



Think tanks

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ABSTRACT

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This paper is the first to investigate the relationship between think tanks and economic policy empirically. We use panel data for the US states to examine state-based, free market (SBFM) think tanks' relationship to eight key economic policy objectives. We find little evidence that SBFM think tanks are associated with more "pro-market" policies along the policy dimensions they aim to influence. However, we find stronger evidence that SBFM think tanks are associated with more "pro-market" citizen attitudes about the role of government vs. markets in economic policy. These results suggest that if think tanks' connection to economic policy is important at all, its importance may be long term and operate via the channel of "ideas." In contrast to think tanks, we find evidence that political lobby groups are associated with current policy. This may reflect the fact that, unlike think tanks, lobby groups are legally permitted to lobby for policy changes directly. Thus they don't need to engage in a long-run "battle of ideas" to secure desired policy outcomes. *Journal of Comparative Economics* 40 (1) (2012) 62–77. George Mason University, MS 3G4, Fairfax, VA 22030, United States; Duquesne University, 802 Rockwell Hall, Pittsburgh, PA 15282, United States; New York University, Development Research Institute, 19 W. 4th St., New York, NY 10012, United States.

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1. Introduction

In the 1990s a unique phenomenon appeared on the radar screen of America's political-economic landscape: an explosion of state-based, free-market think tanks. The first such think tanks appeared in the late 1970s. But until the late 1980s/early 1990s there were but a few of them and they were poorly funded. In 1985 there were five state-based, free-market (SBFM) think tanks in America. Today there are 55 such organizations in 49 states. In fiscal 2003 alone these organizations attracted more than \$300 million in donations for undertaking their activities. That's roughly \$50 million more than the Republican or Democratic Party raised in "soft money" for the 2000 election cycle (Abboud and Crawford, 2003).

Think tanks are non-profit, research and educational organizations with the explicit goal of affecting economic policy. Fiscally conservative/libertarian organizations dominate the state-based think tank phenomenon in the US. "There is no mainstream left-of-center parallel to the critical mass of conservative policy institutions currently operating in the United States today" (Callahan, 1999). SBFM think tanks seek to reduce the role of government and increase the role of private markets in their states' economic spheres. They're similar to their nationally based cousins, such as the Heritage Foundation, the Cato

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Institute, and the Manhattan Institute, but concerned with state-level policies and more narrowly focused on strictly economic issues.

This paper is the first to investigate SBFM think tanks' relationship to economic policy empirically.¹ We use panel data for the US states from 1997 to 2009 to examine the connection between SBFM think tank spending and the economic policies these think tanks hope to influence. Using think tanks' mission statements we analyze eight specific economic policies that fall into three major policy areas: tax policy, government spending policy, and privatization policy.

Our study contributes the field of comparative political economy by exploring a potentially important and hitherto unexplored source of policy and institutional variation across political economies: think tanks. Unlike most studies in comparative political economy, which examine the consequences of and potential contributors to policy and institutional differences across national political economies, our study focuses on potential contributors to policy and institutional differences across sub-national political economies: the American states.²

Today free-market think tanks interested in affecting their public policy climates exist in nations throughout the world. Free-market think tanks are especially prominent in the former socialist countries of Central and Eastern Europe. One can find them in Albania, Azerbaijan, Belarus, Bulgaria, Croatia, the Czech Republic, Kyrgyzstan, Lithuania, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, and Tajikistan, to name only a few.

Despite the proliferation of free-market think tanks globally, such think tanks have by far the longest history and are by far most numerous in the American states. Thus if think tanks have an important relationship to economic policy differences, such as tax policy, spending policy, and the range of activities performed by government vs. the market, or an important relationship to institutional differences, in particular informal ones, such as citizens' beliefs about the proper role of government vs. the market, in any political economies, we should be able to find that relationship by looking at these ones.

Our analysis finds little evidence that SBFM think tanks are associated with more "pro-market" policies along the policy dimensions they aim to influence. However, this finding may reflect the fact that think tanks are only importantly connected to economic policy in the long run rather than reflecting think tanks' unimportance for policy altogether.

SBFM think tanks' primary means of potential policy influence is through shifting public opinion about the role of government vs. the market. Since changing citizens' attitudes sufficiently to catalyze policy change likely requires decades rather than years, and our panel spans only 13 years, our analysis would be unable to detect think tanks' long-run relationship to policy even if that relationship existed and were important. While we wouldn't expect think tanks to display a detectable relationship to current economic policy in this case, they may nonetheless display a detectable relationship to citizens' attitudes about the role of government vs. markets in public policy. Think tank activity should have shifted those attitudes, even though not sufficiently at this stage to be manifested in policy.

To investigate this possibility we consider think tanks' relationship to citizens' attitudes toward government vs. markets. We use questions from the *General Social Surveys* (2009) that ask respondents their opinions about government's relationship to the economy. We find that where SBFM think tank spending is higher, citizens have measurably more "pro-market" attitudes toward economic policy. These results suggest that if think tanks' connection to economic policy is important at all, its importance may be long term and operate via the channel of "ideas."

In contrast to think tanks, we find evidence that political lobby groups are associated with current policy. Special interest groups' stronger association with current policy may stem from the fact that, unlike think tanks, these groups are able to influence economic policy directly by lobbying policymakers. Special interest groups aren't legally barred from lobbying activity, as think tanks are. Thus they don't need to engage in a long-run "battle of ideas" to secure desired policy outcomes.

Our empirical analysis is only a first step in better understanding whether and how think tanks may be associated with economic policies and institutions. It precludes causal inferences and is unavoidably limited by the nature of the data that are available. Still, the basic relationships (or lack thereof) our analysis finds provide an important, initial glimpse into how think tanks may be connected to differences in economic policy and institutions across political economies.

2. Data and empirical strategy

2.1. Data

Think tanks are non-partisan, non-profit, research and educational organizations. The IRS classifies them as 501(c)(3) organizations. 501(c)(3) organizations are tax exempt. To secure 501(c)(3) status the IRS requires that an organization "not attempt to influence legislation as a substantial part of its activities and" stipulates that "it may not participate in any campaign activity for or against political candidates" (IRS, 2007). Thus, in contrast to lobby groups, think tanks are legally prohibited from traditional lobbying activities and from providing any support to candidates for public office.

¹ A handful of books speculate broadly about think tanks' relationship to policy (see, Rich, 2006; Smith, 1993; Abelson, 2002; Ricci, 1993; Stefancic and Delgado, 1996). However, none analyze think tanks' relationship to public policy empirically and all focus on national rather than state-based think tanks.

² The literature in comparative political economy that explores such differences across countries is voluminous. See, for instance, Gwartney et al. (1999), Glaeser et al. (2004), Gwartney and Lawson (2004), Gwartney et al. (2004, 2006a,b), Lawson (2007), Stroup (2007, 2008), Sobel (2008), Hall et al. (forthcoming), Coyne and Sobel (2010), Sobel and Coyne (forthcoming). A smaller literature examines related issues in the context of the American States. See, for instance, Besley and Case (2003), Kreft and Sobel (2005), Ashby and Sobel (2008), Karabegovic et al. (2004).

This doesn't prevent think tanks from potentially influencing the policy environment in other ways. For example, by criticizing or endorsing policies closely associated with particular candidates, think tanks may influence the electoral process and politicians' platforms. However, even in this case, think tanks' potential influence on economic policy is indirect and operates primarily through affecting citizens' ideas about the appropriate role of government in economic affairs. By conducting and publishing research studies, editorials, and disseminating their views and specific policy suggestions through other forms of media, SBFM think tanks aim to shift public opinion—to inform and persuade elected officials and citizens in their states of the correctness and desirability of their policy prescriptions.

Our analysis uses panel data for the US states from 1997 to 2009. To estimate SBFM think tanks' relationship to economic policy we need a measure of their activity. The number of "products" created or disseminated by each SBFM think tank is one possibility. However, this is difficult to measure since what constitutes a unit of "product" is unclear and the quality of product may vary substantially across think tanks. For this reason we seek a more objective, comparable, and easily measured unit of think tank activity. Annual think tank spending provides such a metric.

To construct this variable we collect data on SBFM think tanks' finances from the IRS. Because of their 501(c)(3) status, SBFM think tanks must file a Form 990 to the IRS reporting their annual revenues and expenditures. Under federal law these tax forms are public information. We use them to create our measure of SBFM think tank activity.

To create our key independent variable we also require data on the location of each SBFM think tank filing the Form 990. We get these data from the State Policy Network. The State Policy Network is a professional service organization that acts as a central hub connecting all SBFM think tanks in the country. We exclude a small number of think tanks that are primarily interested in policy objectives unrelated to the economy. For example, we exclude "family values" think tanks, which are right-leaning but aren't focused on promoting economic freedom in their states. Our final sample contains 51 think tanks located in 45 states. Table A5 in the Appendix lists each of the think tanks in our sample, the states they're located in, and the years of their founding.³

After constructing these datasets we tabulate the total expenditures made by all SBFM think tanks in each state in each year and divide this number by state population (in thousands). The resulting variable measures annual SBFM think tank spending per 1000 residents in each state for each year in our sample.

To investigate think tanks' relationship to state-level economic policy we consider a range of dependent variables. We select our dependent variables by examining SBFM think tanks' mission statements. These mission statements identify their organizations' policy objectives. Particular policy emphases vary across SBFM think tanks. However, the broad objectives they identify are similar. Every SBFM think tank mission statement we looked at highlighted the goal of limiting government's size and role and enhancing the private sector's role in their state.

For example, according to the mission statement of The Buckeye Institute for Public Policy Solutions in Ohio, the Institute's goal is to "analyze state and local government programs, taxes, and regulations in Ohio and offer policy alternatives consistent with a respect for individual liberty, private property and limited government." According to the mission statement of the Commonwealth Foundation of Pennsylvania, "The purpose of The Commonwealth Foundation is to be the vanguard of freedom and conscience of liberty in the state of Pennsylvania. The mission of The Commonwealth Foundation is to improve the quality of life for all Pennsylvanians by advancing public policies based on the principles of limited government, economic freedom, and individual responsibility." Similarly, the Oklahoma Council of Public Affairs describes its mission as follows: "OCPA's mission is to accumulate, evaluate, and disseminate public policy ideas and information for Oklahoma consistent with the principles of free enterprise, limited government, and individual initiative." Sometimes, though not always, specific issues receive special attention. For instance, the Arkansas Policy Foundation's mission statement points specifically to issues of taxes and education as areas it hopes to influence in the direction of free-market reform.

On the basis of SBFM think tanks' mission statements we collect data for eight economic policy variables. These policies fall into three general categories: tax policy, government spending policy, and privatization policy. For tax policy we consider sales tax rates, state-level bottom marginal income-tax rates, and state-level top marginal income-tax rates. For government spending we consider total government spending per capita, education spending per capita, and public welfare spending per capita. Finally, to measure think tank spending's relationship to privatization we consider the number of state-level public employees (per 1000 residents) and level of public employee wages. These variables are imperfect proxies for privatization. But they provide a reasonable measure of how many activities government vs. the private sector undertakes in each state. We collect data for each of these variables from the *Book of the States*. Table A4 in Appendix provides summary statistics for all our variables.

2.2. Empirical approach

Our empirical strategy is straightforward. We search for think tanks' relationship to economic policy by exploiting variation across states and over time. To do so we estimate the following two-way fixed effects model with standard errors that are robust to clustering by state:

³ California is the only state without a SBFM think tank in our data and thus the only state our analysis excludes. California contains a state-branch of a nationally oriented, free-market think tank (Freedom Works). However, the information this think tank provides to the IRS relates to the national organization's spending rather than to the spending of its state-based, California branch. California also contains a regionally oriented, free-market think tank (the San Diego Institute for Policy Research). However, this think tank's focus is policy in San Diego County rather than in the state of California.

$$\text{Economic policy}_{i,t} = \alpha + \beta \text{Think tank spending}_{i,t-j} + \phi_t + \varphi_i + \varepsilon_{i,t} \quad (1)$$

where $\text{Economic policy}_{i,t}$ is one of the economic policy measures discussed above for state i in year t ; $\text{Think tank spending}_{i,t-j}$ measures SBFM think tank spending per thousand residents in state i in year $t-j$; and $\varepsilon_{i,t}$ is a random error term.

We include a comprehensive set of year-specific fixed effects (ϕ_t) to control for any unobserved features that are constant across states but change over time, which might affect the economic policy variables we consider. We also include a comprehensive set of state-specific fixed effects (φ_i) to control for any unobserved permanent differences across states that may help explain the differences in their political-economic climates. If the policies SBFM think tanks seek to influence are more “pro-market” where think tanks are more active, our coefficient of interest, β , should be negative and significant.

It's important to lag our think tank expenditures variable. If think tank activity influences policy, it will take some time for this activity to translate into outcomes. No think tank activities could be expected to have immediate policy effects. Scholarly studies, popular writings, educational seminars, and media appearances take time to shape policy if they do so at all. Some of these activities may also have cumulative effects in shifting the public's opinions. Think tank spending started 3 years ago combined with think tank spending 2 years ago and 1 year ago may slowly move the center of opinion on a particular issue over these 3 years, surpassing some critical threshold only in the fourth year, and finally catalyzing political movement toward reform for that issue.

Further, the policy reform process takes time. Government decision making and policy implementation can move notoriously slowly. Tax cuts, spending reductions, and so forth don't appear immediately even when policymakers have decided to shift economic policy in this direction.

Unfortunately, knowing that we need to lag our think tank expenditures variable doesn't tell us the appropriate lag structure to use. Further, the appropriate lag structure may be different for different policies. Some policy areas may be quicker or easier to influence. Because of this, our model doesn't impose a specific lag structure on the relationship between think tank spending and the various economic policies that think tanks seek to affect. Instead we let the data tell us about this lag structure by considering specifications that use different length lags for our independent variable of interest. We try lagging think tank expenditures 1, 2, 3, and 4 years.

An important limitation of our empirical model is the potential for endogeneity. SBFM think tanks may locate in states that exhibit more “pro-market” policies or institutions since this may be where supporters interested in starting them and potential bases of donor money for their operations are more prevalent. Ideally an instrumental variables approach could remove potential endogeneity. We experimented with several potential instruments. But we confronted the same problem in each case: poor fit of the first stage. Because we can't rule endogeneity out, it's important to use caution when interpreting our results. Our analysis is able to identify correlations between think tank activity and economic policies. But it's unable to identify causal relationships.

3. Think tanks and economic policy at a glance

A casual look at the data points to a possible connection between think tank activity and the “pro-marketness” of states' economic policy. Fig. 1 illustrates the relationship between states' average SBFM think tank expenditures between 1997 and 2002 and their overall level of economic freedom between 2003 and 2007 using the Fraser Institute's *Economic Freedom of North America* index. This index measures the overall extent of government involvement vs. reliance on the private-sector in organizing economic activities in state-level economic affairs.

The data depict a positive relationship. States with higher think tank expenditures are more economically free than those with less think tank expenditures. But the strength of this relationship appears to be modest.

The pattern in Fig. 1 doesn't control for the many other factors besides think tank activity that could contribute to the observed relationship. When those factors are accounted for, the modest positive relationship in this figure could weaken

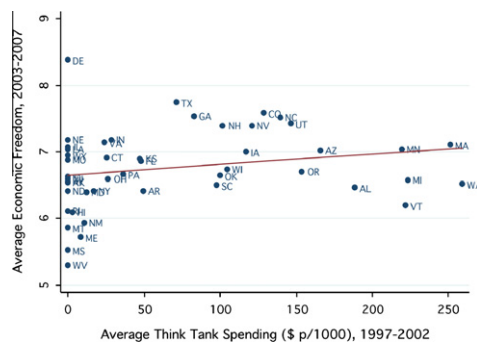


Fig. 1. Think tanks and economic freedom. Source: *Economic Freedom of North America Dataset* (2010) and IRS.

or get stronger. To investigate think tanks' connection to economic policy, we therefore need to econometrically isolate the relationship between SBFM think tank spending and the specific policy objectives SBFM think tanks want to influence. We turn to this task below.

4. Think tanks and economic policy

Table 1 examines SBFM think tanks' relationship to tax policy. It considers the sales tax rate, bottom marginal state income-tax rate, and top marginal state income-tax rate. The top panel in Table 1 presents our results for sales taxes.

Think tank spending is significant in two of our four sales-tax specifications. But its sign is inconsistent. In the specification that lags think tank spending 1 year, more think tank spending is associated with lower sales tax rates. In the specification that lags think tanks spending 2 years, more think tank spending is associated with higher sales tax rates. SBFM think tanks have a possible connection to sales tax policy. But that connection is unclear.

In this table and our subsequent ones we provide three points of comparison for think tanks' relationship, or lack of relationship, to our policy of interest. We estimate the same regression we use for think tank spending. But in place of think tank spending we include "tax lobby" spending, "liberal lobby" spending, and "conservative lobby" spending to measure the connection between economic policy and special interest money given by tax, liberal, and conservative lobbyists to politicians to affect that policy.

Table 1
Think tanks and tax policy.

	1 1-year lag	2 2-year lag	3 3-year lag	4 4-year lag
<i>Sales tax rate</i>				
Think tank spending (\$ p/1000)	–0.00087*** (0.00034)	0.00072* (0.00042)	0.00020 (0.00061)	–0.00031 (0.00062)
Observations	549	502	453	406
R-squared	0.19	0.18	0.17	0.17
Tax lobby spending (\$ p/1000)	–0.00020 (0.00034)	–0.00370** (0.00016)	–0.00049*** (0.00019)	0.00016 (0.00011)
Observations	129	111	108	82
R-squared	0.25	0.22	0.24	0.19
Liberal lobby spending (\$ p/1000)	–0.00010 (0.00006)	–0.00006 (0.00005)	0.00004 (0.00011)	–0.00006 (0.00004)
Observations	280	236	228	181
R-squared	0.22	0.26	0.23	0.26
Conservative lobby spending (\$ p/1000)	–0.00010* (0.00005)	–0.00011 (0.00007)	–0.00080 (0.00008)	–0.00002 (0.00010)
Observations	273	230	222	175
R-squared	0.20	0.24	0.22	0.22
<i>Bottom marginal income-tax rate</i>				
Think tank spending (\$ p/1000)	–0.00040 (0.00044)	–0.00020 (0.00072)	–0.00020 (0.001110)	–0.00200 (0.00194)
Observations	549	502	453	406
R-squared	0.02	0.02	0.02	0.05
Tax lobby spending (\$ p/1000)	0.00011 (0.00028)	–0.00016 (0.00027)	–0.00009 (0.00030)	0.00004 (0.00012)
Observations	129	111	108	82
R-squared	0.07	0.10	0.11	0.05
Liberal lobby spending (\$ p/1000)	–0.00014 (0.00012)	–0.00010 (0.00014)	–0.00020 (0.00013)	–0.00007 (0.00014)
Observations	280	236	228	181
R-squared	0.02	0.04	0.03	0.03
Conservative lobby spending (\$ p/1000)	0.00020 (0.00014)	0.00020 (0.00019)	0.00020 (0.00024)	–0.00020 (0.00023)
Observations	273	230	222	175
R-squared	0.02	0.04	0.02	0.04
<i>Top marginal income-tax rate</i>				
Think tank spending (\$ p/1000)	–0.00090 (0.00092)	–0.00170 (0.00138)	–0.00300 (0.00201)	–0.00400 (0.00360)
Observations	549	502	453	406
R-squared	0.02	0.04	0.03	0.05
Tax lobby spending (\$ p/1000)	–0.00036 (0.00071)	–0.00021 (0.00045)	0.00103 (0.00085)	0.00020 (0.00033)
Observations	129	111	108	82
R-squared	0.05	0.11	0.08	0.06
Liberal lobby spending (\$ p/1000)	–0.00001 (0.00076)	–0.00030 (0.00028)	–0.00006 (0.00035)	–0.00008 (0.00024)
Observations	280	236	228	181
R-squared	0.02	0.06	0.04	0.08
Conservative lobby spending (\$ p/1000)	–0.00053 (0.00037)	–0.00060 (0.00052)	–0.00050 (0.00065)	0.00023 (0.00056)
Observations	273	230	222	175
R-squared	0.04	0.04	0.03	0.05

Notes: OLS (robust standard errors clustered by state in parentheses) with state and year fixed effects.

* 10%.

** 5%.

*** 1%.

Our lobbying data are from Followthemoney.org, a political-donor watchdog organization. These data measure total donations given to state-level political candidates in primary and general elections. Followthemoney.org collects these data from the state disclosure agencies that candidates must file campaign finance reports with. It then assigns political donors an economic interest code modeled on the designations the federal government uses to classify industry groups.

To construct our lobby spending variables we consider political donations from groups that Followthemoney.org codes as “ideology/single issue” donors. Our tax lobby spending variable uses donations given to state-level politicians by groups that Followthemoney.org identifies as interested in “tax issues.” Our liberal lobby spending variable uses donations given to state-level politicians by groups that Followthemoney.org identifies as “liberal policy organizations,” “Democratic-based,” and “generic liberal/progressive” groups (though not official party committees). Our conservative lobby spending variable uses donations given to state-level politicians by groups that Followthemoney.org identifies as “conservative policy organizations,” “Republican-based,” and “generic conservative” groups (though not official party committees). Our lobby spending variables are in the same units as our think tank spending variable (\$ per 1000 residents). Thus the relationships between lobby vs. think tank spending and policy are directly comparable.

The estimates in Table 1 suggest that political lobby spending has a stronger connection to the sales taxes than think tank spending. Tax lobby spending is significant twice. And conservative lobby spending is significant once. In each of these cases tax or conservative lobby spending is associated with lower sales taxes. Liberal lobby spending is never significant.

The middle panel in Table 1 considers the relationship between think tank spending and the bottom marginal state income-tax rate. Here think tank spending exhibits a consistent negative relationship with tax rates. But that relationship is never significant. Political lobby spending is also insignificantly related to states’ bottom marginal income-tax rates regardless of the type of lobby spending or the specification one considers.

The bottom panel in Table 1 examines the relationship between think tank spending and the top marginal state income-tax rate. The pattern here is the same as above. Think tank spending’s relationship to states’ top marginal income-tax rates is always negative but never significant. Political lobby spending’s relationship to those tax rates is always insignificant too.

The results in Table 1 suggest that SBFM think tanks’ relationship to tax policy is at best extremely weak. Further, where think tank spending appears to matter at all, its relationship to tax policy is less important than various lobbying groups’ spending.⁴

Table 2 investigates the connection between think tank spending and government spending policy. Think tanks appear to be even less important for government spending policy than they are for tax policy. The top panel of this table considers total state-level government expenditures per capita. The middle panel looks at state-level government spending on education. The bottom panel of this table explores state-level government spending on welfare.

Think tank spending is negatively related to total government spending and spending on education in most specifications, but never significantly so. Think tank spending is positively related to welfare spending in most specifications. But this relationship is insignificant too.

Similar to what we find in the case of tax policy, political lobby group spending exhibits a stronger relationship to government spending policy than think tank spending. Tax lobby spending has a consistently negative relationship to total government spending. And in the specification that lags tax lobby spending 3 years, this relationship is significant. Conservative lobby spending’s relationship to total government spending is inconsistent. But in the single specification in which that relationship is significant, it’s also negative. In states where tax and conservative lobby groups spend more money, total government spending is lower.

Tax lobby spending is significantly related to government spending on education. But that relationship is inconsistent. In the specification that lags tax lobby spending 2 years, this relationship is negative. However, in the specification that lags tax lobby spending 4 years, its relationship to government spending on education is positive.

Both tax and conservative lobby spending are consistently associated with lower government spending on welfare. For both types of lobby spending, that relationship is significant in the specifications that lag lobby spending 3 and 4 years. In states where tax and conservative lobby groups spend more money, government spending on welfare is lower.

Looking at government spending on welfare we also find that liberal lobby spending is significant for the first time. In the specification that lags liberal lobby spending 1 year, more liberal lobby spending is associated with more government spending on welfare.

The results in Table 2 largely echo those in Table 1. SBFM think tanks’ relationship to government spending policy is weak-to-nonexistent. Political lobby groups’ relationship to government spending policy is considerably stronger.

Table 3 explores think tanks’ relationship to state-level privatization policy. To get at this we consider the connection between think tank spending and the number of state-level government employees (per 1000 residents) and the level of state public employee wages. We find the same basic (non-)results for think tanks that we find in Tables 1 and 2: think tanks don’t seem to matter for current policy.

⁴ Some states have no sales tax. Others have no income tax. Our state fixed effects should account for this. However, to be certain that such states aren’t influencing our tax policy results, we reran the regressions in Table 1 including a dummy for states without sales taxes and a dummy for states without income taxes. With one exception, the results are nearly identical to when we don’t include these dummies. The exception is this: the coefficient on think tank spending in the specification that considers bottom marginal income-tax rates and lags think tank spending one year becomes positive and significant at the 10% level.

Table 2

Think tanks and government spending policy.

	1 1-year lag	2 2-year lag	3 3-year lag	4 4-year lag
<i>Total government spending (\$ p/c)</i>				
Think tank spending (\$ p/1000)	0.20303 (0.51322)	−0.50505 (0.52939)	−0.38412 (0.53769)	−0.30704 (0.58063)
Observations	549	502	453	406
R-squared	0.78	0.77	0.76	0.75
Tax lobby spending (\$ p/1000)	−0.35780	−0.31781	−0.43119**	−0.01164
Observations	(0.32663) 129	(0.25836) 111	(0.21155) 108	(0.19462) 82
R-squared	0.87	0.88	0.89	0.88
Liberal lobby spending (\$ p/1000)	0.0314 (0.11828)	−0.00279 (0.21743)	0.14357 (0.21440)	−0.00823 (0.10843)
Observations	280	236	228	181
R-squared	0.74	0.77	0.74	0.79
Conservative lobby spending (\$ p/1000)	0.18486 (0.17851)	−0.20489*** (0.07149)	−0.13344 (0.08941)	0.07625 (0.12493)
Observations	273	230	222	175
R-squared	0.81	0.80	0.79	0.82
<i>Government spending on education (\$ p/c)</i>				
Think tank spending (\$ p/1000)	0.01360 (0.21655)	−0.26075 (0.18724)	−0.2595 (0.21221)	−0.31802 (0.26001)
Observations	549	502	453	406
R-squared	0.86	0.84	0.83	0.81
Tax lobby spending (\$ p/1000)	−0.05588 (0.94990)	−0.21066*** (0.05537)	−0.12454 (0.09710)	0.29366*** (0.09798)
Observations	129	111	108	82
R-squared	0.80	0.85	0.82	0.79
Liberal lobby spending (\$ p/1000)	−0.02005 (0.03568)	0.03989 (0.03568)	0.03177 (0.07276)	−0.03848 (0.04401)
Observations	280	236	228	181
R-squared	0.80	0.88	0.79	0.82
Conservative lobby spending (\$ p/1000)	−0.02834 (0.03152)	−0.05966 (0.03847)	−0.05645 (0.06237)	−0.04027 (0.05265)
Observations	273	230	222	175
R-squared	0.85	0.88	0.84	0.87
<i>Government spending on welfare (\$ p/c)</i>				
Think tank spending (\$ p/1000)	−0.06205 (0.24231)	0.01944 (0.29516)	0.06962 (0.27792)	0.25572 (0.20122)
Observations	549	502	453	406
R-squared	0.82	0.80	0.78	0.76
Tax lobby expenditures (\$ p/1000)	−0.19567 (0.24669)	−0.19518 (0.12451)	−0.23259* (0.13122)	−0.41538*** (0.10026)
Observations	129	111	108	82
R-squared	0.83	0.81	0.79	0.73
Liberal lobby spending (\$ p/1000)	0.07145* (0.03959)	0.01419 (0.06224)	−0.02349 (0.06949)	−0.03917 (0.04419)
Observations	280	236	228	181
R-squared	0.82	0.81	0.78	0.78
Conservative lobby spending (\$ p/1000)	−0.02478 (0.02740)	−0.01075 (0.04015)	−0.06095* (0.03338)	−0.08561*** (0.02658)
Observations	273	230	222	175
R-squared	0.82	0.80	0.78	0.74

Notes: OLS (robust standard errors clustered by state in parentheses) with state and year fixed effects.

* 10%.

** 5%.

*** 1%.

The top panel of Table 3 looks at the number of full-time government employees. Think tank spending's coefficient is negative in all regressions. But it's never significant.

The bottom panel in this table looks at the relationship between think tanks and average state-level government employee wages. Think tank spending's coefficient is positive in all regressions. But, again, it's never significant. Think tanks appear to be unimportant for state-level privatization policy.

In contrast, political lobby spending's relationship to state-level economic policy again appears stronger. In addition to our tax, liberal, and conservative lobby spending variables, in Table 3 we consider two further lobby spending variables that are especially appropriate in the case of privatization policy. Followthemoney.org classifies one of these variables as "public union" lobby expenditures. It classifies the other as "trade union" lobby expenditures. The public union lobby spending variable includes donations to state-level political candidates by federal, state, and local employee unions, police and fire fighters unions and associations, teachers unions, and US Postal Service unions and associations. The trade union lobby spending variable includes donations from state-level political candidates by general trade unions, communications and hi-tech unions, construction unions, electrical workers, entertainment unions, food service and related unions, general commercial unions, health worker unions, labor unions, manufacturing unions, mining unions, and retail trade unions.

Conservative and public union lobby spending are significant correlates of the number of government employees. In the specification that lags lobby spending 3 years, conservative lobby spending is associated with significantly fewer government employees. In the specification that lags public union lobby spending 4 years, public union lobby spending is associated with significantly more government employees.

Table 3

Think tanks and privatization policy.

	1 1-year lag	2 2-year lag	3 3-year lag	4 4-year lag
<i>Number of government employees (p/1000)</i>				
Think tank spending (\$ p/1000)	–0.00332 (0.00256)	–0.00429 (0.00328)	–0.00425 (0.002914)	–0.00352 (0.00231)
Observations	549	502	453	406
R-squared	0.77	0.78	0.79	0.79
Tax lobby spending (\$ p/1000)	0.00032 (0.00070)	–0.00055 (0.00091)	–0.00056 (0.00057)	0.00043 (0.00116)
Observations	129	111	108	82
R-squared	0.86	0.84	0.85	0.85
Liberal lobby spending (\$ p/1000)	–0.00026 (0.00028)	–0.00049 (0.00032)	–0.00036 (0.00044)	0.00009 (0.00059)
Observations	280	236	228	181
R-squared	0.81	0.80	0.84	0.84
Conservative lobby spending (\$ p/1000)	–0.00016 (0.00016)	–0.00020 (0.00031)	–0.00054* (0.00029)	–0.00024 (0.00024)
Observations	273	230	222	175
R-squared	0.78	0.78	0.80	0.80
Public union lobby spending (\$ p/1000)	–0.00007 (0.00015)	–0.00032 (0.00034)	–0.000001 (0.00025)	0.00037* (0.00022)
Observations	327	279	268	222
R-squared	0.79	0.79	0.80	0.80
Trade union lobby spending (\$ p/1000)	0.00033 (0.00033)	0.00048 (0.00072)	0.00027 (0.00090)	0.00020 (0.00100)
Observations	328	281	270	223
R-squared	0.79	0.79	0.80	0.80
<i>Government employee wages (\$)</i>				
Think tank spending (\$ p/1000)	0.00816 (0.00816)	0.00072 (0.01107)	0.00152 (0.01433)	0.00518 (0.01707)
Observations	549	502	453	406
R-squared	0.78	0.78	0.79	0.79
Tax lobby spending (\$ p/1000)	0.00335 (0.00275)	0.00371 (0.00256)	–0.00103 (0.00380)	0.00873*** (0.00246)
Observations	129	111	108	82
R-squared	0.88	0.88	0.86	0.88
Liberal lobby spending (\$ p/1000)	0.00090 (0.00172)	0.00080 (0.00275)	0.00121 (0.00210)	0.00095 (0.00202)
Observations	280	236	228	181
R-squared	0.81	0.82	0.82	0.86
Conservative lobby spending (\$ p/1000)	0.00179 (0.00216)	–0.00169 (0.00114)	–0.00232* (0.00124)	–0.00219* (0.00129)
Observations	273	230	222	175
R-squared	0.81	0.80	0.79	0.83
Public union lobby spending (\$ p/1000)	0.00016 (0.00062)	–0.00091 (0.00084)	–0.00010 (0.00100)	–0.00083 (0.00095)
Observations	327	279	268	222
R-squared	0.78	0.80	0.78	0.82
Trade union lobby spending (\$ p/1000)	0.00144 (0.00224)	0.00385 (0.00330)	0.00913* (0.00537)	0.00531 (0.00476)
Observations	328	281	270	223
R-squared	0.78	0.80	0.79	0.82

Notes: OLS (robust standard errors clustered by state in parentheses) with state and year fixed effects.

* 10%.

** 5%.

*** 1%.

Tax, conservative, and trade union lobby spending are each significant correlates of government employee wages. In the specification that lags lobby spending 4 years, tax lobby spending is significantly but positively related to government employee wages. In the specifications that lag lobby spending 3 and 4 years, conservative lobby spending is significantly and negatively related to government employee wages. And in the specification that lags lobby spending 3 years, trade union lobby spending is significantly and positively related to government employee wages.

Similar to Tables 1 and 2, the results in Table 3 suggest that think tank spending doesn't matter for privatization policy but that some types of political lobby spending do.

To ensure the robustness of our results, in Tables A1–A3 (available in Appendix) we perform sensitivity analyses for each of the policies considered in Tables 1–3. To conserve space we report only the coefficients and standard errors for our variable of interest: SBFM think tank spending.

We consider three robustness checks. First, we rerun all our regressions controlling for GSP per capita using data from the *Book of the States*. Next we try controlling for the percentage of the state legislature that's Republican. Finally, we try controlling for the percentage of the state legislature that's Republican and for an undivided Republican government by including a binary variable that equals one when a state's governor and the majority of the state legislature are Republican and zero otherwise. We exclude these controls from our benchmark regressions because of the obvious endogeneity problem they present. We include them here only as robustness checks.

Table A1 examines think tank spending's relationship to tax policy including our new controls. We find stronger evidence of a connection between think tank spending and sales tax policy with these controls than we find without them. In all

specifications think tank spending is associated with lower sales taxes. Most important, in three specifications that association is significant.

The results for think tank spending's relationship to bottom marginal income-tax rates are similar to before. Think tank spending's coefficient is sometimes positive and sometimes negative in these regressions. But it's never significant.

In the case of top marginal income-tax rates, we find that when we include our additional controls the coefficient on think tank spending is always negative. But similar to when we look at bottom marginal income-tax rates, that coefficient is never significant.

Table A2 considers government spending policy including our new controls. Here we find similar (non-)results to when we don't include these variables. Think tank spending's relationship to government spending policy is significant in only one specification: that which looks at government spending on education, controls for the percentage of the legislature that's Republican, and lags think tank spending 2 years. In this regression think tank spending is associated with significantly lower government spending on education. But in every other regression in this table, think tank spending is insignificantly related to government spending policy.

Finally, Table A3 examines think tank spending's relationship to privatization policy using our new controls. We find the same basic (non-)result we find when we don't include these variables. None of our robustness checks that look at privatization policy yield statistically significant coefficients for think tank spending.

The results of our sensitivity analysis support the primary finding of our benchmark regressions. SBFM think tank spending has at best a very weak "pro-market" relationship to current, state-level economic policy. That relationship seems to be strongest when it comes to tax policy and sales taxes in particular. Though, even here, the evidence is thin.

5. Think tanks and attitudes toward the market

The foregoing results suggest that SBFM think tank spending's connection to economic policy is at best weak and certainly weaker than political lobby spending's relationship to policy. However, it would be hasty to conclude from these results that think tanks are unambiguously unimportant for economic policy. Perhaps think tanks have an important relationship to economic policy, but that relationship is a very long term one and takes much time to manifest.

This possibility is consistent with notion that, unlike political lobby groups, which can lobby for policy change directly, for think tanks to influence policy they must engage in a long-run "battle of ideas." Legal prohibitions prevent think tanks from lobbying for political change directly. Thus to potentially influence economic policy, think tanks must shift public opinion.

Lagging think tank spending one, two, three, and even 4 years does little to help uncover a stronger relationship between think tank spending and economic policy. But since shifting public opinion—let alone shifting it sufficiently to catalyze policy change—is a process that may take decades instead of years, no lag structure we could create in the context of our 13-year panel could detect such a long-term relationship.

If this is the case, although it remains too early to observe the policy fruits of think tanks' public-attitude shifting, we might still be able to observe the seeds of those prospective fruits by looking at citizens' attitudes about the role of government vs. markets in public policy directly. Even though in states where think tanks have spent more money those states don't yet have measurably more "pro-market" economic policies, if citizens' attitudes are measurably more "pro-market" this would supply evidence in support of the possibility that think tanks do matter, but over a much longer term—one in which public attitudes have shifted sufficiently to create policy change.

To investigate this possibility we use citizens' answers to questions from the *General Social Surveys* (2009) that ask them their opinions about the proper role of government vs. the market. Based on citizens' responses to these questions we construct four indices that measure the public's attitude toward government and the market in each state.⁵

The first such "attitude index" we construct is a tax index. This index measures citizens' opinions about tax policy using their responses to nine questions about tax policy.⁶ For instance, one question asks whether it would be better for government to reduce taxes or increase spending. Another asks whether, overall, taxes are too high, about right, or too low. A third asks whether wealthier people should pay a smaller or larger share of their income in taxes than poorer people, and so on. We code respondents' answers to these questions from 0 to 1 where 1 represents the most "pro-market" (or least "pro-government") response possible and 0 represents the least "pro-market" (or most "pro-government") response possible. Our Tax Attitudes Index reflects the average respondent's score on these questions in each state.

As indicated above, public attitudes and opinions, especially about government's role in the economy, change very slowly (see, for instance, Brace et al., 2002; Hoffman, 2009). Unsurprisingly, then, we find little year-to-year variation in citizens' responses to our questions about the role of government vs. the market—too little variation to exploit using a panel. However, there's enough cross-sectional variation to examine how attitudes may vary depending on think tank activity across states. To explore this relationship we estimate the following equation:

$$\text{Tax Attitudes Index}_i = \alpha + \beta \text{Think tank spending}_i + \varepsilon_i \quad (2)$$

⁵ The GSS data we use are proprietary and were purchased from the National Opinion Research Center at the University of Chicago. GSS data are publicly available at the national, but not state, level, which we required and thus purchased.

⁶ Descriptions of all the questions we use for the Tax Attitudes Index are available in Appendix.

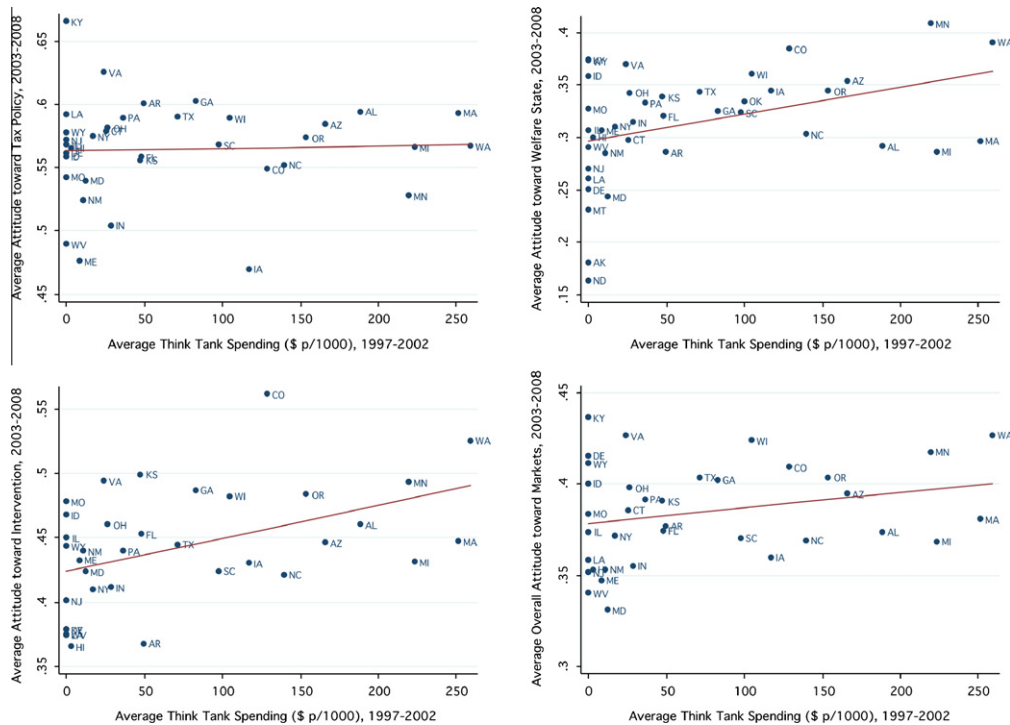


Fig. 2. Think tanks and attitudes toward markets vs. government. Source: *General Social Surveys* (2009) and IRS.

where Tax Attitudes Index_{*i*} measures the average citizen's attitude toward tax policy in state *i* for the 6-year period 2003–2008. Think tank spending_{*i*} measures average SBFM think tank expenditures per 1000 residents in state *i* in the preceding 6-year period, which covers 1997–2002. ε_i is a random error term. If citizens' thinking about tax policy is more “pro-market” where SBFM think tanks are more active, the coefficient on our variable of interest, β , should be positive and significant.

Fig. 2 presents a series of scatterplot diagrams that depict the connection between think tank activity and citizens' attitudes about markets vs. government along various policy dimensions in the raw data. The upper-left graph of Fig. 2 illustrates the relationship between think tank spending and citizens' opinions about tax policy. It plots states' average SBFM think tank spending for the period 1997–2002 against their average Tax Attitudes Index score for the subsequent period, 2003–2008. The data depict a very slightly positive, but nearly nonexistent, relationship. More think tank spending doesn't appear to be associated with more “pro-market” attitudes toward tax policy. This (non-)relationship is confirmed in the top panel of Table 4, which presents our results estimating Eq. (2). Think tank spending's coefficient is positive but insignificant.

Next we consider the connection between think tank spending and citizens' attitudes toward welfare policy. To do this we construct a Welfare Attitudes Index using questions from the *General Social Surveys*. Our Welfare Attitudes Index is composed of citizens' answers to 10 questions that ask their opinions about various matters relating to government provision of health, unemployment, and retirement benefits.⁷ For instance, one question asks whether it's government's duty to provide for the unemployed. Another question asks whether it's government's duty to provide citizens healthcare. A third question asks whether government should spend more or less on social security, and so on. Like our Tax Attitudes Index, our Welfare Attitudes Index considers state residents' average score on these questions for the period 2003–2008.

The upper-right graph in Fig. 2 depicts the relationship between SBFM think tank spending and citizens' attitudes toward welfare policy. It plots states' average think tank spending (1997–2002) and average Welfare Attitudes Index scores (2003–2008). The data suggest a strong, positive relationship. More think tank spending appears to be associated with significantly more “pro-market” attitudes toward welfare policy. This is confirmed in the second panel in Table 4, which replaces our Tax Attitudes Index in Eq. (2) with the Welfare Attitudes Index. Think tank spending's relationship to citizens' attitudes about welfare is positive and significant. Where think tanks spent more money between 1997 and 2002, citizens had more “pro-market” attitudes toward welfare policy between 2003 and 2008. Think tank spending explains 15% of the variation in the average citizen's attitudes toward welfare across states.

The third set of citizen policy opinions we consider concerns government intervention into markets. Is there evidence that citizens' ideas about the desirability of using intervention to achieve various policy goals, as opposed to leaving markets

⁷ Descriptions of all the questions we use for the Welfare Attitudes Index are available in Appendix.

Table 4

Think tanks and attitudes toward markets vs. government.

	<i>Tax attitudes index</i>
Think tank spending (\$ p/1000)	0.00002 (0.00007)
Observations	36
R-squared	0.02
	<i>Welfare attitudes index</i>
Think tank spending (\$ p/1000)	0.00026** (0.00011)
Observations	40
R-squared	0.15
	<i>Intervention attitudes index</i>
Think tank spending (\$ p/1000)	0.00026*** (0.00008)
Observations	35
R-squared	0.21
	<i>Overall attitudes index</i>
Think tank spending (\$ p/1000)	0.00009 (0.00005)
Observations	36
R-squared	0.06

Notes: OLS (robust standard errors clustered by state in parentheses).

Column (1): Dependent variables averaged 2003–2008 and think tanks averaged 1997–2002.

* 10%.

** 5%.

*** 1%.

alone to work by themselves, are connected to SBFM think tank activity? To answer this question we create an Intervention Attitudes Index that measures state residents' average scores on 11 questions related to government intervention into markets for the period 2003–2008.⁸ For example, one question asks whether government should or shouldn't control prices. Another question asks whether government should regulate business more or less. A third asks whether government should shorten the work week to create jobs, and so on.

The lower-left graph in Fig. 2 plots states' average SBFM think tank spending against their average Intervention Attitudes Index scores for the same periods as our previous figures. Here, too, we find a strong and positive relationship. Higher think tank spending appears to be associated with considerably more “pro-market” attitudes toward government intervention.

The third panel in Table 4 examines this relationship econometrically. As the pattern in the diagram suggests, think tank spending's relationship to citizens' attitudes about markets vs. government in this area is positive and significant. In states that had higher average SBFM think tank spending between 1997 and 2002, the average citizen has more “pro-market” views about government intervention into the economy over the period 2003–2008. Think tank spending explains 21% of the variation in the average citizen's attitudes toward government intervention across states.

The final relationship between SBFM think tanks and the public's opinions of various economic policies that we consider is citizens' overall attitudes toward government vs. the market. To do this we create an Overall Attitudes Index by averaging states' scores on the Tax Attitudes, Welfare Attitudes, and Intervention Attitudes Indices. The lower-right graph in Fig. 2 illustrates how think tank spending is connected to citizens' overall attitudes toward government vs. the market using this index. The data depict a positive relationship but a weaker one than in the case of attitudes toward welfare and government intervention considered above.

The bottom panel in Table 4 confirms this relationship econometrically. Using the Overall Attitudes Index we find a positive but insignificant relationship between SBFM think tank spending and citizens' opinions about the desirability of relying on the market as opposed to government to guide economic activity.

The results in Table 4 must be treated with caution. Like our results on think tank spending and policies, they don't permit causal inference. Our analysis is based on only a cross section and the categories our attitude indices represent are crude. Still, these results may provide at least some reason for thinking that think tanks might matter for economic policy after all—or at least that they could—but that their potential import may be very long term. Where SBFM think tanks spend more money, citizens' attitudes about welfare and government intervention are significantly more “pro-market” than where SBFM think tanks spend less. It's conceivable, though far from conclusive, that by shifting public opinion on these dimensions in a “pro-market” direction, SBFM think tanks may be able to influence economic policy on these dimensions in a “pro-market” direction decades into the future.

6. Concluding remarks

Our analysis leads to several conclusions. First, economic policy doesn't appear to be significantly more “pro-market” on the dimensions that SBFM think tanks aim to influence where those think tanks are more active. The strongest evidence that think tanks may be related to economic policy is in the area of sales taxes. And this evidence remains weak.

⁸ Descriptions of all the questions we use for the Intervention Attitudes Index are available in Appendix.

However, our inability to find strong evidence that think tanks matter for economic policy may be related to the fact that, while think tanks' potential relationship to economic policy is very long term—on the order of decades instead of years—our panel data cover only 13 years. Since the channel through which think tanks could potentially influence economic policy is changing citizens' attitudes about the role of government vs. the market, and shifting those attitudes sufficiently to catalyze policy change is likely a long-term endeavor, this is plausible.

Our analysis of the relationship between SBFM think tank spending and citizen attitudes about government vs. the market provides at least some evidence in support of this possibility. We find evidence that think tanks are associated with more “pro-market” public attitudes. While far from definitive, these results provide caution against concluding from our main estimates that think tanks are clearly unimportant for economic policy. Still another reason cautioning against drawing this conclusion from those estimates is the fact that our empirical analysis supplies only correlations and is unable to support causal inferences.

Finally, compared to the consistently unimportant relationship between think tanks and economic policy that our analysis finds, it finds that special interest lobbying groups' relationship to economic policy is more important. Tax and conservative lobby spending in particular display a stronger relationship to economic policy in the same direction that think tanks desire and on some of same dimensions that think tanks desire to influence than think tank spending. Unlike think tanks, special interest groups are legally permitted to lobby for policy changes directly. These groups don't need to engage in a long-run “battle of ideas” aimed as public-opinion shifting to secure the policies they seek. Thus it's unsurprising that, in the short run at least, political lobby groups exhibit a stronger relationship to economic policy.

Our study considers think tanks as potential contributors to policy and institutional differences across the political economies in the American states. Besides seeking to overcome the limitations of our analysis in this context discussed above, future work should explore the potential role that free-market think tanks may play in driving policy and institutional differences across the national political economies of Central and Eastern Europe, Latin American, and elsewhere where free-market think tanks exist. Think tanks in these political economies likely confront different legal constraints and other conditions that may differently affect their ability to influence economic policies and institutions in the short and long run.

Table A1
Tax policy sensitivity analysis.

	1 1-year lag	2 2-year lag	3 3-year lag	4 4-year lag
<i>Sales tax rate</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c –0.00084** (0.00037)	–0.00082* (0.00042)	–0.00027 (0.00060)	–0.00033 (0.00061)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP –0.00090** (0.00034)	–0.00070 (0.00042)	–0.00018 (0.00062)	–0.00029 (0.00063)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't –0.00090* (0.00034)	–0.00070 (0.00042)	–0.00018 (0.00062)	–0.00029 (0.00063)
<i>Bottom marginal income-tax rate</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c 0.00042 (0.00044)	0.00011 (0.00112)	–0.00019 (0.00108)	–0.00184 (0.00190)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP 0.00042 (0.00047)	0.00014 (0.00075)	–0.00022 (0.00116)	–0.00191 (0.00199)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't 0.00042 (0.00047)	0.00014 (0.00075)	–0.00022 (0.00116)	–0.00189 (0.00197)
<i>Top marginal income-tax rate</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c –0.00090 (0.00092)	–0.00166 (0.00140)	–0.00257 (0.00198)	–0.00406 (0.00357)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP –0.00092 (0.00097)	–0.00180 (0.00138)	–0.00303 (0.00200)	–0.00473 (0.00360)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't –0.00092 (0.00098)	–0.00180 (0.00138)	–0.00300 (0.00200)	–0.00466 (0.00360)

Notes: OLS (robust standard errors clustered by state in parentheses) with state and year fixed effects. Top panel also controls for GSP per capita; middle panel also controls for% legislature Republican; bottom panel also controls for% legislature Republican and a binary variable equal to one if both the governor and legislature majority are Republican and zero otherwise.

* 10%.

** 5%.

*** 1%.

Table A2

Spending policy sensitivity analysis.

	1 1-year lag	2 2-year lag	3 3-year lag	4 4-year lag
<i>Total government spending (\$ p/c)</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c –0.05018 (0.35257)	–0.05258 (0.40412)	0.21392 (0.39372)	0.22636 (0.40337)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP 0.21845 (0.52350)	–0.55352 (0.49923)	–0.41331 (0.51898)	–0.31612 (0.58031)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't 0.20713 (0.51254)	–0.54231 (0.49917)	–0.39398 (0.52100)	–0.30326 (0.57726)
<i>Government spending on education (\$ p/c)</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c –0.05915 (0.11929)	–0.11059 (0.16403)	–0.10642 (0.18978)	–0.19075 (0.23009)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP –0.01129 (0.22338)	–0.28487* (0.17020)	–0.27824 (0.19952)	–0.33590 (0.24932)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't –0.00703 (0.21914)	–0.28179 (0.17085)	–0.27547 (0.19985)	–0.33337 (0.24760)
<i>Government spending on welfare (\$ p/c)</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c –0.08374 (0.24385)	0.07283 (0.30181)	0.13111 (0.27877)	0.32675 (0.19638)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP –0.04768 (0.22488)	–0.00961 (0.28491)	0.04312 (0.27145)	0.23964 (0.19928)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't –0.05354 (0.22494)	–0.00070 (0.28205)	0.06335 (0.26540)	0.25844 (0.19023)

Notes: OLS (robust standard errors clustered by state in parentheses) with state and year fixed effects. Top panel also controls for GSP per capita; middle panel also controls for% legislature Republican; bottom panel also controls for% legislature Republican and a binary variable equal to one if both the governor and legislature majority are Republican and zero otherwise.

* 10%.

** 5%.

*** 1%.

Table A3

Privatization policy sensitivity analysis.

	1 1-year lag	2 2-year lag	3 3-year lag	4 4-year lag
<i>Number of government employees (p/1000)</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c –0.00321 (0.00249)	–0.00472 (0.00336)	–0.00458 (0.00295)	–0.00376 (0.00229)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP –0.00338 (0.00270)	–0.00443 (0.00328)	–0.00438 (0.00289)	–0.00376 (0.00228)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't –0.00343 (0.00272)	–0.00438 (0.00328)	–0.00429 (0.00290)	–0.00349 (0.00228)
<i>Government employee wages (\$)</i>				
Think tank spending (\$ p/1000)	Controlling for GSP p/c 0.00485 (0.00729)	0.00832 (0.01012)	0.00945 (0.01317)	0.01226 (0.0153)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP 0.00867 (0.00834)	0.00033 (0.01020)	0.00122 (0.01345)	0.00515 (0.01644)
Think tank spending (\$ p/1000)	Controlling for% legislature GOP and unified GOP gov't 0.00843 (0.00820)	0.00056 (0.01018)	0.00149 (0.01349)	0.00515 (0.01647)

Notes: OLS (robust standard errors clustered by state in parentheses) with state and year fixed effects. Top panel also controls for GSP per capita; middle panel also controls for% legislature Republican; bottom panel also controls for% legislature Republican and a binary variable equal to one if both the governor and legislature majority are Republican and zero otherwise. * 10%; ** 5%; *** 1%.

Table A4

Summary statistics.

	Observations	Mean	Std. dev.	Min	Max
Think tank spending (\$ p/1000)	597	100.24	130.59	0.00	1449.73
Sales tax rate (%)	650	4.76	1.85	0.00	7.25
Bottom marginal income-tax rate (%)	650	2.09	1.68	0.00	6.00
Top marginal income-tax rate (%)	650	5.18	3.14	0.00	12.00
Total government spending (\$ p/c)	650	4420.64	1407.58	2525.81	14,168.52
Government spending on education (\$ p/c)	650	1516.09	445.02	531.97	3649.68
Government spending on welfare (\$ p/c)	650	1041.48	387.40	160.53	2399.97
Number of government employees (p/1000)	650	20.20	7.43	9.78	56.64
Government employee wages (\$)	650	59.79	24.03	32.64	195.68
Tax lobby spending (\$ p/1000)	133	25.54	70.56	0.01	637.28
Liberal lobby spending (\$ p/1000)	286	76.90	173.07	0.01	1582.95
Conservative lobby spending (\$ p/1000)	282	102.33	294.94	0.00	2332.43
Public union lobby spending (\$ p/1000)	336	235.91	397.27	0.00	4296.91
Trade union lobby spending (\$ p/1000)	338	165.08	212.95	0.09	2405.08
Percent legislature GOP	637	30.14	26.30	0.09	87.60
Unified GOP Government Dummy	637	0.28	0.45	0.00	1.00
Tax Attitudes Index	436	0.60	0.07	0.33	0.87
Welfare Attitudes Index	451	0.33	0.06	0.11	0.59
Intervention Attitudes Index	312	0.52	0.09	0.33	0.78
Overall Attitudes Index	452	0.38	0.05	0.16	0.71
GSP p/c	650	37,905	8854	20,813	73,018

Table A5

SBFM think tanks.

Alabama	Alabama Policy Institute	1989
Arizona	Goldwater Institute	1988
Arkansas	Arkansas Policy Foundation	1995
Colorado	Independence Institute	1985
Connecticut	Yankee Institute for Public Policy Studies	1987
Florida	James Madison Institute	1987
Georgia	Georgia Public Policy Foundation	1991
Hawaii	Grassroot Institute of Hawaii	2001
Illinois	Illinois Policy Institute	2002
Indiana	Indiana Policy Review Foundation	1989
Iowa	Public Interest Institute	1998
Kansas	Kansas Policy Institute ^a	1997
Kentucky	Bluegrass Institute for Public Policy Solutions	2003
Louisiana	Pelican Institute for Public Policy	2008
Maine	Maine Public Policy Institute	2001
	Maine Heritage Policy Center	2002
Maryland	Maryland Public Policy Institute	2001
	Calvert Institute for Policy Research	1996
Massachusetts	Pioneer Institute for Public Policy Research	1988
Michigan	Mackinac Center for Public Policy	1987
Minnesota	Center of the American Experiment	1990
Mississippi	Mississippi Center for Public Policy	2004
Missouri	Center for Ethics and the Free Market	2003
Montana	Montana Policy Institute	2008
Nebraska	Platte Institute for Economic Research	2007
Nevada	Nevada Policy Research Institute	1991
New Hampshire	Josiah Bartlett Center for Public Policy	1993
New Mexico	Rio Grande Foundation	2000
New York	Public Policy Institute of New York State	1981
N. Carolina	John Locke Foundation	1990
North Dakota	North Dakota Policy Council	2007
Ohio	Buckeye Institute for Public Policy Solutions	1994
Oklahoma	Oklahoma Council of Public Affairs, Inc.	1993
Oregon	Cascade Policy Institute	1991
Pennsylvania	Commonwealth Foundation	1988
Rhode Island	Ocean State Policy Research Institute	2007
S. Carolina	South Carolina Policy Council	1986
South Dakota	Great Plains Public Policy Institute	2007
Tennessee	Tennessee Center for Policy Research	2005
Texas	Texas Public Policy Foundation	1989
	Texas Conservative Coalition	1985
	Lone Star Foundation	1996
	Liberty Institute	1972

Utah	Sutherland Institute	1995
Vermont	Ethan Allen Institute	1993
Virginia	Thomas Jefferson Institute for Public Policy	1996
Washington	Washington Policy Center	1997
	Evergreen Freedom Foundation	1991
West Virginia	Public Policy Foundation of West Virginia	2007
Wisconsin	Wisconsin Policy Research Institute	1987
Wyoming	Wyoming Liberty Group	2008

^a Formerly Flint Hills Center for Public Policy.

^b Formerly Free Market Foundation.

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Appendix A. GSS questions for tax attitudes index

1. Do you consider the amount of federal income tax which you have to pay as too high, about right, or too low? 2. If the government had a choice between reducing taxes or spending more on social programs like health care, social security, and unemployment benefits, which do you think it should do? 3. Generally, how would you describe taxes in America today. . . . First, for those with high incomes, are taxes much too high, too high, about right, too low, or much too low. Next, for those with middle incomes, are taxes. . . . Lastly, for those with low incomes, are taxes. . . .? 4. On the whole, do you think it should or should not be the government's responsibility to reduce income differences between the rich and poor? [options: definitely should be; probably should be; probably should not be; definitely should not be]. 5. Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. Here is a card with a scale from 1 to 7. Think of a score of 1 as meaning that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government should not concern itself with reducing income differences. What score between 1 and 7 comes closest to the way you feel? 6. What is your opinion of the following statement? It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes. [options: strongly agree; agree; neither; disagree; strongly disagree]. 7. Do you agree or disagree that differences in income in America are too large? [options: strongly agree; agree; neither; disagree; strongly disagree]. 8. Do you agree or disagree that it is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes? [options: strongly agree; neither; disagree; strongly disagree]. 9. Do you think that people with high incomes should pay a larger share of their income in taxes than those with low incomes, the same share, or a smaller share? [options: much larger; larger; same; smaller; much smaller].

Appendix B. GSS questions for welfare attitudes index

1. On the whole, do you think it should or should not be the government's responsibility to provide health care for the sick? [options: definitely should be; probably should be; probably should not be; definitely should not be]. 2. Are we spending too much, too little, or about the right amount on improving and protecting the nation's health? 3. Listed below are various areas of government spending. Please indicate whether you would like to see more or less government spending [on health]. Remember that if you say "much more," it might require a tax increase to pay for it. [options: spend much more; spend more; spend same; spend less; spend much less]. 4. Indicate whether you would like to see more or less government spending in the area of mental health care. Remember that if you say "much more," it might require a tax increase to pay for it. [options: spend much more; spend more; spend same; spend less; spend much less]. 5. Are we spending too much, too little, or about the right amount on welfare? [options: spend much more; spend more; spend same; spend less; spend much less]. 6. Indicate whether you would like to see more or less government spending [on unemployment benefits]. Remember that if you say "much more," it might require a tax increase to pay for it. [options: spend much more; spend more; spend same; spend less; spend much less]. 7. On the whole, do you think it should or should not be the government's responsibility to provide a decent standard of living for the unemployed. [options: definitely should be; probably should be; probably should not be; definitely should not be]. 8. Indicate whether you would like to see more or less government spending [on retirement benefits]. Remember that if you say "much more," it might require a tax increase to pay for it. [options: spend much more; spend more; spend same; spend less; spend much less]. 9. On the whole, do you think it should or should not be the government's responsibility to provide a decent standard of living for the old. [options: definitely should be; prob-

ably should be; probably should not be; definitely should not be]. 10. Are we spending too much, too little, or about the right amount on social security?

Appendix C. GSS questions for intervention attitudes index

Here are some things the government might do for the economy. Circle one number for each action to show whether you are in favor of it or against it. [options: strongly in favor; favor; neither; against; strongly against]: 1. Control of wages by legislation. 2. Control of prices by legislation. 3. Government financing of projects to create new jobs. 4. Support for industry to develop new products and technology. 5. Supporting declining industries to protect jobs. 6. Reducing the work week to create more jobs. 7. Cuts in government spending. 8. Less government regulation of business. On the whole, do you think it should or should not be the government's responsibility to [options: definitely should be; probably should be; probably should not be; definitely should not be]: 9. Provide a job for everyone who wants one. 10. Keep prices under control. 11. Provide industry with the help it needs to grow.

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