. Based on the literature on term limits there are several interpretations which could apply. For example, term limits eliminate the incumbency advantage after a few

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[15] Estimates of the size of the Afro-American population stems from the SPPQ (2005) database and are not available for the years 1995 and 1996, hence the reduced sample size.

periods in office, which increases electoral competition (e.g. Daniel and Lott 1997). Alternatively, term limits enable voters to exchange long term incumbents while keeping the same party in the executive. This could be in voters' interests if incumbents tend to accumulate power over time and increasingly shirk or become corrupt with longer tenure. Moreover, voters might be in favor of term limits since they are able to selectively mitigate the negative accountability effects in the last round - the lame duck period - by imposing divided government control. Without term limits voters remain uncertain about which is a governor's last term, in which reelection incentives do not apply. Hence, they could be inclined to hedge against the possibility of a last round governor. We try to address this by controlling for the number of terms in office, but our results remain unchanged. In order to evaluate the cost and benefits of term limit legislation it is therefore important for researchers to take institutional factors into account which might mitigate the negative consequences from expected last-round-effects. There may be other reasonable interpretations of this negative effect, but we cannot discriminate so far between those. Therefore, we do not provide any specific interpretation of this coefficient.

Other factors such as the vote margin, the governor's party affiliation, heterogeneity of political preferences, as well as the population size and income growth seem to affect the probability of divided government. The higher the vote margin - which reflects an incumbent's or a candidate's popularity at the time of the election - the lower the probability for divided government. Furthermore, democratic governors face an opposing legislative majority with a significantly lower probability than Republican governors do. This is likely to be a historical artifact innate to the US political developments. Also political heterogeneity translates into a higher probability of divided government, which is in line with the existing literature. An interpretation for the positive coefficient of the population variable could be that a larger population is typically also more heterogeneous. Interestingly, the estimated coefficient becomes insignificant when we include direct measures of heterogeneity such as the population density and the percent of Afro-American population. The effects of these covariates are not estimated precisely, however. The economic circumstances, especially the changes of the economic situation measured by real per capita income growth, have a statistically significant influence. Positive income growth is correlated with a lower probability of divided government.

5.   Conclusions

Voter's ability to make informed and coherent decisions is a pre-condition for functioning democracies. Economists typically assume that voters are rational and that they are able to make informed decisions. We study voters' capacity to process information and make informed

decisions in a rather demanding environment. We take the institutional environment into account and focus on an electoral situation in which voters can re-elect an incumbent who will be facing a binding term limit in the coming term. Such lame duck executives cannot be incentivized by the electoral process, since they cannot stand for reelection due to term limit legislation. We analyze if voters take the impaired accountability of the incumbent executive into account and use the electoral instruments at hand to counterbalance the weakened incentives of the executive to follow voters' interests. In a presidential system in which the executive as well as the legislative are directly elected, voters have the possibility to install divided government to moderate policy outcome. We estimate whether voters use divided government to discipline otherwise unaccountable lame duck governors in the US states. Our hypothesis predicts that lame duck governors are confronted with an opposing party majority in the legislative with a higher probability than governors with intact reelection incentives.

We test our hypothesis using US state data from 1975-2000. A majority of US state governors are subject to term limit legislation. At the same time the US system allows voters to directly elect the legislative as well as the executive. This regularly leads to divided government control. These two features of the US system provide an ideal testing ground for our hypothesis. Consistent with our theoretical arguments we find that lame duck governors face a 10 to 15 percent higher probability of divided government. This effect remains robust to various model extensions and specification changes. We extend our empirical model to take a series of potentially important factors into account: We restrict our sample to include only election years or only states with term limit legislation, we control for gubernatorial popularity by including opinion polls, for political and institutional factors, such as gubernatorial experience, party affiliation of the governor, political preferences and preference heterogeneity, and for further demographic and economic factors. The estimated effect of lame duck governors remains statistically significant and is robust to changes in model specifications, be it the inclusion of state and year fixed effects, state specific time trends, or the estimation method. We estimate linear probability models as well as logistic models, which take the binary nature of the dependent variable into account and we find equivalent results. The results strongly suggest that voters are able to take institutional factors into account which influence their ability to incentivize public officials. Voters systematically use divided government to control executives without reelection incentives. This is evidence for voters' considerable capacity to process complex information.

References

Alesina, Alberto and Howard Rosenthal (1995). *Partisan Politics, Divided Government, and the Economy*. Cambridge University Press, Cambridge, UK

Alesina, Alberto and Howard Rosenthal (1996). A Theory of Divided Government. *Econometrica* 64 (6): 1311-1341

Alt, James E. and Robert C. Lowry (1994). Divided Government, Fiscal Institutions, and Budget Deficits: Evidence from the States. *American Political Science Review* 88 (4): 811-828

Alt, James E., David Dreyer Lassen and Shanna Rose (2006). The Causes of Fiscal Transparency: Evidence from the American States. *IMF Staff Papers*

Alt, James E., Ethan Bueno de Mesquita and Shanna Rose (2011). Disentangling Accountability and Competence in Elections: Evidence from U.S. Term Limits. *Journal of Politics* 73 (1): 171-186

Anderson, Sarah and Philip Habel (2009). Revisiting Adjusted ADA scores for the U.S. Congress, 1947-2007. *Political Analysis* 17: 83-88

Ansolabehere, Stephen and James M. Snyder, Jr. (2002). The Incumbency Advantage in US Elections: An Analysis of State and Federal Offices, 1942-2000. *Election Law Journal* 1 (3): 315-338

Ansolabehere, Stephen and James M. Snyder, Jr. (2004). Using Term Limits to Estimate Incumbency Advantages When Officeholders Retire Strategically. *Legislative Studies Quarterly* 29 (4): 487-515

Ansolabehere, Stephen, Erik C. Snowberg, James M. Snyder, Jr. (2006). Television and the Incumbency Advantage in U.S. Elections. *Legislative Studies Quarterly* 31 (4): 469-490

Ansolabehere, Stephen, James M. Snyder, Jr. and Charles Stewart, III (2000). Old Voters, New Voters, and the Personal Vote: Using Redistricting to Measure the Incumbency Advantage. *American Journal of Political Science* 44 (1): 17-34

Bertrand, Marianne, Esther Duflo and Sendhil Mullainathan (2004). How much should we trust Differences-in-Differences Estimates. *Quarterly Journal of Economics* 119 (1): 249-275

Besley, Timothy and Anne C. Case (1995). Does Electoral Accountability Affect Economic Policy Choices? Evidence from Gubernatorial Term Limits. *Quarterly Journal of Economics* 110 (3): 769-798

Besley, Timothy and Anne C. Case (2003). Political Institutions and Policy Choices: Evidence from the United States. *Journal of Economic Literature* 41: 7-73

Besley, Timothy, Torsten Persson and Daniel M. Sturm (2010). Political Competition, Policy and Growth: Theory and Evidence from the US. *Review of Economics Studies* 77: 1329-1352

Binder, Sarah A. (1999). The Dynamics of Legislative Gridlock. *American Political Science Review* 93 (3): 519-533

Bowling, Cynthia J. and Margaret R. Ferguson (2001). Divided Government, Interest Representation, and Policy Differences: Competing Explanations of Gridlock in the Fifty States. *Journal of Politics* 63 (1): 182-206

Carey, John M., Richard G. Niemi, and Lynda W. Powell (2000). *Term Limits in the State Legislatures*. Ann Arbor (MI): University of Michigan Press.

Chari, V.V., Larry E. Jones and Ramon Marimon (1997). The Economics of Split-Ticket Voting in Representative Democracies. *American Economic Review* 87 (5): 957-976

Coleman, John J. (1999). Unified Government, Divided Government, and Party Responsiveness. *American Political Science Review* 93 (4): 821-835

Coupé, Tom (2005). Bias in Conditional and Unconditional Fixed Effects Logit Estimation: a Correction. *Political Analysis* 13 (3): 292-295

Cox, Gary W. and Mathew D. McCubbins (1991). Divided control of fiscal policy. In: Cox, Gary W. and Samuel Kernell (Eds.). *The Politics of Divided Government*. Boulder, Westview Press

Cutler, Lloyd N. (1988). Some reflections about divided government. *Presidential Studies Quarterly* 18: 485-492

Daniel, K. and J. Lott Jr. (1997). Term limits and electoral competitiveness: evidence from Califorina's state legislative races. *Public Choice* 90: 165-184

Fiorina, Morris (1992). *Divided Government*. Macmillan Publishing Company, New York

Friedman, Daniel and Donald Wittman (1995). Why Voters Vote for Incumbents but against Incumbency: A Rational Choice Explanation. *Journal of Public Economics* 57: 67-83

Garand, James C. (2010). Income Inequality, Party Polarization, and Roll-Call Voting in the US Senate. *Journal of Politics* 72 (4): 1109-1128

Garand, James C. and Marci Glaslock Lichtl (2000). Explaining Divided Government in the United States: Testing an Intentional Model of Split-Ticket Voting. *British Journal of Political Science* 30 (1): 173-191

Gelman, Andrew and Gary King (1990). Estimating Incumbency Advantage without Bias. *American Journal of Political Science* 34 (4): 1142-1164

Greene, William H. (2002). The Bias of the Fixed Effects Estimator in Nonlinear Models. Unpublished Manuscript, Stern School of Business, NYU

Greene, William H. (2008). *Econometric Analysis*. Pearson, New Jersey

Groseclose, Timothy, Steven D. Levitt, and James M. Snyder, Jr. (1999). Comparing Interest Group Scores Across Time and Chambers: Adjusted ADA Score for the U.S. Congress. *American Political Science Review* 93: 33-50

Hanssen, F. Andrew (2004). Is There a Politically Optimal Degree of Judicial Independence? *American Economic Review* 94: 712-729

Hirano, Shigeo and James M. Snyder, Jr. (2009). Using Multi-Member-District Elections to Estimate the Sources of the Incumbency Advantage. *American Journal of Political Science* 53 (2): 292-306

Hodler, Roland, Simon Loertscher and Dominic Rohner (2010). Inefficient Policies and Incumbency Advantage. *Journal of Public Economics* 94: 761-767

Howell, William, Scott Adler, Charles Cameron and Charles Riemann (2000). Divided Government and the Legislative Productivity of Congress, 1945-94. *Legislative Studies Quarterly* 25 (2): 285-312

Johnson, Joseph M. and W. Mark Crain (2004). Effects of term limits on fiscal performance: evidence from democratic nations. *Public Choice* 119: 73-90

Jones, David R. (2001). Party Polarization and Legislative Gridlock. *Political Research Quarterly* 54 (1): 125-141

King, Gary and Andrew Gelman (1991). Systemic Consequences of Incumbency Advantage in U.S. House Elections. *American Journal of Political Science* 35 (1): 110-138

Krebiel, Keith (1996). Institutional and Partisan Sources of Gridlock: A Theory of Divided and Unified Government. *Journal of Theoretical Politics* 8 (1): 7-40

Lancaster, Tony (2000). The incidental parameters problem since 1948. *Journal of Econometrics* 95: 391-414

Levitt, Steven D. and Catherine D. Wolfram (1997). Decomposing the Sources of Incumbency Advantage in the U.S. House. *Legislative Studies Quarterly* 22 (1): 45-60

Levitt, Steven D. and James M. Snyder, Jr. (1997). The Impact of Federal Spending on House Election Outcomes. *Journal of Political Economy* 105 (1): 30-53

List, John A. and Daniel M. Sturm (2006). How Elections Matter: Theory and Evidence from Environmental Policy. *Quarterly Journal of Economics* 121 (4): 1249-1281

Mayhew, David R. (1991). *Divided We Govern*. New Haven, Yale University Press

McCarty, Nolan, Keith T. Poole and Howard Rosenthal (2006). *Polarized America: The Dance of Ideology and Unequal Riches*. MIT Press

McCubbins, Mathew D. (1991). Government on lay-away: Federal spending and deficits under divided party control. In: Cox, Gary W. and Samuel Kernell (Eds.). *The Politics of Divided Government*. Boulder, Westview Press

Neyman, Jerzy and Elisabeth Scott (1948). Consistent Estimates Based on Partially Consistent Observations. *Econometrica* 16: 1-32

Niemi, Richard, Thad Beyle and Lee Sigelman (2001). U.S. Officials' Job Approval Ratings: A Cooperative Project of the University of Rochester, University of North Carolina at Chapel Hill, & George Washington University. http://www.unc.edu/~beyle/jars.html

Niemi, Richard, Thad Beyle and Lee Sigelman (2010). Codebook: U.S. Officials' Job Approval Ratings: A Cooperative Project of the University of Rochester, University of North Carolina at Chapel Hill, & George Washington University. http://www.unc.edu/~beyle/jars.html

Poole, Keith T., and Howard Rosenthal (1991). Patterns of Congressional Voting. *American Journal of Political Science* 35 (1): 228-278

Poole, Keith T., and Howard Rosenthal (1997). *Congress: A Political-Economic History of Roll Call Voting*. New York: Oxford University Press

Poterba, James M. (1994). State Responses to Fiscal Crisis: The Effects of Budgetary Institutions and Politics. *Journal of Political Economy* 102 (4): 799-821

Prior, Markus (2006). The Incumbent in the Living Room: The Rise of Television and the Incumbency Advantage in U.S. House Elections. *Journal of Politics* 68 (3): 657–673

Rogers, James R. (2005). The Impact of Divided Government on Legislative Production. *Public Choice* 123: 217-233

Saeki, Manabu (2009). Gridlock in the Government of the United States: Influence of Divided Government and Veto Players. *British Journal of Political Science* 39: 587–607

SPPQ (2005). State Politics & Policy Quarterly. The Practical Researcher. Data Resource. http://academic.udayton.edu/sppq-TPR/index.htm

Sundquist, James L. (1988). Needed: A political theory for the new era of coalition government in the United States. *Political Science Quarterly* 103: 614-624

Wooldridge, Jeffrey M. (2002). *Econometric Analysis of Cross Section and Panel Data*. Cambridge, USA: MIT Press

Appendix A

Table A1: Summary statistics (1975-2000)

Variable	Mean	Std. dev.	Min	Max
Divided government	0.50	0.50	0	1
Lame duck	0.26	0.44	0	1
Term limit	0.62	0.49	0	1
Vote margin	8.67	7.58	0	50
One term limit	0.06	0.25	0	1
Short term	0.07	0.25	0	1
General election	0.26	0.44	0	1
Midterm election	0.24	0.42	0	1
Real per capita income	13,430.59	2,517.99	7,811.56	24,137.61
Unemployment	6.21	2.15	2.20	18
State population	5.08e+06	5.32e+06	380,477	3.40e+07
Aged (65+) (%)	12.09	1.92	7.46	18.77
Young (5-17) (%)	19.99	2.28	7.07	26.87
Positive JAR (%)	52.37	13.87	13.00	82.50
Negative JAR (%)	40.07	14.93	6.00	84.00
No Limit Term>1	0.18	0.38	0	1
Democratic Governor	0.56	0.50	0	1
Political preferences	-0.01	0.21	-0.49	0.6
Political heterogeneity	0.29	0.11	0.02	0.56
Population density	162.44	228.03	0.65	1,118.73
Afro-Americans (%)	9.51	9.28	0.16	36.88
High School diploma (%)	76.64	5.80	64.3	91.8
Income growth (%)	1.68	2.66	-15.72	18.21
Unemployment growth (%)	0.47	20.14	-45.05	116.07

Table A2: Variable description

Variable	Description
Divided government	Divided government control: 1 (divided branch or divided legislature), unified government control: 0. Source: Alt, Lassen and Rose (2006)
Lame duck	Governor is a lame duck: 1, 0 otherwise. Source: List and Sturm (2006)
Term limit	State with gubernatorial term limit: 1, 0 otherwise. For details see Table 1. Source: List and Sturm (2006)
Vote margin	Vote margin measured as the percentage share of governor in vote of top two candidate - 50. Source: List and Sturm (2006)
One term limit	States limiting governors to one term in office: 1, 0 otherwise. Source: List and Sturm (2006)
Short term (2 yrs)	States have 2 year governor terms: 1, 0 otherwise (4 year terms). Source: List and Sturm (2006)
R.p.c. Income	Real per capita personal income in 1982-1984 dollars. Source: List and Sturm (2006)
Unemployment	Unemployment rate (%). Source: SPPQ (2005)
State population	Yearly state population. Source: List and Sturm (2006)
Aged (65+) (%)	Percent share of population over 65 years of age. Source: List and Sturm (2006)
Young (5-17) (%)	Percent share of population between 5 and 17 years of age. Source: List and Sturm (2006)
General election	General elections year (executive and legislative): 1, 0 otherwise. Source. List and Sturm (2006)
Midterm election	Legislative midterm election year: 1, 0 otherwise. Source: National Conference of State Legislators (NCSL)
Positive JAR (%)	Percent positive job approval ratings (JAR). Source: Own calculation based on Niemi, Beyle, Siegelman (2001, 2010)
Negative JAR (%)	Percent negative job approval ratings (JAR). Source: Own calculation based on Niemi, Beyle, Siegelman (2001, 2010)
No Limit Term>1	Governor does not face binding term limit and is not serving his first term: 1, 0 otherwise. Source: Own calculation
Democratic Governor	Governor is a democrat: 1, 0 otherwise. Source: Besley, Persson and Sturm (2010)
Political preferences	Measure of political preferences on a liberal-conservative scale from roll-call votes of members of the 94th to 106th US Congress. State *mean* of the first dimension of DW-Nominate score of state representatives (House and Senate) in federal Congress. Negative values for Democrats, positive values for Republicans. Source: Own calculation based on McCarty, Poole and Rosenthal (2006)
Political heterogeneity	Measure of political preferences on a liberal-conservative scale from roll-call votes of members of the 94th to 106th US Congress. State *standard deviation* of the first dimension of DW-Nominate scores for state representatives (House and Senate) in the federal Congress. Source: Own calculation based on McCarty, Poole and Rosenthal (2006)
Population density	Population density: Number of people per sq. mile. Source: Alt, Lassen and Rose (2006)
Afro-Americans (%)	Percent of Afro-American state population. Estimates based on "*Current Population Reports/Statistical Abstract of the United States*". Not available for 1995/1996. Source: SPPQ (2005)
High School diploma (%)	Percent of population holding a High School diploma. Source: SPPQ (2005)
Income growth (%)	Percent income growth. Source: Own calculation
Unemployment growth (%)	Percent unemployment growth. Source: Own calculation

Appendix B

Table B1: Summary of logistic regression results

Dependent Variable: Divided Government

	(1)	(2)	(3)	(4)	(5)	(6)
Table 4: Subsamples	**Election years only**			**States with term limit legislation only**		
Lame duck	0.488*	0.522**	0.673**	0.742***	0.851**	1.011***
	(0.285)	(0.250)	(0.287)	(0.228)	(0.331)	(0.383)
State FE	no[1]	yes	yes	no[1]	yes	yes
Year FE	no	no	yes	no	no	yes
Observations[2]	595	532	532	754	641	641
Number of States	48	43	43	38	32	32
Table 5: JAR controls	**Full Sample**			**Subsample: Election years**		
Lame duck	0.651**	0.753**	0.955**	0.700*	0.984**	1.135
	(0.312)	(0.382)	(0.451)	(0.423)	(0.434)	(0.000)
State FE	no[1]	yes	yes	no[1]	yes	yes
Year FE	no	no	yes	no	no	yes
Observations[2]	623	516	516	319	249	249
Number of States	48	38	38	48	36	36
Table 6: Add. controls	**No limit term>1**		**Democratic governor**		**Pol. pref./heterog.**	
Lame duck	0.639**	0.764**	0.570*	0.709**	0.583**	0.710**
	(0.275)	(0.300)	(0.335)	(0.352)	(0.257)	(0.291)
State FE	yes	yes	yes	yes	yes	yes
Year FE	no	yes	no	yes	no	yes
Observations[3]	1,086	1,086	1,070	1,070	1,086	1,086
Number of States	43	43	43	43	43	43
Table 7: Add. controls	**Demographic, education**		**GDP/unempl. growth**			
Lame duck	0.620**	0.738**	0.640**	0.750**		
	(0.287)	(0.312)	(0.275)	(0.295)		
State FE	yes	yes	yes	yes		
Year FE	no	yes	no	yes		
Observations[3]	1,000	1,000	1,043	1,043		
Number of States	43	43	43	43		

Notes: Regression results are based on conditional logit estimator. Specification of control variables are equivalent to the results reported in the respective Tables 4 to 7 in the main text. Standard errors are adjusted to within state clustering and reported in parentheses. Significance level: * 0.05<p<0.1, ** 0.01<p<0.05, *** p<0.01.
[1] Random effects logit estimator
[2] No. of observations differ between random and fixed effects: When estimating fixed effects logit states without variation in the dependent variable have to be dropped.
[3] Data availability of additional control variables can reduce the number of observations
The estimated coefficients of the control variables are qualitatively equivalent to the linear regression results reported in Tables 3 to 7.
Source: Own calculations

Table 1: Governor term limits in the US States

Term limits for governors by state (1975-2000)

States with no term limits:

    CT, ID[a], IL, IA, MA[b], MN, NH, NY, ND, TX, VT, WA[c], WI

States limiting governors to one term in office:

    VA

States limiting governors to two terms in office

    AL, DE, FL, LA, MD, ME, MO, NE, NJ, NV, OH, OK, OR, PA, SD, WV

State law changed from no term limit to a three-term limit:

    AZ (1992), AR (1992), CA (1990), CO (1990), MI (1992), MT (1992), RI (1994), WY (1992)

State law changed from a one-term limit to a two-term limit:

    GA (1976), KY (1992), NM (1991), MS (1986), NC (1977), SC (1980), TN (1978)

Notes: The year in brackets is the year in which the term limit legislation changed.

a. A two-term limit was passed in 1994, but repealed in 2002 by the Idaho State Legislature
b. Term limits were enacted in 1994 but were declared unconstitutional by the Massachusetts Supreme Court in 1997
c. Enacted a two-term limit in 1992, which was declared unconstitutional by the Washington Supreme Court in 1998

Source: List and Sturm (2006)

Table 2: Divided government, term limits, lame ducks and electoral margin (1975-2000)

Year	Divided Government		Term Limit		Lame Duck		Vote Margin	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
1975	0.38	0.49	0.54	0.50	0.29	0.46	9.09	8.87
1976	0.38	0.49	0.54	0.50	0.33	0.48	9.58	10.32
1977	0.38	0.49	0.54	0.50	0.31	0.47	9.81	10.25
1978	0.38	0.49	0.54	0.50	0.31	0.47	9.92	10.33
1979	0.46	0.50	0.54	0.50	0.19	0.39	8.80	8.82
1980	0.48	0.50	0.54	0.50	0.17	0.38	7.85	6.45
1981	0.50	0.51	0.54	0.50	0.23	0.42	7.80	6.67
1982	0.50	0.51	0.54	0.50	0.21	0.41	7.59	6.79
1983	0.42	0.50	0.54	0.50	0.38	0.49	8.07	6.30
1984	0.40	0.49	0.54	0.50	0.38	0.49	8.09	6.26
1985	0.52	0.50	0.54	0.50	0.31	0.47	7.92	6.00
1986	0.52	0.50	0.54	0.50	0.33	0.48	8.38	6.13
1987	0.58	0.50	0.54	0.50	0.19	0.39	8.03	7.32
1988	0.58	0.50	0.54	0.50	0.17	0.38	8.23	7.46
1989	0.60	0.49	0.54	0.50	0.19	0.39	8.16	7.09
1990	0.58	0.50	0.58	0.50	0.17	0.38	7.87	6.96
1991	0.52	0.50	0.58	0.50	0.25	0.44	8.37	6.85
1992	0.58	0.50	0.71	0.46	0.23	0.42	8.50	6.84
1993	0.52	0.50	0.71	0.46	0.17	0.38	8.71	6.89
1994	0.52	0.50	0.79	0.41	0.17	0.38	8.64	6.86
1995	0.50	0.51	0.79	0.41	0.21	0.41	8.80	7.27
1996	0.50	0.51	0.79	0.41	0.23	0.42	8.65	7.27
1997	0.58	0.50	0.79	0.41	0.27	0.45	9.12	7.99
1998	0.58	0.50	0.77	0.42	0.29	0.46	8.91	7.92
1999	0.52	0.50	0.75	0.44	0.40	0.49	10.10	7.74
2000	0.50	0.51	0.75	0.44	0.42	0.50	10.55	8.01
Total	0.50	0.50	0.62	0.49	0.26	0.44	8.67	7.58

Table 3: Main results

	OLS RE	OLS FE	OLS FE	LOGIT RE	LOGIT FE	LOGIT FE
	Dependent Variable: Divided Government					
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lame duck	0.106**	0.106**	0.124**	0.620***	0.626**	0.765***
	(0.044)	(0.045)	(0.049)	(0.210)	(0.267)	(0.295)
Term limit	-0.231**	-0.323**	-0.302**	-1.372***	-1.849**	-1.827**
	(0.101)	(0.135)	(0.143)	(0.292)	(0.834)	(0.872)
Vote margin	-0.014***	-0.014***	-0.013***	-0.089***	-0.091***	-0.090***
	(0.003)	(0.003)	(0.003)	(0.012)	(0.021)	(0.021)
Short term	-0.190*	-0.162	-0.193	-1.257**	-1.165	-1.315*
	(0.100)	(0.129)	(0.132)	(0.497)	(0.714)	(0.730)
One term limit	-0.246*	-0.388	-0.385	-1.371**	-2.151	-2.173
	(0.142)	(0.278)	(0.286)	(0.642)	(1.509)	(1.576)
General election	0.016	0.016	0.024*	0.083	0.091	0.135*
	(0.013)	(0.014)	(0.013)	(0.169)	(0.075)	(0.069)
Midterm election	-0.018*	-0.017	-0.003	-0.095	-0.089	-0.021
	(0.011)	(0.011)	(0.013)	(0.172)	(0.063)	(0.072)
R.p.c. income	4.11e-06	-9.13e-06	1.99e-05	4.61e-05	-4.33e-06	1.27e-04
	(1.85e-05)	(2.97e-05)	(4.86e-05)	(6.72e-05)	(1.76e-04)	(2.86e-04)
Unemployment	-0.022*	-0.024	-0.028	-0.113**	-0.122	-0.157
	(0.012)	(0.014)	(0.021)	(0.050)	(0.079)	(0.118)
Population	8.41e-09	7.00e-08***	7.40e-08***	6.34e-08	3.69e-07***	3.90e-07***
	(5.14e-09)	(2.35e-08)	(2.27e-08)	(4.06e-08)	(1.28e-07)	(1.27e-07)
Aged (65+)	-2.220	0.946	1.264	-10.275	-0.031	-3.328
	(2.137)	(4.187)	(5.764)	(9.779)	(23.048)	(32.956)
Young (5-17)	-3.142*	-2.173	-1.273	-16.447***	-12.637	-8.348
	(1.718)	(1.904)	(3.241)	(5.883)	(11.149)	(16.780)
State FE	no	yes	yes	no	yes	yes
Year FE	no	no	yes	no	no	yes
Observations	1,214	1,214	1,214	1,214	1,086	1,086
(pseudo) R-squared	0.115	0.104	0.117		0.114	0.127
Number of States	48	48	48	48	43	43

Notes: Standard errors are adjusted to within state clustering and reported in parentheses.
Significance level: * 0.05<p<0.1, ** 0.01<p<0.05, *** p<0.01. Source: Own calculations

Table 4: Subsamples: Election years, States with term limit legislation

Dependent Variable: Divided Government

	Subsample: Gubernatorial election years			Subsample: States with term limit legislation		
	RE	FE	FE	RE	FE	FE
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lame duck	0.097**	0.099**	0.120**	0.109**	0.133**	0.153**
	(0.042)	(0.046)	(0.051)	(0.048)	(0.052)	(0.057)
Term limit	-0.197**	-0.288**	-0.262*			
	(0.087)	(0.126)	(0.133)			
Vote margin	-0.014***	-0.014***	-0.014***	-0.014***	-0.015***	-0.015***
	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)
Short term	-0.192**	-0.131	-0.184	-0.195*	-0.194	-0.187
	(0.088)	(0.141)	(0.160)	(0.107)	(0.135)	(0.125)
One term limit	-0.229**	-0.387	-0.377	-0.614***	-0.841***	-0.820***
	(0.114)	(0.253)	(0.281)	(0.078)	(0.085)	(0.110)
General election				0.026	0.028*	0.031*
				(0.016)	(0.016)	(0.016)
Midterm election	-0.033	-0.033	-0.035	-0.013	-0.008	-0.010
	(0.021)	(0.022)	(0.029)	(0.012)	(0.012)	(0.015)
R.p.c. income	1.01e-05	-5.92e-06	2.42e-05	-1.43e-05	-7.60e-05**	-1.25e-04*
	(1.63e-05)	(3.00e-05)	(4.71e-05)	(2.25e-05)	(2.99e-05)	(6.29e-05)
Unemployment	-0.012	-0.016	-0.025	-0.030*	-0.048***	-0.057**
	(0.014)	(0.016)	(0.022)	(0.016)	(0.015)	(0.024)
Population	3.96e-09	7.16e-08***	7.33e-08***	8.81e-09	5.83e-08	5.72e-08
	(4.81e-09)	(2.25e-08)	(2.21e-08)	(5.68e-09)	(3.67e-08)	(3.83e-08)
Aged (65+)	-2.691	2.289	1.910	-1.271	7.370	3.156
	(1.964)	(4.607)	(6.118)	(2.682)	(5.455)	(7.640)
Young (5-17)	-3.211	-1.828	-0.787	-3.766	-2.753	-1.825
	(1.994)	(2.351)	(4.120)	(2.354)	(2.477)	(2.852)
State FE	no	yes	yes	no	yes	yes
Year FE	no	no	yes	no	no	yes
Observations	595	595	595	754	754	754
R-squared	0.123	0.097	0.121	0.090	0.112	0.135
Number of States	48	48	48	38	38	38

Notes: Linear probability models estimated by OLS. Standard errors are adjusted to within state clustering and reported in parentheses. Significance level: * $0.05 < p < 0.1$, ** $0.01 < p < 0.05$, *** $p < 0.01$. Source: Own calculations

Table 5: Gubernatorial job approval ratings

Dependent Variable: Divided Government

VARIABLES	Full Sample			Subsample: Election years		
	RE	FE	FE	RE	FE	FE
	(1)	(2)	(3)	(4)	(5)	(6)
Lame duck	0.111*	0.113*	0.131**	0.131*	0.146**	0.152**
	(0.061)	(0.060)	(0.062)	(0.070)	(0.069)	(0.068)
Term limit	-0.202**	-0.342***	-0.286**	-0.192**	-0.376***	-0.275**
	(0.095)	(0.123)	(0.123)	(0.090)	(0.135)	(0.123)
Vote margin	-0.010**	-0.011**	-0.011**	-0.009**	-0.009**	-0.008
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)
Short term	-0.283**	-0.272*	-0.230	-0.282***	-0.244*	-0.219
	(0.110)	(0.147)	(0.145)	(0.103)	(0.141)	(0.150)
One term limit	-0.263**	-0.575***	-0.517**	-0.195	-0.542***	-0.497**
	(0.133)	(0.177)	(0.206)	(0.143)	(0.160)	(0.200)
General election	0.027	0.039	0.058	0.660	0.040	0.043
	(0.025)	(0.027)	(0.039)	(1.032)	(0.037)	(0.054)
Midterm election	-0.013	-0.003	0.012	0.624		
	(0.018)	(0.019)	(0.023)	(1.031)		
R.p.c. income	-1.74e-06	-5.08e-05	-7.57e-05	1.21e-05	-6.14e-05	-7.59e-05
	(2.33e-05)	(3.86e-05)	(7.35e-05)	(1.98e-05)	(4.10e-05)	(7.63e-05)
Unemployment	-0.026	-0.041*	-0.048	-0.010	-0.035	-0.056*
	(0.018)	(0.022)	(0.029)	(0.018)	(0.024)	(0.030)
Population	1.28e-08**	1.02e-07***	4.97e-08	7.22e-09	1.12e-07***	6.25e-08
	(5.80e-09)	(1.80e-08)	(3.12e-08)	(5.16e-09)	(2.12e-08)	(3.76e-08)
Aged (65+)	0.003	0.055	-0.097	0.000	0.101	-0.053
	(0.031)	(0.070)	(0.092)	(0.029)	(0.081)	(0.105)
Young (5-17)	-0.027	-0.013	0.038*	-0.012	0.014	0.075**
	(0.029)	(0.028)	(0.021)	(0.031)	(0.033)	(0.030)
Positive JAR	0.004	0.004	0.004	0.003	0.003	0.003
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
State FE	no	yes	yes	no	yes	yes
Year FE	no	no	yes	no	no	yes
Observations	635	635	635	325	325	325
R-squared	0.109	0.118	0.182	0.116	0.108	0.204
Number of States	48	48	48	48	48	48

Notes: Linear probability models estimated by OLS. Standard errors are adjusted to within state clustering and reported in parentheses. Significance level: * $0.05 < p < 0.1$, ** $0.01 < p < 0.05$, *** $p < 0.01$. Source: Own calculations

Table 6: Institutional and political controls

			Dependent Variable: Divided Government			
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lame duck	0.106**	0.122**	0.097*	0.112**	0.098**	0.111**
	(0.047)	(0.050)	(0.051)	(0.053)	(0.045)	(0.048)
Term limit	-0.323**	-0.312**	-0.444***	-0.428***	-0.295**	-0.265*
	(0.141)	(0.148)	(0.150)	(0.157)	(0.130)	(0.138)
Vote margin	-0.014***	-0.013***	-0.011***	-0.011***	-0.013***	-0.012***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Short term	-0.162	-0.191	-0.132	-0.162	-0.127	-0.159
	(0.129)	(0.132)	(0.100)	(0.108)	(0.117)	(0.125)
One term limit	-0.388	-0.390	-0.425*	-0.446*	-0.363	-0.371
	(0.277)	(0.283)	(0.248)	(0.254)	(0.292)	(0.300)
General election	0.016	0.024*	0.026**	0.034**	0.019	0.025*
	(0.014)	(0.014)	(0.013)	(0.013)	(0.014)	(0.014)
Midterm election	-0.017	-0.003	-0.015	-0.001	-0.017	-0.005
	(0.011)	(0.013)	(0.011)	(0.013)	(0.011)	(0.013)
R.p.c. income	-9.13e-06	2.05e-05	-1.17e-05	2.37e-05	-1.64e-05	1.96e-05
	(2.96e-05)	(4.86e-05)	(2.79e-05)	(4.43e-05)	(3.21e-05)	(4.88e-05)
Unemployment	-0.024	-0.028	-0.023*	-0.028	-0.024	-0.026
	(0.015)	(0.021)	(0.013)	(0.020)	(0.015)	(0.021)
Population	7.00e-08***	7.42e-08***	6.53e-08***	7.32e-08***	5.78e-08**	6.28e-08**
	(2.35e-08)	(2.27e-08)	(2.36e-08)	(2.31e-08)	7.32e-08***	(2.38e-08)
Aged (65+)	0.946	1.196	0.902	1.697	-0.676	0.734
	(4.157)	(5.768)	(4.178)	(6.011)	(4.171)	(5.416)
Young (5-17)	-2.172	-1.253	-1.598	-1.543	-2.710	-1.387
	(1.906)	(3.243)	(1.793)	(3.711)	(1.945)	(3.261)
No limit term>1	0.000	-0.020				
	(0.055)	(0.055)				
Democratic governor			-0.276**	-0.287***		
			(0.106)	(0.104)		
Political preferences					-0.056	0.040
					(0.265)	(0.258)
Political heterogeneity					0.719**	0.798**
					(0.304)	(0.312)
State FE	yes	yes	yes	yes	yes	yes
Year FE	no	yes	no	yes	no	yes
Observations	1,214	1,214	1,198	1,198	1,214	1,214
R-squared	0.104	0.117	0.178	0.192	0.114	0.129
Number of States	48	48	48	48	48	48

Notes: Linear probability models estimated by OLS. Standard errors are adjusted to within state clustering and reported in parentheses. Significance level: * $0.05<p<0.1$, ** $0.01<p<0.05$, *** $p<0.01$. Source: Own calculations

Table 7: Socio-demographic and economic controls

	Dependent Variable: Divided Government			
VARIABLES	(1)	(2)	(3)	(4)
Lame duck	0.100**	0.117**	0.112**	0.124**
	(0.048)	(0.051)	(0.046)	(0.049)
Term limit	-0.292**	-0.287**	-0.323**	-0.300**
	(0.117)	(0.123)	(0.138)	(0.147)
Vote margin	-0.014***	-0.014***	-0.014***	-0.014***
	(0.003)	(0.003)	(0.003)	(0.003)
Short term	-0.099	-0.110	-0.211	-0.250*
	(0.130)	(0.131)	(0.126)	(0.129)
One term limit	-0.338	-0.322	-0.391	-0.390
	(0.251)	(0.273)	(0.286)	(0.291)
General election	0.017	0.027*	0.021	0.026
	(0.013)	(0.015)	(0.014)	(0.018)
Midterm election	-0.011	-0.003	-0.015	-0.004
	(0.014)	(0.015)	(0.012)	(0.016)
R.p.c. income	-1.86e-05	-1.85e-06	-1.28e-05	1.97e-05
	(2.76e-05)	(4.65e-05)	(3.21e-05)	(5.47e-05)
Unemployment	-0.032**	-0.035*	-0.031*	-0.038
	(0.013)	(0.019)	(0.017)	(0.025)
Population	5.51e-08*	6.09e-08	7.04e-08***	7.47e-08***
	(3.17e-08)	(3.65e-08)	(2.40e-08)	(2.32e-08)
Aged (65+)	1.672	1.784	1.738	2.176
	(4.438)	(5.892)	(4.231)	(6.017)
Young (5-17)	-2.767	-2.422	-1.894	-0.296
	(2.005)	(4.196)	(2.039)	(3.396)
Population density	0.001	0.001		
	(0.003)	(0.003)		
Afro-Americans	-0.008	-0.008		
	(0.038)	(0.039)		
High school	-0.008	0.013		
	(0.007)	(0.028)		
Income growth			-0.004	-0.010*
			(0.006)	(0.005)
Unemployment growth			0.001	0.001
			(0.001)	(0.001)
State FE	yes	yes	yes	yes
Year FE	no	yes	no	yes
Observations	1,118	1,118	1,167	1,167
R-squared	0.107	0.118	0.105	0.118
Number of States	48	48	48	48

Notes: Linear probability models estimated by OLS. Standard errors are adjusted to within state clustering and reported in parentheses. Significance level: * $0.05<p<0.1$, ** $0.01<p<0.05$, *** $p<0.01$.
Source: Own calculations