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RESEARCH ARTICLE

Term limits and state budgets

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Term limits reduce the time horizon over which elected officials can capture and allocate government budgets, which reduces their incentive to increase government spending. An examination of US state government budgets before and after the implementation of term limits shows that prior to the implementation of term limits, state revenues and expenditures tended to grow at about the same rate in states that implemented term limits and those that did not. After the implementation of term limits, revenues and expenditures grew more slowly in states that implemented them. The reduction in the growth of state budgets after the implementation of term limits is both economically and statistically significant.

Key words term limits • government expenditures • government growth • state budgets
JEL H20, H39, H71

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Introduction

In the early 1990s, 21 US states approved term limits for their state legislatures. As Moncrief et al (2004) note, the turnover of legislators had been slowing for decades, leading critics to argue that the advantages of incumbency made it difficult to unseat legislators and created a professional legislative class. Moncrief et al (2004) document the increase in turnover in states that adopted term limits, and Carey et al (2006) provide evidence that term limits cause legislators to focus more on legislative activities and less on activities related to re-election.

The idea behind term limits is to replace career legislators with people whose future interests lie outside the legislature. As Olson (1982) argues, as the length of tenure of those who hold political power increases, the relationship between the political and economic elite strengthens, and entrepreneurial individuals increasingly orient their activities towards capturing government support rather than producing output that adds value to the economy. Term limits break the personal relationships between

lobbyists and legislators, which weakens the influence of interest groups and therefore reduces their effective demands for special interest spending. In addition to curbing the ability of rent-seekers to use their connections to benefit from government spending, legislators often favour pork-barrel projects targeted at winning votes from particular constituencies, and the incentive disappears if they are unable to run for re-election.

Even in elections where legislators are not term-limited out and can run for re-election, term limits mean that they can only remain in office for a few more years rather than making a career out of their current office, which reduces the future pay-off to re-election and therefore reduces the incentive to use their political capital to promote pork-barrel projects. Furthermore, the larger budgets that term-limited legislators obtain now produce more government spending in the future, when they are term-limited out and have no control over that spending. As they look ahead to their post-legislative activities, higher levels of government spending must look less attractive to those outside the government than to those insiders who actually allocate the spending. Even those who favour more government spending would view it more favourably if they are the ones who decide how it is spent rather than when other people decide.

At the federal level, Garand et al (2016) find that members of the US House of Representatives tend to favour higher government spending levels the longer they have served in the House, and the more total political experience they have. This suggests a mechanism by which term limits reduce government budget growth: term limits remove from office those legislators who tend to favour more spending, being the ones who have been in office the longest. Additionally, term limits may have an effect on the type of person who runs for office. Those who run for election will realise that they can hold office for a limited amount of time rather than potentially indefinitely, making elective office more attractive to people who view themselves as citizen-legislators rather than career politicians.

Not everybody agrees that citizen-legislators are more desirable than career politicians. Opponents of term limits have argued that they reduce the professionalisation of the legislature. In addition, Fiorina (1999) suggests that term limits make running for legislative office more attractive to Republicans, shifting the balance of power towards Republicans, and provides some empirical evidence, as do Meinke and Hasecke (2003).[1] Regardless of the desirability of term limits, if they do tend to make legislatures more Republican, and if Republicans tend to favour lower government spending, this is another mechanism by which term limits can affect government budgets.

It is possible that term limits might induce shirking on the part of elected officials, as Lott and Reed (1989) note, because they become less accountable to voters as they approach the limit, but there is not a clear argument that shirking would influence budget size one way or the other. Legislative term limits affect the incentives facing legislators, and there are a number of reasons to think that term limits would cause legislators to favour smaller budgets than they would without term limits.

Previous evidence on term limits and government spending

Despite many reasons why term limits might decrease state budgets, and no strong arguments going the other way, the empirical evidence on the effects of term limits on government budgets often shows that term limits have little effect on budgets, or result in increased spending. Erler (2007), for example, finds that spending increased

in term-limit states. One issue with the Erler study is that it looks almost entirely at data prior to term limits taking effect. Erler's data go up through 2001 but most term limits were not effective until 2000. Erler dates the start of term limits to their passage, not to when they became effective. Thus, what Erler actually finds is that, in states that passed term limits, spending increased after their passage but before elected officials were term-limited out of office. Keele et al (2013) and Asako et al (2016) also date the term-limit effect from the time term limits were passed rather than when they became effective.[2] Rogers and Rogers (2000) find mixed evidence on the effect of term limits on budgets, but when their article was published, most legislative term limits had not become effective.

Besley and Case (1995) find that gubernatorial term limits are associated with higher taxes and state spending, and lower per capita income, towards the end of governors' terms. The effect shows up for Democratic governors but not for Republicans. Regarding the criticism that term limits reduce legislative professionalism, Squire (2007) finds a positive correlation between professionalism and state government expenditures. This suggests that term limits, by reducing measured professionalism, should reduce state government budgets, but Squire does not directly examine the effect of term limits on government budgets. Lewis (2012) finds that term limits lower state bond ratings, used as a measure of fiscal performance, but does not look at state budgets directly. Uppal and Glazer (2015) find that increased legislative turnover is associated with higher state spending, but they look at turnover independent of term-limited turnover.

Many previous studies have found that term limits have led to larger budgets. However, the methodology has consistently been to measure the effects of term limits beginning when they were passed rather than when they took effect. Also, earlier studies often draw their data primarily from the years prior to when term limits became effective. Due to the data they use, the empirical methods in those studies largely look at a different question, which is 'What are the budgetary effects in term-limited states after term limits are passed but before they become effective?' That is, they are looking at budgets passed by often long-serving legislators prior to their being removed from office due to term limits. This study compares budgetary growth in term-limit versus non-term-limit states before and after 2000, thus looking at the effect before and after term limits took effect, rather than before and after they were passed.

While looking at the effect of term limits only after they take effect seems correct to us, we offer a weaker argument for using the effective date rather than the passage date for term limits. Many studies have already looked at what happens to state budgets after term limits are passed, and this article shows that the results are different when analysing the impact on state budgets before and after term limits take effect. While the bulk of the previous literature finds that budgets grow more rapidly after term limits are passed, this study finds that revenue and spending grow more slowly after term limits take effect.

Which states have legislative term limits?

Table 1 shows the states that have term limits for their state legislators, along with the year each state enacted its term limits, the length of the limit and when the limit took effect. Fifteen states – 30% of the 50 states – have enacted legislative term

limits.[3] In most but not all cases, the limit took effect in the same year for both the state House and Senate. In all cases, term limits were voter-approved and Table 1 shows the percentage of voters who voted for the term limits, as well as the type of limit approved. In some states, the limit prevents legislators from appearing on the ballot after the limit is reached but allows them to run again later; in other cases, the limit represents a life ban on holding that office.

Table 1: Term limits for state legislatures

State	Year enacted	House limit	House year of impact	Senate limit	Senate year of impact	% voted yes	Type of limit
Arizona	1992	8	2000	8	2000	74.2	Consecutive
Arkansas	1992	16 (c)	1998	16 (c)	2000	59.9	Life ban
California	1990	12 (c)	1996	12 (c)	1998	52.2	Life ban
Colorado	1990	8	1998	8	1998	71	Consecutive
Florida	1992	8	2000	8	2000	76.8	Consecutive
Louisiana	1995	12	2007	12	2007	76	Consecutive
Maine	1993	8	1996	8	1996	67.6	Consecutive
Michigan	1992	6	1998	8	2002	58.8	Life ban
Missouri	1992	8	2002	8	2002	75	Life ban
Montana	1992	8	2000	8	2000	67	Consecutive
Nebraska	2000	N/A	N/A	8	2006	56	Consecutive
Nevada	1996	12	2010	12	2010	70.4	Life ban
Ohio	1992	8	2000	8	2000	68.4	Consecutive
Oklahoma	1990	12 (c)	2004	12 (c)	2004	67.3	Life ban
S. Dakota	1992	8	2000	8	2000	63.5	Consecutive

Note: (c) = a cumulative limit against which terms in either chamber count. California's 1990 term limits of six years for the state House and eight for the state Senate were weakened to a 12-year cumulative limit by voters in 2012, who were tricked by a scam ballot title. The title said that it was reducing the overall time that legislators could spend in office. Since most ex-CA state House members cannot mathematically fit into the state Senate, the actual effect was an effective doubling of term limits for most state lawmakers. Arkansas's 1992 term limits of six years for the state House and eight for the state Senate were weakened to a 16-year cumulative limit by voters in 2014, who were also tricked by a scam ballot. The ballot language said that it was 'establishing term limits for lawmakers' and made no reference to 16 years or the fact that Arkansas had had term limits in place since the 1990s. Additionally, in Arkansas, senators serve four-year terms, but after each census, the entire Senate is up for election. Half of the new senators serve two-year terms and half serve four-year terms. These two-year half-terms do not count towards term limits. Source: Data from US Term Limits (www.termlimits.com).

Differences between term-limit and non-term-limit states

As Table 1 shows, a substantial share of the states that have term limits approved them in the early 1990s and the term limits took effect around 2000. Before undertaking a more detailed analysis, Table 2 offers some broad comparisons between the states that enacted term limits and those that did not. Table 2 shows mean per capita state government expenditures in both sets of states for three years. Taking 2000 as the year around which term limits became effective in most of those states, 1988 is a dozen years prior to the implementation of term limits and 2012 is a dozen years after. The right two columns of Table 2 show that from 1988 to 2000, expenditures grew by roughly the same amount in both sets of states: by 34.3% and 32.3% respectively. From 2000 to 2012, expenditures increased less in term-limit states: 22.8% versus 26.0%.

Table 2: Mean per capita total state expenditure

	1988	2000	2012	1988–2000	2000–2012
Term-limit states	$3,628.84	$4,874.22	$5,985.06	34.3%	22.8%
Non-term-limit states	$4,394.82	$5,813.24	$7,326.80	32.3%	26.0%
t-statistic	(1.4441)	(2.0531**)	(2.4112**)		
Non-term limit/term limit	1.211	1.193	1.224		

Notes: * p < 0.1; ** p < 0.05; *** p < 0.01.
Source: U.S. Census Bureau Annual Survey of State and Local Government Finances (https://www.census.gov/programs-surveys/gov-finances/data/datasets.html, accessed 15 March 2019)

Those averages reveal additional information about those two sets of states. Looking at the columns at the right of the table, expenditure growth was slower in both sets of states in the years after 2000 than in the years before. While one might argue that expenditures in non-term-limit states were responding to slower expenditure growth in term-limit states, there is no clear evidence that this is the case, and it is likely that other factors caused expenditure growth to slow in all states even though expenditure growth slowed more in the term-limit states. Looking at the dollar figures in the left columns, another thing to note is that average per capita expenditures were consistently lower in the term-limit states, both prior to and after term limits were enacted.

Those figures show that the states that enacted term limits were, on average, more fiscally conservative prior to the enactment of term limits than the states that did not enact term limits. This weighs against viewing term limits as a type of natural experiment in which some states were assigned term limits and others were not. Voters in those states chose term limits, and the states in which voters approved them were, on average, the more fiscally conservative states. The t-statistics show that the standard deviations around the means were large enough that the difference in the means was not statistically significant (at the .05 level) in 1988, but those standard deviations narrowed so that the difference was statistically significant in 2000, and the t-statistic was even higher in 2012 than it was in 2000. Those averages clearly show that term-limit and non-term-limit states had about the same budgetary growth, on average, in the dozen years prior to the implementation of term limits, and that

the term-limit states had slower budgetary growth after term limits than the non-term-limit states.

The differences between these two sets of states can be further illuminated by looking at average per capita state debt, which is shown in Table 3. Reinforcing what was seen in Table 2, the term-limit states are, on average, more fiscally conservative than the non-term-limit states, in that they have, on average, lower levels of per capita state debt. In several ways, term-limit states are fiscally different from non-term-limit states. As with expenditures, the differences in debt levels are not statistically significant in 1988 and become more significant in 2000 and 2012. Also note that whereas expenditure growth was about the same in the two sets of states from 1988 to 2000, per capita debt actually fell, on average, in the term-limit states but rose in the non-term-limit states. This is another indication that the states that implemented term limits were more fiscally conservative than the non-term-limit states prior to the implementation of term limits.

Table 3: Mean per capita total state government debt

	1988	2000	2012	1988–2000	2000–2012
Term-limit states	$2,377.80	$2,326.15	$2,966,32	–2.2%	27.5%
Non-term-limit states	$3,260.70	$3,434.17	$4,387.48	5.3%	27.8%
t-statistic	(0.9173)	(1.9134*)	(2.1529**)		
Non-term limit/term limit	1.371	1.476	1.469		

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.
Source: U.S. Census Bureau Annual Survey of State and Local Government Finances (https://www.census.gov/programs-surveys/gov-finances/data/datasets.html, accessed 15 March 2019). Population data are from the U.S. Census Bureau (https://www.census.gov/topics/population.html, accessed 15 March 2019).

After 2000, the increases in average state debt were almost identical in the two sets of states: 27.5% versus 27.8%. While expenditure growth slowed in the term-limit states relative to the non-term-limit states after 2000, the growth in state debt increased to about the same rate as the non-term-limit states. It appears that in the term-limit states, slower expenditure growth was accompanied by an increase in state debt. In the term-limit states, debt had, on average, decreased prior to 2000 and then increased to match the debt growth in non-term-limit states after 2000.

Just looking at these averages paints a clear picture: states that implemented term limits were more fiscally conservative than those that did not prior to their implementation of term limits. That fiscal conservatism may be what motivated voters in those states to vote for term limits. After term limits were enacted, the term-limit states were no more fiscally conservative in their debt issue than the non-term-limit states, but expenditure growth was considerably slower. It does appear that term limits had the effect of reducing state budget growth relative to non-term-limit states, but one issue is that it is apparent from looking at Tables 1 and 2 that term-limit states were already more fiscally conservative than non-term-limit states prior to their enactment of term limits. A controlled experiment to assess the effects of term limits is not possible, but these data are suggestive.

The effect of term limits on state government expenditure growth

Recognising that term-limit states differ from non-term-limit states in ways other than just the implementation of term limits, Table 4 reports regression results that show the effect of term limits on state government per capita expenditure growth, taking into account other factors. The dependent variable in each of the regressions is the first difference of the log of per capita state government expenditure, which measures the growth rate of expenditures. This is a panel data set that uses revenue data from the 50 states over the years 1988–2012 to yield 1,200 observations.[4]

Table 4: Per capita expenditure growth

	(1)	(2)	(3)
	D.Log per capita exp	D.Log per capita exp	D.Log per capita exp
Term limits binding on state Senate	–0.00489**	–0.00574***	–0.00482**
	(–2.37)	(–2.86)	(–2.27)
Senate term-limit state before it took effect (binary)	0.000846	0.00187	0.000797
	(0.37)	(0.83)	(0.35)
D.Real state GDP growth rate	0.000649**		0.000650**
	(2.05)		(2.05)
D.Log per capita real GDP		0.0335	0.0107
		(0.75)	(0.23)
Constant	0.0226***	0.0205***	0.0224***
	(25.71)	(18.30)	(18.16)
Observations	1,200	1,250	1,200

Notes: * p <0.1; ** p <0.05; *** p < 0.01; t-statistics in parentheses. Standard errors clustered at state level.
Source: Data on state government revenues, state government expenditures and state GDP come from the US Bureau of Economic Analysis. State revenue and expenditure data are from the U.S. Census Bureau Annual Survey of State and Local Government Finances (https://www.census.gov/programs-surveys/gov-finances/data/datasets.html, accessed 15 March 2019).
State GDP data are from the U.S. Bureau of Economic Analysis (https://www.bea.gov/data/gdp/gdp-state, accessed 15 March 2019).

The first independent variable, 'Term limits binding on state Senate', the main variable of interest, is 1 when members of the state Senate are term-limited and 0 otherwise. The variable changes from 0 to 1 in the year that the term limits took effect for the Senate. In most states, term limits took effect in the same year for House and Senate members, but Table 1 shows that there are a few exceptions. Nebraska has a unicameral legislature, which is treated as its Senate. The regressions in the article were also run with the House year in place of the Senate year, and with and without Nebraska, and the results are robust to these changes. While most term limits were approved in the early 1990s, they took effect in states roughly around 2000, so there are about the same number of observations prior to the implementation of term limits as after.

In all of the first regressions in Table 4, the coefficient on term limits is negative and statistically significant, showing that when term limits are in effect, per capita state government expenditures grow more slowly than when they are not. The coefficients on term-limit variables are economically significant, as well as being statistically significant. The mean of the independent variable in Table 4, which measures the growth rate of expenditures, is 0.01827, and the coefficient in the first regression shows the variable to be lower by 0.00489 in states with term limits. Subtracting that coefficient from the mean indicates that expenditure growth in those term-limit states averages 0.01827 − 0.00489 = 0.01338, so expenditure growth in term-limited states is 0.01338/0.01827 = 0.732, or 73.2% of the expenditure growth in non-term-limit states. Term-limit states have less than three quarters as much expenditure growth as non-term-limit states. The coefficients in the other two regressions are similar in magnitude to the first regression. The results are both economically and statistically significant.

It may be that those states with term limits had slower expenditure growth before they implemented term limits. To check for this possibility, the second independent variable, 'Senate term-limit state before it took effect', is 1 in term-limit states prior to the passage of term limits and 0 otherwise. Non-term-limit states always have 0 values for both this and the first term-limit variable. This second term-limit variable looks at whether term-limit states had expenditure growth different from non-term-limit states prior to their introductions of term limits. The variable is never statistically significant. These first two variables show that for states that have term limits, their expenditure growth was about the same as in non-term-limit states prior to term limits being imposed, but that after term limits were imposed, the term-limit states had slower expenditure growth. This is consistent with the hypothesis that term limits do have the effect of slowing the growth in state government expenditures.

Two additional variables are included to account for differences across states in state income. The first is the first difference in the log of state GDP growth, which measures the growth rate of state income. The second is the first difference of the log of state income, which measures the level of state income. The first regression in Table 4 includes only the income growth variable, the second includes only the income-level variable and the third includes both. The income growth rate variable is statistically significant and positive in the two regressions in which it is entered, showing that states with higher GDP growth rates also have higher growth rates in per capita expenditures. Per capita income is not statistically significant.

The effect of term limits on state government revenue growth

The same regressions are run in Table 5 but substituting the growth rate in state government revenues for the growth rate in expenditures. The first regression shows results similar to the results in Table 4, with the first term-limit variable negative and significant and the second insignificant. Repeating the same calculation as in the previous section, after term limits came into effect, state government revenue growth was 72.3% as high in the term-limit states as in the non-term-limit states, almost identical to the lower revenue growth found in the previous section. However, when the level of income is accounted for in the second and third regressions, the term-limit variables are not statistically significant, so the effect of term limits on revenues does not appear as robust as on expenditures.

Table 5: Per capita revenue growth

	(1)	(2)	(3)
	D.Log per capita revenue	D.Log per capita revenue	D.Log per capita revenue
Term limits binding on state Senate	–0.00894**	0.00758	0.00104
	(–2.12)	(1.41)	(0.18)
Senate term-limit state before it took effect (binary)	0.00407	–0.00600	–0.00375
	(0.87)	(–1.61)	(–0.92)
D.Real state GDP growth rate	–0.00105		–0.000800
	(–0.74)		(–0.60)
D.Log per capita real GDP		1.597***	1.692***
		(5.90)	(6.02)
Constant	0.0162***	–0.00250	–0.00838**
	(13.68)	(–0.70)	(–2.05)
Observations	1,200	1,250	1,200

Notes: * p <0.1; ** p <0.05; *** p < 0.01; t-statistics in parentheses. Standard errors clustered at state level.
Source:State revenue and expenditure data are from the U.S. Census Bureau Annual Survey of State and Local Government Finances (https://www.census.gov/programs-surveys/gov-finances/data/datasets.html, accessed 15 March 2019).
State GDP data are from the U.S. Bureau of Economic Analysis (https://www.bea.gov/data/gdp/gdp-state, accessed 15 March 2019).

Table 5 shows a strong positive relationship between the level of income and the growth rate in per capita revenues. Looking at the three regressions in Table 5, this suggests that states that implemented term limits have, on average, lower per capita incomes than those that did not, resulting in the per capita income variable taking statistical significance away from the term-limit variable. This is, in fact, the case. In 2000, around the time that most term-limit states implemented term limits, the mean per capita income in the term-limit states was $43,350, while mean per capita income in the states that did not implement term limits was $47,905. Per capita income was, on average, 10.5% higher in states that did not implement term limits than in those that did. A t-test yields a t-statistic of 1.88, so the difference is statistically significant at better than the .10 level.

The effect of term limits on total revenues and expenditures

Table 6 looks at total state government revenues and expenditures. The first two regressions use the first difference in the log of total revenues as the dependent variable and the second two use the log of the first difference in total expenditures. The results mirror the results in Tables 4 and 5. After term limits, revenues and expenditures grow more slowly in states with term limits, but there was no statistical difference in the growth rates of revenues and expenditures in the term-limit versus non-term-limit states prior to the imposition of term limits.

Table 6: Total revenues and expenditures

	(1)	(2)	(3)	(4)
	D.Log total rev	D.Log total rev	D.Log total exp	D.Log total exp
Term limits binding on state Senate	–0.00857**	0.00714	–0.00475**	–0.00563***
	(–2.04)	(1.31)	(–2.37)	(–2.85)
Senate term-limit state before it took effect (binary)	0.00539	–0.00340	0.00124	0.00206
	(1.29)	(–1.15)	(0.59)	(0.95)
D.Real state GDP growth rate	–0.00103		0.000655**	
	(–0.73)		(2.09)	
D.Log population	0.754***	–1.048**	0.925***	0.931***
	(4.14)	(–2.56)	(5.57)	(5.57)
Log population	–0.00131	0.00211	–0.000520	–0.000481
	(–1.41)	(1.43)	(–0.60)	(–0.59)
D.Log real GDP		1.604***		0.0324
		(5.88)		(0.72)
Constant	0.0381**	–0.0303	0.0311**	0.0281**
	(2.64)	(–1.28)	(2.36)	(2.22)
Observations	1,200	1,250	1,200	1,250

Notes: * p <0.1; ** p <0.05; *** p < 0.01; t-statistics in parentheses. Standard errors clustered at state level.
Source: State revenue and expenditure data are from the U.S. Census Bureau Annual Survey of State and Local Government Finances (https://www.census.gov/programs-surveys/gov-finances/data/datasets.html, accessed 15 March 2019).
State GDP data are from the U.S. Bureau of Economic Analysis (https://www.bea.gov/data/gdp/gdp-state, accessed 15 March 2019).
Population data are from the U.S. Census Bureau (https://www.census.gov/topics/population.html, accessed 15 March 2019).

Regressions (1) and (3) also include the first difference in the real state GDP growth rate while regressions (2) and (4) also include the first difference in the log of real GDP. The GDP growth rate is statistically significant in regression (3) but not in regression (1), while GDP is significant in regression (2) but not in regression (4). As before, when the level of income is included in the revenue regression, neither term-limit variable is statistically significant, but the other three regressions indicate that prior to term-limit implementation, both revenue and expenditure growth rates were not statistically different in the two groups of states, whereas after the implementation of term limits, the term-limit states had slower revenue and expenditure growth.

The regressions include the log of population to account for population differences across states because revenues and expenditures are not in per capita terms, and to examine whether more populous states have higher growth rates in revenues and expenditures. The population variable is never statistically significant. The first difference in the log of population is also included to examine the effect of changes in a state's population. The changes in population are always statistically significant, but

positive in three of the regressions and negative in the other one. As the dependent variable is the first difference of the logs, an equal percentage change in two states would yield the same value even if one state had much larger revenues or expenditures, which indicates why the population variable is not significant. Higher population growth appears to have a positive and statistically significant effect on revenues and expenditures even after adjusting for total population, though the one negative value next to the two positive ones raises a question about the robustness of this relationship.

The economic significance of term limits on state budgets is also substantial when looking at total state revenues and expenditures. Using the same calculations as in the previous sections, after the implementation of term limits, total state government revenue growth is only 70.8% as large in term-limit states as in non-term-limit states, using regression (1), and state expenditure growth is only 83.2% as large as in non-term-limit states, using regression (3). The results in this section show that term limits are associated with significantly lower growth rates in state government budgets. The results are both statistically and economically significant. The states that implemented term limits had budgets and budget growth rates not statistically different from the non-term-limit states prior to the implementation of term limits. After term limits were implemented, the term-limit states tended to have lower budgets and had slower growth in state government revenues and expenditures.

Term limits and the composition of state government expenditures

The Census Bureau's Census of State Governments, State and Local Finance Series breaks state government expenditures down into 33 separate categories and reports expenditures in each category. The same analysis presented earlier for total and per capita revenues and expenditures was also undertaken for each of those 33 expenditure categories. Four of the 33 categories showed statistically significant results at the 10% level, with one showing statistically significant results at the 5% level. Table 7 reports one regression from each of the four categories that had statistically significant results. The binary variable indicating term-limit states prior to the enactment of term limits was never statistically significant, Table 7 shows, and the binary variable indicating term-limit states after term limits took effect was significant and negative in three cases and significant and positive in one.

If the data set was composed of random numbers, one would expect for 3.3 of the 33 categories to be statistically significant at the 10% level and 1.65 of the results to be statistically significant at the 5% level, which is close to the number of categories that actually did show up to be statistically significant in this analysis. The 10% level of significance means that there is a 10% chance that the results could be generated by random numbers. There is a good chance that the statistically significant results reported in Table 7 are simply the result of natural variation in the data, and not an indicator of an actual relationship between term limits and the individual budgetary categories. These results indicate that there is enough variation across states in how term limits affect individual budgetary categories that there is insufficient evidence to conclude that any one area of the budget is affected more than any other. The reduction in budgetary growth as a result of term limits appears to be spread fairly evenly across budgetary categories.

Table 7: Budget subcategories

	(1)	(2)	(3)	(4)
	Log. Health capital outlays	Log. General public building capital outlays	Log. Housing and community development direct expense	Log. Public welfare cash assistance
Term limits binding on state Senate	–0.102*	–0.0921*	0.0732**	–0.0386*
	(–1.86)	(–1.92)	(2.59)	(–1.89)
Senate term-limit state before it took effect (binary)	0.0255	0.0370	–0.0178	–0.0245
	(1.03)	(0.76)	(–0.68)	(–1.63)
D.Log individuals in poverty	–0.232*	0.0189	0.0645	0.0425
	(–1.76)	(0.08)	(0.40)	(0.70)
D.Log total expenditures	0.978**	0.641	1.364***	0.552**
	(2.11)	(0.71)	(3.01)	(2.57)
D.Real state GDP growth rate	–0.0115*	–0.0192*	–0.00124	0.00251
	(–1.92)	(–1.90)	(–0.28)	(0.81)
D.Log real GDP	–0.641	0.679	–0.697	–0.241
	(–0.71)	(0.56)	(–1.22)	(–0.76)
D.Log population	1.083	2.801	–0.243	1.628***
	(0.66)	(1.13)	(–0.32)	(2.49)
Constant	–0.0227	–0.0609	0.0268	–0.0338***
	(–0.74)	(–1.38)	(1.79)	(–2.71)
Observations	1189	1161	1197	1102

Notes: * p <0.1; ** p <0.05; *** p < 0.01; t-statistics in parentheses. Standard errors clustered at state level. Dependent variable is first difference of log. Missing observations (less than 1,200) are due to some states spending no money in a given area and the fact that the dependent variable is logged, causing zero to become undefined. These observations are few enough that the results would not be materially affected if they could be included. For public welfare cash assistance, most of the missing observations are from California, indicating a potential data problem that could be due to reporting or accounting or it could be that this spending is accounted for at the local level as opposed to the state level.
Source: U.S. Census Bureau Annual Survey of State and Local Government Finances (https://www.census.gov/programs-surveys/gov-finances/data/datasets.html, accessed 15 March 2019). Population data are from the U.S. Census Bureau (https://www.census.gov/topics/population.html).

Term limits and state government debt

Table 8 reports the results of undertaking the same analysis to estimate the effects of term limits on state government debt. The results show that prior to term limits coming into effect, the term-limit states had state government debt growth that was slower than non-term-limit states, consistent with the data in Table 2. The effect is negative and strongly statistically significant on the binary variable indicating term-limit states prior to term limits taking effect. After term limits took effect, there is no statistically significant difference in state government debt growth between term-

limit and non-term-limit states. In term-limit states, debt grew more slowly than in non-term-limit states prior to term limits coming into effect, and that difference disappeared after term limits became effective.

Table 8: State government debt

	(1)	(2)	(3)	(4)	(5)	(6)
	Total	Total	Total	Per Capita	Per Capita	Per Capita
Term limits binding on state Senate	0.00586	0.00182	0.00541	0.00731	0.00310	0.00692
	(0.71)	(0.23)	(0.66)	(0.93)	(0.42)	(0.90)
Senate term-limit state before it took effect (binary)	–0.0185**	–0.0172**	–0.0181**	–0.0199***	–0.0141**	–0.0156**
	(–2.56)	(–2.43)	(–2.53)	(–3.01)	(–2.04)	(–2.21)
D.Log individuals in poverty	0.0290*	0.0300*	0.0269*			
	(1.87)	(1.91)	(1.72)			
D.Log total expenditures	0.273***	0.311***	0.273***			
	(6.15)	(7.12)	(6.13)			
D.Real state GDP growth rate	–0.000152		–0.000165	–0.000192		–0.000116
	(–0.27)		(–0.30)	(–0.35)		(–0.21)
D.Log population	0.294	0.284	0.378			
	(1.34)	(1.20)	(1.65)			
D.Log real GDP		–0.0462	–0.0806			
		(–0.63)	(–1.05)			
Poverty rate				–0.000955	–0.00164***	–0.00146**
				(–1.54)	(–2.80)	(–2.37)
D.Log per capita expenditures				0.278***	0.305***	0.269***
				(6.21)	(6.68)	(5.72)
D.Log per capita real GDP					154784.5***	140526.0***
					(5.04)	(4.62)
Constant	0.0179***	0.0164**	0.0191**	0.0260***	0.0379***	0.0373***
	(4.91)	(4.42)	(4.93)	(2.70)	(4.57)	(4.28)
Observations	1,200	1,250	1,200	1,200	1,250	1,200

Notes: * p <0.1; ** p <0.05; *** p < 0.01; t-statistics in parentheses. Standard errors clustered at state level. Dependent variable is first difference of log.
Sources: State revenue and expenditure data are from the U.S. Census Bureau Annual Survey of State and Local Government Finances (https://www.census.gov/programs-surveys/gov-finances/data/datasets.html, accessed 15 March 2019).
State GDP data are from the U.S. Bureau of Economic Analysis (https://www.bea.gov/data/gdp/gdp-state, accessed 15 March 2019).
Poverty data are from the U.S. Census Bureau (https://www.census.gov/topics/income-poverty/poverty/data/tables.html, accessed 15 March 2019)
Population data are from the U.S. Census Bureau (https://www.census.gov/topics/population.html, accessed 15 March 2019).

The results in Table 8 indicate that term-limit states were more fiscally conservative prior to the introduction of term limits than non-term-limit states, in that their state debt grew more slowly, but that after the introduction of term limits, the growth rates in debt were not statistically different in the two sets of states. This table, like the ones that came before, look at growth rates in debt, and one might expect that if term-limit states had lower growth rates prior to the introduction of term limits and about the same growth rate afterward, the debt levels in term-limit states would have remained below those in non-term-limit states, which is confirmed in Table 2.

Conclusion

In the states that have implemented legislative term limits, state government budgets have tended to grow at significantly lower rates than prior to the implementation of term limits. The estimate showing the smallest impact associated with term limits is total expenditure growth in Table 6, which showed total expenditure growth in term-limit states to be 83.2% of the growth in non-term-limit states. Following the procedure used earlier to show the differences in growth rates, the mean of the growth rate in total expenditure growth in all states was 2.83%, and subtracting the coefficient on the term-limit variable, the mean of the growth rate in term-limit states after term limits took effect was 2.355%. If those growth rates are applied beginning in 2000, around when term limits took effect, up through 2012, which is where the data used to make those estimates end, total expenditures would have grown by 39.8% in non-term-limit states compared with 32.2% in term-limit states, for a difference of 7.6% in the growth of total expenditures over those 12 years. In other words, had the non-term-limit states had expenditure growth rates equal to the term-limit states starting in 2000, by 2012, their levels of total expenditure would have been 7.6% less than they actually were.[5]

Even the smallest estimate of the relationship between term limits and budgetary growth indicates that term limits are associated with significantly slower budgetary growth. The point to take away from this analysis is that whether state budgets are measured in total or per capita terms, and whether revenues or expenditures are taken as a budgetary measure, term limits are associated with economically significant declines in state budget growth. States that adopted term limits had budgetary growth rates roughly the same as non-term-limit states prior to the introduction of term limits, and significantly slower budgetary growth rates after the adoption of term limits.

States that adopted term limits appear to have been more fiscally conservative than non-term-limit states prior to term-limit adoption. At the time term limits became effective, per capita state debt levels were nearly a third lower in states that adopted term limits when compared to states that did not, and per capita state government expenditures were about one fifth lower in the states that adopted term limits, prior to term limits taking effect. Further, from 1988 to 2000, growth in per capita state debt was negative in term-limit states but positive in non-term-limit states, again pointing towards the fiscal conservatism in term-limit states. After term limits were adopted, per capita debt grew at about the same rate in term-limit versus non-term-limit states, but by 2012, term-limit states still had about a third less per capita debt than non-term-limit states.

Term-limit states appear to be different from non-term-limit states, in that prior to their enactment of term limits, they were more fiscally conservative than the average

state, as indicated both by lower levels of per capita state government spending and lower levels of per capita state debt. The fiscal conservatism that showed up in state budgets then manifested itself in the adoption of term limits. Term limits do have a relationship with state fiscal policy beyond the fiscal conservatism that was already present in those states, however, resulting in slower state budgetary growth after term limits became effective.

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Conflict of interest

The authors declare that there is no conflict of interest.

Notes

1 The evidence is subject to question because both articles only show a correlation between term limits and Republican share of the legislature. It may be that the causation runs in the other direction, and that a shift in political preferences towards Republicans also implies a shift towards term limits. Most legislative elections have a Republican running against a Democrat, and there is no evidence that term limits reduce the number of Democratic candidates, only that term limits are associated with a reduction in the proportion of winners who are Democrats.

2 Erler (2007) also leaves out some of the term-limited states shown in Table 1, omitting Louisiana, Montana, Nebraska and Nevada. Keele et al (2013) and Asako et al (2016) include those states, with the exception of Nebraska, which both studies drop from their data set because it has a unicameral legislature.

3 Six states enacted term limits that were subsequently repealed: Idaho, Massachusetts, Oregon, Utah, Washington and Wyoming.

4 The state gross domestic product (GDP) data cover 25 years, so the regressions that include GDP growth as an independent variable have only 24 observations per state, the first being the growth from 1988 to 1989. When per capita GDP is used without GDP growth, another year of observations is added, bringing the total to 1,250.

5 One might wonder whether this large a reduction in budgetary growth is plausible. Florida is an interesting example. Real per capita state government expenditures were $3,604 in 1988 in 2017 dollars and increased to $4,557 by 2000 when Florida's term limits took effect. Real per capita state government expenditures fell to $4,065 by 2017. In this case, the growth rate of expenditures not only fell, but went negative, after term limits were passed. In an era of government growth, some readers might be surprised to find any example of a state that spent less per capita in 2017 than it did in 2000.

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