

Legislative Tenure, Federal Spending & State Economic Performance, 1981-2004^{*}

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Abstract:

What role has federal spending played in state economic performance? States receiving higher levels of federal spending per capita perform more poorly than those states receiving lower levels. An instrumental variable analysis is presented, utilizing legislative tenure to address issues of endogeneity between federal spending and state economic performance. States with more tenured congressional delegations receive more federal spending, and this increased federal spending dampens long-term economic growth. Depending upon specification, U.S. Representatives and Senators harm their states between \$30 and \$270 in gross state product per capita per additional year in office.

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I. Introduction

What impact does legislative tenure have on federal spending and, in turn, states' economic performance? Levitt and Poterba (1999) find that states represented by senior Democratic congressmen, as well as those with politically competitive House districts, grew faster than average. They stop short, however, of attributing the variance in state growth to the variance in federal spending within states. This analysis looks to establish such a connection between federal spending and state economic performance through differences in tenure among state delegations to the United States Congress.

Recent studies have begun to shed light on the process of the allocation of federal spending and the impact of federal spending on state economic performance. Matthews, Shughart and Stevenson (2007) address the hypothesis of a 'small-state bias' in federal spending; that is, since small states are 'over-represented' in the Senate, they receive an inordinately large share of federal spending. The findings are sensitive to the time period covered, and per this analysis, a small-state bias does not seem to exist after 1980.

Higgins, Young and Levy (2006) proxy for the influence of federal, state, and local governments into the economy by utilizing public sector labor force data and find that, at the federal, state, and local level, increased government involvement in the economy is either negatively correlated with or uncorrelated with economic growth.

It is important to investigate the impact of federal spending upon state economic performance because of the sizeable influence federal spending could potentially have. Further, the amount of spending in the United States at the federal level attributable to individual states varies significantly; in 2004, federal spending in West Virginia alone

was nearly \$8400 per resident, or roughly 30% of state income per capita. By comparison, New Jersey received almost \$6400 in federal spending per resident in 2004—only 13% of state income per capita. While even 13% of state income per capita is a nontrivial amount, the federal spending footprint within West Virginia is nearly two and a half times that of New Jersey. As such, while the possibility for a tangible impact of federal spending upon both economies is large, the chance that the difference in federal spending between the two states having separate effects is extremely likely as well, and therefore worthy of investigation.

As federal spending amounts vary amongst states, so too does the tenure of their delegations to the United States Congress. In 2004, the average tenure of a state's delegation was 9.33 years to the House of Representatives, with a range of 30 years. The average tenure of a state's delegation to the Senate was 12.64 years, also with a range of 30 years. As previously mentioned, West Virginia received nearly \$8400 per resident, with an average Representative tenure of 17 years and an average Senator tenure of 32 years; New Jersey received nearly \$6400 per resident with an average Representative tenure of 10.5 years and an average Senator tenure of 2 years. Insofar as tenure is an important determinant in the allocation of federal funds to separate states, it is crucial to include tenure to obtain a full view of the federal funding/state economic performance picture.

This analysis finds that states with more tenured congressional delegations receive more federal spending, and this increase in federal spending has a detrimental long-run effect on state economic performance. Depending on the specification, each additional

year of tenure for a U.S. Representative harms their home state's income \$130 to \$270 per capita (linear), or \$20 to \$140 per capita (quadratic); each additional year of tenure for a U.S. Senator harms their home state's income \$30 to \$90 per capita (linear), or \$10 to \$145 per capita (quadratic), in constant 2000 dollars. At mean tenure levels, these effects can approach or surpass over \$1000 per capita in foregone state income—and increasing as tenured officials continue to stay in office.

The paper proceeds as follows. Section II outlines the role of federal spending in the economy. Section III presents the empirical models. Section IV discusses the results. Section V concludes.

II. Federal Spending in the Economy

Federal programs can range from traditional economic “public goods”—such as highways and welfare programs, thought to be difficult for the market to provide—to federally supported programs designed to supplement or even replace private market activity. Further, due to discrepancies between the amount of federal taxes paid by states and the amount of federal spending received, the process of allocating federal spending can become an effective redistributive tool for federal legislators.

Though oftentimes thought to be a crucial to a functioning state economy, or even intended to provide an economic boost, there are a number of reasons to believe why increases in federal spending may be detrimental to a state's economy. Government provision of goods and services entails the reallocation of assets through taxation. Such activity is not wealth-creating but wealth-reorganizing, and insofar that this government

activity crowds out the private sector and its wealth-enhancing properties, states with more federal spending could lag behind those states where the presence of the federal government is lower. Should federal spending be an attempt to correct a perceived market shortcoming—a lack of or an inefficient provision of a good or service—there exist significant barriers to the public sector improving upon market outcomes. Hayek (1945) identifies that the dispersed nature of information prevents the public sector from making an efficiency enhancing decision with any certainty. In addition, time inconsistency exists between the decision to spend public money and the actual execution of the project.

Public choice theory presents another avenue in which the process of federal spending may not lead to welfare enhancement. The previous shortcomings assume elected officials act in a strictly social welfare-maximizing manner; this need not be the case. The prospect of (re-)elections has been shown to distort the decision making processes of a wide array of elected officials. Garrett and Sobel (2003) find that areas of political importance to the president have more disasters declared, and FEMA disaster expenditures are higher in areas having congressional representation on FEMA oversight committees. Kubik and Moran (2003) show that state executions are timed to coincide with gubernatorial elections. Young, Reksulak and Shughart (2001) note that IRS audits occur less often in districts that are politically important to the president.

Given the potential that federal spending has for tangible economic impact, it is important to explore the process by which federal spending is allocated. This analysis posits that a main determinant of the topography of federal spending is the tenure of each

state's congressional delegation. While incumbent representatives attempt to direct federal funds to their districts in order to curry favor with their constituents, there are reasons to believe that their ability to do so increases as they spend more time in office. Legislative rules and processes become increasingly familiar as years of experience increase. Further, more tenured legislators are generally those chosen to sit on committees, which play an important role in the political process. Moreover, logrolling is only as effective as a representative's ability to build bonds with fellow legislators in order to garner trust and support; such social capital most certainly increases, *ceteris paribus*, as years in Congress increase.

Figures 1a and 1b present a brief picture of the overarching results put forth in this analysis. From 1981 to 2004, four states are handpicked to track their growth in federal spending and income per capita. New Hampshire, Wisconsin, Montana and West Virginia all had very similar levels of federal spending per capita within their state in 1981, and also had very similar levels of income per capita. However, two of the states, Montana and West Virginia, experienced sharp increases in federal spending per capita relative to New Hampshire and Wisconsin. Subsequently, New Hampshire and Wisconsin experienced much stronger growth over the twenty-four year sample. By 2004, Montana and West Virginia was receiving roughly a third more federal spending, yet only had 70% of the income per capita, of New Hampshire and Wisconsin. While this snapshot does not address issues of causality nor control for any other mitigating factors in state growth (both factors are considered in Section III), the effects increased federal spending have in dampening long-run economic growth are displayed here.

[Figures 1a and 1b about here]

III. Empirical Model

3.1 Long-Run Estimation

To isolate the long-run effects of state-level federal spending on states' economic performance, I first examine a simple panel analysis to isolate the impact of federal spending upon state economic performance. I estimate the following equation,

$$(1) \quad GSPpc_{it} = \beta_0 + \beta_1 FedSpendpc_{it} + \phi \mathbf{Y}_{it} + \gamma \mathbf{Z}_{it} + \varepsilon_{it}$$

where $GSPpc_{it}$, the dependent variable, is the per capita gross state product (GSP) of state i in year t . These data are available through the Bureau of Economic Analysis' Regional Economic Accounts. $FedSpendpc_{it}$ is the amount of federal spending procured to state i in year t , and is the independent variable of interest. The Tax Foundation provides concise figures on the amount of annual federal funding each state receives.¹ β_1 is the coefficient of interest, pertaining to $FedSpendpc$. \mathbf{Y}_{it} is a matrix of control variables that attempt to capture factors affecting gross state product particular to each state. These control variables include the annual unemployment rate, collected from the Bureau of Labor Statistics, as well as the percentage of the population aged 25 or over that hold a high school diploma, collected from the U.S. Census Bureau. The matrix of coefficients for these control variables, ϕ , will not be analyzed.²

\mathbf{Z}_{it} is a full slate of year- and state-fixed effects. The matrix of coefficients for these fixed effects, γ , will not be analyzed. ε_{it} is the error term. The results for this initial estimation are found in section IV.

Implicit in the initial analysis are issues concerning endogeneity. In the above model, it could be argued that it is federal spending that has a direct impact upon a state's gross economic output. Conversely, it could also be that state i 's economic performance is a factor in the amount of federal funds allocated to state i . To address these issues of causality, the analysis incorporates an instrumental variable (IV) for federal spending of interest from the initial specification. I estimate the following two-stage least squares (2SLS) model:

$$(2) \quad FedSpendpc_{it} = \alpha_0 + \alpha_1 Tenure_{it} + \phi \mathbf{Y}_{it} + \lambda \mathbf{Z}_{it} + \eta_{it}$$

$$(3) \quad GSPpc_{it} = \beta_0 + \beta_1 FedSpendpc_{it} + \omega \mathbf{Y}_{it} + \gamma \mathbf{Z}_{it} + \varepsilon_{it}$$

Equation 3 is the original panel model from above. In equation 2, $Tenure_{it}$ is the instrumental variable for per capita federal spending.³ $Tenure$ is a measure of the average accrued years of experience in year t of a member of state i 's delegation to the United States Congress. The Biographical Directory of the United States Congress provides term information for all members of Congress. The measure of congressional experience is divided into average senator tenure and average representative tenure for state i 's congressional delegation. As the House and the Senate play decidedly different roles in the allocation of federal spending, their effects are therefore worthy of separation.

Squared terms for average tenure are also utilized in some specifications for both houses of Congress to capture the effect of increasing returns to experience.⁴ Again, \mathbf{Y}_{it} and \mathbf{Z}_{it} are a matrix of control variables and a matrix of year- and state-fixed effects, respectively, and ϕ and γ , each matrix's respective matrix of coefficients, will not be analyzed. η_{it} and ε_{it} are the error terms at the first and second stage, respectively. The results of these instrumental variable specifications are summarized in section 4.2.

IV. Results

4.1 Long-Run Estimation Results

[Table 1 about here.]

Table 1 presents the results from the models estimated in Section III. Regression (2) presents the initial panel model specification. Controlling only for state- and year-fixed effects, it is shown that increased federal spending has a detrimental effect on a state's economic performance. Each additional dollar of federal spending per capita does \$2.36 in harm to the state's GSP per capita per year, evidence towards the crowding-out effect of wealth-generating private activity. At the one standard deviation level, federal spending generates a discrepancy in GSP per capita of \$2918 in constant 2000 dollars—a difference that would allow the median state in 2004, Wisconsin, to rise to the 15th richest economy.

As previous mentioned, issues of endogeneity abound at this initial stage. An argument could be made at this juncture that it is not federal spending that is harming a

state's economic performance. Instead, it is states that have the poorest economies that receive the most federal funding, and it is this relationship that is reflected in the initial panel regression.

To extract a causal relationship, an instrumental variable analysis is incorporated. A range of IV specifications are presented in regressions 3-8. Every instrumental variable specification in Table 1 verifies the negative causal impact of federal spending on state economic performance; in no specification does federal spending have a positive impact on state economic performance. While all instrumental variable models present a negative value in the second stage for the federal spending variable, it is those models that incorporate the average tenure of U.S. Representatives that yield the strongest statistical results. This is not a surprising result; Crain and Tollison (1977) note: "The House has constitutional primacy over money bills, which means they get first crack at appropriations bills each year....The Senate is essentially in the position of responding to House actions, and most observers view the Senate as an appeals body in the appropriations process..."

[Table 2 about here.]

For robustness, Table 2 provides the exact same analysis utilizing four-year averages of all variables.⁵ While federal spending drops below the 10% level of significance in regression (13) as compared to regression (5), the results from Table 2 confirm the annual data results put forth in Table 1.

Appendix A provides additional analyses that address the concern that it is not federal spending alone that impacts a state's economy, but federal spending received in light of federal taxes paid. Table 3 in Appendix A designates net federal spending per capita, or federal spending per capita less federal taxes paid per capita, as the dependent variable. Table 4 in Appendix A creates a ratio between federal spending, and uses this measure as the dependent variable. Both specifications are similar to Table 1 and Table 2 in all other regards, and the results uniformly confirm what has been put forth in this section.

4.2 Tenure and Long-Run State Economic Performance

Due to the instrumental variable analysis, it is possible to derive the impact of additional years of congressional tenure upon state economic outcomes. From equations (1) and (2) in Section 3.2,

$$(3) \quad GSPpc_{it} = \beta_0 + \beta_1(\alpha_0 + \alpha_1 Tenure_{it} + \phi \mathbf{Y}_{it} + \lambda \mathbf{Z}_{it} + \eta_{it}) + \omega \mathbf{Y}_{it} + \gamma \mathbf{Z}_{it} + \varepsilon_{it}$$

and

$$(4) \quad GSPpc_{it} = \beta_0 + \alpha_0 \beta_1 + \alpha_1 \beta_1 Tenure_{it} + (\beta_1 \phi + \omega) \mathbf{Y}_{it} + (\lambda \beta_1 + \gamma) \mathbf{Z}_{it} + \beta_1 \eta_{it} + \varepsilon_{it}$$

Of interest is $\delta GSPpc / \delta Tenure$, or the change in state income per capita due to a change in average congressional tenure. For the linear first-stage specifications in regressions (3), (5), and (7) in Table 1 (and (11), (13) and (15) in Table 2), this simply reduces to

$$(5) \quad \delta GSP_{pc} / \delta Tenure = \alpha_1 \beta_1$$

while the quadratic specifications in regressions (4), (6) and (8) (and (12), (14), and (16)) reduce to

$$(6) \quad \delta GSP_{pc} / \delta Tenure = \alpha_1 \beta_1 + 2\alpha_1' \beta_1 (\text{Mean Tenure})$$

where α_1' is the coefficient on the squared tenure term. As a tenure value is needed to derive a marginal effect, the mean tenure value is used for all calculations.

The results of the tenure analysis can be found under “tenure impact” on Table 1 and Table 2. As expected, connecting the mechanism of more-tenure-leads-to-more-funding with more-funding-leads-to-worse-economic-outcomes generates an overall detrimental effect of increased congressional tenure on state’s economy. Though varied, all estimated impacts of additional years of tenure in a state’s congressional delegation are negative. Marginal impacts differ according to the specification used. For U.S. Representatives, linear specifications yield a negative marginal impact of additional years of average congressional tenure between \$130 and \$270 on gross state product per capita; quadratic specifications estimate the negative marginal impact of additional years of average Representative tenure between \$20 and \$60. For U.S. Senators, linear specifications generate a negative marginal impact of additional years of average Senator tenure between \$40 and \$90 on gross state product per capita; quadratic specifications

estimate the negative marginal impact of additional years of average Senator tenure between \$30 and \$145.⁶

V. Conclusion

This analysis put forth has shed light on the role of tenure in states' congressional delegations in allocating federal spending, and the role of this spending in states' long-run economic outcomes. By incorporating an instrumental variable analysis, we can isolate the process by which increased tenure of congressional delegations enhances a state's ability to secure federal spending, and subsequently, how this increased spending harms a state's long-term economic growth. While it is important to identify the role of the federal government in state economic vitality, it should also be noted that this study examines only a recent twenty-four year period. A more comprehensive study examining a larger portion of American economic history may identify times when the federal government had a different impact on state-level economies; after all, the role of the federal government in the economy has changed drastically over the course of the last two centuries. Nonetheless, in recent times, the federal government has been an anchor to state economic potential.

Appendix A

[Table 3 about here.]

[Table 4 about here.]

¹ The Tax Foundation, per the Census Bureau's Consolidated Federal Funds Report (CFFR), reports the amount of federal spending allocable to an individual state. These programs cover grants, salaries and wages, procurement contracts, direct payments for individuals, other direct payments, direct loans, guaranteed or insured loans, and insurance, and does not include military spending. For FY 2004, they report 8% of the CFFR is not attributable to the states.

² The control variables end up with the appropriate signs (unemployment: negative, percent of population with high school diploma: positive) in all specifications, and with significance in nearly all specifications.

³ Levitt and Poterba (1999) dismiss any potential endogeneity issues between legislator tenure and federal spending, as those legislators whose constituents reward them with additional years in office are making their decision based on *previous* years of federal spending, not current levels.

⁴ Given the margins upon which increased tenure could increase federal spending within a legislator's home state (see Section II), it is feasible that increasing returns scale in tenure could exist through committee membership or the accumulation of social capital.

⁵ Due to data availability limiting the time frame of the analysis to 24 years, four-year averages allow for the most efficient use of the data. Using five-year averages gains only a modicum of generality in exchange for sacrificing 50 potential data points and dropping 4 years of data.

⁶ In revisiting footnote 3, should there be a positive correlation between legislative tenure and gross state product, any bias that would exist would be downwards, as those legislators that get higher levels of tenure further do harm to their home states by securing more federal funds. The estimate provided for the impact of average legislative tenure would therefore be understated.

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Figure 1a: Federal Spending per capita (\$2000), 1981-2004

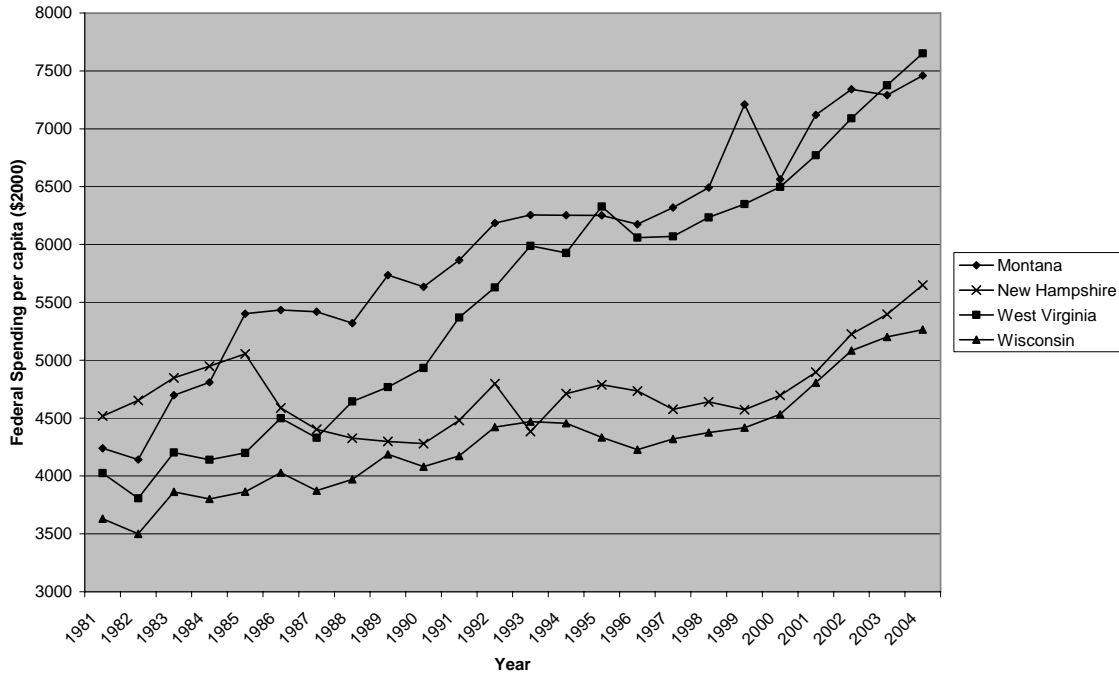


Figure 1b: Gross State Product per capita (\$2000), 1981-2004

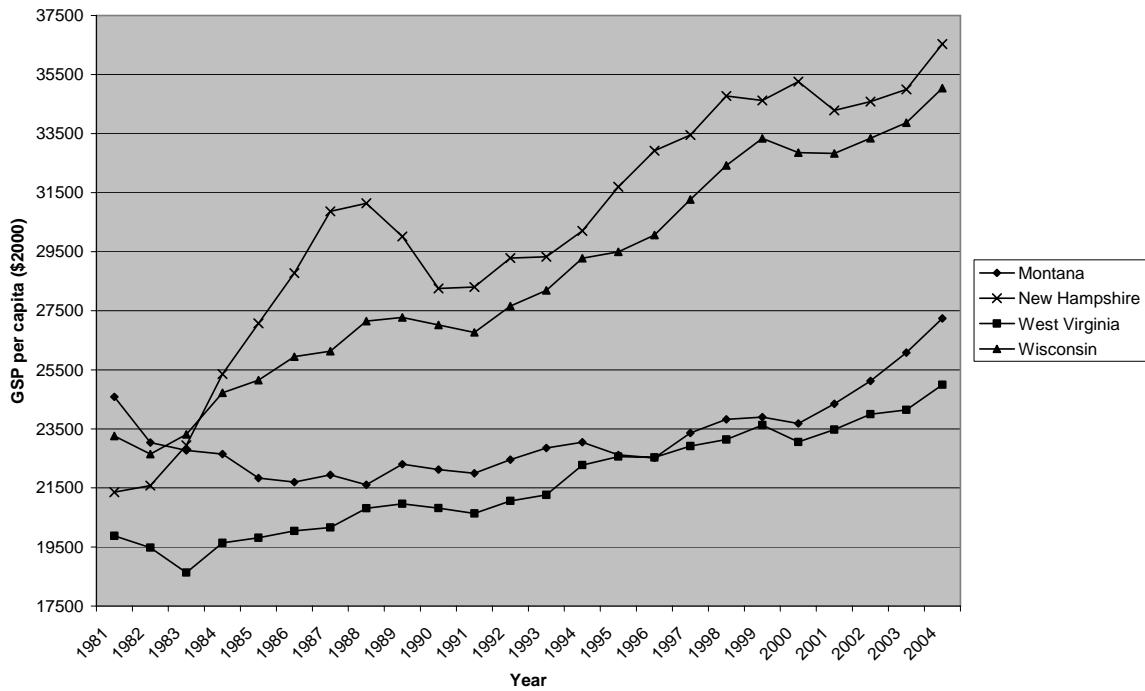


Table 1: Long-Run Impact of Federal Spending on State Economic Performance

Dependent Variable: Gross State Product per capita (\$2000)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Second Stage Results</i>								
Federal Spending per capita (\$2000)	-1.395** (0.575)	-2.360*** (0.577)	-21.095*** (6.532)	-18.566*** (2.146)	-4.848* (2.666)	-3.546 (2.470)	-12.223*** (3.036)	-16.389*** (1.801)
Unemployment Rate		-321.19*** (94.93)	-1195.26*** (378.69)	-1077.27*** (223.88)	-437.27*** (159.10)	-376.53** (150.21)	-781.33*** (201.65)	-975.72*** (198.50)
% population with H.S. diploma		563.96*** (96.77)	1908.08*** (486.10)	1726.64*** (192.13)	742.47*** (199.56)	649.06*** (185.65)	1271.55*** (232.90)	1570.49*** (165.41)
<i>First Stage Results</i>								
Avg. U.S. Rep. Tenure			12.567*** (3.949)	-52.874*** (8.803)			10.758*** (3.981)	-53.987*** (8.773)
Avg. U.S. Senator Tenure					8.084*** (2.347)	13.555** (5.593)	7.117*** (2.368)	16.353*** (5.424)
Avg. U.S. Rep. Tenure Squared				3.419*** (0.414)				3.425*** (0.414)
Avg. U.S. Senator Tenure Squared						-0.206 (0.192)		-0.388** (0.187)
Rep. Tenure Impact			-265.10	-42.86			-131.50	-21.19
Sen. Tenure Impact					-39.19	-32.30	-86.99	-130.78
N	1200	1200	1200	1200	1200	1200	1200	1200
R-squared	0.429	0.479	0.739	0.754	0.739	0.739	0.741	0.756

Notes:

* - Indicates statistical significance at the 90% level

** - Indicates statistical significance at the 95% level

*** - Indicates statistical significance at the 99% level

First stage estimation for Federal Spending per capita (\$2000).

All regressions include state- and year-fixed effects.

Robust standard errors in parentheses

"Tenure impact" for quadratic terms evaluated at the respective mean tenure value

Table 2: Long-Run Impact of Federal Spending on State Economic Performance
4-year averages

Dependent Variable: Gross State Product per capita (\$2000), 4-year average

	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	<i>Second Stage Results</i>							
Federal Spending per capita (\$2000), 4-year average	-2.167*** (0.744)	-3.582*** (0.748)	-15.805** (6.906)	-17.251*** (3.237)	-4.139 (4.163)	-3.193 (3.992)	-9.988*** (3.814)	-15.044*** (2.683)
Unemployment Rate, 4-year average		-225.54 (155.31)	-879.01* (494.81)	-956.34** (394.80)	-255.34 (297.93)	-204.76 (291.04)	-568.03* (315.82)	-838.32** (347.44)
% population with H.S. diploma, 4-year average		678.86*** (213.61)	1557.17*** (527.51)	1661.11*** (302.07)	718.91** (317.87)	650.94** (306.30)	1139.19*** (303.76)	1502.49*** (258.26)
	<i>First Stage Results</i>							
Avg. U.S. Rep. Tenure, 4-year average			17.022** (7.614)	-57.595*** (17.065)			14.997* (7.640)	-57.941*** (16.979)
Avg. U.S. Senator Tenure, 4-year average					10.048** (4.506)	16.977 (11.559)	8.846* (4.521)	20.628* (11.012)
Avg. U.S. Rep. Tenure Squared, 4-year average				3.781*** (0.782)				3.769*** (0.782)
Avg. U.S. Senator Tenure Squared, 4-year average						-0.264 (0.406)		-0.510 (0.390)
Rep. Tenure Impact			-269.03	-59.18			-149.79	-43.49
Sen. Tenure Impact					-41.59	-36.02	-88.35	-144.43
<i>N</i>	300	300	300	300	300	300	300	300
R-squared	0.513	0.577	0.812	0.828	0.812	0.812	0.815	0.832

Notes:

* - Indicates statistical significance at the 90% level
 ** - Indicates statistical significance at the 95% level
 *** - Indicates statistical significance at the 99% level
 First stage estimation for Federal Spending per capita (\$2000).
 All regressions include state- and year-fixed effects.
 Robust standard errors in parentheses
 "Tenure impact" for quadratic terms evaluated at the respective mean tenure value

Table 3: Long-Run Impact of Net Federal Spending on State Economic Performance

Dependent Variable: Gross State Product per capita (\$2000)

	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	<i>Second Stage Results</i>							
Net Federal Spending per capita (\$2000)	-2.082*** (0.296)	-2.596*** (0.278)	-14.990*** (4.507)	-13.777*** (1.594)	-10.559 (9.137)	-2.591 (3.918)	-14.680*** (4.324)	-13.195*** (1.487)
Unemployment Rate		-246.92*** (81.14)	-418.00* (226.95)	-401.25** (201.85)	-356.84* (200.72)	-246.85** (104.69)	-413.72* (221.90)	-393.22** (193.43)
% population with H.S. diploma		607.04*** (89.78)	1621.19*** (389.47)	1521.90*** (174.01)	1258.63* (752.97)	606.63* (324.73)	1595.83*** (374.50)	1474.30*** (164.30)
	<i>First Stage Results</i>							
Avg. U.S. Rep. Tenure			17.685*** (5.840)	-69.956*** (13.088)			17.133*** (5.909)	-70.880*** (13.089)
Avg. U.S. Senator Tenure					3.712 (3.485)	10.857 (8.307)	2.172 (3.514)	14.734* (8.092)
Avg. U.S. Rep. Tenure Squared				4.579*** (0.625)				4.669*** (0.618)
Avg. U.S. Senator Tenure Squared						-0.270 (0.284)		-0.528* (0.279)
Rep. Tenure Impact			-265.10	-54.41			-251.51	-59.08
Sen. Tenure Impact					-39.20	-13.03	-31.88	-44.06
N	1200	1200	1200	1200	1200	1200	1200	1200
R-squared	0.482	0.541	0.514	0.537	0.511	0.511	0.514	0.539

Notes:

- * - Indicates statistical significance at the 90% level
 - ** - Indicates statistical significance at the 95% level
 - *** - Indicates statistical significance at the 99% level
- First stage estimation for Federal Spending per capita (\$2000).
 All regressions include state- and year-fixed effects.
 Robust standard errors in parentheses
 "Tenure impact" for quadratic terms evaluated at the respective mean tenure value

Table 4: Long-Run Impact of Ratio of Federal Spending to Federal Taxes Paid on State Economic Performance

Dependent Variable: Gross State Product per capita (\$2000)

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
<i>Second Stage Results</i>								
Ratio of Federal Spending to Federal Taxes Paid	-16315.09*** (1789.14)	-18331.86*** (1798.04)	-39030.38*** (5545.60)	-45972.26*** (3121.86)	-22539.09** (10289.54)	-13674.63 (9447.84)	-37151.18*** (5159.00)	-44058.74*** (2933.52)
Unemployment Rate		-222.54*** (75.52)	-235.48** (103.20)	-239.82** (117.43)	-225.17*** (82.63)	-219.63*** (82.82)	-234.30** (99.76)	-238.62** (113.27)
% population with H.S. diploma		607.09*** (90.84)	846.97*** (87.39)	927.42*** (76.50)	655.85*** (128.28)	553.12*** (119.32)	825.19*** (82.77)	905.24*** (73.37)
<i>First Stage Results</i>								
Avg. U.S. Rep. Tenure			0.0070*** (0.0011)	-0.0179*** (0.0024)			0.0065*** (0.0011)	-0.0182*** (0.0024)
Avg. U.S. Senator Tenure					0.0017*** (0.0007)	0.0034** (0.0016)	0.0012* (0.0007)	0.0045*** (0.0015)
Avg. U.S. Rep. Tenure Squared				0.0013*** (0.0001)				0.0013*** (0.0001)
Avg. U.S. Senator Tenure Squared						-0.00006 (0.00005)		-0.00014*** (0.00005)
Rep. Tenure Impact			-273.21	-141.79			-241.48	-122.57
Sen. Tenure Impact					-38.32	-28.78	-44.58	-65.15
N	1200	1200	1200	1200	1200	1200	1200	1200
R-squared	0.562	0.622	0.154	0.243	0.131	0.132	0.157	0.249

Notes:

* - Indicates statistical significance at the 90% level
 ** - Indicates statistical significance at the 95% level
 *** - Indicates statistical significance at the 99% level
 First stage estimation for Federal Spending per capita (\$2000).
 All regressions include state- and year-fixed effects.
 Robust standard errors in parentheses
 "Tenure impact" for quadratic terms evaluated at the respective mean tenure value

Table 5: Summary Statistics

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Min</u>	<u>Max</u>
Gross State Product per capita (\$2000)	1200	29900.8	7379.8	17348	98186
Federal Spending per capita (\$2000)	1200	5591.1	1236.7	3275	11899
Ratio of Fed. Spend. To Taxes Paid	1200	1.116	0.287	0.55	2.33
Unemployment Rate	1200	5.90	2.07	2.30	17.40
% of population with H.S. diploma	1200	74.2	8.3	53.1	88.3
Average U.S. Representative Tenure	1200	8.07	4.01	0	31
Average U.S. Senator Tenure	1200	10.79	6.82	0	42