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The size and scope of government in the US states: Does party ideology matter?

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The size and scope of government in the US states:
Does party ideology matter?

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The size and scope of government in the US states: Does party ideology matter?

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Abstract

We investigate empirically how party ideology influences size and scope of government as measured by the size of government, tax structure and labor market regulation. Our dataset comprises 49 US states over the 1993–2009 period. We employ the new data on the ideological mapping of US legislatures by Shor and McCarty (2011) that considers spatial and temporal differences in Democratic and Republican Party ideology. We distinguish between three types of divided government: overall divided government, proposal division and approval division. The main result suggests that Republican governors have been more active in deregulating labor markets. We find that ideology-induced policies were counteracted under overall divided government and proposal division.

JEL Code: D72, H70, O51.

Keywords: Size and scope of government, party ideology, partisan politics, divided government, US states, panel data.

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1. Introduction

While political polarization between leftwing and rightwing parties and electoral cohesion have declined in several OECD countries such as Germany or Japan, party ideology still plays a great role in the United States. After the Presidential elections in November 2008, President Obama increased the role of government in the economy by introducing compulsory health care insurance, tighter regulations of the financial sector, and quasi-nationalizing parts of the auto industry. Many voters disagreed (Pew Center 2010) and in the midterm elections in November 2010, a majority reacted by voting for the Republicans. With a Republican majority in the House, government became divided, implying that President Obama could not implement his preferred policy without the support of numerous Republican members of parliament. Common sense therefore predicts that divided government moderates ideological policy influences.

That Democrat governments attempt to implement more expansionary economic policies and divided government results in counteracting effects appear to be 'conventional wisdom' (Winters 1976). While political economy models describe how government ideology and institutional characteristics such as divided government may influence policy-making, median voter models suggest that ideological policy positions are unlikely to yield majorities. The public debate in several OECD countries often insinuates the median-voter notion that it does not matter which party one votes for because all parties will implement nearly the same policy. In Germany, for example, the leftwing Social Democrats and the rightwing Christian Democrats have indeed implemented quite similar economic policies since 1990.

It is therefore worthwhile to investigate ideology-induced policies in the United States in more detail. Several studies have shown that party ideology influences economic policy-making in the United States. At the federal level and across the US states leftwing / Democrat governments seem to have pursued more expansionary fiscal policies than rightwing / Republican governments by increasing public expenditures and tax burdens (e.g., Alt and Lowry 1994; Blomberg and Hess 2003; Reed 2006; Rose 2006; Chang et al. 2009; Broz 2011; Pickering and Rockey 2013). The result of ideology-induced

fiscal policies across the US states is not only meaningful because states have the power to choose different policies and institutions. In particular, policy differences between leftwing and rightwing governments reflect heterogeneous preferences in the electorate and show that politicians are not necessarily forced to provide policy platforms that gratify the preferences of the median voter. Yet, the influence of government ideology on more encompassing measures of economic policy than specific measures such as welfare spending or marginal tax rates has been ignored in the empirical political economy literature in the US states. Against the background of sustained interest in the role of party ideology in US economic policy, this is a surprising omission. To measure the size and scope of government, we therefore use the reversed “economic freedom” index developed by Karabegovic et al. (2003) and updated by Bueno et al. (2012) which includes three components – the size of government, the tax structure, and labor market freedom – to investigate whether ideology-induced effects across the US states can also be shown for the more encompassing measures of size and scope of government. The economic freedom indicators by Bueno et al. (2012) are primarily based on fiscal policy measures and thus focus on government intervention in the public sector. In contrast to the cross-country economic freedom indicators by the Fraser Institute (e.g., Gwartney et al. 1996 and 2009) only the labor market component relates to regulation policies.

Challenging issues are how to measure party ideology and how to deal with veto positions. When measuring parties’ ideological position, three issues emerge: 1) the comparability of scales across countries; 2) the potential multidimensionality of political positions and 3) the stability of scales across time and space. By restricting our attention to the United States, we partially circumvent the first issue on the comparability of scales across countries. The second issue on the potential multidimensionality of political positions is also of less concern, as suggested in the pioneering work by Poole and Rosenthal (1991, 2001, 2007). While ideology in some countries is, in fact, a multidimensional concept, Poole and Rosenthal show that the vast majority of decisions taken in Congress can be placed on a left-to-right scale. We therefore explicitly deal with the third issue, the stability of scales across time and

space. Ideological stability is pertinent because the positions of the two American parties have not been stable, but have grown apart in recent decades. Ideologies in the Democratic and Republican parties are also not homogenous across the US states. For example, Southern Democrats are more conservative than Democrats on the East Coast and have historically differed from the rest of the party (Poole and Rosenthal 2007). We therefore use the new data on the ideological mapping of US legislatures by Shor and McCarty (2011) to approximate these differences.

Veto players can counteract ideology-induced economic policy-making. In the United States, divided governments play an important role. Divided governments occur when the governor has a different party affiliation than the majority of at least one of the chambers (House and Senate). Taking account of the influence of divided government on economic policy-making is standard in the related literature. We go one step further to distinguish between the three types of divided government: 1) situations in which the governor is from party A, but both chambers are dominated by party B, i.e. a situation with divided government but a unified congress; 2) situations in which the governor and the majority in the House belong to the same party, but face a Senate majority of party B (approval division); and 3) situations in which the governor and the majority in the Senate belong to the same party, but face a House majority of party B (proposal division). We therefore investigate whether overall divided government, approval and proposal division have counteracted ideology-induced economic-policy making by Republican and Democrat politicians.

The main result suggests that Republicans have been more active in deregulating labor markets than the Democrats. We show that ideology-induced policies were counteracted under overall divided government and proposal division.

2. Policies and institutions

Investigating the influence of government ideology on economic policy-making is one of the core topics in political economy. Partisan theory implies that leftwing and rightwing governments have

different preferences as to the size and scope of government, the proper means to achieve shared goals and, thus, with respect to economic policy: leftwing governments favor more government intervention, more income redistribution and the use of expansionary fiscal and monetary policies. In contrast, rightwing governments traditionally believe in the free market and favor less government intervention.¹

Scholars have examined to what extent and in which policy areas government ideology has influenced economic policy (e.g., Alesina et al. 1997; Imbeau et al. 2001; Pickering and Rockey 2011; Ferris and Voia 2011). The results suggest that rightwing governments have typically been more active in privatizing and deregulating product markets (see, for example, Bortolotti et al. 2004; Potrafke 2010). In contrast to privatization and deregulation policies, government ideology hardly influenced fiscal policies in OECD countries after 1990. On the one hand, rightwing governments also increased public spending and public debt. A prime example is Germany where the conservative chancellor Helmut Kohl did not continue his fiscal consolidation from the 1980s but dramatically increased spending after the German Unification in 1990. On the other hand, leftwing politicians such as Tony Blair in the United Kingdom or Gerhard Schröder in Germany also implemented quite market-oriented fiscal and social policies since the end of the 1990s.

In the United States, party ideology has played an important role in fiscal policy at the federal level (e.g., Blomberg and Hess 2003; Haynes and Stone 1990; Alesina and Sachs 1988; Krause and Bowman 2005; Broz 2011). Confirming traditional partisan theory, many studies at the state level also find that leftwing politicians pursued more expansionary fiscal policy than rightwing politicians.² For example, Chang et al. (2009) suggest that the growth rate of government spending was higher under Democratic governors. Besley and Case (1995) find that taxes and government spending was higher under Democratic governors even if the incumbent Democrat was ineligible for reelection because of term limits. Alt et al. (2002) also find that Democratic governors collected higher general revenues and

¹ Another reason for manipulating economic policies is electoral motives. We focus on the influence of party ideology and do not investigate electoral cycles.

² Scholars have examined how government ideology influenced economic policy-making across counties in other federal states, for example documenting partisan influence in Canada (e.g., Ferris and Voia 2011; Bjørnskov and Potrafke 2012).

spent more per capita. Two studies report no evidence of partisan effects: Rose (2006) suggests that the party composition of the state governments did not significantly influence per capita general expenditures while Primo (2006) does not find ideology-induced government spending.

Some scholars have also examined the influence of legislature ideology on fiscal policies in the US states. Reed (2006) finds that tax burdens were higher when Democrats controlled the *state legislature* compared to when Republicans were in control but that the political party of the governor had little effect. In a similar vein, the results by Besley and Case (2003) show that when Democrats controlled the House, states had higher taxes and expenditures. On the other hand, the results by Besley and Case (2003) show that Democrat governors pursued different labor market policies than their Republican counterparts.

Our first two hypotheses to be investigated thus are:

- 1. Democratic governors aim to increase the size and scope of government more than Republican governors.*
- 2. Democrat dominated legislatures aim to increase the size and scope of government more than Republican dominated legislatures.*

Yet, several factors constrain the influence of ideologically motivated politicians and parties. Institutional features such as the influence of interest groups, checks and balances and divided government are likely to counteract ideology-induced effects on policy-making. For this reason, politicians will probably implement their preferred policies incrementally, step by step over the legislative period. It is not likely that a newly elected government can pursue its most preferred policies from the beginning of the legislative period. This suggests investigating the influence of government ideology on the changes in economic policy. In addition, specific institutions may still limit the room for ideology-induced policy making.

In federal states such as the United States, both chambers of parliament decide on economic policy. When political majorities in the two chambers differ, governments are not always able to implement their preferred policies. The institutional feature most commonly explored in studies of US policy-making is that of divided government: when the governor is ideologically distinct from the majority of either chamber of Congress (cf. Krehbiel 1996). By balancing the influence of different ideologies, divided government may thus give rise to policy convergence (Alesina and Rosenthal 1996). Yet, even this feature varies considerably across the US states and over time. Divided government has been comparatively rare in South Dakota and Utah in recent decades while Connecticut and Minnesota have had divided governments in the entire period we consider in this paper.

Most studies on divided government have focused on the federal level (e.g., Calcagno and Lopez 2012). Similar gridlocks are also likely to occur across the 49 two-chamber states, and to have implications for the influence of party ideology on policy making. In particular, when exploring policy *changes*, situations with divided government would seem to exclude any partisan influences while unified governments would be more able to shift government spending, tax policy and institutional characteristics in ideological directions. Of the comparatively few studies to explore this situation, Alt and Lowry (1994) find that states with divided government respond differently to economic shocks than those with unified government (see also Lowry et al. 1998, Alt et al. 2002).

We observe overall divided government, proposal division and approval division in our sample. Since 2003, for example, both governors Kathleen Sebelius (Democrat (D), Kansas) and Dave Freudenthal (Republican (R), Wyoming) have faced overall divided government: their party did not have the majority in either parliamentary chamber. Other governors, such as David Beasley between 1995 and 1998 (R, South Carolina) and Thomas R. Carper between 1994 and 2001 (D, Delaware), only faced approval or proposal division, respectively. Since 1993, proposal division has been common in Delaware and New York while approval division has been common in Indiana and Wisconsin. In our sample, overall divided government occurred in 37%, proposal division in 14% and approval division in

9% of the cases. Overall divided government in which the governor is from party A, but one or both chambers are dominated by party B is extensively analyzed in the literature (e.g. Baron and Ferejohn 1989; Krehbiel 2000). In addition, Maine and Minnesota in particular have traditions for electing independent governors; for example, the non-party Arne Carlson governed Minnesota from 1991-1998, only to lose the election to reform-politician Jesse Ventura. Most studies have ignored whether situations with only proposal or approval division could differ from a situation of split-branch government, and have tended to ignore independent governors.

Two reasons derive from the different roles of the two chambers to disentangle the effects of approval and proposal division. The role of the upper chamber (Senate) is mainly to approve or disapprove of proposals from government and the House. The main role of state Houses is to propose legislation. Even though the Senate may not have to directly turn down a piece of legislation to exert its influence, it could affect policy making indirectly if some legislation is not even proposed in the case that the governor or representatives deem its chances to pass Senate to be too low. The House has substantial proposal power in most states and any proposal for state legislation and policy need to be put forward and approved in the House. This suggests that the ideological influence of the House may be substantial. However, with situations of proposal division, a number of policy proposals will come from the House majority. Their actual veto incentives thus only extend to proposals from the governor. In situations with approval division, the singular role of the Senate does not create this distinction, since there in this constellation is no ideological divide between the governor and the House majority. Senators are also elected for longer periods of time than House members, which potentially allows senators to adopt a substantially longer time horizon when evaluating policy proposals. Most US senators, once elected, are also rather likely to be reelected, which reinforces this difference. Senates may be significantly more likely to veto proposals that have ideologically untenable long-run consequences.

These considerations give rise to the following supplementary hypotheses.

3. Divided governments counteract ideology-induced policies.

4. Counteraction varies across types of divided government.

3. Data

3.1 Measuring party ideology across the US states

Several pitfalls are associated with measuring party ideology, as outlined in Castles and Mair's (1984) pioneering paper. Measuring party ideology consistently across time and space involves assessing the dimensionality of ideology, choosing a scale of ideology common to all units of observation, and in most cases making the implicit or explicit assumption that ideology is scale-invariant across time. Scholars have employed two measures for party ideology in the US states: governor ideology (Republican / Democrat) and the ideological position of the legislature (e.g., Reed 2006) – that is the party ideology of the House and the Senate. Most studies exploring evidence across the 50 states treat scale issues as resolved by assuming that the positions of the Democrat and Republican parties do not change over time, or change so consistently across the states that all changes are picked up by a joint time trend. Most studies also assume that there are no material differences between party positions across the states. The studies by Alt et al. (2002), Frederiksson et al. (2013) and Pickering and Rockey (2013) are notable exceptions that account for differences in party ideology across states and over time.

Party positions are nevertheless likely to differ across the US states. Berry et al. (1998) employ, for example, political positions in the US Congress to estimate state party positions. We deviate from Berry et al. (1998) in employing new data on the ideological mapping of US state legislatures by Shor and McCarty (2011) to relax the standard assumption that members of specific parties hold the same ideological positions across all US states. We furthermore distinguish between the party ideology of governors and the two chambers of parliaments.

The data from Shor and McCarty (2011) follow Poole and Rosenthal (2006) by applying roll-call votes to estimate party ideological positions specific to state legislatures from 1993. They first find

support for Poole and Rosenthal's result within federal politics which confirms Gerring's (1997, p. 975) definitional assessment that a set of values "becomes ideological only insofar as it specifies a concrete program, a set of issue-positions" holds for the two American parties. The vast majority of votes can be placed on a uni-dimensional left-to-right scale, which they define as between -1 and +1. However, by applying the National Political Awareness (NPAT) test, a survey that includes a large number of state legislative candidates, Shor and McCarty (2011) apply Poole and Rosenthal's framework to the state legislatures, and estimate the between and within-state differences in state-specific party ideology. Shor and McCarty (2011) first estimate roll call-based ideal points for all legislators in each state and then "project them into the space of NPAT ideal points" (p. 534). The NPAT, which is administered by the Montana-based non-partisan nonprofit organization Project Vote Smart, asks a number of clearly ideological questions, including preferences for defense spending, environmental policy, welfare and social issues, fiscal policy and taxation, foreign policy and criminal justice. As a repeated survey, it enables researchers to track changes in ideological positions, as most central ideological questions are consistently asked in all rounds of the NPAT survey. For the period 1996-2009, Shor and McCarty (2011) gained access to almost 6000 unique questions from legislators in Congress (approximately 10% of the sample) and state legislators (the rest).

The dataset includes ideological positions of both parties across states in which each state party is considered a unique entity. Average legislature ideology of the Democrats assumes values between -1.65 (extreme leftwing Democrats) and 0.24 (extreme rightwing Democrats). Average legislature ideology of the Republicans assumes values between -0.20 (extreme leftwing Republicans) and 1.33 (extreme rightwing Republicans). The data show, for example, that the Democratic Party in Mississippi in recent years has tended to be *more* conservative than the Republican Party in relative liberal states such as Connecticut, Delaware and New York (Shor and McCarty 2011, p. 537). The dataset thus also includes information on, e.g., the state-specific ideological polarization as well as median positions within each House and Senate. Likewise, since governors' positions are "merely the average of own-

party ideology”, the dataset can be used to assess the ideological influence of governors (Shor and McCarty 2011, p. 539). We use the average legislature ideology of the Republican/Democratic party to more precisely measure the ideology of the governors: when a Republican/Democratic governor was in power.

The data on party ideology cover governors and both chambers of all 49 states (excluding the unicameral Nebraska). The average state includes data from 12 consecutive years between 1993 and 2009, with the longest periods in Texas (1993-2009) and California (1993-2008) and the least data from Alabama (1996-2002).

3.2 Data on the size and scope of government in the US states

To measure the size and scope of government we use the reversed economic freedom indices in the US states by Bueno et al. (2012).³ This dataset is available for the 1981-2010 period and contains yearly data for all 50 US states. We use data over the 1993-2009 period for which the ideology data by Shor and McCarty (2011) are available. Our dataset thus includes up to 607 observations. In contrast to the cross-country economic freedom by the Fraser Institute (Gwartney et al. 1996 and 2009), the economic freedom indices for the US do not focus on industrial policies but on the public sector. Because we would like to examine whether party ideology influenced policy-making at the state level, we use the ratings of the economic freedom indices at the subnational level (the economic freedom index is also available at the all-government level including policies designed by the federal government).

The economic freedom index includes three components: 1) the size of government, composed of general consumption expenditures by government (% of GDP), transfers and subsidies (% of GDP), and social security payments (% of GDP); 2) the tax structure, measured as an index equally weighting total tax revenue (% of GDP), the top marginal income tax rate and the income threshold at which it applies, indirect tax revenue (% of GDP) and sales taxes collected (% of GDP); and 3) labor market

³ Data on Economic Freedom in the US states have been first introduced by Karabegovic et al. (2003). The data have been used by, for example, Ashby and Sobel (2008), Compton et al. (2011) and Garrett and Rhine (2011).

freedom, measured as the extent of minimum wage legislation, government employment (% of total state/provincial employment) and union density. Each subcomponent enters with equal weights in the three components of the index.

The construction of these indices follows an explicit political logic as they are pooled into measures of expenditure policy, revenue policy, and labor market policy. Each index is therefore formed from separate proxies for policies that are full or partial substitutes in the sense of being implemented with the same or similar aims in mind. For example, transfers and subsidies have redistributive consequences that can also be reached through tax policy. The overall indicators are scaled to take on values between 0 (minimum of economic freedom) and 10 (maximum of economic freedom).⁴ We therefore use the reversed economic freedom indices (10 – economic freedom index *j*) and describe the reversed economic freedom indices as the Size and Scope of Government index which takes on values between 0 (minimum of size and scope of government) and 10 (maximum of size and scope of government).

Size and scope of government was small in states such as Arizona, Delaware, Tennessee and Texas and pronounced in states such as Maine, New York, Rhode Island and West Virginia. In Arizona, however, overall size and scope of government increased from 2.3 in 1996 to 3.1 in 2008 while economic liberalization occurred in New York in the 1990s and beginning of the 2000s. In New Mexico, the size of government indicators increased from 3.1 in 1996 to 4.2 in 2002. Size and scope of government has varied over time and across the US states.

We use the first differences of the size and scope of government indicators as dependent variables. We do not use the levels of the indicators to avoid spurious regression because the levels turn out to be non-stationary variables. Using first differences indicates that we investigate how party ideology influences economic reforms. Our analysis shows whether Republicans/Democrats have increased/decreased the size and scope of government.

⁴ For further details on the construction of the economic freedom indicators, as well as the primary data, see Karabegovic et al. (2003).

4. Descriptive statistics

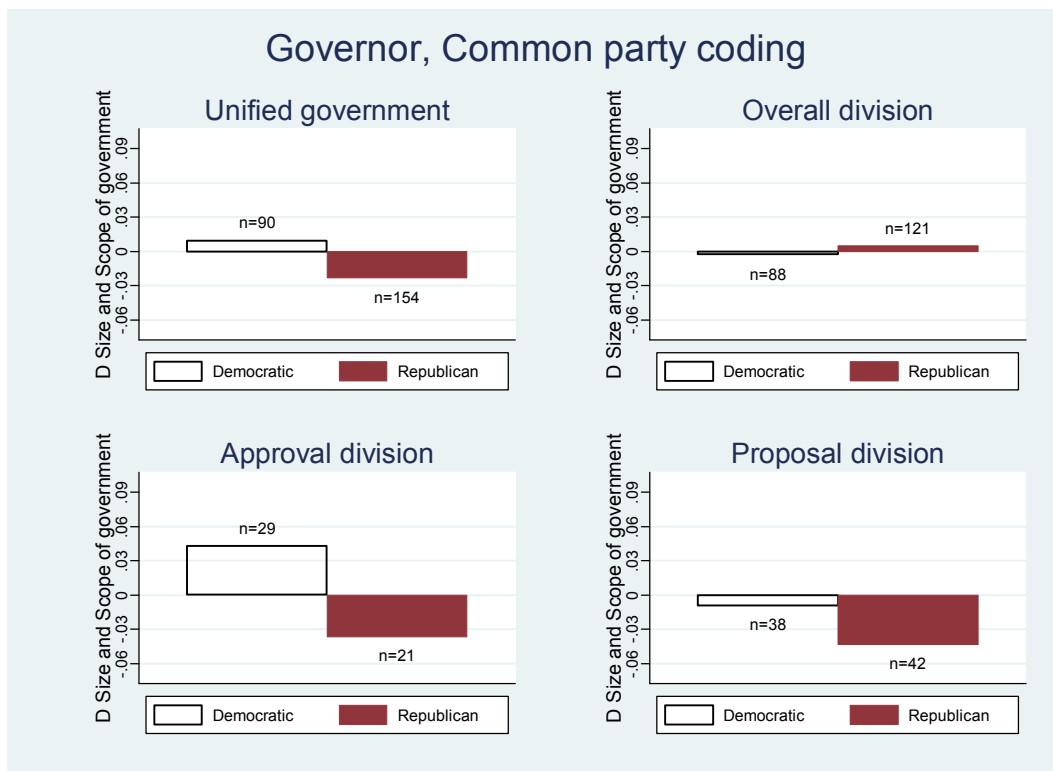
To illustrate the association between party ideology, divided government and the size and scope of government, we first present descriptive statistics. We distinguish between six ideology measures: the common ideology measures and the new measures by Shor and McCarty (2011) of the governors, House and Senate. We likewise distinguish between three types of divided government: overall division, proposal division and approval division. There are 24 cases to investigate whether the ideology of the governor, House and Senate (both using the common ideology variables and the new measures by Shor and McCarty 2011) was associated with different changes in the size and scope of government indicators (overall, government size, taxation and labor market regulation) given that there was overall division, approval division or proposal division.

Figure 1 shows the means of the change in the overall size and scope of government indicator conditional on whether there was a Democratic or Republican governor with a unified government (upper left hand side), and whether a Democratic or Republican governor faced overall division (upper right hand side), approval division (lower left hand side) or proposal division (lower right hand side). The figures only include observations where one can distinguish between Republican and Democratic majorities. Excluded are the observations with independent governors (15 observations), and when Republicans and Democrats have the same number of seats in the House (7) or Senate (11), and when independent members of parliament are pivotal (9 observations).

The upper left hand side of Figure 1 shows that with unified government, the size and scope of government somewhat increased under Democratic governors (0.010) and decreased under Republican governors (-0.024). This difference in the mean values is statistically significant at the 10% level. The upper right hand side panel shows that Democratic governors who faced overall divided government had somewhat smaller size and scope of government (-0.003) whereas Republican governors who faced overall division increased size and scope of government (0.005). A two-group mean-comparison test shows that the influence of Republican governors under overall divided government and a unified

government is somewhat different, an effect statistically significant at the 10% level. The lower left-hand side panel shows that with approval division, Republican governors decreased and Democratic governors increased the size and scope of government (note however that there are only 50 observations with approval division). The lower right-hand side panel shows that with proposal division, both Republican and Democratic governors decreased the size and scope of government. These figures indicate that governors can induce ideology-induced policies once their party has a majority in the House and that both parties tend to introduce reforms, but in opposite directions.

Figure 1. Changes of the **overall size and scope of government indicator** under Democratic and Republican **governors** and types of divided government.
Common dummy variable coding.



Two-group mean-comparison tests indicate differences in means between Democratic and Republican governors in general (not shown, p -value = 0.0344), with unified government (upper left-hand side, p -value=0.0684) and with approval division (lower left-hand side, p -value=0.0052).

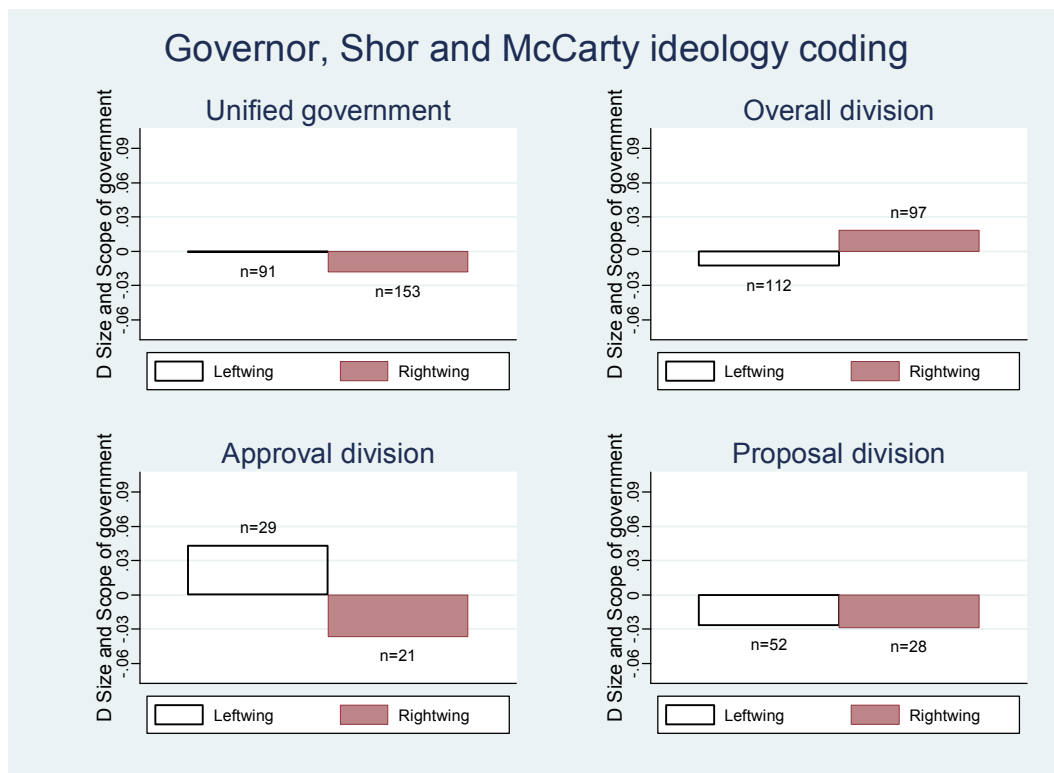
By using governor ideology weighted with the data by Shor and McCarty (2011), we employ a more precise measure of ideology. We split the sample around the median (0.073) of the Shor and McCarty (2011) ideology variable. Observations above the median indicate rightwing party ideology.⁵ Figure 2 shows that as compared to the common governor coding, inferences change when there was overall divided government: leftwing governors have been active in economic liberalization when the political right had the majority in both legislative chambers (upper right-hand side panel).

We have also conducted the descriptive analysis for party ideology of the House and Senate and the size and scope of government sub indicators. All these figures are available upon request. The results show that Republican dominated Houses have been associated with smaller size and scope of government when the governor was Republican and the Senate was dominated by the Democrats (see above). This result is robust to employing either measure of party ideology.

Democratic governors were associated with growing size of government when ideology is not conditioned on any type of divided government. This effect is significant when we use the common governor ideology variable, but is not significant when using the measure by Shore and McCarty (2011). Ideology-induced effects are pronounced when Democratic governors had the majority in either both chambers or at least the Senate (this holds for both the common and new ideology measure). Republicans decreased taxes, but the descriptive statistics indicate that divided government did mitigate these differences.

⁵ We distinguish between 299 rightwing and 284 leftwing governors. We do not split the sample in two samples of exactly the same size to avoid having one governor being coded once as leftwing and once as rightwing.

Figure 2. Changes of the **overall size and scope of government indicator** under Democratic and Republican **governors** and types of divided government. **Shor and McCarty measure.**



Two-group mean-comparison tests indicate differences in means between leftwing and rightwing governors (Shor and McCarty measure sample median of 0.073) with overall division (upper right-hand side, p -value=0.0684) and with approval division (lower left-hand side, p -value=0.0052).

We also observe that Republicans and Democrats implemented different labor market policies. In particular, Republican governors have been associated with labor market deregulation. When we use the measures by Shor and McCarty (2011), differences between Republicans and Democrats do, however, not turn out to be statistically significant.

These descriptive statistics therefore indicate that measuring party ideology by common ideology variables as compared to the variables by Shor and McCarty (2011) in some situations appears to give rise to somewhat different results, and divided government appears to mitigate ideology-induced policies. We now estimate panel data models to elaborate further on these issues.

5. Empirical model

The base-line panel data model has the following form:⁶

$$\begin{aligned}
 \Delta \text{ Size and Scope of Government}_{ijt} &= \alpha_{jk} \text{ Ideology}_{ikt} \\
 &+ \beta_{1j} \text{ Overall Division}_{it} + \beta_{2j} \text{ Approval Division}_{it} + \beta_{3j} \text{ Proposal Division}_{it} \\
 &+ \gamma_{1jk} \text{ Ideology}_{ikt} * \text{ Overall Division}_{it} + \gamma_{2jk} \text{ Ideology}_{ikt} * \text{ Approval Division}_{it} \\
 &+ \gamma_{3jk} \text{ Ideology}_{ikt} * \text{ Proposal Division}_{it} \\
 &+ \sum_l \delta_{jl} \Delta X_{ilt} + \eta_i + \epsilon_t + u_{it}
 \end{aligned}$$

$$\text{with } i=1, \dots, 49; k=1, \dots, 6; l=1, \dots, 10; t=1, \dots, 17 \tag{2}$$

where the dependent variable $\Delta \text{ Size and Scope of Government}_{ijt}$ denotes the first difference of the Size and Scope of Government index j in state i and year t . Ideology_{ikt} describes the ideological orientation of either the governor, House or Senate as discussed in the previous section. As our measure of party ideology, we include the common dummy ideology variables for the governors and the average ideological position in the House and Senate and the ideology variables by Shor and McCarty (2011), respectively. In either way, we include the level of the ideology variable in period t and thus test whether party ideology influenced changes in size and scope of government. We include the Overall Division_{it}, Approval Division_{it}, and Proposal Division_{it} variables which are dummy variables that take on the value one when government in a state was divided and zero otherwise (overall, approval and proposal division respectively). “Ideology_{ikt} * Overall Division_{it}” is an interaction term between the individual ideology variable and the overall division dummy variable. “Ideology_{ikt} * Approval Division_{it}” is an interaction term between the individual ideology variable and the approval division dummy variable. “Ideology_{ikt} * Proposal Division_{it}” is an interaction term between the individual ideology

⁶ Panel data unit root tests by Levin et al. (2002) and Im et al. (2003) show that the first differences of the size and scope of government variables are stationary.

variable and the proposal division dummy variable. We expect that ideology-induced economic policies are counteracted under divided government and thus, the coefficients of the interaction terms to have a positive sign.

$\Sigma_1 \Delta X_{it}$ contains ten institutional and economic control variables. We include a dummy variable for independent governors. To disentangle the effect of party ideology and voter preferences on economic policy making, we have included the Presidential vote shares for the Republicans as an explanatory variable (see, e.g. Elinder and Jordahl 2013, Liang 2013, and Kauder and Potrafke 2013).⁷ Inferences regarding the party ideology variables do not change when we use the Presidential vote shares for the Democrats instead. The economic control variables are included in first differences: the first difference of the dependency ratio (persons aged below 15 and above 65 as a share of total population), women as a share of total population, blacks as well as Hispanics as a share of total population, total population, employment, the GDP deflator, and the intergovernmental net transfers from the federal government to the state (excl. municipalities) as a share of GDP.⁸ We expect the number of transfer receivers and institutional restrictions to have a positive influence on size and scope of government. Table A1 provides descriptive statistics of all variables included. η_i represents a fixed state effect, ϵ_t is a fixed period effect and u_{ijt} describes an error term. We estimate the model using ordinary least squares (OLS) with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors – see Huber 1967, White 1980 and 1982, and Stock and Watson 2008).

⁷The correlations between Presidential vote shares and results in state elections are non-negligible. Including vote shares for Republican presidential candidates may therefore have the effect of reducing the point estimates of state ideology variables. Our main estimates in the following are thus conservative.

⁸One might also argue for including controls for supermajority and balanced budget requirements. Yet, only two states – California and New Hampshire – have made de facto changes to these institutions in the period which we consider. We therefore note that these institutional features will be subsumed by the state fixed effects.

Table A1. Descriptive Statistics.

| Variable | Observations | Mean | Std. Dev. | Min | Max | Source |
|--|--------------|----------|-----------|---------|--------|--|
| ΔOverall size and scope of government | 607 | -.0083 | .1291 | -.5389 | .6106 | Bueno et al. (2012) |
| ΔSize of government (sub index) | 607 | .0138 | .2324 | -1.3382 | .9183 | Bueno et al. (2012) |
| ΔTakings and discriminatory taxation (sub index) | 607 | -.0142 | .1690 | -.9801 | .5708 | Bueno et al. (2012) |
| ΔLabor market regulation (sub index) | 607 | -.0245 | .1447 | -.4136 | 1.4487 | Bueno et al. (2012) |
| Ideology, governors | 607 | .1549 | .9761 | -1 | 1 | Own collection |
| Ideology House | 593 | -.0084 | 1.008 | -1 | 1 | Own collection |
| Ideology Senate | 594 | .0572 | .9992 | -1 | 1 | Own collection |
| Ideology, governors (Shor & McCarty) | 598 | .1024 | .7236 | -1.5095 | 1.3335 | Shor and McCarty (2011) |
| Ideology House (Shor & McCarty) | 584 | .0484 | .7542 | -1.7840 | 1.3130 | Shor and McCarty (2011) |
| Ideology Senate (Shor & McCarty) | 594 | .05539 | .7251 | -1.5090 | 1.2090 | Shor and McCarty (2011) |
| Divided Government (overall) | 607 | .3700 | .4829 | 0 | 1 | Own collection |
| Divided Government (Proposal division) | 607 | .1384 | .3456 | 0 | 1 | Own collection |
| Divided Government (Approval division) | 607 | .0857 | .2801 | 0 | 1 | Own collection |
| Independent governor | 607 | .0247 | .1553 | 0 | 1 | Own collection |
| Republican vote share (presidential elections) | 607 | .4792 | .0920 | .2658 | .7272 | Electoral college and US electionatlas |
| Democratic vote share (presidential elections) | 607 | .4637 | .0802 | .2465 | .7184 | Electoral college and US electionatlas |
| ΔBlacks (as a share of total population) | 607 | .0004 | .0013 | -.0143 | .0067 | Census Bureau |
| ΔHispanics (as a share of total population) | 607 | .0032 | .0034 | -.0080 | .0300 | Census Bureau |
| ΔFemales (as a share of total population) | 607 | -.0003 | .0010 | -.0079 | .0076 | Census Bureau |
| ΔPopulation | 607 | 67183.24 | 115878.1 | -273963 | 936271 | BEA (2013) |
| ΔDependency ratio | 607 | -.0014 | .0024 | -.0181 | .0122 | Census Bureau |
| ΔEmployment | 607 | .0022 | .0084 | -.0417 | .0375 | BEA (2013) |
| ΔGDP deflator | 607 | -.0208 | .0161 | -.1405 | .0777 | BEA (2013) |
| ΔFiscal transfers | 607 | .0004 | .0030 | -.0232 | 0.0242 | BEA (2013) / own calculation |

6. Results

6.1 Baseline results

Tables 1a and 1b report the results when the changes in the overall size and scope of government indicator are used as dependent variable. We present results including and excluding the control variables to show to which extent including/excluding the control variables changes the inferences. We show the coefficient estimates of all variables included in the upper part and the marginal effects of the ideology variables conditional on the individual types of divided government in the lower part of the tables. In Table 1a, the coefficients of the ideology variables and the divided government variables do not turn out to be statistically significant in most specifications. The marginal effects indicate that Republican governors and Republican dominated Houses reduced overall size and scope of government as compared to Democratic governors and Democrat dominated Houses when in conjunction with approval division. In contrast to party ideology, the vote share for the Republicans in Presidential elections is statistically significant at the 1% level and has the expected negative sign. US states with a large share of Republican voters thus experienced decreasing size and scope of government. The results in Table 1b suggest that the GDP deflator – i.e. state specific inflation rates – and fiscal transfers have positive effects and the share of Hispanics negative effects on overall size and scope of government. Party ideology did not influence overall size and scope of government with unified government:⁹ the coefficients of the ideology variables have the expected negative sign but slightly fail statistical significance at the 10% level. The marginal effects show that party ideology has had hardly any influence on the change of the size and scope of government indicator with divided government. An exception is the ideology of the governor as measured by the Shor and McCarty (2011) which remains statistically significant at the 10% level with approval division (column 4). The significant effect in column 4 of governor ideology conditional on approval division indicates that Republican governors had smaller size and scope of government when the Republicans had a majority

⁹The results excluding the other explanatory variable may thus suffer from omitted variable bias.

in the House and the Democrats had a majority in the Senate. This result is in line with the descriptive statistics: the party ideology of the governor and the House appears to be powerful – a majority of the other party in the Senate notwithstanding. As long as ideological overall policy changes proposed by the governor are likely to pass the House, the veto power of the senate seems de facto ineffective. We acknowledge however that the sample sizes for approval and proposal division conditional on Republican and Democratic majorities turn out to be small.

Tables 2a and 2b show the results when the size of government sub indicator is used as dependent variable. The results of the control variables closely resemble those with the overall index. The party ideology variables do not turn out to be statistically significant. In Tables 3a and 3b, we use the taxation sub indicator as dependent variable. The results show that state party ideology did not have any robust influence. Taxation policies, however, have been strongly liberalized in states with a large share for the Republicans in Presidential elections.

Table 1a: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)Dependent variable: Δ Size and Scope of Government indicator (overall).

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|----------------------|----------------------|-----------------------|--------------------------|----------------------|-----------------------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.00637 (0.0126) | | | -0.0141 (0.0144) | | |
| Ideology House | | -0.00457 (0.0135) | | | -0.01000 (0.0138) | |
| Ideology Senate | | | (0.0136) | | | -0.00673 (0.0135) |
| Overall division | 0.0294* (0.0151) | 0.0280* (0.0159) | 0.0284* (0.0157) | 0.0240 (0.0146) | 0.0218 (0.0148) | 0.0264* (0.0151) |
| Approval division | 0.0147 (0.0125) | 0.0154 (0.0129) | 0.0153 (0.0132) | 0.0162 (0.0131) | 0.0189 (0.0149) | 0.0193 (0.0150) |
| Proposal division | 0.00917 (0.0244) | 0.00911 (0.0314) | 0.0105 (0.0248) | 0.00551 (0.0261) | 0.00700 (0.0281) | 0.00958 (0.0249) |
| Ideology*Overall division | 0.0173 (0.0200) | -0.00278 (0.0161) | -0.00420 (0.0166) | 0.0221 (0.0225) | 0.0186 (0.0199) | 0.00867 (0.0234) |
| Ideology*Approval division | -0.0102 (0.0164) | -0.0132 (0.0177) | 0.0241 (0.0204) | -0.0283 (0.0242) | -0.0249 (0.0232) | 0.0292 (0.0217) |
| Ideology*Proposal division | 0.00144 (0.0264) | 0.00797 (0.0358) | 0.00175 (0.0265) | 0.0142 (0.0436) | 0.0273 (0.0370) | -0.000311 (0.0403) |
| Independent governor | -0.0471* (0.0267) | -0.0515* (0.0280) | -0.0598** (0.0291) | -0.0465* (0.0234) | -0.0406 (0.0251) | -0.0440 (0.0350) |
| Republican vote share (presidential elections) | -0.790*** (0.195) | -0.770*** (0.204) | -0.800*** (0.201) | -0.733*** (0.196) | -0.740*** (0.204) | -0.822*** (0.203) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.144 | 0.144 | 0.146 | 0.159 | 0.160 | 0.146 |
| Marginal effect of ideology at | | | | | | |
| Overall division | 0.0109 (0.0131) | -0.0073 (0.0128) | -0.0092 (0.0162) | 0.0080 (0.0165) | 0.0086 (0.0147) | 0.0019 (0.0216) |
| Approval division | -0.0165 (0.0124) | -0.0178 (0.0127) | 0.0191 (0.0133) | -0.0424** (0.0194) | -0.0349* (0.0197) | 0.0225 (0.0150) |
| Proposal division | -0.0049 (0.0243) | 0.0034 (0.0302) | -0.0032 (0.0250) | 0.0001 (0.0441) | 0.0173 (0.0344) | -0.0070 (0.0408) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

Table 1b: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)

Dependent variable: Δ Size and Scope of Government indicator (overall).

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|-------------------------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.0124 (0.0102) | | | -0.0193 (0.0115) | | |
| Ideology House | | -0.0108 (0.0109) | | | -0.0164 (0.0111) | |
| Ideology Senate | | | -0.0103 (0.0110) | | | -0.0124 (0.0110) |
| Overall division | 0.0244* (0.0135) | 0.0229 (0.0142) | 0.0228 (0.0140) | 0.0188 (0.0130) | 0.0167 (0.0129) | 0.0205 (0.0128) |
| Approval division | 0.0140 (0.0121) | 0.0155 (0.0122) | 0.0160 (0.0133) | 0.0127 (0.0132) | 0.0155 (0.0144) | 0.0185 (0.0151) |
| Proposal division | 0.0158 (0.0256) | 0.0163 (0.0330) | 0.0174 (0.0259) | 0.0126 (0.0273) | 0.0145 (0.0297) | 0.0158 (0.0261) |
| Ideology*Overall division | 0.0161 (0.0167) | 0.00944 (0.0132) | 0.0102 (0.0138) | 0.0175 (0.0197) | 0.0278 (0.0171) | 0.0228 (0.0183) |
| Ideology*Approval division | 0.000113 (0.0135) | -0.00297 (0.0144) | 0.0228 (0.0184) | -0.0163 (0.0208) | -0.0121 (0.0197) | 0.0262 (0.0198) |
| Ideology*Proposal division | 0.00889 (0.0276) | 0.0125 (0.0346) | 0.00873 (0.0274) | 0.0272 (0.0442) | 0.0247 (0.0333) | 0.0144 (0.0414) |
| Independent governor | -0.0191 (0.0203) | -0.0188 (0.0203) | -0.0190 (0.0218) | -0.0205 (0.0191) | -0.0109 (0.0191) | -0.00379 (0.0254) |
| Republican vote share (presidential elections) | -0.615*** (0.158) | -0.574*** (0.168) | -0.634*** (0.159) | -0.568*** (0.161) | -0.532*** (0.172) | -0.636*** (0.163) |
| Δ Dependency ratio | 0.282 (2.375) | 0.103 (2.366) | 0.341 (2.422) | 0.441 (2.365) | 0.111 (2.348) | 0.279 (2.423) |
| Δ Females | -2.831 (7.214) | -2.829 (7.381) | -2.200 (7.301) | -2.414 (7.095) | -2.407 (7.248) | -2.319 (7.382) |
| Δ Hispanics | -5.696** (2.387) | -5.697** (2.387) | -5.663** (2.437) | -5.512** (2.456) | -5.495** (2.461) | -5.659** (2.479) |
| Δ Blacks | -0.745 (3.656) | -0.431 (3.678) | -0.349 (3.600) | -0.880 (3.511) | -0.662 (3.584) | -0.237 (3.631) |
| Δ Population | -2.27e-08 (5.01e-08) | -2.00e-08 (5.01e-08) | -2.05e-08 (5.12e-08) | -3.54e-08 (4.97e-08) | -3.41e-08 (5.02e-08) | -2.54e-08 (5.06e-08) |
| Δ Employment | -0.651 (1.186) | -0.610 (1.226) | -0.570 (1.203) | -0.730 (1.217) | -0.660 (1.240) | -0.552 (1.207) |
| Δ GDP deflator | 2.417*** (0.516) | 2.490*** (0.545) | 2.402*** (0.512) | 2.396*** (0.501) | 2.481*** (0.536) | 2.394*** (0.512) |
| Δ Fiscal transfers | 8.181*** (2.061) | 8.138*** (2.093) | 8.147*** (2.055) | 7.666*** (1.941) | 7.531*** (1.931) | 8.210*** (2.077) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.256 | 0.265 | 0.256 | 0.267 | 0.281 | 0.261 |
| Marginal effect of ideology at | | | | | | |
| Overall division | 0.0037 (0.0111) | -0.0014 (0.0107) | -0.0001 (0.0131) | -0.0018 (0.0147) | 0.0114 (0.0135) | 0.0104 (0.0172) |
| Approval division | -0.0123 (0.0120) | -0.0138 (0.0119) | 0.0125 (0.0129) | -0.0356* (0.0182) | -0.0285 (0.0182) | 0.0138 (0.0149) |
| Proposal division | -0.0035 (0.0250) | 0.0016 (0.0314) | -0.0016 (0.0256) | 0.0079 (0.0431) | 0.0083 (0.0338) | 0.0020 (0.0399) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

Table 2a: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)

Dependent variable: Δ Size Government indicator.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|-----------------------|----------------------|----------------------|--------------------------|----------------------|----------------------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.000759 (0.0195) | | | -0.0135 (0.0245) | | |
| Ideology House | | 0.00556 (0.0206) | | | -0.00358 (0.0230) | |
| Ideology Senate | | | -0.00155 (0.0203) | | | -0.00718 (0.0233) |
| Overall division | 0.0366 (0.0222) | 0.0356 (0.0232) | 0.0350 (0.0231) | 0.0325 (0.0230) | 0.0311 (0.0231) | 0.0348 (0.0228) |
| Approval division | 0.0298 (0.0273) | 0.0309 (0.0278) | 0.0213 (0.0290) | 0.0338 (0.0268) | 0.0357 (0.0285) | 0.0333 (0.0296) |
| Proposal division | 0.0431 (0.0410) | 0.0461 (0.0528) | 0.0449 (0.0413) | 0.0413 (0.0453) | 0.0447 (0.0478) | 0.0413 (0.0426) |
| Ideology*Overall division | 0.0132 (0.0287) | -0.00403 (0.0256) | -0.0127 (0.0258) | 0.0379 (0.0316) | 0.0128 (0.0316) | -0.00593 (0.0378) |
| Ideology*Approval division | -0.0212 (0.0317) | -0.0251 (0.0341) | 0.0364 (0.0369) | -0.0400 (0.0466) | -0.0361 (0.0450) | 0.0370 (0.0447) |
| Ideology*Proposal division | -0.0388 (0.0452) | 0.0371 (0.0613) | -0.0383 (0.0455) | -0.0263 (0.0806) | 0.0905 (0.0735) | -0.0494 (0.0768) |
| Independent governor | -0.0926 (0.0851) | -0.0947 (0.0900) | -0.134 (0.0931) | -0.0881 (0.0761) | -0.0896 (0.0845) | -0.116 (0.103) |
| Republican vote share (presidential elections) | -0.815** (0.308) | -0.782** (0.332) | -0.834** (0.324) | -0.691** (0.326) | -0.695** (0.340) | -0.851** (0.329) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.271 | 0.276 | 0.271 | 0.287 | 0.301 | 0.262 |
| Marginal effect of ideology at | | | | | | |
| Overall division | 0.0124 (0.0187) | 0.0015 (0.0195) | -0.0143 (0.0226) | 0.0243 (0.0207) | 0.0092 (0.0206) | -0.0131 (0.0301) |
| Approval division | -0.0219 (0.0257) | -0.0196 (0.0267) | 0.0348 (0.0293) | -0.0535 (0.0396) | -0.0397 (0.0388) | 0.0298 (0.0360) |
| Proposal division | -0.0395 (0.0427) | 0.0427 (0.0535) | -0.0399 (0.0439) | -0.0398 (0.0792) | 0.0869 (0.0701) | -0.0566 (0.0758) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

Table 2b: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)

Dependent variable: Δ Size Government indicator.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|--------------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.00826 (0.0166) | | | -0.0199 (0.0206) | | |
| Ideology House | | -0.00254 (0.0173) | | | -0.0117 (0.0195) | |
| Ideology Senate | | | -0.00855 (0.0170) | | | -0.0150 (0.0189) |
| Overall division | 0.0327* (0.0189) | 0.0311 (0.0200) | 0.0299 (0.0197) | 0.0287 (0.0199) | 0.0267 (0.0199) | 0.0291 (0.0189) |
| Approval division | 0.0301 (0.0249) | 0.0320 (0.0251) | 0.0226 (0.0276) | 0.0296 (0.0252) | 0.0316 (0.0263) | 0.0329 (0.0286) |
| Proposal division | 0.0562 (0.0413) | 0.0597 (0.0537) | 0.0576 (0.0416) | 0.0561 (0.0452) | 0.0597 (0.0487) | 0.0530 (0.0431) |
| Ideology*Overall division | 0.00992 (0.0242) | 0.0128 (0.0222) | 0.00679 (0.0229) | 0.0295 (0.0275) | 0.0260 (0.0272) | 0.0150 (0.0306) |
| Ideology*Approval division | -0.00806 (0.0274) | -0.0118 (0.0292) | 0.0339 (0.0335) | -0.0236 (0.0402) | -0.0185 (0.0385) | 0.0315 (0.0414) |
| Ideology*Proposal division | -0.0290 (0.0462) | 0.0425 (0.0588) | -0.0290 (0.0463) | -0.00673 (0.0789) | 0.0822 (0.0653) | -0.0260 (0.0762) |
| Independent governor | -0.0428 (0.0692) | -0.0383 (0.0712) | -0.0661 (0.0763) | -0.0412 (0.0610) | -0.0366 (0.0669) | -0.0468 (0.0846) |
| Republican vote share (presidential elections) | -0.535* (0.281) | -0.495 (0.305) | -0.570* (0.292) | -0.427 (0.301) | -0.392 (0.319) | -0.563* (0.300) |
| Δ Dependency ratio | -0.707 (4.262) | -1.019 (4.233) | -0.0851 (4.294) | -0.357 (4.218) | -0.907 (4.248) | 0.0648 (4.291) |
| Δ Females | -1.062 (9.750) | -0.998 (9.932) | 0.495 (9.398) | 0.125 (9.707) | 0.0933 (9.808) | 0.995 (9.383) |
| Δ Hispanics | -10.43** (4.257) | -10.49** (4.246) | -9.522** (4.140) | -10.20** (4.303) | -10.26** (4.301) | -9.391** (4.177) |
| Δ Blacks | -1.533 (5.332) | -1.389 (5.232) | -0.00176 (5.111) | -1.963 (5.121) | -1.677 (5.076) | -0.120 (5.027) |
| Δ Population | -0.0000001 (7.82e-08) | -9.92e-08 (7.98e-08) | -0.0000001 (8.60e-08) | -0.0000001 (8.36e-08) | -0.0000001 (8.79e-08) | -0.0000001 (8.99e-08) |
| Δ Employment | -3.122 (1.919) | -3.092 (1.953) | -2.873 (1.882) | -3.319* (1.967) | -3.215 (1.962) | -2.788 (1.877) |
| Δ GDP deflator | 3.411*** (0.733) | 3.525*** (0.758) | 3.334*** (0.720) | 3.373*** (0.698) | 3.506*** (0.723) | 3.323*** (0.693) |
| Δ Fiscal transfers | 15.79*** (5.045) | 15.44*** (5.090) | 15.60*** (5.038) | 15.18*** (4.867) | 14.72*** (4.843) | 15.59*** (5.045) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.386 | 0.391 | 0.382 | 0.392 | 0.410 | 0.377 |
| Marginal effect of ideology at | | | | | | |
| Overall division | 0.0017 (0.0163) | 0.0103 (0.0166) | -0.0018 (0.0186) | 0.0095 (0.0179) | 0.0143 (0.0177) | 0.00004 (0.0223) |
| Approval division | -0.0163 (0.0237) | -0.0143 (0.0244) | 0.0254 (0.0275) | -0.0435 (0.0361) | -0.0302 (0.0356) | 0.0165 (0.0340) |
| Proposal division | -0.0373 (0.0425) | 0.0399 (0.0543) | -0.0375 (0.0436) | -0.0267 (0.0751) | 0.0704 (0.0668) | -0.0409 (0.0719) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

Table 3a: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)

Dependent variable: Δ Taxation.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|----------------------|----------------------|----------------------|--------------------------|----------------------|----------------------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.00283 (0.0174) | | | -0.00225 (0.0200) | | |
| Ideology House | | -0.00463 (0.0186) | | | -0.0115 (0.0193) | |
| Ideology Senate | | | 0.000838 (0.0191) | | | 0.00513 (0.0203) |
| Overall division | 0.0333* (0.0188) | 0.0331* (0.0192) | 0.0327 (0.0202) | 0.0241 (0.0165) | 0.0251 (0.0178) | 0.0318 (0.0209) |
| Approval division | 0.0131 (0.0200) | 0.0136 (0.0197) | 0.0113 (0.0193) | 0.0135 (0.0185) | 0.0148 (0.0194) | 0.0116 (0.0179) |
| Proposal division | -0.0133 (0.0328) | -0.0134 (0.0427) | -0.0135 (0.0330) | -0.0163 (0.0344) | -0.0148 (0.0384) | -0.0124 (0.0324) |
| Ideology*Overall division | 0.0315 (0.0307) | -0.0234 (0.0186) | -0.0250 (0.0205) | 0.0198 (0.0319) | -0.00391 (0.0235) | -0.0243 (0.0302) |
| Ideology*Approval division | -0.0139 (0.0259) | -0.0150 (0.0262) | 0.0233 (0.0283) | -0.0369 (0.0337) | -0.0235 (0.0328) | 0.0350 (0.0304) |
| Ideology*Proposal division | 0.0220 (0.0335) | -0.0162 (0.0511) | 0.0231 (0.0337) | 0.0293 (0.0542) | -0.00574 (0.0532) | 0.0157 (0.0511) |
| Independent governor | -0.00335 (0.0401) | -0.0190 (0.0383) | -0.0263 (0.0521) | -0.00133 (0.0401) | -0.00360 (0.0416) | -0.0283 (0.0583) |
| Republican vote share (presidential elections) | -1.200*** (0.306) | -1.189*** (0.320) | -1.166*** (0.313) | -1.134*** (0.279) | -1.131*** (0.299) | -1.221*** (0.326) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.169 | 0.167 | 0.168 | 0.178 | 0.175 | 0.167 |
| Marginal effect of ideology at | | | | | | |
| Overall division | 0.0287 (0.0190) | -0.0280 (0.0184) | -0.0242 (0.0236) | 0.0176 (0.0203) | -0.0154 (0.0194) | -0.0192 (0.0300) |
| Approval division | -0.0168 (0.0195) | -0.0196 (0.0199) | 0.0242 (0.0197) | -0.0392 (0.0283) | -0.0350 (0.0277) | 0.0401* (0.0203) |
| Proposal division | 0.0192 (0.0329) | -0.0208 (0.0415) | 0.0239 (0.0337) | 0.0271 (0.0590) | -0.0173 (0.0463) | 0.0208 (0.0555) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

Table 3b: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)

Dependent variable: Δ Taxation.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|-------------------------|------------------------|------------------------|--------------------------|-------------------------|------------------------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.0123 (0.0147) | | | -0.0112 (0.0159) | | |
| Ideology House | | -0.0141 (0.0157) | | | -0.0219 (0.0158) | |
| Ideology Senate | | | -0.00748 (0.0162) | | | -0.00396 (0.0173) |
| Overall division | 0.0260 (0.0160) | 0.0260 (0.0164) | 0.0252 (0.0172) | 0.0164 (0.0131) | 0.0179 (0.0140) | 0.0239 (0.0168) |
| Approval division | 0.0124 (0.0203) | 0.0136 (0.0200) | 0.0126 (0.0208) | 0.00944 (0.0187) | 0.0105 (0.0195) | 0.0106 (0.0194) |
| Proposal division | -0.00855 (0.0341) | -0.00751 (0.0449) | -0.00799 (0.0342) | -0.0121 (0.0358) | -0.00980 (0.0404) | -0.00780 (0.0338) |
| Ideology*Overall division | 0.0338 (0.0255) | -0.00779 (0.0154) | -0.00699 (0.0174) | 0.0192 (0.0268) | 0.00802 (0.0172) | -0.00701 (0.0205) |
| Ideology*Approval division | 0.00161 (0.0236) | 0.000598 (0.0237) | 0.0232 (0.0268) | -0.0178 (0.0305) | -0.00350 (0.0300) | 0.0337 (0.0291) |
| Ideology*Proposal division | 0.0331 (0.0348) | -0.00810 (0.0509) | 0.0334 (0.0347) | 0.0451 (0.0561) | -0.00241 (0.0514) | 0.0326 (0.0529) |
| Independent governor | 0.0249 (0.0436) | 0.0138 (0.0415) | 0.0160 (0.0558) | 0.0247 (0.0427) | 0.0249 (0.0442) | 0.0123 (0.0581) |
| Republican vote share (presidential elections) | -1.001*** (0.291) | -0.947*** (0.299) | -0.973*** (0.297) | -0.943*** (0.267) | -0.868*** (0.276) | -1.003*** (0.306) |
| Δ Dependency ratio | 1.243 (3.639) | 1.001 (3.634) | 0.899 (3.697) | 1.405 (3.616) | 1.239 (3.589) | 0.860 (3.726) |
| Δ Females | 2.143 (12.02) | 2.109 (12.33) | 2.921 (12.13) | 3.086 (11.66) | 3.456 (11.95) | 2.248 (12.28) |
| Δ Hispanics | -2.079 (3.278) | -1.893 (3.251) | -2.433 (3.411) | -1.799 (3.366) | -1.482 (3.321) | -2.416 (3.493) |
| Δ Blacks | -2.466 (4.710) | -1.662 (4.745) | -2.598 (4.777) | -2.366 (4.608) | -1.794 (4.649) | -2.333 (4.800) |
| Δ Population | -9.79e-10 (8.63e-08) | 2.04e-09 (8.71e-08) | 9.91e-09 (8.46e-08) | -1.24e-08 (8.00e-08) | -8.38e-09 (8.09e-08) | 6.45e-09 (8.35e-08) |
| Δ Employment | 1.126 (1.470) | 1.262 (1.533) | 1.194 (1.525) | 1.001 (1.479) | 1.144 (1.538) | 1.179 (1.549) |
| Δ GDP deflator | 2.994*** (0.798) | 3.108*** (0.855) | 2.998*** (0.790) | 2.983*** (0.776) | 3.129*** (0.838) | 3.008*** (0.784) |
| Δ Fiscal transfers | 7.671*** (2.228) | 7.624*** (2.054) | 7.742*** (2.209) | 6.578*** (2.317) | 6.355*** (2.101) | 7.747*** (2.213) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.104 | 0.107 | 0.108 | 0.116 | 0.111 | 0.108 |
| Marginal effect of ideology at | | | | | | |
| Overall division | 0.0215 (0.0155) | -0.0219 (0.0151) | -0.0145 (0.0194) | 0.0080 (0.0166) | -0.0139 (0.0153) | -0.0110 (0.0222) |
| Approval division | -0.0106 (0.0192) | -0.0135 (0.0192) | 0.0157 (0.0201) | -0.0290 (0.0276) | -0.0254 (0.0264) | 0.0298 (0.0218) |
| Proposal division | 0.0208 (0.0340) | -0.0222 (0.0434) | 0.0259 (0.0345) | 0.0339 (0.0594) | -0.0243 (0.0471) | 0.0287 (0.0556) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

Tables 4a and 4b show the results when the labor market regulations sub indicator is used. Without controls in Table 4a and also including all controls in Table 4b, we find clear effects of party ideology: with unified government, Republican governors have been active in deregulating labor markets. The numerical meaning of the common governor ideology variable is, for example, that when the governor ideology variable increases by one standard deviation, the change in the labor market regulation indicator decreases by about 0.11 standard deviations (column 1 in Table 4b). The numerical meaning of the governor ideology variable as measured by Shor and McCarty (2011) is that when the governor ideology variable increases by one standard deviation, the change in the labor market regulation indicator decreases by about 0.13 standard deviations (column 4 in Table 4b). With divided government, however, the ideology-induced do not turn out to be statistically significant. The marginal effect of Republican Senate ideology under overall division (column 6 in Table 4b) even turns out to be positive. Contrary to other policy areas, the Republican vote share in presidential elections does not turn out to be statistically significant.

The results showing that the ideology-induced effects are driven by labor market (de)regulation policies is revealing for many reasons. First, even though we use the size and scope of government/economic freedom indicators that relate to state policies, the relationship between party ideology and spending could be quite complex and less controlled at the state level. Empirical studies have shown that ideological alignment between governors and the president gives rise to more public transfers into a state (e.g. Ansolabehere and Snyder 2006). Second, ideology-induced policies may transpire to a smaller extent by spending and taxation policies because both Democrats and Republicans are likely to use opportunistic spending and taxation policies before elections to become re-elected. Changes in spending and taxation policies become visible more quickly than changes in labor market regulation policies and are also more likely to be rewarded by myopic voters. Third, our result for the US states is in line with Bjørnskov and Potrafke (2012) who show that rightwing parties have deregulated labor markets in the Canadian provinces.

Table 4a: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)

Dependent variable: Δ Labor Market Regulation.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|----------------------|-----------|-----------|--------------------------|----------|-----------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.0155* | | | -0.0265** | | |
| | (0.00913) | | | (0.0117) | | |
| Ideology House | | -0.0146 | | | -0.0149 | |
| | | (0.00967) | | | (0.0115) | |
| Ideology Senate | | | -0.0142 | | | -0.0181 |
| | | | (0.00926) | | | (0.0132) |
| Overall division | 0.0183 | 0.0154 | 0.0175 | 0.0153 | 0.00929 | 0.0125 |
| | (0.0182) | (0.0193) | (0.0184) | (0.0174) | (0.0171) | (0.0168) |
| Approval division | 0.00110 | 0.00165 | 0.0135 | 0.00123 | 0.00607 | 0.0131 |
| | (0.0154) | (0.0148) | (0.0161) | (0.0170) | (0.0165) | (0.0175) |
| Proposal division | -0.00236 | -0.00540 | 0.000202 | -0.00847 | -0.00892 | -0.000131 |
| | (0.0175) | (0.0211) | (0.0181) | (0.0176) | (0.0207) | (0.0177) |
| Ideology*Overall division | 0.00718 | 0.0190 | 0.0251 | 0.00850 | 0.0468* | 0.0563** |
| | (0.0162) | (0.0195) | (0.0198) | (0.0244) | (0.0246) | (0.0255) |
| Ideology*Approval division | 0.00462 | 0.000506 | 0.0126 | -0.00784 | -0.0150 | 0.0158 |
| | (0.0157) | (0.0155) | (0.0181) | (0.0232) | (0.0212) | (0.0221) |
| Ideology*Proposal division | 0.0211 | 0.00301 | 0.0205 | 0.0397 | -0.00279 | 0.0328 |
| | (0.0197) | (0.0208) | (0.0194) | (0.0297) | (0.0242) | (0.0283) |
| Independent governor | -0.0455 | -0.0407 | -0.0188 | -0.0501 | -0.0286 | 0.0122 |
| | (0.0294) | (0.0288) | (0.0225) | (0.0347) | (0.0332) | (0.0267) |
| Republican vote share (presidential elections) | -0.356 | -0.338 | -0.400 | -0.373 | -0.395 | -0.395 |
| | (0.248) | (0.262) | (0.258) | (0.250) | (0.261) | (0.250) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.290 | 0.284 | 0.285 | 0.298 | 0.294 | 0.290 |
| Marginal effect of ideology at | | | | | | |
| Overall division | -0.0083 | 0.0044 | 0.0109 | -0.0180 | 0.0319 | 0.0381 |
| | (0.0152) | (0.0151) | (0.0167) | (0.0223) | (0.0232) | (0.0242) |
| Approval division | -0.0109 | -0.0141 | -0.0016 | -0.0344 | -0.0299 | -0.0024 |
| | (0.0153) | (0.0145) | (0.0141) | (0.0208) | (0.0188) | (0.0170) |
| Proposal division | 0.0055 | -0.0116 | 0.0063 | 0.0132 | -0.0177 | 0.0147 |
| | (0.0160) | (0.0196) | (0.0157) | (0.0254) | (0.0247) | (0.0230) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

Table 4b: Regression Results.

OLS with standard errors robust to heteroskedasticity (Huber/White/sandwich standard errors)

Dependent variable: Δ Labor Market Regulation.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|-------------------------|
| Ideology measure | Common dummy measure | | | Shor and McCarty measure | | |
| Ideology Governor | -0.0167* (0.00831) | | | -0.0267** (0.0118) | | |
| Ideology House | | -0.0159* (0.00879) | | | -0.0155 (0.0114) | |
| Ideology Senate | | | -0.0148* (0.00839) | | | -0.0183 (0.0136) |
| Overall division | 0.0145 (0.0191) | 0.0117 (0.0203) | 0.0133 (0.0194) | 0.0114 (0.0183) | 0.00554 (0.0180) | 0.00862 (0.0178) |
| Approval division | -0.000440 (0.0161) | 0.000855 (0.0155) | 0.0129 (0.0164) | -0.00108 (0.0178) | 0.00450 (0.0171) | 0.0121 (0.0179) |
| Proposal division | -0.000435 (0.0182) | -0.00317 (0.0219) | 0.00259 (0.0188) | -0.00624 (0.0188) | -0.00644 (0.0217) | 0.00231 (0.0186) |
| Ideology*Overall division | 0.00448 (0.0164) | 0.0233 (0.0182) | 0.0307 (0.0183) | 0.00392 (0.0247) | 0.0494* (0.0247) | 0.0605** (0.0254) |
| Ideology*Approval division | 0.00678 (0.0156) | 0.00227 (0.0152) | 0.0112 (0.0185) | -0.00747 (0.0239) | -0.0143 (0.0221) | 0.0135 (0.0232) |
| Ideology*Proposal division | 0.0227 (0.0199) | 0.00308 (0.0214) | 0.0218 (0.0196) | 0.0432 (0.0303) | -0.00571 (0.0267) | 0.0366 (0.0289) |
| Independent governor | -0.0396 (0.0314) | -0.0321 (0.0324) | -0.00693 (0.0235) | -0.0452 (0.0376) | -0.0210 (0.0371) | 0.0230 (0.0288) |
| Republican vote share (presidential elections) | -0.308 (0.259) | -0.281 (0.279) | -0.358 (0.272) | -0.332 (0.263) | -0.335 (0.282) | -0.344 (0.265) |
| Δ Dependency ratio | 0.310 (2.383) | 0.326 (2.426) | 0.210 (2.405) | 0.274 (2.381) | 0.00268 (2.409) | -0.0868 (2.383) |
| Δ Females | -9.575** (4.025) | -9.598** (4.048) | -10.02** (4.266) | -10.45** (4.048) | -10.77** (4.176) | -10.20** (4.466) |
| Δ Hispanics | -4.575* (2.413) | -4.703* (2.392) | -5.035* (2.531) | -4.542* (2.444) | -4.744** (2.358) | -5.170** (2.523) |
| Δ Blacks | 1.764 (3.687) | 1.760 (3.869) | 1.553 (3.807) | 1.688 (3.639) | 1.486 (4.008) | 1.741 (3.855) |
| Δ Population | 3.66e-08 (0.0000001) | 3.72e-08 (0.0000001) | 3.94e-08 (0.0000001) | 2.27e-08 (0.0000001) | 2.02e-08 (0.0000001) | 2.56e-08 (0.0000001) |
| Δ Employment | 0.0423 (1.121) | 0.00140 (1.151) | -0.0317 (1.205) | 0.127 (1.157) | 0.0897 (1.162) | -0.0456 (1.208) |
| Δ GDP deflator | 0.847** (0.380) | 0.837** (0.407) | 0.876** (0.367) | 0.833** (0.390) | 0.808* (0.435) | 0.852** (0.398) |
| Δ Fiscal transfers | 1.078 (1.394) | 1.348 (1.388) | 1.098 (1.402) | 1.243 (1.339) | 1.518 (1.314) | 1.293 (1.351) |
| Fixed state effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Fixed period effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 607 | 593 | 594 | 598 | 584 | 594 |
| Number of states | 49 | 49 | 49 | 49 | 49 | 49 |
| R squared (overall) | 0.275 | 0.271 | 0.268 | 0.274 | 0.280 | 0.277 |
| Marginal effect of ideology at | | | | | | |
| Overall division | -0.0122 (0.0150) | 0.0074 (0.0150) | 0.0159 (0.0158) | -0.0228 (0.0221) | 0.0339 (0.0240) | 0.0422* (0.0241) |
| Approval division | -0.0099 (0.0161) | -0.0136 (0.0150) | -0.0036 (0.0147) | -0.0342 (0.0218) | -0.0298 (0.0196) | -0.0048 (0.0178) |
| Proposal division | 0.0060 (0.0168) | -0.0128 (0.0205) | 0.0069 (0.0165) | 0.0165 (0.0261) | -0.0212 (0.0264) | 0.0183 (0.0239) |

Notes: robust standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

6.2 Robustness checks

We have tested whether our results are sensitive to individual states. Jackknife tests show that party ideology had a strong influence on economic-policy making in New Jersey. The Republican governor Christine Todd Whitman reduced income taxes by about 30% over the period 1994-1996 (Reed and Rogers, 2004). Political polarization between the Republicans and Democrats has been consistently small in New Jersey. When we exclude New Jersey, the ideology-induced effects on the labor market regulation index remain, however, statistically significant. The robustness of this result confirms that Republicans have indeed been more active in deregulating labor markets than Democrats but not clearly so in other policy areas covered by the overall index.

We have tested whether our results are sensitive to states in which political polarization between the Democratic and the Republican Party is small/large. We have used the differences in party medians by Shor and McCarty (2011) to identify polarized and non-polarized states (average of the two chamber ideologies). We have excluded the 25% of the sample with the smallest and alternatively largest polarization. When we exclude the 25% of the states with the largest polarization, there are ideology-induced effects on the overall size and scope of government index. This effect is however purely driven by New Jersey. Inferences do otherwise not change.

7. Conclusions

Whether and to what extent party ideology influences fiscal policy-making and institutional choices is a major question in political economy. We have used the economic freedom indicators by the Fraser Institute to investigate how party ideology influenced the size and scope of government across the US states over the period 1993-2009. To measure party ideology, we first employed the common Democrat/Republican indicators for the governors, House and Senate that have been used in the literature. We included the vote shares for Republican candidates in presidential elections, as a proxy for changes to median voter ideology positions.

The results show that Republicans have been more active in labor market deregulation as compared to the Democrats. Yet, ideologies in the Democratic and Republican party are not homogenous across the US states. For example, Southern Democrats are more conservative than Democrats on the East Coast and Sun Belt Republicans are more conservative than those in New England. Such differences are concealed when applying standard measures of ideology, which arguably prevents proper identification of potential ideological effects. We therefore used the newly developed index by Shor and McCarty (2011) to approximate these differences. Employing the Shor and McCarty index gives rise to sharper identification of some ideology-induced effects than with common Democrat/Republican dummy variables, but also points to potential over-identification with the common measures. The numerical effects of both party ideology measures on labor market regulation are, however, similar. An alternative to measure partisanship and political ideology is to use exit poll data (e.g., Larcinese et al. 2013), which also allow taking into account ideological differences across states and over time. Such data would provide valuable information on differences in voters' ideological preferences, whereas we have focused on differences in party positions. Using data based on exit polls to investigate ideology-induced economic policy-making in the US states therefore is a worthwhile endeavor for future research. Another avenue for future research is to estimate the panel data models by a regression discontinuity approach, which may provide more information on short-run ideological changes (e.g. Frederiksson et al. 2013).

Another insight is the role of divided government, which is often expected to counteract ideology-induced economic policy-making. In contrast to the related literature on the counteracting effects of divided governments, we distinguished between three types of divided government: overall divided government, approval division and proposal division. With approval division the Senate majority holds the effective veto power by not being ideologically in line with the governor and the House majority while it is held by the House with proposal division. The results show that ideology-induced policies have been counteracted under overall divided government and proposal division. In

other words, ideological influences of governors and House majorities in particular become significant when no level of government has an ideological interest in vetoing or otherwise counteracting policy decisions. Our results indicate that ideology-induced effects have not been counteracted under approval division. We acknowledge, however, that the sample sizes for approval division conditional on Republican and Democratic majorities are small.

Institutions, especially checks and balances, thus play an important role in US economic policy-making. The findings indicate that voters in the United States can definitely mitigate or even eliminate ideology-induced policies by voting strategically for the opposition party and ensuring majorities in at least one of the parliamentary chambers, for example, in midterm elections. Whether they do so or not do not seem to affect decisions with short-run consequences, such as immediate changes to government size or taxation. However, changes to labor market institutions that are likely to have longer-run consequences, and for which the political benefits do not arise within an immediate time horizon, are subject to ideological influences, and thus also sensitive to the existence of veto players with party ideological preferences.

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