

Ryan T. Moore, Eleanor Neff Powell* and Andrew Reeves

Driving support: workers, PACs, and congressional support of the auto industry¹⁾

Abstract: In 2008 and 2009, the House of Representatives directed billions of dollars to the auto industry by passing a bailout and the “cash for clunkers” program. Moving beyond corporate influence via campaign contributions, we demonstrate that the presence of auto workers in a district strongly predicts legislative support for both bills. In addition to this critical legislation, we also analyze over 250 bills on which the auto industry either lobbied or took a public position. We find no patterns relating a district’s workers or corporate campaign contributions to these votes on broader legislation where other groups, such as environmental advocates or labor unions, are at the table. Instead, the auto industry garners consistent support only on quasi-private, particularistic legislation. Thus, we contend that on particularistic legislation the presence of workers (not just campaign contributions) drives legislative support; however, when legislators expand the scope of conflict, the influence of a single industry is attenuated by other interests.

¹⁾The replication archive is available as Moore, Powell, and Reeves (2013). Supplementary materials are available on the journal’s and authors’ web pages.

***Corresponding author: Eleanor Neff Powell**, Assistant Professor, Department of Political Science and Institution for Social and Policy Studies, Yale University, 77 Prospect Street, New Haven, CT 06511, USA, e-mail: eleanor.powell@yale.edu, <http://www.eleanorneffpowell.com>

Ryan T. Moore: Assistant Professor, Department of Political Science, Washington University in St. Louis, 241 Seigle Hall, Campus Box 1063, One Brookings Drive, St. Louis, MO 63130, USA, <http://ryantmoore.com>

Andrew Reeves: Assistant Professor, Department of Political Science, Washington University in St. Louis, 241 Seigle Hall, Campus Box 1063, One Brookings Drive, St. Louis, MO 63130, USA, <http://andrewreeves.org>

1 Introduction

The automotive industry is a symbol of the American experience. In 1931, Herbert Hoover described the “utility and importance of the automobile to” the US’s “national life” (Hoover 1931). Eighty years later, President Barack Obama said that the auto industry had “helped make the 20th century an American Century and that came to embody... the ingenuity, the industriousness, and the indomitable spirit of the American people” (Obama 2009). The link between the federal government and

the auto industry extends well beyond presidential rhetoric, however. In 1979, Congress passed legislation (signed by President Carter in January 1980) that guaranteed \$1.5 billion in loans for Chrysler (Carter 1980). In the wake of the financial crises of 2008, the House of Representatives took two major steps to ensure the strength of the American auto industry, committing billions of dollars of taxpayer money.

This paper examines how and when industry can garner lucrative political support from both political parties and across the ideological spectrum. While many studies define corporate interests through their campaign contributions to members, we argue for a broader conception of industry influence, one that incorporates the human capital of industry – workers. The influence of a business extends beyond an executive directing their company's PAC to contribute to a legislator in anticipation of actions that benefit the corporation. While this characterization may be true, it ignores the extent to which industries are not unilateral entities but instead composed of potentially millions of individual voters concentrated in particular locales. These voters have a vested stake in the well-being of their employer and may be motivated to engage in political action on its behalf. Any study that ignores this aspect of influence underestimates the varying levels of power that businesses exercise. Legislators then, are motivated not only by dollars from corporate PACs, but by voters in their district who support their employer. Indeed, this was a theme heavily emphasized by members of Congress and others during the public discourse on recent legislation. Auto workers represent a well-connected social network with a shared sense of common fate, and a member of Congress may be especially sensitive to threats to their livelihoods. We compare the role of auto worker presence with that of political action committee (PAC) contributions by the Big Three auto manufacturers in determining Democratic and Republican members' votes for the 2008 auto bailout and the 2009 "cash for clunkers" program. In this analysis, we find that both corporate campaign contributions and a strong presence of auto workers in what we call *industry districts* help explain votes on the bailout and cash for clunkers.

Moving beyond these two pieces of legislation, we look for evidence of the influence of workers and contributions over all bills on which the industry had an active interest. To do so, we examine every bill on which the automotive industry either lobbied or took a public position. These range from the auto industry bailout and "cash for clunkers" to more complex and abstract legislation on which the industry lobbied or expressed a public position such as the Paycheck Fairness Act (HR 1338) or the American Clean Energy and Security Act of 2009 (HR 2454). Contrary to the prominent findings in the literature on industry's influence on high versus low salience legislation (Jones and Keiser 1987; Neustadtl 1990; Witko 2006) we find the industry's influence is greatest on high salience particularistic legislation.

The influence of the industry is substantial on salient and particularistic legislation, but virtually non-existent on other broader pieces of legislation. We find that industry presence in a district is associated with increases in the probability of supporting the bailout and cash for clunkers of 18 and 5 percentage points, respectively, even after we condition on ideology and PAC contributions. However, while the industry had a sizable role in cash for clunkers and the auto bailout, it had little impact on other bills on which it lobbied or took a position. Our evidence suggests that, while industry may exert influence through multiple pathways on highly particularistic legislation, its influence is hardly felt on broader, but still salient, legislation where the scope of conflict is expanded.

2 The auto industry bailout and cash for clunkers

In late 2008 and 2009, the House of Representatives committed billions of dollars to the auto industry.¹ First, the House passed legislation guaranteeing billions of dollars in federal loans in order to protect the Big Three auto makers from bankruptcy. On 18 November 2008, the CEOs of General Motors, Ford, and Chrysler testified in front of the lame duck House Committee on Financial Services. They respectively described the perilous economic footing of their companies and asked for federal loans to maintain solvency. The House responded by passing a bailout with 32 Republicans joining 205 Democrats voting for the bill. Twenty Democrats joined 150 Republicans to vote against. Although the \$14 billion bailout passed the House on December 10, it ultimately died in the Senate because of disagreements over worker pay. Shortly thereafter, President Bush committed \$17.4 billion to General Motors and Chrysler (Mufson, Cho, and Kang 2008).

Then, in June of 2009 the House again attempted to come to the aid of the auto industry. This time, Congress offered incentives to boost auto sales by enacting a vehicle trade-in program colloquially known as “cash for clunkers.” This legislation allowed consumers to obtain federally-funded rebates when trading in vehicles (American or foreign) that met particular requirements for new cars. Although it was ultimately passed as part of the supplemental war appropriations bill (HR 2346), the initial House legislation committed \$4 billion to the program (HR 2751; Schatz 2011).²

¹ In addition to the auto bailout and cash for clunkers, in September, the House and Senate passed a “stopgap spending measure” to appropriate \$25 billion in loans already authorized by a 2007 law (Schatz 2008).

² In August, Congress passed and the President signed HR 3435, which authorized an additional \$2 billion for the cash for clunkers program.

Support of these initiatives was hardly universal. Both pieces of legislation initially failed to pass the Senate. Public opinion was not supportive of the bailout; one poll reported that 61% of Americans opposed it (Rooney 2008). One of the most widely-reported aspects of the bailout was that the Big Three CEOs had flown to the Congressional hearing in separate private jets to request billions of tax dollars.³ Former Massachusetts Governor Mitt Romney, son of a Michigan auto executive and Republican presidential candidate, wrote an op-ed in the *New York Times* titled “Let Detroit Go Bankrupt.” Similar free market criticisms were made of the cash for clunkers program. For instance, Rep. Jeb Hensarling of Texas cited the program as an “example of the government picking winners and losers” [quoted in Marley 2009]. But the bills passed the House with support from across the political spectrum, including the support of conservative Congressman and eventual Vice-Presidential nominee Paul Ryan.⁴ Although Ryan said that he voted for the auto bailout “to prevent TARP from going to the auto companies” (ABC 2011), he also represented a district whose economy, as he noted in 2005, is “heavily reliant on the automotive manufacturing industry” (Ryan 2005).

3 The political influence of corporations

Traditionally, scholarship on the influence of corporations has focused on the role of money in a vote-buying model of behavior. We take a broader approach by also considering the role of a corporation’s human capital within districts – the congressional constituents who are employees of the industry.⁵ Instead of campaign contributions being the sole currency of corporate influence on legislative behavior, we argue that business can exert influence through voters employed by the industry. A long line of congressional scholarship has documented the preeminent role that reelection plays in determining the behavior of members (Fenno 1973; Mayhew 1974). To this all-important end, members follow

³ Rep. Gary Ackerman (D-New York): “There is a delicious irony in seeing private luxury jets flying into Washington, DC, and people coming off of them with tin cups in their hand, saying that they’re going to be trimming down and streamlining their businesses” (Levs 2008).

⁴ Interestingly, Paul Ryan, a well-known conservative, opposed both cash for clunkers and an earlier act in September authorizing direct loans despite having three auto factories in his district. Ryan, who receives among the most PAC money from the Big Three, did support the auto bailout that December.

⁵ For a further discussion of this point, see Gimpel, Lee and Parrot (2012) who document how different industries display significant variation in their political behaviors and leanings.

the interests of their constituents in the committees on which they sit, the topics on which they speak, and especially how they vote in Congress (e.g., Miller and Stokes 1963; Erikson 1978).⁶ To overlook employees with a vested interest in the corporation's fate may underestimate the net corporate influence on legislative outcomes.

3.1 Auto workers

Auto workers are well connected in social networks and can directly and indirectly influence political participation in a district. Auto workers and their families may represent sizable populations within a district. When an issue is relevant to the industry, these individuals and their families may mobilize either through their own volition or at the urging of the company or union (Rosenstone and Hansen 1993). The local plight of the auto worker may also mobilize those not directly associated with the industry. Threats to the auto industry create general economic concern in the district, which additionally mobilizes voters from other walks of life. For some districts, auto manufacturing is the primary industry and so any decline affects perceptions of everyone's economic well-being, whether directly connected to the auto industry or not. In these districts, auto workers buy merchants' products and pay local taxes; factories sponsor local civic efforts to improve the community. The entire district sees the collective benefits of these efforts and may be threatened by their elimination. Perceptions of the economy are key to evaluations of incumbent performance (e.g., Fiorina 1978) and local economic phenomenon are politically salient (Reeves and Gimpel 2012). When issues arise that directly address the well-being of an industry, employees may be central to members' voting behavior. These mechanisms stem not from campaign contributions, but from the economic and political consequences of the location of large employers. However, few studies consider the presence of industry-specific workers *per se*.⁷ We look at where factories are located, how those locations

⁶ Constituency and corporate PACs are, of course, not the only factors that influence members of Congress. Numerous studies, mostly examining roll call votes, have examined the magnitude of influence of party, ideology, and constituency (Poole and Rosenthal 2000; Cox and McCubbins 1993, 2007; Krehbiel 1991, 1993, 1998; McCarty, Poole, and Rosenthal 2006). For an overview of other factors see Clausen (1973).

⁷ For an example of a study that does consider the presence industry, see Burden (2007)'s examination of the influence of tobacco industry presence in a district on members' voting on a measure to cut tobacco related subsidies (House Amendment 1153).

align with political boundaries,⁸ and whether the legislators that represent those districts behave differently.

While many studies argue that corporations contribute money to legislators in order to purchase influence and policies, we, in addition, propose a voter-based model where corporations, through employment, shape the preferences and political behavior of the voters they employ. Strategic legislators, who wish to satisfy the preferences of their constituents, may thus be motivated to act on behalf of the corporation through electoral incentives beyond PAC contributions. Relatedly, Busch and Reinhardt (2000) find that when voters are concentrated among a particular industry, they are more likely to form similar preferences with respect to issues related to that industry, contribute to campaigns, and turnout to vote when their industry faces a threat.

3.2 Political action committees

Some scholarship limits the mechanisms of corporate influence in the legislative process to industry-based political action committees. These political action committees contribute to congressional incumbents and challengers with the intent of influencing both legislative and electoral outcomes.⁹

While the earliest research on the influence of PAC contributions on roll call voting showed a connection between contributions and voting behavior (Silberman and Durden 1976; Chappell 1982; Kau and Rubin 1982), the evidence over the last thirty years has been decidedly mixed. On the one hand are those who find little evidence of systematic influence (Wawro 2001; Ansolabehere, de Figueiredo,

⁸ Central to this argument is the nature of geographic representation in American electoral rules. Single member congressional districts mean that the location of factories within particular congressional districts may be especially influential because of the concentration of interest. For further research on the legislative consequences of geographic representation, see Lee (2003).

⁹ Contributions by political action committees appear to be self-serving, in that industries that receive greater benefits from the federal government make more political action committee contributions (Grier, Munger, and Roberts 1994). Of course, there remain industry-wide collective action problems if a given piece of legislation is non-rival and non-exclusive. These industry-wide collective action problems may in part explain why the aggregate contribution levels – despite their rapidly increasing size – are still dwarfed by the financial benefits industries receive from federal legislation. Milyo, Primo, and Groeclose (2000) strongly downplay the potential influence of PAC contributions by comparing the low dollar values of corporate PAC campaign contributions to the amount firms spend on philanthropy and lobbying expenses, all of which are dwarfed by the net sales of the company.

and Snyder 2003); on the other are recent findings of fairly widespread influence (Roscoe and Jenkins 2005) and contribution timing that coincides with industry-related legislation (Stratmann 1992, 1995).

Fewer studies argue that PAC contributions' influence depends on having a constituency base for the support.¹⁰ Both the businesses located within a district and industry PAC contributions can be strong predictors of committee participation (Hall and Wayman 1990).

Studies of PAC influence most closely tied to the auto industry yield signs of potential influence.¹¹ Previous work argues that white collar workers in the auto industry, export ratios, and labor PAC contributions strongly predict roll call votes (Saltzman 1987; Beaulieu 2002), though corporate PAC contributions may be less influential (Beaulieu 2002).¹²

Others have argued that labor contributions alone may not drive votes, but note that labor leaders believe the net power of their organizations within the member's district can maintain the member's support (Grenzke 1989). Consistent

10 There are a few notable exceptions that provide evidence that PAC contributions are a function of geographic ties to the constituency. Wright (1989) demonstrates that interest groups rarely contribute to members who have no interest group presence within the district; in essence, geographic ties of interest groups are vital to contribution decisions. Echoing that finding, Stratmann (1992) shows that PACs give more money to members whose constituency demographics suggest they are likely to be undecided on the legislation (without demographic groups strongly supportive or opposed to the legislation), arguing that members with constituencies with like-minded interests to the PAC will already be supportive of the industry's interests. Relatedly, Fleisher (1993) finds that members with weaker ideological pre-dispositions on defense are more susceptible to the influence of PAC contributions from defense contractors on defense-centered roll call votes.

11 Studies of another industry, financial services, also show marked signs of influence. Stratmann (2002) examines financial services legislation, and finds that changes in contribution levels are associated with changes in roll call voting behavior, and further that less senior members are most responsive to contribution changes, perhaps because they have a less established voting history, and are thus less vulnerable to charges of flip-flopping. Further, he notes the often-overlooked importance of contributions from competing groups, which can offset the impact of contributions from supportive groups. Thornburg and Roberts (2008)'s study of the financial industry's attempt to influence the Sarbanes-Oxley legislation found that industry-based political action contributions impacted roll call voting in the House vote but not the Senate vote. Further, these contributions mostly went to conservative pro-business members.

12 Causal identification challenges studies of money in politics, as it may be difficult to discern whether contributions are influencing votes or votes are influencing contributions. In this vein, studies argue both that contract awards yield subsequent contributions (Grier, Munger, and Roberts 1994), as well as that contributions are a means of securing contracts (Witko 2006). At least one recent observational research design tackles these issues directly (Conley and McCabe 2012).

with our argument that worker presence is important, one union official concludes that “labor’s work in campaigns is much more important than our direct financial contributions” (Grenzke 1989: p. 9).

4 Industries and legislative outcomes

We first focus on the most prominent automotive industry-related roll call votes in the House of Representatives. Unlike other salient bills on trade or the environment, these two pieces of legislation were highly particularistic – they granted specific, concentrated financial benefits to the auto industry and diffused costs over all taxpayers. We first consider the House vote in December 2008 to spend funds to bail out the auto industry. HR 7321 passed the lame duck House on 10 December 2008 with a vote of 237–170, though the bill died in the Senate and executive action was required to implement the bailout.

Despite the highly polarized politics of the 110th Congress, major actors crossed partisan and ideological lines to support or oppose the bailout. President-elect Obama supported the fairly contentious measure, but he was joined by Republican candidate John McCain, President George W. Bush, and even the fiscally conservative Wisconsin Congressman Paul Ryan. Other Republicans came out against the measure, however, including McCain campaign staff and former Governor Mitt Romney. All of the Big Three American automakers, Ford, Daimler-Chrysler, and General Motors, supported the bailout. The major auto workers’ union, the United Auto Workers (UAW), also supported the bailout, although the unions’ perceived reluctance to slow the growth of salaries quickly enough was used by Senate Republicans to argue against the bill.

Next, we examine votes on a roll call to establish the Car Allowance Rebate System (CARS) trade-in program, “cash for clunkers.” The CARS bill passed the House in June 2009 on a vote of 298–119, a result more one-sided overall and among the majority Democratic party than the bailout vote. The vote to reauthorize the CARS program followed later that summer, in August.

4.1 Independent variables

Our primary independent variable derives from the number of automotive industry workers in the House member’s district. The US Census provides raw counts of the number of establishments in each county with a given number of

auto manufacturing employees.¹³ Census coarsens the data into bins for establishments with 1–4, 5–9, 10–19, 20–49, 50–99, 100–249, 250–499, 500–999, and more than 1000 auto factory workers,¹⁴ which we translate into Congressional district counts using population weights.¹⁵ Because the establishment counts are grouped into bins, we do not have the exact number of auto factory workers in each district. Estimating the exact number of workers would require an assumption about each establishment's size, such as “this 500–999 worker factory employs 500 (or 750, or 999) workers,” that lacks empirical justification. Thus, our analyses below employ a dichotomous measure of whether a member's district includes at least some fraction of a county with an establishment with at least 1000 auto workers. We refer to this as an industry district. In other words, our measure is whether there is a large factory in a county that is partly in the member's district.¹⁶ During the second session of the 110th Congress, about one-third of districts (142/435) had more than 1000 auto workers, and these districts were split between Republican and Democratic representatives (73 and 69 districts, respectively). At the same time, roughly 86% of districts had some establishment with at least 100 auto factory employees, while 99% of districts had some with at least ten and every district had some with at least one.

13 The Census reports employment statistics using the North American Industry Classification System (NAICS). Our definition of auto workers includes establishments reported under the following categories: motor vehicle manufacturing (3361), motor vehicle body and trailer manufacturing (3362), and motor vehicle parts manufacturing (3363). Other studies use a coarser classification of workers. For instance, Kroszner and Stratmann (1988) uses three-digit NAICS codes to classify the influence of the financial services on Congress; however, this is not feasible for this analysis since the relevant three digit code includes workers from industries not related to automobile manufacturing.

14 Slightly finer gradations are available at the top of the scale. Other bins count the establishments with 1000–1499, 1500–2499, 2500–4999, and at least 5000 employees.

15 Specifically, we define the number of establishments of a given size in a district as the sum of the number of establishments of that size in the counties partially or wholly included in the district, each weighted by the fraction of its county's population within that district. For example, suppose a county has one 10–19 worker establishment and its population is divided between two congressional districts, one with 75% of the population and the other with 25%. Then, the first district would get 0.75 of a 10–19 worker establishment and the second would get 0.25 of a 10–19 worker establishment.

16 If industry presence in nearby districts that share a county actually has exerts no pressure on a member, we could underestimate the association between workers and roll calls. Similarly, if industry presence in nearby districts that do not share a county actually does exert pressure, we may underestimate the association.

What does the count of auto workers represent? Despite being a relatively small number of voters (one thousand auto workers would represent about 0.1% of the population of a typical district), these constituents are likely to exert more influence than average. Auto workers are likely to be embedded in unions, politicized social networks that make them relatively easy to mobilize directly or indirectly (Rosenstone and Hansen 1993). They also represent an industry considered important to maintaining jobs (and thus economic success) to many districts.¹⁷ Factory workers had intense, personal, livelihood-related preferences over relevant policies during this time of industry crisis; they formed a critical issue public during the period we study (Han 2009).

Along with the subprime mortgage explosion, the crisis in the auto industry was a lowlight of the late-2000's Great Recession. Auto factory closings eliminated some 300,000 manufacturing jobs, and local economic conditions, especially unemployment, have been shown to affect voters' perceptions of national economic conditions, particularly for political independents (Reeves and Gimpel 2012). Reflecting the difficulties for the industry during the 2008–2010 period we study, 47 districts in 17 states had more than 1000 auto workers during the 110th Congress, but not during the 111th.¹⁸ Of the 95 industry districts during the first session of the 111th Congress, 50 were represented by Republicans and 45 by Democrats. No district newly became an industry district in the first session of the 111th Congress.

In contrast to the grassroots mobilization and local economic reasons for members to support the bailout, we also consider the role of elite campaign contributions from political action committees. We collect the contributions to each member made by the PACs of Ford, Daimler-Chrysler, and GM (Center for Responsive Politics 2011). We further consider union PAC contributions from the politically active AFL-CIO.¹⁹ We note that we only consider PAC contributions, not direct

17 Local jobs are an important electoral and legislative consideration for representatives; this includes governmental as well as private industry jobs. During an earlier era of federal budget challenges, military base closures played a similar political role to auto factory jobs during the Great Recession. The Base Realignment and Closure (BRAC) system attempted to depoliticize the closure process, anticipating that representatives would suffer from perceptions that they did not stop closures that they could have (Goren 2003).

18 These were Alabama, Arkansas, California, Delaware, Florida, Georgia, Massachusetts, Michigan, Missouri, North Carolina, New York, Ohio, Oregon, Tennessee, Texas, Utah, and Wisconsin.

19 In the Supplementary Materials, we also consider contributions from groups representing foreign automaker interests (the Automotive Free International Trade PAC, AFIT-PAC), auto dealers (both domestic and foreign), a minor automotive PAC representing regional dealership alliances and parts suppliers, and the total campaign contributions by all unions representing transit workers.

contributions from interested individuals (such as auto industry executives). The range of PAC contributions from the Big Three extends from the \$0 given to about 60% of members each year to about \$30,000 (roughly 10.3 on the logarithmic scale we employ) given to just a handful of members each year. The range for the AFL-CIO extends from the \$0 given to about half of members to about \$15,000 (roughly 9.6 on the log scale).

Certainly, these PAC contributions correlate with industry presence. On average, representatives from industry districts are significantly more likely to get nonzero Big Three PAC contributions during the period we study than are those from non-industry districts. Among the members with Big Three PAC contributions, those representing industry districts receive bigger contributions on average. Despite these facts, there is considerable overlap between the distributions of contributions from industry and non-industry districts, suggesting the validity of comparing the members who represent them.

Since votes on significant auto industry matters are likely to be driven by other factors, we variously control for the member's party, ideology, and partisan leanings of the district. For the last two of these, we employ the first dimension of the DW-NOMINATE score (Carroll et al. 2011) and the Democratic share of the vote in the 2008 presidential election.

5 Results

For both Republican and Democratic House members, representing an industry district is positively associated with support for both the bailout vote and the cash for clunkers vote. However, the association is much stronger for Republicans than for Democrats. Democratic members supported both measures at levels >90%, and those representing industry districts demonstrated about 4 percentage points more support than those representing non-industry districts.²⁰ For Republicans, however, the difference is much more stark. On the bailout, 29% of Republicans from industry districts supported the bill, while less than half as many, 11%, of those without factories voted in support. Similarly, on cash for clunkers, 49% of Republicans from industry districts supported the bill, while only 30% of those without factories did.

²⁰ Such high levels of support make it likely that an attempt to find an association between industry presence and votes for Democrats will confront ceiling effects. Despite this, we do find an association.

To test the importance of the industry's presence in a congressional district alongside PAC contributions, we estimate a series of logistic regression models with votes on the bailout and trade-in program bills as dichotomous outcomes. Coefficient estimates from some of these models are available in Appendix Tables 2 and 3; we discuss robustness to other model specifications below.

We find that industry districts are positively associated with support for the two particularistic House automotive bills, even conditional on member party, member ideology, or district partisanship, and a variety of PAC contributions. All eight of the coefficients on industry district in Tables 2 and 3 are positive. Rather than simply present these coefficients, we summarize this association by calculating first differences between the predicted probabilities of industry and non-industry district representatives supporting the bailout or trade-in program, holding member ideology and Big Three and union PAC contributions constant at their means (King, Tomz, and Wittenberg 2000). Figure 1's top two panels graphically display these first differences from 5000 Monte Carlo draws from the industry district coefficient's estimated distribution (Kastellec and Leoni 2007; Imai, King, and Lau 2008). The left panel demonstrates that industry districts are associated with a 0.18 average increase in the predicted probability of supporting the bailout, while the right panel shows the average 0.05 increase in the probability of supporting cash for clunkers. Thus we find that industry presence in the district is associated with legislative voting on these bills.

We also calculate the first differences for a change from \$0, the modal Big Three PAC contribution level in 2008 and 2009, to about \$2600, the median of the non-zero contribution levels. We denote the latter as a *high* level of PAC contributions. The middle two panels of Figure 1 display the densities of the estimated first differences between in predicted probabilities. These estimates are positive, highlighting another strong correlate of auto vote support beyond member ideology. The left panel demonstrates that receiving PAC contributions from the Big Three Automakers associated with a 0.26 average increase in the predicted probability of supporting the bailout, while the right panel shows the average 0.14 increase in the probability of supporting cash for clunkers. The bottom two panels of Figure 1 give similar densities for campaign contributions from the AFL-CIO, comparing a modal \$0 contribution to the median non-zero contribution of \$3000. The left panel shows an increase in campaign contributions from the AFL-CIO is associated with a 0.17 increase in the predicted probability of supporting the bailout, and the right panel shows an average 0.13 increase in the predicted probability of supporting cash for clunkers.

Though not invariant, the signs and magnitudes of the industry district first difference estimates are consistent across the entire observed range of PAC contributions. Figure 2's two panels show these first differences for every observed level

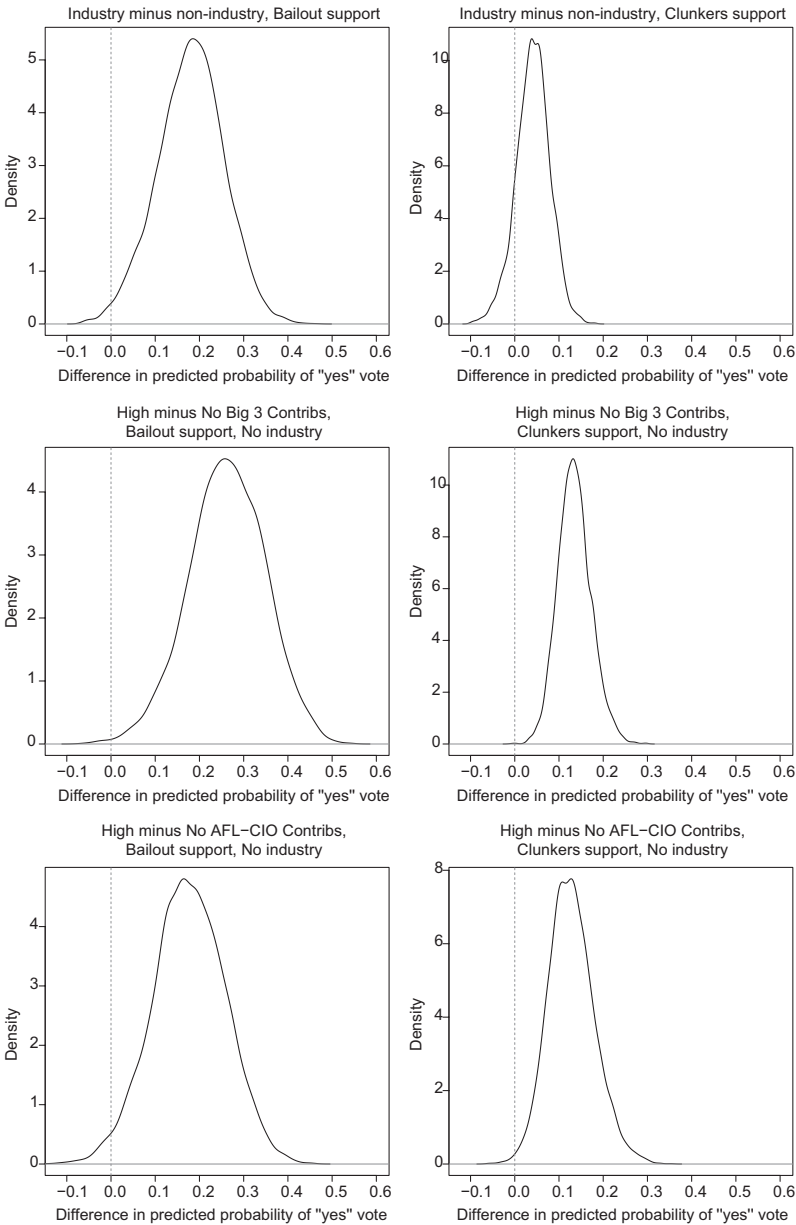


Figure 1 First differences for predicted probabilities of member supporting the auto bailout (left) and the cash for clunkers (right). Each density compares 5000 first differences. Top row compares member from industry district to one from non-industry district, setting other variables at their means. Middle row compares member with median nonzero Big Three PAC contributions (\approx \$2600) to one with \$0 (the mode). Bottom row compares member with median nonzero AFL-CIO PAC contributions (\$3000) to one with \$0 (the mode).

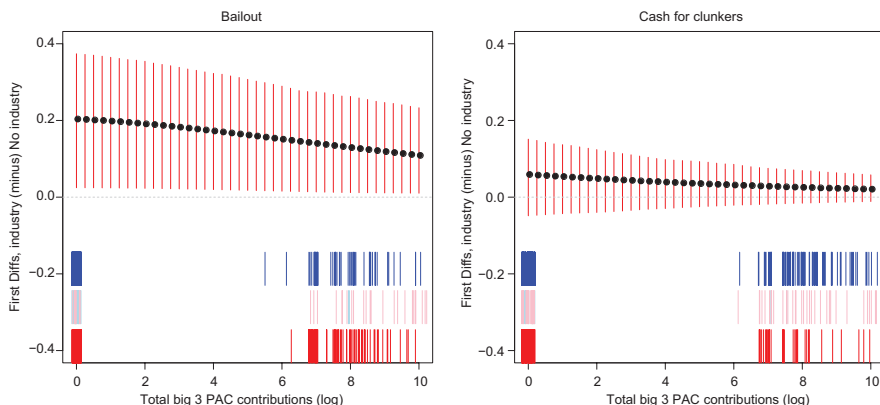


Figure 2 Mean first differences between industry and non-industry district members' probabilities of supporting the bailout (left) and trade-in program (right) are positive at any level of Big Three PAC contributions. Mean estimates represented by black discs; 95% confidence intervals for each contribution level represented by red vertical bars. Ticks across bottom represent (jittered) observed contribution levels for Democrats, Republicans, and party defectors. On the bailout, only 2 Democrats with contributions defected.

of contributions from the PACs of Ford, Daimler-Chrysler, and General Motors for the bailout and cash for clunkers, setting other variables to their means.

For what types of members does industry presence most highly correlate with support for the two auto votes? With Democrats less likely to break ranks on either of these votes, we find that moderate Republicans have the highest estimates for the difference between representing an industry and a non-industry district. In particular, we estimate a difference of about 0.2 in the probability of the most moderate Republicans, those with DW-NOMINATE scores of around 0.2, supporting the bailout. For the trade-in program, we estimate a difference of about 0.13 for moderate Republicans with scores around 0.5. Figure 3 displays these estimates and their associated 95% confidence intervals, setting other values to their means.

Industry presence in the district is significantly related to the probability of voting in favor of both cash for clunkers and the auto bailout. This is even while controlling for standard covariates like political ideology. While the relationships between PAC contributions, industry presence, and legislative voting are not directly comparable, we present evidence that to focus only on PAC contributions is to miss a substantively important part of the story. It is not merely the capital of the corporate PACs but also the presence of the auto workers themselves that animate Democratic and Republican support for the auto industry.

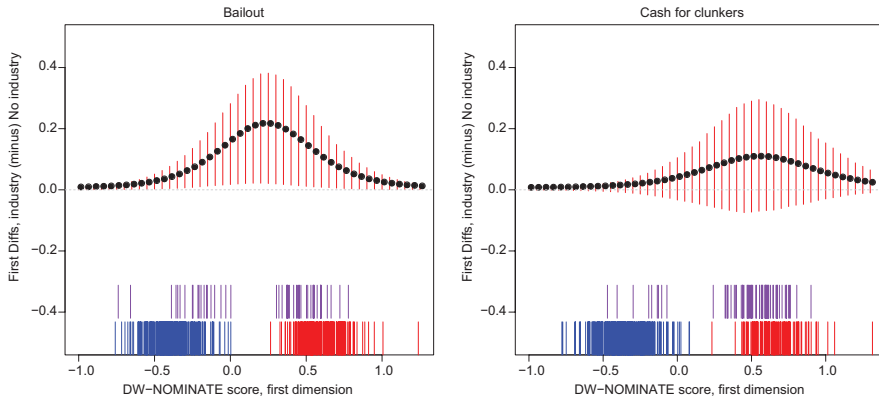


Figure 3 First differences between industry and non-industry district members' probabilities of supporting the bailout (left) and trade-in program (right) remain positive at any value of DW-NOMINATE score. Mean estimates represented by black discs; 95% confidence intervals for each contribution level represented by red vertical bars. Ticks across bottom represent (jittered) observed DW-NOMINATE scores for Democrats, Republicans, and party defectors.

To demonstrate that our coefficient estimates are robust to alternative model specifications, we perform every possible logistic regression of our two outcome measures on the sets of predictors that include industry presence and a measure of partisanship, ideology, or partisan vote history. In every one of the more than 1000 specifications, the coefficient estimate for industry district is positive. We show the densities of these estimates in the upper left hand panel of eight figures available in the Supplementary Materials, four for the bailout vote and four for the cash for clunkers vote. These results demonstrate robustness to the inclusion or exclusion of these attributes of the member and district, PAC contributions from five industry groups we omit from our primary models, and whether contributions are logged or in raw dollars.

6 The limited scope of industry influence

The previous section demonstrates that industry presence in a district as well as campaign contributions are associated with votes on bills which prescribed particularistic, direct benefits to the industry. However, are these relationships present when the scope of conflict is broadened? In this section we examine other legislation salient to the auto industry. We operationalize salience in two ways. First, we examine those pieces of legislation for which the industry took a public

position. Second, we consider all votes related to legislation for which the auto industry lobbied. Though we acknowledge limitations to both constructions in identifying legislation salient to the industry, we reach similar substantive conclusions in each analysis.²¹

6.1 When industry expressly supports a bill

While industry-wide bailouts of automobile manufacturers are rare, there are numerous pieces of legislation which materially influence the auto industry and over which the Big Three take clear and outspoken positions. The industry has a long history of taking public stands on issues involving environment regulation, fuel standards, and labor practices, among other issues. Here we move beyond the highly particularistic cash for clunkers and automotive bailout legislation, identifying other pieces of legislation upon which the auto industry took positions.

We rely on data from MapLight, a nonprofit and nonpartisan organization, which collects data on political influence across industries.²² A team of researchers monitors Congressional hearings as well as media reports and records when groups express support or opposition to a piece of legislation. MapLight recorded over 8800 and 7700 opinions expressed by various groups in the 110th and 111th Congresses, respectively. Groups are classified based on the scheme used by the Center for Responsive Politics, and we consider all public positions on legislation by groups classified as part of the auto industry.²³ The result is 50 pieces of

²¹ These two categories may not capture all legislation that is salient to the industry. For instance, on some bills there may be reasons to remain publicly silent on legislation for which the industry is truly concerned. We try to address these concerns by providing two measures of salience (one narrow, one broad). We discuss alternative opportunities for influence beyond legislative voting in our concluding section.

²² See <http://maplight.org/about>, for additional details (accessed April 4, 2012).

²³ We select auto industry groups as classified by the Center for Responsive Politics at http://www.opensecrets.org/downloads/crp/CRP_Categories.txt. These groups are automotive, misc (T2000), auto manufacturers (T2100), truck / automotive parts and accessories (T2200), auto dealers (T2300, T2310), auto repair (T2400), car rental agencies (T2500), and automotive unions (LM150). This list yields the following groups: The Alliance of Automobile Manufacturers, Tire Industry Association, National Automobile Dealers Association, Automotives Recyclers Association, Society of Collision Repair Specialists, General Motors, Ford Motor Company, Motor and Equipment Manufacturers Association, Automotive Trade Policy Council, American International Automobile Dealers, ArvinMeritor, Mitsubishi Electric, Chrysler, Frankel Automotive Group, Johnson Controls, Connecticut Automotive Retailers Association, Automotive Parts

Table 1 House bills important to the auto industry, 110th Congress and first session of 111th Congress. Bills for which a member of the auto industry expressed opposition or support *and* which saw a vote on final passage. A “1” indicates support for the legislation by GM, Chrysler, Ford, the Auto Alliance, the United Auto Workers or another industry actor.

Cong	HR	Legislation	GM	Chrysler	Ford	Alliance	UAW	Other
110	1338	Paycheck Fairness Act	–	–	–	–	1	–
110	2176	To provide for and approve the settlement of certain land claims of the bay mills Indian community	–	–	–	–	1	–
110	3685	Employment Non-Discrimination Act of 2007	–	–	–	–	1	–
110	5351	Renewable Energy and Energy Conservation Tax Act of 2008	–	–	–	–	–	1
110	5522	Worker Protection against Combustible Dust Explosions and Fires Act of 2008	–	–	–	–	–	1
110	6	Energy Independence and Security Act of 2007	–	–	–	1	–	–
110	6049	Energy Improvement and Extension Act of 2008	1	1	1	–	–	–
110	2454	American Clean Energy and Security Act of 2009	1	1	1	–	–	–

legislation which saw at least one automotive group take a public position. Of these fifty, Table 1 displays the eight (excluding cash for clunkers and the auto bailout) that saw roll call votes on their final passage.²⁴ As one might expect, these bills involve issues ranging from workers’ rights to energy policy. Table 1 also displays whether General Motors, Chrysler, Ford, the Auto Alliance, or the

Remanufacturers Association, Automotive Warehouse Distributors Association, Mazda North American Operations, Auto International Association, Specialty Equipment Market Association, Automotive Aftermarket Industry Association, Automotive Engine Rebuilders Association, International Metals & Energy Technology Ltd, Association of International Automobile Manufacturers, Advance Auto Parts, Alliance of Automotive Service Providers, AutoZone, Blue Magic Inc., CARQUEST Auto Parts, Coalition for Auto Repair Equality, Jiffy Lube, Midas, Meineke Incorporated, NAPA Auto Parts, O’Reilly Auto Parts, Pep Boys, Penray, Strauss Discount Auto, Valvoline, California New Car Dealers Association, Automotive Service Association, American International Automobile Dealers Association, International Union, United Automobile, and Aerospace and Agricultural Implement Workers of America.

²⁴ Many of the bills that the auto industry took positions on never saw a vote on final passage. Another approach would be to consider bill sponsorship or to consider who moves to defeat bills before they come to a final vote. We address some of these possibilities in the discussion.

United Auto Workers took positions on these bills. Interestingly, no negative positions by these groups are recorded by MapLight.²⁵ We view these bills as exemplars of those for which the auto industry would exert influence.

However, unlike on the industry-specific, highly particularistic legislation of the previous section, we find very little systematic evidence of an effect of auto workers on other salient legislation. Of the thirty-two model specifications for the eight bills, only three times do we observe statistically significant coefficients for our measure of auto workers: one of the specifications of the models for the Energy Independence and Security Act of 2007 and two of the specifications for the Paycheck Fairness Act, both bills from the 110th Congress.²⁶ Further, the negative coefficients for the Paycheck Fairness Act are in the *opposite* direction we would expect given that both the UAW and the AFL-CIO had vocally supported this legislation. The association is even weaker for the Big Three PAC contributions. The model of the votes for the American Clean Energy and Security Act of 2009 in the 111th Congress sees the only statistically significant coefficients of Big Three PAC contributions and they are in the *opposite* direction from the opinion publicly expressed by the each of the Big Three corporations.²⁷

6.2 When industry has lobbied a bill

Does this pattern hold when we further broaden our definition of the bills over which the auto industry would wish to exercise influence? During our sessions of Congress, auto industry interests lobbied far more bills than those on which they took public stances.

We obtain information on lobbying from the Center for Responsive Politics, which collects and processes reports filed by lobbying firms indicating bills for which they have advocated.²⁸ We define a roll call as *lobbied* when the PAC of Ford, GM, Chrysler, or the Alliance of Automobile Manufacturers submitted at least one lobbying report where they disclose having lobbied the bill associated with that roll call.

²⁵ That no negative positions were expressed by the industry in the entire sample is seemingly suggestive of the industry's influence at even earlier stages in the legislative process and worthy of further study in future research.

²⁶ We replicate our analysis from the previous section on the bills listed in Table 1 and provide summary tables in the Supplementary Materials.

²⁷ AFL-CIO contributions are more regularly related to these pieces of legislation, with at least one statistically significant coefficient in seven of the eight pieces of legislation.

²⁸ For an example of the data that the Center for Responsive Politics provides, see <http://www.opensecrets.org/lobby/clientbills.php?id=D000047015> year=2010.

These data offer a snapshot of industry behavior that indicates interest in the bills at hand. However, though we know that the industry lobbied these bills, we cannot know from these data whether they lobbied the specific provision under consideration in a given roll call, nor industry's preferred outcome on the vote. Because of these limitations, we offer this analysis as a supplement to the previous analysis of votes on which the industry took specific and public positions. We consider all lobbied roll calls, as well as the subset of lobbied bills with close roll call votes. We estimate models like those in Tables 2 and 3 for every roll call vote lobbied by the auto industry from our three sessions of Congress; we display results for the roll calls defined as “close” by Snyder and Groseclose (2000: p. 198) (those with a 65% majority or less), but our finding holds for all other thresholds we tested.

If industry presence or contributions strongly predicted all votes on which the industry lobbied, then we might expect that regressing lobbied roll call votes on presence and contributions would produce a bimodal distribution of coefficients, reflecting whether the industry supported or opposed the legislation under consideration. That is, most coefficients would be statistically significant and clustered at positive and negative extremes. To the contrary, we do not find systematically large coefficients for our industry presence measure or for Big Three campaign contributions. This finding is consistent with the notion that business influence is limited, even on this set of roll calls disposing of bills on which the industry lobbied. Figure 4 displays the standardized industry presence and contribution coefficients on the 258 close roll calls from our three sessions of Congress. Their distributions roughly approximate the normal distributions we would expect from nearly randomly generated coefficients. The distribution of industry presence coefficients very closely approximates the normal distribution,

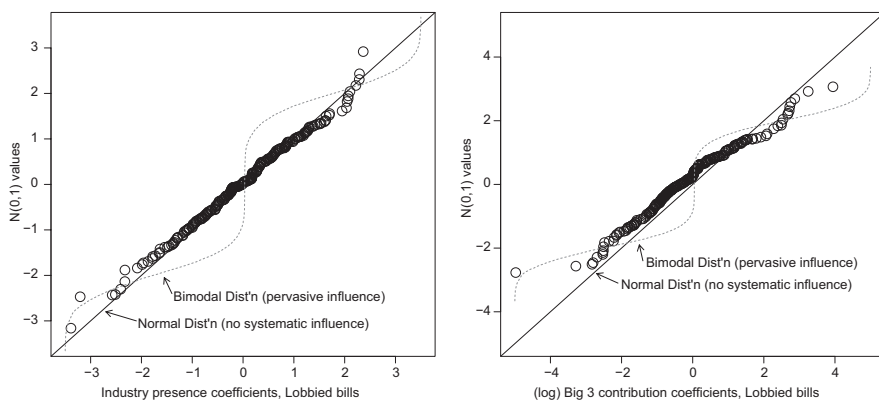


Figure 4 Distribution of standardized industry presence coefficients on roll call votes across all 258 close industry-lobbied bills.

with 93% of the coefficients falling inside two standard deviations; the contribution distribution has a few more large coefficients (87% fall inside two standard deviations), which is not surprising given that these are bills the industry lobbied. In neither case does the coefficient distribution track Figure 4's bimodal quantiles, represented by the dashed grey line.

These findings again suggest that the influence of the auto industry is limited outside of particularized pieces of legislation. While we observe notable associations on two pieces of legislation that sizably and exclusively affect the auto industry, this relationship is essentially absent on other key legislation that they publicly express positions on. The billions of dollars that the federal government occasionally diverts to the automotive industry is hardly small change, but on legislation with more competing interests on both sides, we are hard-pressed to find evidence of any systematic effects. The influence of the auto industry is potentially neutralized when other groups are brought to the table. When the main player on an issue is the auto industry, they are able to muster support across ideological and partisan lines. But, as others have noted, when the scope of conflict is broadened on issues like the environment or trade, it can be more difficult to influence political actors (Schattschneider 1975).

7 Discussion

Theorists have long debated the correct basis of representation and the extent to which legislators can actively represent the interests of business (*inter alia* Pitkin 1972). Even the appropriateness of the direct representation of industry has changed over time. For instance, in the UK some members of Parliament were well-known to be beholden to railroad interests during the 19th century. This was neither controversial nor discouraged (Beer 1957).

One challenge in this line of research is to appropriately distinguish questions of money in politics from those of the influence of business in politics. Research may take as a premise that corporate monetary influence perverts democratic representation at the cost of the public good. Our findings highlight that at least part of the influence of business interests may be *due to* rather than *in spite of* democratic governance. The men and women employed by and thus invested in the future of an industry or company may hold members of Congress responsible for their firms' fates.

In particularistic, quasi-private legislation, we find that industry presence and PAC contributions independently relate to roll call votes. We find, however, scant evidence of effects beyond cash for clunkers and the auto bailout. Why? The role of the broad-based AFL-CIO suggests the limitations of the auto industry's

influence over legislation. A single industry, no matter how iconic, must compete with numerous other well-funded interests. This exemplifies the tenants of Madisonian pluralism. The auto industry is one interest among many in legislation on broader issues like environmental regulation or worker rights. Legislators do, however, appear to respond to industry presence in what amounts to multi-billion dollar, particularistic, private legislation.

Our analysis focuses on a single industry: automotive manufacturers. But what of other industries? During the Great Recession, Congress was also eager to help other sectors. In the aftermath of the financial collapse of 2008, the federal government also attempted to stabilize the economy by directing billions of dollars towards banks.²⁹ Other industries may bring both more workers and more campaign dollars to the political table. The entire transportation sector ranks twelfth in campaign contributions, and its contributions are dwarfed by those from finance, insurance, and real estate.³⁰

The auto industry's ability to shape major legislation on narrow topics suggests one could also look to earlier stages of the legislative process when corporations could influence the bill writing process, committee hearings, committee drafting, and the amending process.³¹ These earlier stages are often the times when narrower components of complex bills are resolved, thus creating an opportunity for influence. When we examine who in Congress sponsors bills on which the auto industry expressed a position, we find clear industry connections. Members who represent industry districts or receive corporate campaign contributions sponsor industry-supported bills at a higher rate than other members.³² To better understand the corporate role in the policy-making process, future research should look to the narrowest legislation, and the earliest stages of the process where influence can be greatest. In contemporary American politics, a spectrum of views about the roles of business and jobs in politics persists. Compare the outrage of the Occupy protests to the comment of Republican presidential nominee Mitt Romney that "corporations are people." Our analysis suggests that members of Congress respond not just to campaign contributions of corporations, but also to the plight of blue collar

29 Puente (2012) examines one potential mechanism of corporate political influence on the administration of the TARP program, and, consistent with our results, finds no political effects.

30 The Center for Responsive Politics records that the transportation sector has given \$26 million in PAC contributions thus far in the 2012 cycle, while finance, insurance, and real estate has contributed \$208 million.

31 See Hall and Wayman (1990), Hall (1996).

32 Thirty-eight members of Congress sponsored bills advocated by the industry during this period. Simple bivariate comparisons of campaign contributions and sponsorship, as well as industry presence and sponsorship, show a clear relationship. Pearson χ^2 tests on both bivariate relationships are significant at the 0.05 level.

workers associated with those corporations. Members are electorally connected to their constituents, and some corporations employ large numbers of constituents. Walmart, for example, employs 1.4 million people in the US alone (Walmart 2012). The political influence of these corporations and industries is not limited to the slick D.C. lobbyist or through opulent fundraisers to raise PAC contributions. Just as people join, participate, and act based on membership in public interest groups, religious denominations, or demographic categories, they too may influence their elected official on behalf of their employers. To understand the influence of business, one must consider the heterogeneity across particularistic versus broader legislation, and one must account not just for the dollars behind corporate contributions, but also for workers in districts.

Previously published online June 12, 2013

Appendix

Logistic regression coefficient estimates

Table 2 Logistic regression coefficients of support for House Roll Call 690, congressional session 110.2. Vote on 10 December 2008 for using TARP for auto bailout. Passed 237–170: Democrats 205–20, Republicans 32–150.

	Model 1	Model 2	Model 3	Model 4
Intercept	2.12*** (0.24)	0.61** (0.20)	1.26*** (0.31)	−0.14 (0.30)
≥1000 Auto workers	0.98** (0.34)	1.14** (0.37)	0.74* (0.36)	0.87* (0.39)
Republican	−4.09*** (0.33)		−4.08*** (0.42)	
DW-NOMINATE		−4.87*** (0.42)		−5.04*** (0.53)
Ford/Chrysler/GM PAC Contribs (log)			0.14** (0.05)	0.15** (0.05)
AFL-CIO PAC Contribs (log)			0.14*** (0.04)	0.09* (0.04)
N	407	406	407	406
AIC	301.48	268.76	284.11	258.59
BIC	349.58	316.83	364.29	338.72
log L	−138.74	−122.38	−122.06	−109.30

Standard errors in parentheses.

*p<0.05; **p<0.01; ***p<0.001.

Table created with R package apsrtable.

Table 3 Logistic regression coefficients of support for House Roll Call 314, congressional session 111.1. Vote on 9 June 2009 (“Cash for Clunkers”). Passed 298-119: Democrats 239–9, Republicans 59–110.

	Model 1	Model 2	Model 3	Model 4
Intercept	3.15*** (0.34)	1.83*** (0.25)	2.11*** (0.38)	1.01** (0.31)
≥1000 Auto workers	0.91** (0.34)	0.96** (0.36)	0.45 (0.38)	0.43 (0.39)
Republican	−4.04*** (0.38)		−3.65*** (0.41)	
DW-NOMINATE		−4.56*** (0.44)		−4.19*** (0.48)
Ford/Chrysler/GM PAC Contribs (log)			0.13** (0.04)	0.16*** (0.05)
AFL-CIO PAC Contribs (log)			0.21*** (0.05)	0.14** (0.05)
N	417	417	417	417
AIC	294.72	270.40	269.39	253.80
BIC	343.11	318.79	350.05	334.46
log L	−135.36	−123.20	−114.69	−106.90

Standard errors in parentheses.
*p<0. 05; **p<0.01; ***p<0.001.
Table created with R package apsrtable.

References

ABC. 2011. “The Great American Debates: There’s too Much Government in my Life.” *This Week*, December 18, transcript.

Ansolabehere, Stephen, John de Figueiredo, and James M. Snyder. 2003. “Why is There so Little Money in US Politics.” *Journal of Economic Perspectives* 17: 105–130.

Beaulieu, E. 2002. “The Stolper–Samuelson Theorem Faces Congress.” *Review of International Economics* 10 (2): 343–360.

Beer, Samuel H. 1957. “The Representation of Interests in British Government: Historical Background.” *American Political Science Review* 51 (3): 613–650.

Burden, Barry C. 2007. *Personal Roots of Representation*. Princeton, NJ: Princeton University Press.

Busch, Marc L., and Eric Reinhardt. 2000. “Industry Location and Protection: The Political and Economic Geography of US Nontariff Barriers.” *American Journal of Political Science* 44 (4): 703–719.

Carroll, Royce, Jeff Lewis, James Lo, Nolan McCarty, Keith Poole, and Howard Rosenthal. 2011. “DW-NOMINATE Scores with Bootstrapped Standard Errors.” Available at: voteview.com/dwnomin.htm.

- Carter, Jimmy. 1980. "Remarks on Signing into Law H.R. 5860, the Chrysler Corporation Loan Guarantee Act of 1979." *The American Presidency Project*. Accessed January 3, 2012. Available at: <http://www.presidency.ucsb.edu/ws/index.php?pid=32978axzz1iVHeHBN1>. Center for Responsive Politics. 2011. "Political Action Committee Data."
- Chappell, Henry W., Jr. 1982. "Campaign Contributions and Congressional Voting: A Simultaneous Probit-Tobit Model." *The Review of Economics and Statistics* 64 (1): 77–83.
- Clausen, Aage R. 1973. *How Congressmen Decide: A Policy Focus*. New York: St. Martin's Press.
- Conley, Dalton, and Brian J. McCabe. 2012. "Bribery or Just Desserts? Evidence on the Influence of Congressional Reproductive Policy Voting Patterns on PAC Contributions from Exogenous Variation in the Sex Mix of Legislator Offspring." *Social Science Research* 41 (1): 120–129.
- Cox, Gary W., and Mathew D. McCubbins. 1993. *Legislative Leviathan: Party Government in the House*. Berkeley: University of California Press.
- Cox, Gary W., and Mathew D. McCubbins. 2007. *Setting the Agenda: Responsible Party Government in the US House of Representatives*. New York: Cambridge University Press.
- Erikson, Robert S. 1978. "Constituency Opinion and Congressional Behavior: A Reexamination of the Miller-Stokes Representation Data." *American Journal of Political Science* 22 (3): 511–535.
- Fenno, Richard F. 1973. *Congressmen in Committees*. Boston: Little Brown.
- Fiorina, Morris P. 1978. "Economic Retrospective Voting in American National Elections: A Micro-Analysis." *American Journal of Political Science* 426–443.
- Fleisher, Richard. 1993. "PAC Contributions and Congressional Voting on National Defense." *Legislative Studies Quarterly* 18 (3): 391–409.
- Gimpel, James G., Frances E. Lee, and Michael Parrott. 2012. "Economic Interests and the Party Coalitions: Campaign Contributions as a Window onto Partisan Alliances." Paper presented at the 2012 Annual Meeting of the Midwest Political Science Political Science Association.
- Goren, Lilly J. 2003. *The Politics of Military Base Closings*. New York: Peter Lang.
- Grenzke, Janet M. 1989. "PACs and the Congressional Supermarket: The Currency is Complex." *American Journal of Political Science* 33 (1): 1–24.
- Grier, Kevin B., Michael C. Munger, and Brian E. Roberts. 1994. "The Determinants of Industry Political Activity, 1978–1986." *The American Political Science Review* 88 (4): 911–926.
- Hall, Richard L. 1996. *Participation in Congress*. New Haven: Yale University Press.
- Hall, Richard L., and Frank W. Wayman. 1990. "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *The American Political Science Review* 84 (3): 797–820.
- Han, Hahrie. 2009. *Moved to Action: Motivation, Participation, and Inequality in American Politics*. Stanford, CA: Stanford University Press.
- Hoover, Herbert. 1931. "Telephone Remarks to the National Automobile Chamber of Commerce." *The American Presidency Project*. Accessed January 2, 2012. Available at: <http://www.presidency.ucsb.edu/ws/index.php?pid=22999st=automobile st1=axzz1iPSQ32w5>.
- Imai, Kosuke, Gary King, and Olivia Lau. 2008. "Logit: Logistic Regression for Dichotomous Dependent Variables." in Zelig: Everyone's Statistical Software.
- Jones, Woodrow Jr., and K. Robert Keiser. 1987. "Issue Visibility and the Effects of PAC Money." *Social Science Quarterly* 68: 170–176.
- Kastellec, Jonathan P., and Eduardo L. Leoni. 2007. "Using Graphs Instead of Tables in Political Science." *Perspectives on Politics* 5 (4): 755–771.

- Kau, James B., and Paul H. Rubin. 1982. *Congressmen, Constituents, and Contributors: Determinants of Roll Call Voting in the House of Representatives*. Boston: M. Nijhoff.
- King, Gary, Michael Tomz, and Jason Wittenberg. 2000. "Making the Most of Statistical Analyses: Improving Interpretation and Presentation." *American Journal of Political Science* 44 (2): 341–355.
- Krehbiel, Keith. 1991. *Information and Legislative Organization*. Ann Arbor: University of Michigan Press.
- Krehbiel, Keith. 1993. "Where's the Party?" *British Journal of Political Science* 23 (2): 235–266.
- Krehbiel, Keith. 1998. *Pivotal Politics: A Theory of US Lawmaking*. Chicago, IL: University of Chicago Press.
- Kroszner, Randall S., and Thomas Stratmann. 1988. "Interest-Group Competition and the Organization of Congress: Theory and Evidence from Financial Services' Political Action Committees." *American Economic Review* 88 (5): 1163–1187.
- Lee, Frances E. 2003. "Geographic Politics in the US House of Representatives: Coalition Building and Distribution of Benefits." *American Journal of Political Science* 47 (4): 714–728.
- Levs, Josh. 2008. "Big Three Auto Ceos Flew Private Jets to Ask for Taxpayer Money." Accessed January 4, 2012. Available at: http://articles.cnn.com/2008-11-19/us/autos.ceo.jets_1_private-jets-auto-industry-test-vote?s=PM:US.
- Marley, Michael. 2009. "House OKs Extra \$2B in 'Clunkers' Funds." *Metal Bulletin Daily Alerts* July 31.
- Mayhew, David. 1974. *Congress: The Electoral Connection*. New Haven, CT: Yale University Press.
- McCarty, Nolan M., Keith T. Poole, and Howard Rosenthal. 2006. *Polarized America: The Dance of Ideology and Unequal Riches*. Cambridge, MA: MIT Press.
- Milyo, Jeffrey, David Primo, and Timothy Groseclose. 2000. "Corporate PAC Campaign Contributions in Perspective." *Business and Politics* 2 (1): 75–88.
- Moore, Ryan T., Eleanor Neff Powell, and Andrew Reeves. 2013. "Replication Data for: Driving Support: Workers, PACs, and Congressional Support of the Auto Industry." Available at: <http://hdl.handle.net/1902.1/21320>. IQSS Dataverse Network, V1.
- Mufson, Steven, David Cho, and Cecilia Kang. 2008. "Aid in Hand, Clock Ticks for Detroit, with \$17.4 Billion, a Mandate: Restructure by March or Go Bankrupt." *Washington Post*, December 20, Met 2 Edition, A01.
- Neustadt, Alan. 1990. "Interest-group PACsmanship: An Analysis of Campaign Contributions, Issue Visibility and Legislative Impact." *Social Forces* 69: 549–564.
- Obama, Barack. 2009. "Remarks on the US Automobile Industry." *The American Presidency Project*. Accessed January 2, 2012. Available at: <http://www.presidency.ucsb.edu/ws/index.php?pid=86081st=bailoutst1=Chryslerixzz1iPXW8ohE>.
- Pitkin, Hanna F. 1972. *The Concept of Representation*. Berkeley, CA: University of California Press.
- Poole, Keith T., and Howard Rosenthal. 2000. *Congress: A Political-Economic History of Roll Call Voting*. USA: Oxford University Press.
- Puente, Lucas. 2012. "Political Influence and Tarp: An Analysis of Treasury's Disposition of Cpp Warrants." *PS, Political Science and Politics* 45: 211–217.
- Reeves, Andrew, and James G. Gimpel. 2012. "Ecologies of Unease: Geographic Context and National Economic Evaluations." *Political Behavior* 34 (3): 507–534.
- Rooney, Ben. 2008. "Poll: 61% Oppose Auto Bailout." Accessed January 2, 2012. Available at: http://money.cnn.com/2008/12/03/news/economy/automakers_poll/.

- Roscoe, Douglas D., and Shannon Jenkins. 2005. "A Meta-Analysis of Campaign Contributions' Impact on Roll Call Voting." *Social Science Quarterly* 86 (1): 52–68.
- Rosenstone, Steven J., and John Mark Hansen. 1993. *Mobilization, Participation, and Democracy in America*. New York: Macmillan.
- Ryan, Paul. 2005. "Auto Industry Drives Region's Economy." Accessed January 6, 2012. Available at: <http://paulryan.house.gov/News/DocumentSingle.aspx?DocumentID=247891>.
- Saltzman, Gregory M. 1987. "Congressional Voting on Labor Issues: The Role of PACs." *Industrial and Labor Relations Review* 40 (2): 163–179.
- Schattschneider, E. E. 1975. *The Semisovereign People: A Realist's View of Democracy in America*. New York: Dryden Press.
- Schatz, Joseph J. 2008. "2008 Legislative Summary: Auto Industry Assistance." *CQ Weekly*, Dec 8:3267.
- Silberman, Jonathan I., and Garey C. Durden. 1976. "Determining Legislative Preferences on the Minimum Wage: An Economic Approach." *Journal of Political Economy* 84 (2): 317–330.
- Snyder, James M., and Tim Groseclose. 2000. "Estimating Party Influence in Congressional Roll-Call Voting." *American Journal of Political Science* 44 (2): 193–211.
- Stratmann, Thomas. 1992. "Are Contributors Rational? Untangling Strategies of Political Action Committees." *Journal of Political Economy* 100 (3): 647–664.
- Stratmann, Thomas. 1995. "Campaign Contributions and Congressional Voting: Does the Timing of Contributions Matter?" *The Review of Economics and Statistics* 77 (1): 127–136.
- Stratmann, Thomas. 2002. "Can Special Interests Buy Congressional votes? Evidence from Financial Services Legislation." *Journal of Law and Economics* 45: 345–373.
- Thornburg, Steven, and Robin W. Roberts. 2008. "Money, Politics, and the Regulation of Public Accounting Services: Evidence from the Sarbanes-Oxley Act of 2002." *Accounting, Organizations and Society* 33 (2–3): 229–248.
- Walmart. 2012. "Walmart Facts." Accessed January 4, 2012. Available at: <http://news.walmart.com/walmart-facts>.
- Wawro, Gregory. 2001. "A Panel Probit Analysis of Campaign Contributions and Roll-Call Votes." *American Journal of Political Science* 45 (3): 563–579.
- Witko, Christopher. 2006. "PACs, Issue Context, and Congressional decision making." *Political Research Quarterly* 59 (2): 283–295.
- Wright, John R. 1989. "PAC Contributions, Lobbying, and Representation." *Journal of Politics* 51 (3): 713–729.

Supplementary material

1 Industry presence not related to all roll calls

We demonstrate that our primary variable of interest, the presence of auto workers in the member's district, is not systematically related to the entire set of roll calls. Of the 2852 roll call votes in the 110th Congress and the first session of the 111th, we consider the 2233 roll calls that are not unanimous or a perfect party vote. We regress members' votes on industry presence, the first-dimension DW-NOMINATE score, and campaign contributions by the Big Three and AFL-CIO.

Figure 1 displays the density of these values. We omit extremely large coefficients that result from the computational difficulty of estimating coefficients in very near-party votes (such as those with only one partisan defector). The coefficients on industry district are symmetric around zero, unimodal, and usually smaller than the values we obtain for the auto bailout and the trade-in program. If we saw industry presence predicting votes unrelated to the auto industry in a *systematic* way, we might suspect that industry presence is a proxy for some other political quantity or that workers had pervasive influence; however, industry presence appears unrelated to votes over the entire set of roll calls.

Industry presence is positively associated with votes for the bailout and cash for clunkers, and these relationships are substantial relative to the absolute value of the industry district coefficients overall. Considering all non-perfect-party votes, the bailout vote is larger than about 69% of the absolute coefficients, and the trade-in vote is larger than about 45% of the absolute coefficients. When we introduce stricter thresholds for the votes, our two industry coefficients look relatively even larger. For example, excluding votes with only a single partisan defector, the absolute bailout vote is in the 76th percentile, and the clunkers vote is in the 49th percentile. If we focus on the competitive roll calls by employing lopsidedness thresholds (Snyder and Groseclose 2000), the pattern remains unchanged.¹

¹ The fraction of absolute industry presence coefficients smaller than the bailout and trade-in ones is 76% and 49% for the votes where the winning side carried no more than 90%; 74% and 46% when the winners carried no more than 80%, and 70% on the bailout when the winners carried no more than 70%.

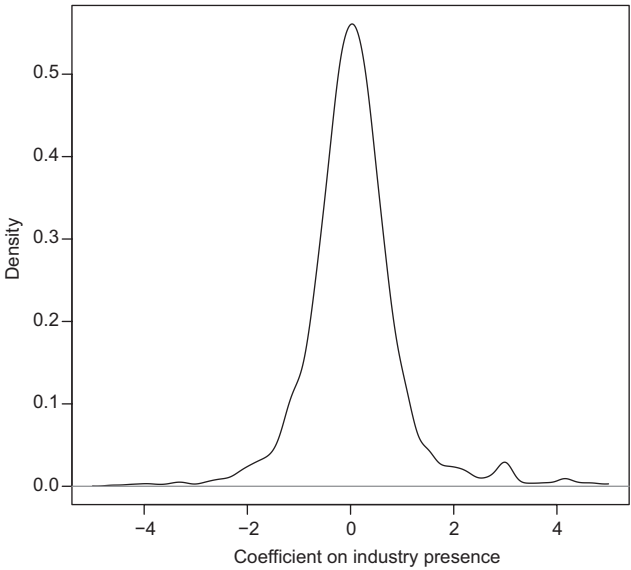


Figure S1 Coefficients on industry presence, all 2233 non-unanimous, non-perfect-party roll calls, 110th Congress and first session of 111th.

2 Supplementary Tables

2.1 Logistic regression coefficient estimates, bills on which industry expresses an opinion

Table S1 Logistic regression coefficients of support for House Roll Call 40, congressional session 110.1. HR6: Creating Long-term Energy Alternatives for the Nation Act.

	Model 1	Model 2	Model 3	Model 4
Intercept	3.93*** (0.51)	2.76*** (0.57)	3.23*** (0.55)	2.97*** (0.74)
≥1000 Auto workers	0.30 (0.36)	0.62 (0.42)	0.47 (0.39)	0.92* (0.46)
Republican	−5.50*** (0.54)		−4.84*** (0.55)	
DW-NOMINATE		−8.45*** (1.14)		−8.36*** (1.31)
Ford/Chrysler/GM PAC Contribs (log)			−0.08 (0.05)	−0.10† (0.05)
AFL-CIO PAC Contribs (log)			0.17*** (0.05)	0.02 (0.06)
N	416	416	416	416
AIC	229.57	166.29	221.41	167.02
BIC	277.93	214.66	302.03	247.63
log L	−102.78	−71.15	−90.71	−63.51

Standard errors in parentheses.
†Significant at $p<0.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Table created with R package apsrtable.

Table S2 Logistic regression coefficients of support for House Roll Call 1057, congressional session 110.1. HR 3685: Employment Non-Discrimination Act (ENDA).

	Model 1	Model 2	Model 3	Model 4
Intercept	2.00*** (0.23)	0.66*** (0.19)	1.49*** (0.31)	0.50† (0.27)
≥1000 Auto workers	0.20 (0.29)	0.25 (0.31)	0.24 (0.31)	0.31 (0.33)
Republican	−3.58*** (0.29)		−3.10*** (0.33)	
DW-NOMINATE		−4.15*** (0.34)		−3.83*** (0.40)
Ford/Chrysler/GM PAC Contribs (log)			−0.03 (0.04)	−0.03 (0.04)
AFL-CIO PAC Contribs (log)			0.10* (0.04)	0.05 (0.04)
N	413	413	413	413
AIC	343.75	312.19	341.25	314.26
BIC	392.03	360.47	421.72	394.73
log L	−159.88	−144.09	−150.63	−137.13

Standard errors in parentheses.
†Significant at $p<0.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Table created with R package apsrtable.

Table S3 Logistic regression coefficients of support for House Roll Call 84, congressional session 110.2. HR 5351: Renewable Energy and Energy Conservation Tax Act of 2008.

	Model 1	Model 2	Model 3	Model 4
Intercept	3.35*** (0.39)	1.38*** (0.32)	2.88*** (0.47)	1.55*** (0.46)
≥1000 Auto workers	−0.15 (0.44)	−0.00 (0.50)	0.12 (0.47)	0.36 (0.54)
Republican	−5.63*** (0.44)		−5.00*** (0.46)	
DW-NOMINATE		−7.12*** (0.64)		−6.75*** (0.70)
Ford/Chrysler/GM PAC Contribs (log)			−0.14* (0.06)	−0.16** (0.06)
AFL-CIO PAC Contribs (log)			0.16** (0.06)	0.05 (0.06)
N	417	417	417	417
AIC	189.74	150.82	181.75	147.36
BIC	238.14	199.21	262.41	228.02
log L	−82.87	−63.41	−70.87	−53.68

Standard errors in parentheses.
†Significant at p<0.10; *p<0.05; **p<0.01; ***p<0.001.
Table created with R package apsrtable.

Table S4 Logistic regression coefficients of support for House Roll Call 233, congressional session 110.2. HR 5522: Worker Protection Against Combustible Dust Explosions and Fires Act of 2008.

	Model 1	Model 2	Model 3	Model 4
Intercept	20.65 (1183.32)	6.88*** (1.62)	20.28 (1741.97)	4.68** (1.75)
≥1000 Auto workers	−0.28 (0.48)	0.43 (0.61)	−0.46 (0.59)	0.26 (0.67)
Republican	−22.57 (1183.32)		−23.10 (1741.97)	
DW-NOMINATE		−18.29*** (3.72)		−14.58*** (3.70)
Ford/Chrysler/GM PAC Contribs (log)			0.01 (0.07)	0.01 (0.08)
AFL-CIO PAC Contribs (log)			0.36*** (0.07)	0.17* (0.08)
N	411	411	411	411
AIC	141.12	91.33	112.17	90.61
BIC	189.35	139.55	192.54	170.98
log <i>L</i>	−58.56	−33.66	−36.09	−25.31

Standard errors in parentheses.
'Significant at $p<0.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Table created with R package apsrtable.

Table S5 Logistic regression coefficients of support for House Roll Call 344, congressional session 110.2. HR 6049: Energy Improvement and Extension Act of 2008.

	Model 1	Model 2	Model 3	Model 4
Intercept	5.41*** (1.01)	4.38*** (0.95)	4.68*** (1.03)	5.15*** (1.29)
≥1000 Auto workers	0.04 (0.38)	0.39 (0.44)	0.10 (0.41)	0.55 (0.47)
Republican	−6.94*** (1.02)		−6.37*** (1.03)	
DW-NOMINATE		−11.44*** (1.95)		−12.41*** (2.43)
Ford/Chrysler/GM PAC Contribs (log)			−0.03 (0.05)	−0.05 (0.06)
AFL-CIO PAC Contribs (log)			0.16** (0.05)	−0.05 (0.07)
N	422	422	422	422
AIC	201.98	147.35	197.36	149.84
BIC	250.52	195.89	278.27	230.74
log L	−88.99	−61.68	−78.68	−54.92

Standard errors in parentheses.
†Significant at $p<0.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Table created with R package `apsrtable`.

Table S6 Logistic regression coefficients of support for House Roll Call 458, congressional session 110.2. HR 2176: to provide for and Approve the Settlement of Certain Land Claims of the Bay Mills Indian Community.

	Model 1	Model 2	Model 3	Model 4
Intercept	−0.33* (0.15)	−0.94*** (0.14)	−0.79** (0.26)	−1.32*** (0.22)
≥1000 Auto workers	0.10 (0.25)	0.06 (0.24)	0.01 (0.25)	−0.01 (0.25)
Republican	−1.60*** (0.25)		−1.42*** (0.31)	
DW-NOMINATE		−1.51*** (0.25)		−1.30*** (0.30)
Ford/Chrysler/GM PAC Contribs (log)			0.05 (0.03)	0.04 (0.03)
AFL-CIO PAC Contribs (log)			0.07* (0.03)	0.07* (0.03)
N	418	418	418	418
AIC	462.54	466.05	460.45	464.01
BIC	510.97	514.48	541.16	544.72
log L	−219.27	−221.02	−210.22	−212.01

Standard errors in parentheses.
'Significant at $p<0.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Table created with R package apsrtable.

Table S7 Logistic regression coefficients of support for House Roll Call 556, congressional session 110.2. HR 1338: Paycheck Fairness Act.

	Model 1	Model 2	Model 3	Model 4
Intercept	22.58 (1825.63)	5.13*** (1.35)	21.69 (1751.10)	5.90** (1.86)
≥1000 Auto workers	−2.11* (1.05)	−1.61 (1.03)	−2.26* (1.08)	−1.58 (1.08)
Republican	−24.71 (1825.63)		−24.20 (1751.10)	
DW-NOMINATE		−14.70*** (3.03)		−16.11*** (3.86)
Ford/Chrysler/GM PAC Contribs (log)			−0.00 (0.08)	0.01 (0.09)
AFL-CIO PAC Contribs (log)			0.21** (0.08)	−0.07 (0.10)
N	424	424	424	424
AIC	99.26	71.64	96.67	75.06
BIC	147.86	120.24	177.66	156.05
log L	−37.63	−23.82	−28.33	−17.53

Standard errors in parentheses.
†Significant at $p<0.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Table created with R package `apsrtable`.

Table S8 Logistic regression coefficients of support for House Roll Call 477, congressional session 111.1. HR 2454: American Clean Energy and Security Act of 2009.

	Model 1	Model 2	Model 3	Model 4
Intercept	1.61*** (0.18)	−0.17 (0.21)	1.61*** (0.30)	−0.05 (0.31)
≥1000 Auto workers	−0.19 (0.37)	−0.03 (0.41)	0.08 (0.38)	0.23 (0.43)
Republican	−4.60*** (0.40)		−4.48*** (0.43)	
DW-NOMINATE		−5.74*** (0.53)		−5.75*** (0.56)
Ford/Chrysler/GM PAC Contribs (log)			−0.12** (0.04)	−0.11** (0.04)
AFL-CIO PAC Contribs (log)			0.06 (0.04)	0.04 (0.04)
N	430	430	430	430
AIC	305.27	253.12	298.44	249.73
BIC	354.03	301.89	379.72	331.00
log L	−140.63	−114.56	−129.22	−104.86

Standard errors in parentheses.
†Significant at $p<0.010$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.
Table created with R package apsrtable.

3 Supplementary Figures

3.1 Robustness to alternative model specifications

To determine whether the estimates presented in our paper are robust to alternative model specifications, we regress votes on the bailout and cash for clunkers on many combinations of industry presence and PAC contributions. Figures 2–9 represent all non-intercept coefficients from these estimations.

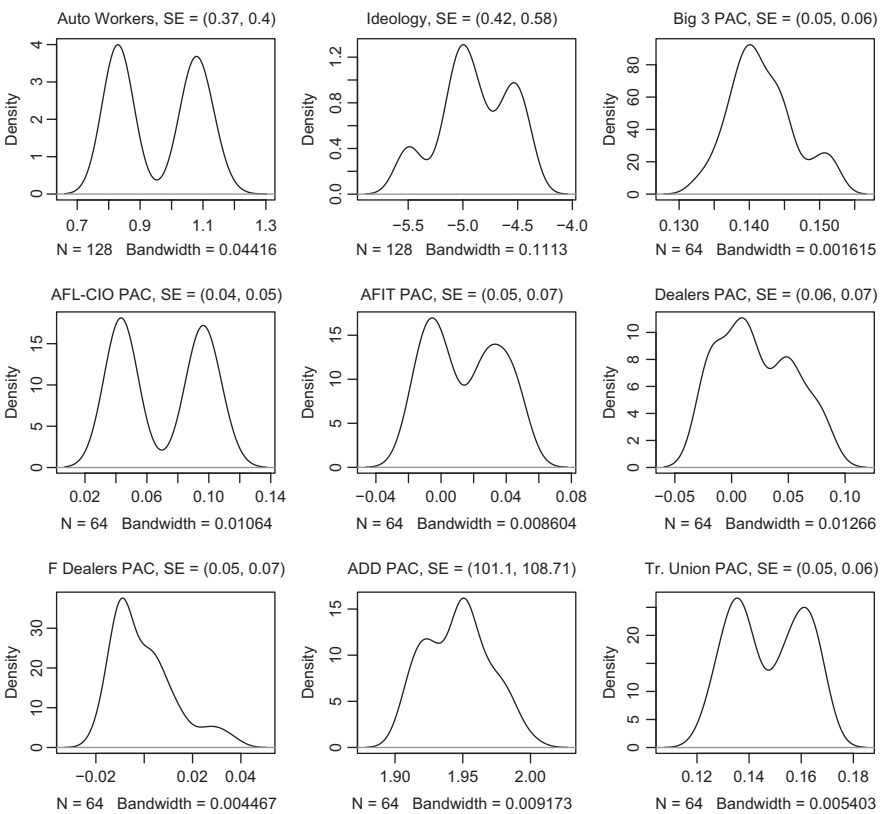


Figure S2 Industry presence coefficient always positive in Bailout Vote logistic regressions. Coefficient densities with industry presence and DW-NOMINATE always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions logged.

Each of the plot panels includes the density of the coefficient estimates from all 2^k possible logistic regressions including and excluding all k PAC variables we consider. The measure of industry presence in the district and either the member’s DW-NOMINATE score or her partisanship are always included.

Most importantly, we note that the coefficient on industry presence for both the bailout and cash for clunkers votes is positive in every one of the 1020 unique specifications represented in the densities. The entire range of coefficient standard errors are listed in each panel’s title.

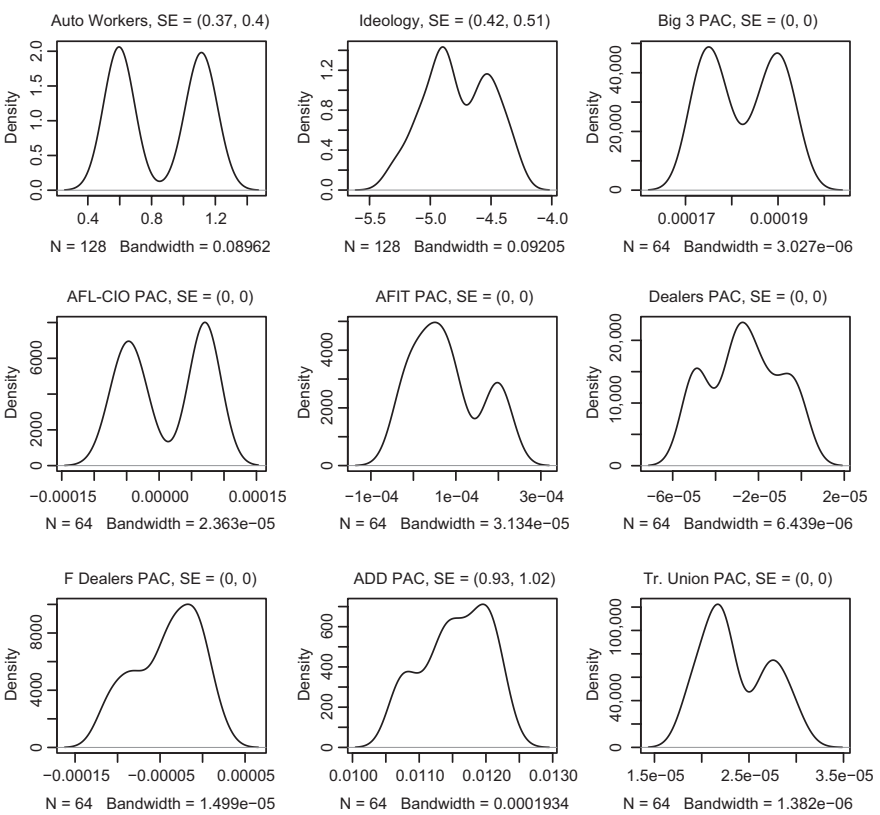


Figure S3 Industry presence coefficient always positive in Bailout Vote logistic regressions. Coefficient densities with industry presence and DW-NOMINATE always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions in dollars.

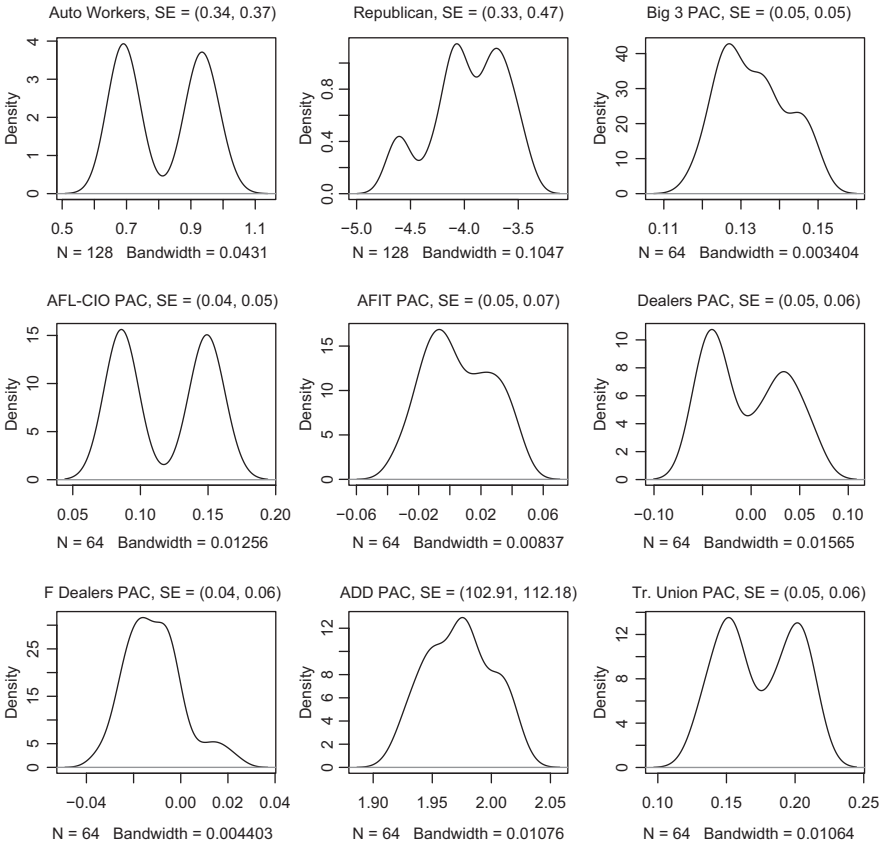


Figure S4 Industry presence coefficient always positive in Bailout Vote logistic regressions. Coefficient densities with industry presence and party always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions logged.

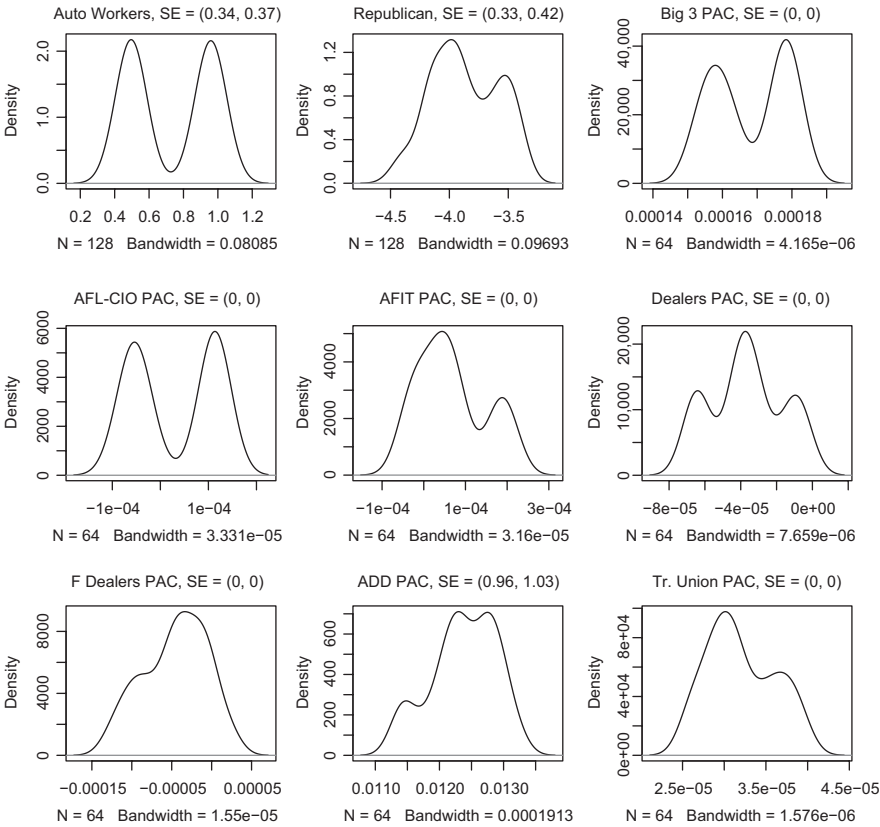


Figure S5 Industry presence coefficient always positive in Bailout Vote logistic regressions. Coefficient densities with industry presence and party always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions in dollars.

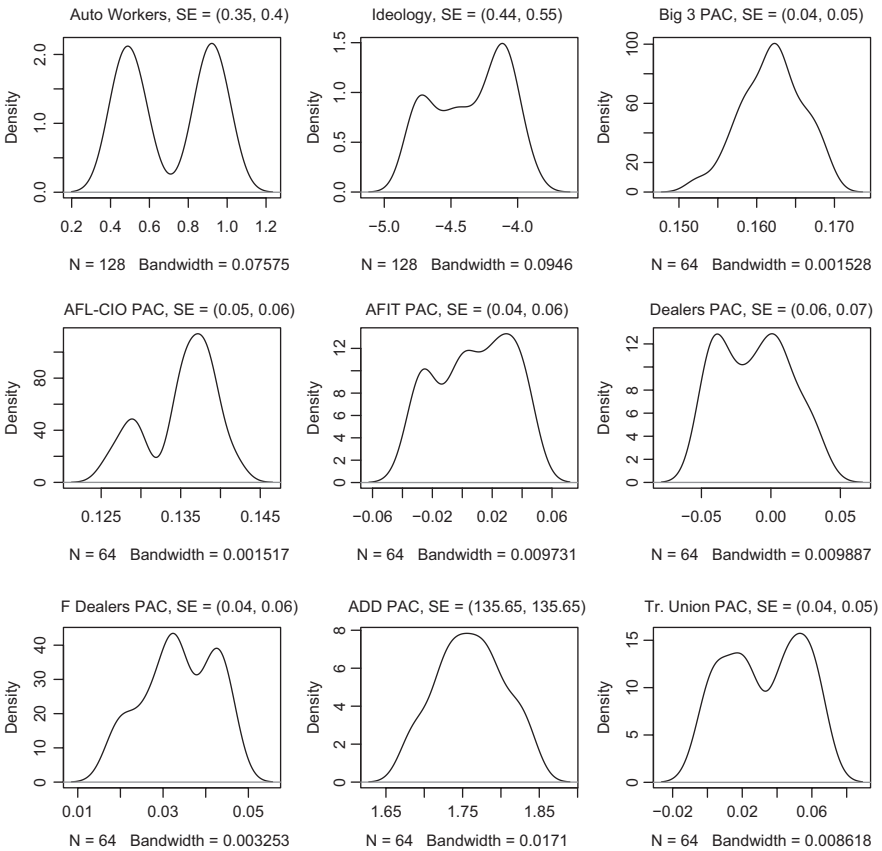


Figure S6 Industry presence coefficient always positive in Cash for Clunkers vote logistic regressions. Coefficient densities with industry presence and DW-NOMINATE always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions logged.

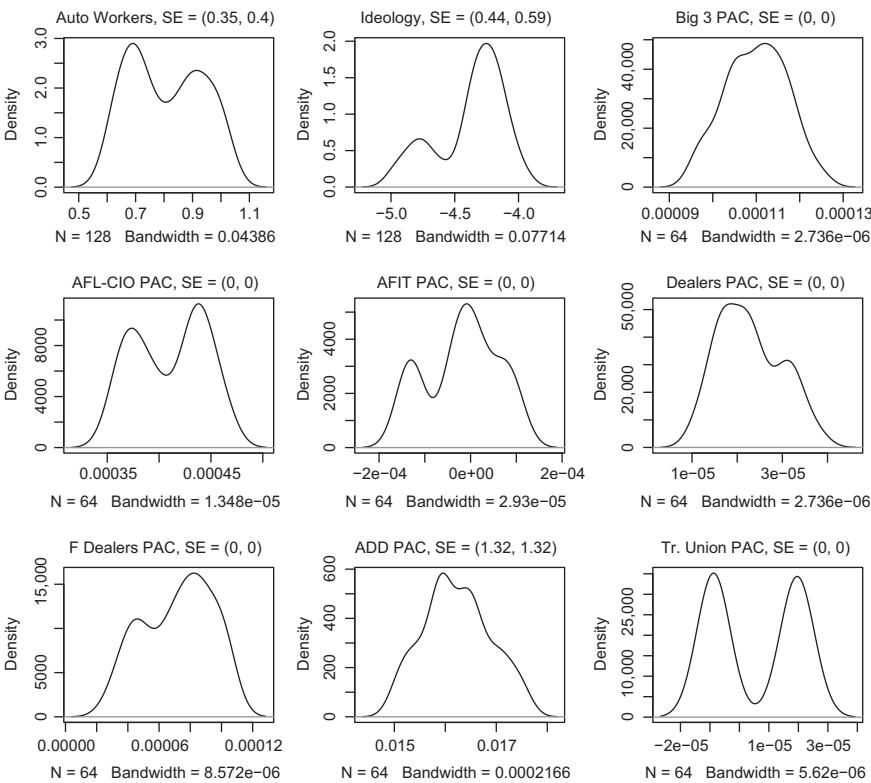


Figure S7 Industry presence coefficient always positive in Cash for Clunkers vote logistic regressions. Coefficient densities with industry presence and DW-NOMINATE always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions in dollars.

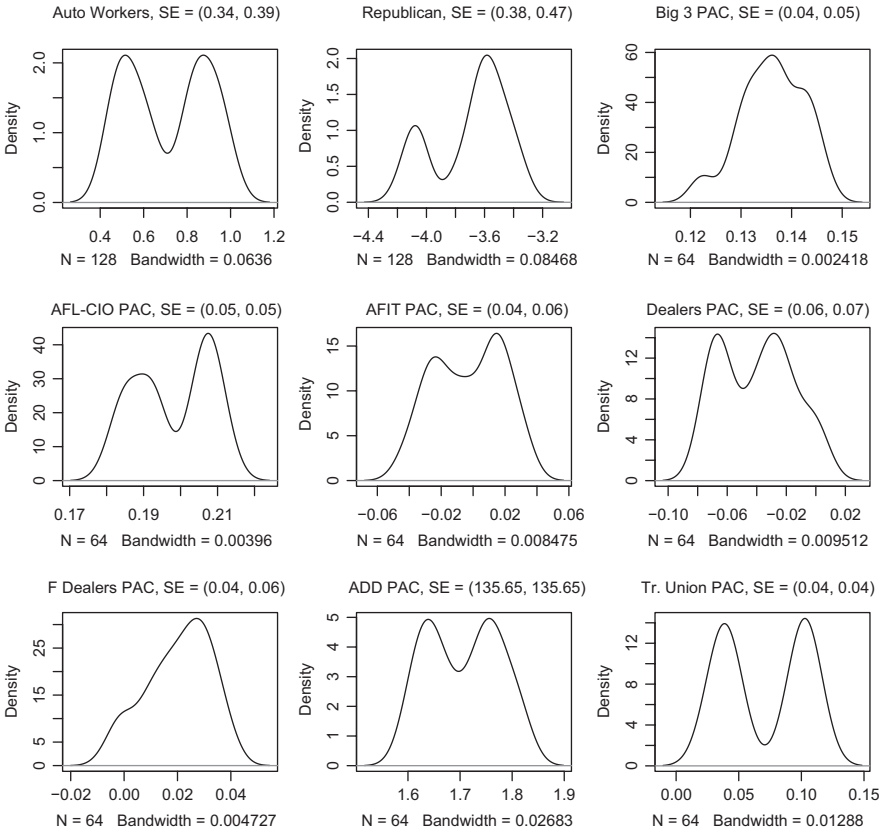


Figure S8 Industry presence coefficient always positive in Cash for Clunkers vote logistic regressions. Coefficient densities with industry presence and party always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions logged.

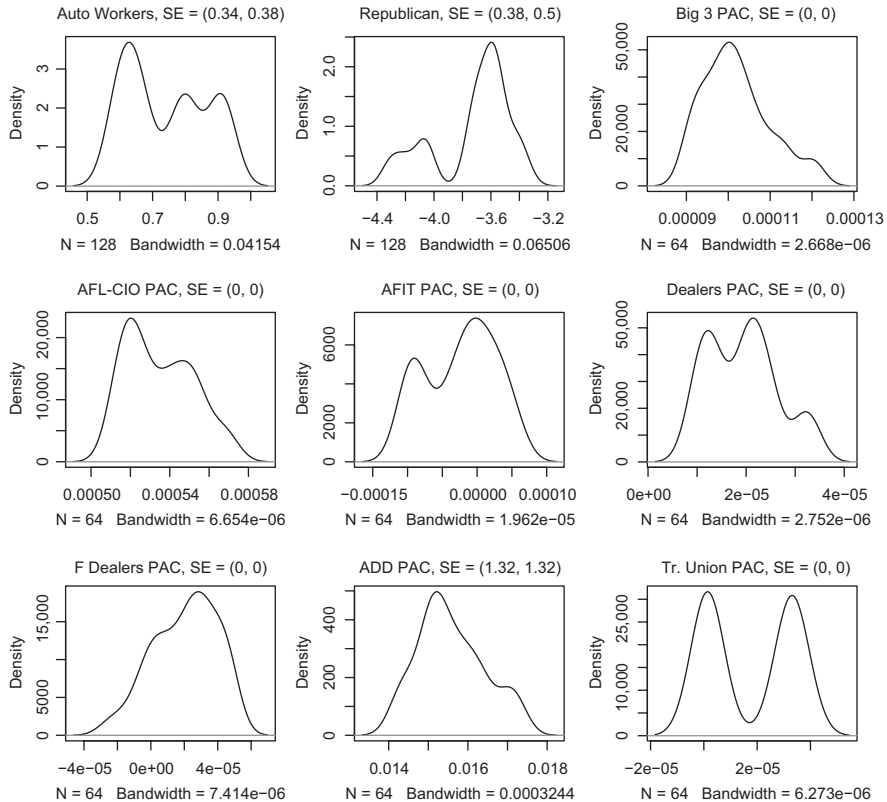


Figure S9 Industry presence coefficient always positive in Cash for Clunkers vote logistic regressions. Coefficient densities with industry presence and party always included. Every combination of other variables included and excluded: contributions from Big 3 PAC, AFL-CIO PAC, AFIT-PAC, Auto Dealers PAC, Foreign Auto Dealers PAC, Auto Dealers and Drivers PAC, Transit Union Workers PAC. PAC contributions in dollars.

References

- Moore, Ryan T., Eleanor Neff Powell, and Andrew Reeves. 2013a. "Driving Support: Workers, PACs, and Congressional Support of the Auto Industry." *Business and Politics* Forthcoming.
- Moore, Ryan T., Eleanor Neff Powell, and Andrew Reeves. 2013b. "Replication Data for: Driving Support: Workers, PACs, and Congressional Support of the Auto Industry." <http://hdl.handle.net/1902.1/21320>. IQSS Dataverse Network, V1.
- Snyder, James M., and Tim Groseclose. 2000. "Estimating Party Influence in Congressional Roll-Call Voting." *American Journal of Political Science* 44 (2): 193–211.