

## Politics, Promises, and Partisanship? An Analysis of President Obama's Economic Stimulus Plan at the Congressional District Level

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### Abstract

This research focuses on President Obama's signature economic plan adopted in February 2009—the American Recovery and Reinvestment Act (ARRA). Using data available from Recovery.gov, the analysis refines prior efforts to test the thesis that partisanship has played a central role in the distribution of funds across congressional districts by distinguishing between total spending on infrastructure and non-infrastructure programs as of the end of the second quarter of 2010. Further, this research examines not only political and demographic factors relative to the locus of stimulus fund expenditures but also the expected and actual employment impact of ARRA by district. The analysis provides little evidence for the partisan theory of stimulus spending. Rather, the results accentuate the demographic characteristics of the districts that have thus far received stimulus money and putatively benefited from the most jobs, in some ways counter to what the White House may have intended due to the complexities of fiscal federalism.

**Keywords:** Presidency; Obama; Congress; Political economy; Stimulus

On 13 February 2009 the Democratic majority of the new 111<sup>th</sup> Congress passed the American Recovery and Reinvestment Act (ARRA)—the largest discretionary spending measure ever adopted in the history of the Republic. Democrats on Capitol Hill numbered the bill House Resolution (H.R.) 1 to underscore their commitment, and reinforce President Barack Obama's promise, to act expeditiously to stimulate a sagging economy following the 2008 elections. Congress allocated \$787 billion in taxpayer funds over 16 quarters (4 years) to bolster ailing state and local governments and put the unemployed back to work. House Speaker Nancy Pelosi (D-CA) contended that "With a mix of tax cuts for middle income families and American businesses, combined with targeted investments in energy independence, infrastructure, health care, and education," the stimulus package had been "carefully targeted to have the most 'bang for the buck' in creating jobs and spurring economic long-term growth." The Speaker asserted optimistically that the bill would create or "save" over 3 million jobs [1].

When he signed the bill on 17 February 2009 President Obama posited that his administration would "ensure that every dollar spent in this historic legislation is spent wisely and for its intended purpose." The president pledged to hold the federal government to "new standards of transparency and accountability" by appointing Vice President Joe Biden to oversee the economic recovery effort and transmit data and information to the public. Pivotaly, the president asserted that the legislation included no "earmarks" directed at special or congressional constituencies [2].

ARRA drew not a single Republican vote in the House of Representatives and only three Grand Old Party (GOP) votes of 40 in the Senate. Republicans criticized programs in the bill that they argued would have no positive impact on the economy—just the inverse—and painted the package as a Democratic boondoggle. The GOP lambasted a host of projects, including the millions of dollars appropriated to the National Endowment for the Arts, to community groups with ties to Obama (Association of Community Organizations for Reform Now, or ACORN), and for rebates to consumers for the purchase of such things as analog-to-digital television converters. Further, federal and congressional sources provided GOP leaders ammunition to challenge the economic wisdom of the massive spending bill. The Federal Reserve

noted that the appropriated funds nearly equaled the entire national money supply in current circulation. One report by the non-partisan Congressional Budget Office (CBO) projected that after 2014 the bill's impact would lower the Gross Domestic Product (GDP) to 0 or potentially -2 percent annually by adding significantly to an already burgeoning deficit. And the Census Bureau estimated that the true cost of the bill would amount to more than \$1 trillion with interest, costing each household in America \$9,418 [3]. House Minority Leader John Boehner (R-OH) said the GOP regarded the bill as "a lot of wasteful Washington spending, padding the bureaucracy and doing nothing to help create jobs and preserve jobs" [4]. For his part, Senate Minority Leader Mitch McConnell (R-KY) denounced Obama and congressional Democrats for the stimulus package as part of an allegedly "audacious effort to Europeanize the country" and to "pass what appears to be a thirty-year wish list of the more liberal elements of their party" [5].

Three issues have dominated the debate about ARRA since data on the distribution of funds and the bill's putative job impacts were made available to the public. The first concerns the levels of transparency and accountability for the dollars spent for stimulus projects. From its inception Recovery.gov, the official website that detailed the allocation of funds, was widely criticized for inaccurate and erroneous figures. As information from the website became available in Fall 2009 media investigations revealed money spent in congressional districts that did not exist—from New Mexico's "13<sup>th</sup>, 35<sup>th</sup>, and 40<sup>th</sup>" districts and South Carolina's "25<sup>th</sup> district," to the "15<sup>th</sup>" congressional district in Arizona and seven non-existent districts in California, including district 99 [6]. The group Watchdog.org discovered that \$6.4 billion had allegedly been spent in 440 of these "phantom" congressional districts.

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In a different twist, the Government Accountability Office (GAO) uncovered 4,000 line items for which no money had been spent but 50,000 full-time jobs had allegedly been created [7]. While inputting errors were largely responsible for the faulty data [8], media reports on the inaccuracies did little to inspire confidence in the general public about either the efficacy of the stimulus package or governmental oversight.

The second issue centers on the accuracy of the jobs reported to have been created or "saved" by ARRA in the nation's 435 congressional districts. In February 2009 the White House had published a report [9], based on an earlier analysis by Christina Romer of the Council of Economic Advisors and Jared Bernstein of the Office of the Vice President-Elect [10], that provided a district-by-district forecast modeled by population, employment, and the industrial composition of the state. Analysis of the figures showed that the average congressional district would benefit from just over 7,900 jobs to be saved or created. As the Fort Wayne, Indiana, News Sentine noted, however, the alleged job benefits in most states were remarkably uniform—typically ranging from 6,500 to just over 9,000 [11]. The early reporting on job impacts appeared contradictory. Detractors of ARRA, such as Representative Jim Jordan (R-OH), pointed out that by November 2009 only several hundred jobs were reported to have been created or saved in his district, not several thousand [12]. Yet in other cases, as in Texas, the nearly 20,000 jobs statewide appeared to have been seriously overstated [13].

The interaction of two factors was likely at the root of the problem. First, in setting up Recovery.org the Obama Administration offered no uniform definition of what constitutes a created or "saved" job. Second, recipients self-reported the data, and had little guidance on how to report jobs figures. As a result, as several USA Today investigations found, not only did many recipients fail to complete the reporting forms correctly but many grossly overestimated the number of jobs affected by stimulus money [14]. Such errors compelled Earl Devaney, chair of the Recovery Accountability and Transparency Board, to question the accuracy of claims by the White House in November 2009 that 640,000 jobs had been saved or created nationwide since ARRA had been passed [15].

The final and most political issue has been critics' indictment that the stimulus package was a veiled partisan instrument by the White House, House Speaker Nancy Pelosi, and Senate Majority Leader Harry Reid to direct spending toward Democratic districts and aid party incumbents for reelection in 2010 and beyond. In December 2009 scholars at the Mercatus Center of George Mason University analyzed data on Recovery.gov and contended that by the fourth quarter of 2009, Democratic districts had received 1.89 times more stimulus money than Republican districts [16]. The Mercatus study instantly sparked controversy, providing conservatives with fodder to condemn the bill in media circles.

Ironically, only a few print media analyses uncovered a fundamental flaw in the Mercatus study. Congressional districts representing state capital districts had received highly disproportionate sums of stimulus money because transfer payments for statewide programs involving transportation, education, etc.—for which no specific geographic or district benefit could be identified—had been attributed to the state capital member's district [17]. Not surprisingly, the big "winners" were Democratic members representing Albany, Austin, Sacramento, and Tallahassee—the capitals of the most populous states in the nation. The Mercatus Center updated its data analysis through spring 2010 and attempted to account for statewide funds reported in state capital congressional districts [18]. Using findings from a new regression

analysis, one of the authors of the study, Veronique de Rugy, testified before the House Committee on Transportation and Infrastructure on 26 March 2010 and posited that Democrats were still more heavily favored to receive stimulus funds—this time by a factor of 1.53.

This author's re-analysis of the data from the regression analysis presented to the House Committee, available on the Mercatus website, revealed several flaws—including significant heteroskedasticity (non-constant variance) in the dependent variable (the log of total spending by congressional district), significant colinearity between several variables in the regression model (log of income and district poverty rate), and an incorrect interpretation of the coefficients based on the natural log transformation of stimulus spending (which is no longer linear in nature). These serious methodological issues in the Mercatus study call into considerable question the accuracy of the measurements and the interpretations used to justify the partisan thesis.

The objective of this research is to provide a fresh and objective analysis of the President's signature economic plan with a focus on stimulus spending at the congressional district level. The analysis refines prior efforts to test the partisan thesis by distinguishing between total spending on infrastructure and non-infrastructure programs. Further, this research moves beyond the Mercatus study to examine political and demographic factors relative to the expected and actual employment impact of ARRA by district.

The manuscript commences with a brief review of the politics and economics of governmental stimulus choices, and expectations for ARRA according to "old" and "new" Keynesian models. The second section reviews the methodology utilized to analyze district-level spending through the second quarter of 2010, as reported in the state summaries from Recovery.gov. The third section presents the results of the analysis, and underscores very little support for the partisan theory of stimulus spending. Rather, the results accentuate the demographic characteristics of the districts that received stimulus money and putatively benefitted from the most jobs, in some ways counter to what the White House may have intended due to the complexities of fiscal federalism. The final section emphasizes the implications of the findings for President Obama's and congressional Democrats' attempt to revive the US economy in light of the results of the mid-term election of November 2010.

## **The Political Economy of Governmental Stimulus: Monetary and Fiscal Policy Options and the American Recovery and Reinvestment Act of 2009**

Governmental strategies to counter cyclical economic downturns fall into several categories, none of which is mutually exclusive: Monetary policy and fiscal policy (taxing and/or spending). Monetary policy—the supply of money and regulation of interest rates—is controlled by the Federal Reserve Bank (Fed). As Elmendorf and Furman contend, "Economists believe that monetary policy should play the lead role in stabilizing the economy because of the Federal Reserve's ability to act quickly and effectively to adjust interest rates, using its technical expertise and political insulation to balance competing priorities" [19]. Lowering the federal funds and/or discount rates enables banks to lend more money, and can put more cash into the hands of consumers who pay less for interest on loans such as credit cards, automobiles, and mortgages. While the Fed must balance concerns about inflation, such a strategy is designed to stimulate a sluggish economy through enhanced consumer spending and liquidity available to businesses for investment and hiring. Given that approximately two-thirds of the US economy depends on consumer spending, and small-to-medium

businesses create the greatest share of new employment opportunities, the benefits of quick monetary policy action cannot be underestimated.

When President Obama took office in January 2009 there was little margin for the Federal Reserve to maneuver, however much he and White House advisors may have wished that Fed chief Ben Bernanke could utilize monetary policy to jump start the faltering economy. As Figure 1 shows, the Fed had steadily moved interest rates downward since 2007 to ward off a recession. When the bottom fell out of financial markets and the housing bubble burst with the sub-prime mortgage crisis in September 2008, the Fed moved even more decisively—twice in October 2008—to cut the federal funds rate by half and the discount rate by a third over the prior month. By mid-December 2008 the federal funds rate stood at .50 percent, and the discount rate at between 0-.25 percent (first y-axis), yet unemployment had risen dramatically and was approaching 8 percent (second y-axis).

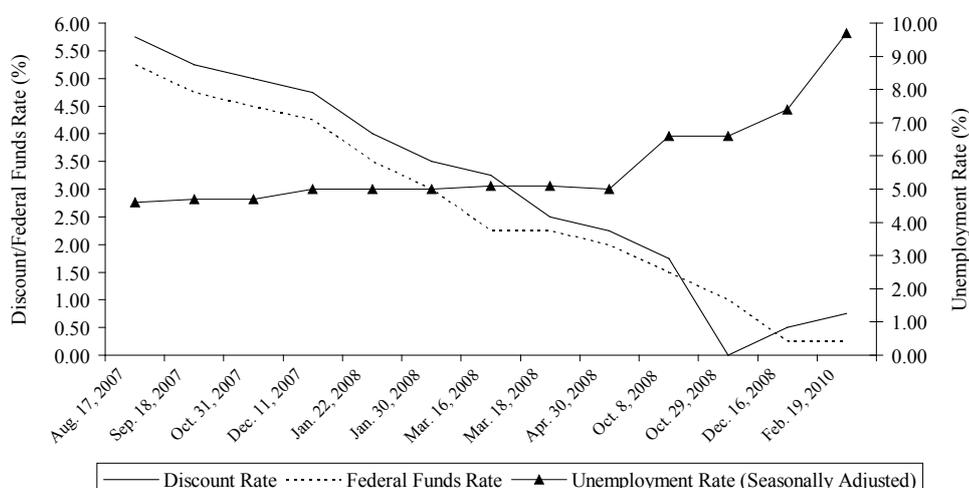
With interest rates near zero the stimulus choice for Obama and the Democratic majority in the 111<sup>th</sup> Congress was between some type of tax decrease and/or enhanced governmental spending. The alternatives were perhaps less advantageous as a countercyclical tool compared to monetary policy, as fiscal policy lag effects tend to be greater [20]. Nonetheless, the overriding objective for President Obama's economic team was to spur private consumption and the demand for labor as a means to combat unemployment as quickly as possible. Some economists suggested that the zero floor in interest rates to which the Fed seemed to be approaching provided a particularly unique opportunity for the "fiscal multipliers"—the net payoff in GDP from increased government spending in a stimulus package—to be quite large [21]. The irony, as Davig and Leeper contend, is that "the consumption response to an increase in government spending is the linchpin in the transmission mechanism for fiscal stimulus" but "economic theory and empirical evidence do not universally support the idea that higher government purchases raise private consumption" [22].

Indeed, economists are deeply divided over not only the correct mix of tax cuts and government spending to stimulate the economy but also the precise effects of government "purchases" on GDP growth and the degree to which government spending either "crowds in" or

"crowds out" private consumption [23]. According to traditional Keynesian thinking "an increase of government spending leads to a multiplier process which results in a more than proportionate increase of national income" [24]. Much of the controversy over ARRA concerns the assumptions in fiscal multiplier estimates.

The president's two key economic advisors, Romer and Bernstein, utilized a traditional Keynesian model that relied on the Fed keeping interest rates at or near zero through the end Obama's first term. They assumed that 60 percent of the transfer payments to the states would be used to prevent spending reductions, 30 percent to forestall tax increases, and the other 10 percent to preclude states from dipping into "rainy day" funds. They also assumed that tax-based investment incentives would equal about one-fourth of the effects of an increase in total government spending. All told, Romer and Bernstein anticipated only a one-quarter lag in the impact of the stimulus package, with the fiscal multiplier expected to rise from 1.24 in the second quarter of 2009 to 1.55 by the fourth quarter of 2012 (i.e., 1% in government spending or "purchase" of GDP=1.55% increase in GDP).

Economists who subscribe to "new" Keynesian models of government spending find the Romer and Bernstein estimates to be empirically flawed and theoretically unrealistic. New Keynesian models are forward-looking with respect to levels of investment, private consumption, and variable price and wage settings [25]. "Old" Keynesian models, such as the one employed by the Obama White House from the Federal Reserve Board and a private firm, do not necessarily "take into account how households and firms adjust their spending decisions as their expectations of future government policy change" [26]. The Romer-Bernstein model forecasted a near-continuous, positive rate of return in government spending relative to GDP. New Keynesian models postulate that households and firms will presume higher taxes in the future to finance the debt from short-run government deficit spending, and will adjust their behavior accordingly as time moves forward [27]. Not surprisingly, new Keynesian models predict a long-term decline in consumption and investment that exceeds the benefit of government spending in ARRA [28]. As University of Chicago economist Eugene Fama contends, "the additional government debt means that existing current resources just move from one use to another, from private investment to government



Source: Adapted by author from "Historical Changes of the Target Federal Funds and Discount Rates," Federal Reserve Bank of New York, [www.ny.frb.org/markets/statistics/dlyrates/fedrate.html](http://www.ny.frb.org/markets/statistics/dlyrates/fedrate.html), and Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey," Historical Tables, [www.bls.gov](http://www.bls.gov). Dates cited are those on which the Federal Reserve changed either the Discount Rate or the Federal Funds Rate or both.

Figure 1: Discount and Federal Funds Rate versus Unemployment Rate, Selected Dates, 2007-2010.

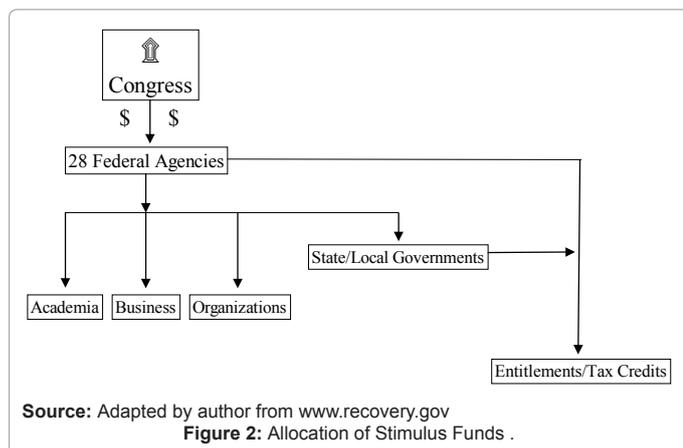
investment or from investment to consumption, with no effect on total current resources in the system or on total employment” [29].

President Obama and congressional Democrats explicitly rebuffed such arguments by touting the potential benefits of “shovel ready” projects aimed at renovating the nation’s declining infrastructure and spurring employment rapidly. A significant amount of ARRA funds would be allocated to states for highway and bridge repairs and other construction projects. As with stimulus spending more generally, it is not shocking that economists disagree on the potential net effect of public capital for infrastructure projects as well. David Aschauer’s seminal work prompted a number of economists to argue that public investment led to significant increases in productivity and a net positive effect on the economy [30]. By contrast, critics charge that infrastructure projects furnish less than marginal benefits and are little more than “subterfuge for pork-barrel politics” [31]. Further, the complexities of fiscal federalism—in particular the typically “long process of planning, bidding, contracting, construction and evaluation” and coordination between federal, state, and local governments “can make the economic benefits from government investment difficult to synchronize with the business cycle” [32].

The analysis that follows in the sections below cannot resolve economists’ debate about “old” or “new” Keynesian models, or the impact on GDP from government spending. Nor does this study purport to do so. Rather, the foregoing discussion provides a critical backdrop to this research, which focuses sharply on the political and demographic characteristics of the congressional districts in which the stimulus money was spent, on which types of programs (infrastructure and “other” programs) funds were allocated, and on the expected and actual jobs reported to have been created or saved by ARRA as of the end of June 2010 when the stimulus package took full effect.

## Data and Method

Key to this study and in particular to the test of the hypothesis that funds have been allocated in a partisan fashion—is a grasp of the potential obfuscation of the stimulus package’s results by congressional district due to the complexities of fiscal federalism. Figure 2 reproduces the “flow chart” on Recovery.org to trace the allocation of funds. Congress appropriated the stimulus funds to some 28 federal departments and agencies (e.g., the Departments of Health and Human Services, Labor, Transportation, etc.). These agencies then awarded payments, grants, and contracts to universities, businesses, and other organizations in addition to direct transfers to state and local governments. Both federal and state/local governments may also



utilize the funds to pay for programs directed at individuals entitled to certain state, federal, or shared programmatic benefits (e.g., welfare programs) or tax credits. Tracing the money to particular geographic constituencies is not always an easy task.

As noted earlier, the way in which recipients of funds self-report on Recovery.gov matters. Programs with statewide benefit, for which no single congressional district may be identified, were reported for the member or members who represented the state capital. Consequently, the first set of analyses in this study comprises t-tests by party of the total amount of funding for all districts and with state capital districts included and excluded. T-tests of the allocation of infrastructure funds through the second quarter of 2010 by party affiliation are also performed to examine potential partisan bias in a straightforward fashion.

The second set of inquiries constitutes a series of regression analyses with types of stimulus spending and predicted/actual employment effects as the dependent variables. The unit of analysis is the congressional district (n=435; the District of Columbia was excluded). The dependent variables include the natural log transformation of 1) stimulus spending on infrastructure; 2) stimulus spending on all “other” programs; 3) the jobs predicted to be saved or created in the White House memo of February 2009; and, 4) the reported jobs saved or created as of the second quarter of 2010. Although not always sufficient to handle outliers, the natural log transformation of each of the dependent variables is necessary to minimize the evident non-constant variance in the models that may distort results of the explanatory variables [33]. Robust regression, a form of weighted least squares, is utilized in those models for which outliers continue to present potential difficulties in the distribution of the data despite the log transformation.

The independent variables in the model include electoral, institutional, demographic, and economic characteristics for each member and his or her district while also attempting to account for elements of the federal system. The summary statistics for the variables are in Appendix 1. They are as follows:

### Electoral variables

The member’s percent of the district vote in 2008 is included in the models to test whether safe or marginal districts received more or less funds. The percent district vote for Obama is also included in the models to test whether the magnitude of his electoral popularity had any impact on the distribution of funds.

### Institutional variables

The member’s years of service in the House gauges the impact of seniority in the distribution of funds. Dummy variables were added to the models to test whether Democratic leaders (majority leader, members of the whip system), Democratic committee chairs, and members of the Appropriations Committee received a disproportionate level of benefits from the stimulus bill. A dummy variable for the 52 “blue dog” Democrats was also added to evaluate whether these more conservative members of the Democratic caucus, some of whom opposed ARRA, received more benefits as a means of bringing them back into the party fold.

### Federalism variables

Dummy variables for members from states with a Democratic

<sup>1</sup>A correlation matrix of the independent variables in the model show  $r \leq .50$  or less in all cases.

governor, a Democratic-controlled state legislature, and a “split” legislature (one house Democratic, the other Republican) were included in the models to assess whether members from such states received a greater share of funds or jobs created. The variables are a proxy for elements of fiscal federalism that are difficult to capture.

### Demographic and economic variables

The models account for a range of district characteristics from Census data for each member. The continuous variables comprise the percent change in population in the district when redistricting occurred in 2002, the percent blue collar workers in each district, the percent of the district living below the federal poverty line, the percent of workers unemployed as reported by Census data in December 2008, and the percent government workers in each district. The population change variable is included to control for districts that experienced significant in-migration and, as a result, may suffer from exacerbated infrastructure problems that ARRA targeted. Insofar as the thesis of partisan spending is concerned, these districts with “new” populations are a natural target for Democratic members of Congress to show their ability to increase the standard of living via federal grants. It is reasonable to expect that the districts hardest hit by the recession—those with chronic poverty levels, high numbers of blue collar workers, and those most immediately affected by the economic downturn—would receive the greatest benefits if ARRA worked as the White House and Congress anticipated. Blue collar workers also comprise an important component of Democratic Party support. The variable for the percent government workers in each district is a proxy to test whether allocated funds and jobs created or “saved” were targeted towards the public sector [34]. Finally, dummy variables for majority Hispanic and majority African American districts—two of the most important core supporting groups for Obama and the Democrats—were included in the model. Twenty-one of 24 majorities Hispanic and 22 of 24 majority black districts, respectively, had Democratic members in the 111<sup>th</sup> Congress. These two dummy variables examine whether such districts benefitted disproportionately from the stimulus bill [35].

### Interpreting the log transformed regression coefficients

Regression analysis of log transformed dependent variables necessitates a particular attention to the way in which the impact of the explanatory variables is interpreted. By taking the natural log of the dependent variables, the intercept in the model is the geometric mean, not the arithmetic mean and the distribution of the outcome variable is no longer linear. While ordinary least squares regression remains appropriate as a tool for analysis, the result is that the impact of a one-unit increase in an explanatory variable (or dummy variable) on the outcome variable is the inverse of the log function, or exponentiation of the coefficient where  $\ln=2.71828$ . Taking  $\exp(\beta)$  yields the percent change in the outcome variable given a one-unit increase in the independent variable, holding all other variables constant [36]. To facilitate the interpretation of the models, the percent changes for the independent variables, derived from regression and robust regression models, relative to categories of spending and predicted/actual job impacts are reported in Tables 2 and 3 instead of the regression coefficients, *per se*. The statistical significance of each explanatory variable is also reported in Tables 2 and 3, as well as the R<sup>2</sup> goodness-of-fit statistic [37].

### Analysis

It is remarkable that analyses of stimulus spending have used complex statistical approaches, such as regression, to test the partisan hypothesis. A much more straightforward statistical approach that

requires less difficulty or sophistication in the interpretation of results is a simple t-test of spending in Democratic and Republican districts. But any such test must control for the way in which statewide programmatic spending is reported, and the distortion such reporting may engender.

Members from state capital districts, regardless of party identification, received a disproportionate amount of funds because spending for statewide programs was reported in their geographic constituency. Recovery.gov reported that the fifth district of California (Sacramento) received the most funds—just over \$6 billion as of the end of June 2010. More than \$2 billion was reported for members from districts representing Springfield (Illinois), Lansing, Albany, Austin, and Tallahassee. It is intuitive that states with larger populations would receive a greater share of the stimulus pie when transfer payments are concerned. Part of the rationale of the stimulus was to bolster state and local governments, and per capita spending should reflect state population. Indeed, the simple correlation between total spending among state capital districts (n=46) and state population is  $r=.87$ .

The problem in statistical terms for any t-test of the partisan thesis is that most other districts reported the receipt of far less funds at the end of June 2010, which creates significant heteroskedasticity or non-constant variance across the 435 districts in the analysis. For example, New York’s ninth district (parts of Queens and Brooklyn) reported less than \$1 million in total spending. More than half of all congressional districts reported \$57 million or less in total spending. When spending in these districts is contrasted with the billions reported in state capitals, the effect on the data distribution is palpable.

Table 1a presents an analysis of total spending with state capital districts included. The distribution of the spending data necessitates a t-test with unequal variances, the appropriateness of which is confirmed by an analysis of variance (ANOVA) between the groups (Bartlett’s test:  $\chi^2=22$ ,  $p>.001$ ). Controlling for this artifact of the data Table 1a shows that on average, Democratic districts received \$207 million while Republican districts took in \$145 million. But despite the average \$62 million in greater spending for Democrats, the standard deviations in spending by district for both parties are two to two-and-a-half times their means. The t-test underscores the absence of any statistical relationship between party affiliation and stimulus spending ( $p=.41$ ). If Democratic districts were allocated slightly more money on average, it is quite assuredly because Democrats controlled 32 of the 46 state capital districts in the 111<sup>th</sup> Congress [38]. Further, among the 50 districts with the highest spending reported, 37 were state capitals—and of those 37, Democrats controlled 26.

Party	Mean	Standard Deviation
Democrat (n=258)	207.49	514.36
Republican (n=177)	145.50	366.89
Difference	61.99	

Welch’s degrees of freedom =386t =.83p =.41  
 \*Bartlett’s test for equal variances:  $\chi^2=22.43$   $p>0.000$

**Table 1a:** T-Test with Unequal Variances of Total Received (\$ Millions) by Congressional District and Party Affiliation, All Districts (Q2 2010)\*.

Party	Mean	Standard Deviation
Democrat (n=226)	80.57	91.87
Republican (n=163)	74.52	109.37
Difference	6.05	

d.f. =387t =.59p =.55

**Table 1b:** T-Test of Total Received (\$ Millions) by Congressional District and Party Affiliation, State capital Districts Excluded (Q2 2010).

Party	Mean	Standard Deviation
Democrat (n=258)	40.13	50.10
Republican (n=177)	36.06	49.82
Difference	4.07	

d.f.=433 t=.83 p=.40

**Table 1c:** T-Test of Infrastructure Funds Received (\$ Millions) by Congressional District and Party Affiliation, All Districts (Q2 2010).

	Infrastructure Funds <sup>^</sup>	"Other"
<b>Programs</b>		
Years in Office	-1.2**	1.8***
Member's Margin of Victory, 2008	.07	-.9**
% District Vote for Obama, 2008	.3	.2
Democratic Leader	2.4	-30.4
Committee Chair	-11.8	-86.1**
Appropriations Committee Member	13.5	1.9
"Blue Dog" Democrat	19.2	14.5
Democratic Governor in State	21.4*	.2
Democratic State Legislature	4.5	6.4
Split-Party Control, State Legislature	8.6	19.7
District Population Change, 2000 Census	.5	-1.0
Majority Black District	28.9	-14.5
Majority Hispanic District	-106.2***	-80.4**
% District Blue Collar Workers	4.9****	-3.6**
% District Blue Collar Workers x Democrat	.05	.4
% District Below Poverty Line	4.4***	5.4****
% District Unemployed, December 2008	-41.0****	-5.9
% District Government Workers	1.4	8.5****
(Adjusted) R2	.16	.17
N	389	389

\*\*\*\*p<.001 \*\*\*p<.01 \*\*p<.05 \*p<.10

Dependent variable is the natural log transformation of spending for each category. <sup>^</sup>Robust regression results. R<sup>2</sup> is derived from rregfit in STATA.

**Table 2:** Effects (%) on ARRA Spending by Congressional District, State Capital Districts Excluded.

Table 1b repeats the analysis but excludes state capital districts. The omission of state capital districts reduces the disparity in allocated funds between members of the two parties to a considerable level. Republicans from 163 districts received, on average, about \$6 million less than their Democratic counterparts who controlled 226 seats in Congress. But the standard deviations for both parties again exceed their means, accentuating no statistical relationship between party and the receipt of stimulus funds (p=.55).

Parsing out spending only for infrastructure projects reveals no heteroskedasticity, even with state capital districts included. For infrastructure spending, the data from Recovery.gov show that state capital districts are treated as any other because infrastructure programs less frequently involve statewide transfer monies and are geographically focused. Table 1c shows the results of the t-test for spending by party. As with total spending Democrats received a slightly higher amount—\$ 4 million—in infrastructure allocations than their Republican counterparts. However, once again the standard deviations for both parties are rather large. The t-test reveals no relationship between party and spending (p=.40). Overall, the three tests—simple as they may be in terms of statistical technique—elucidate that there is no support for the thesis that partisanship was a significant indicator in the distribution of stimulus funds.

If partisanship did not play a role in stimulus spending, several questions naturally arise: What are the characteristics of the districts

that received the most or least funding for infrastructure and non-infrastructure projects? And what is the socio-economic and demographic makeup of the districts in which the White House expected to create and save jobs versus the data reported on job creation and preservation?

### Infrastructure spending

Table 2 casts light on the distribution of infrastructure funds across congressional districts, with state capitals excluded. There is no evidence that Democratic leaders, Appropriations Committee members, or moderate "Blue Dog" Democrats profited disproportionately from infrastructure spending. It is thus most pertinent to focus on the six variables that are statistically significant. Seniority is inversely related to infrastructure funds received. The most senior members in the House received approximately 65 percent fewer funds than freshmen. Interaction effects by party (not shown) were not statistically significant. One may surmise that junior members, who sought to solidify their electoral prospects in the 2010 mid-term elections, were particularly eager to take advantage of infrastructure dollars and encouraged their constituents and local governments to procure available funds.

Members from states with a Democratic governor received approximately 20 percent more infrastructure funds. There were 156 Democratic members and 83 Republicans from states with Democratic governorships. As with seniority, interaction terms by party (not shown) are insignificant, further undermining the thesis that partisanship in terms of fiscal federalism affected the distribution of funds—even with a Democrat in the governor's mansion.

Governors have considerable authority over state budgets. Democratic governors were eager to promote the president's claims of "shovel ready" jobs and coordinate efforts between the federal and state levels to maximize the benefits of available infrastructure funds without attention to which party held a select congressional seat in the state. As Governor Brian Schweitzer (D-MT), chair of the Democratic Governors Association contended after passage of ARRA, "A governor's job is to deliver for people: to create good jobs, to keep criminals in prison, to educate children, to make sure we have decent roads. This recovery package does that" [39].

Republican Governors, on the other hand, were extremely divided on the stimulus package, which may explain the coefficient in the model relative to the receipt of funds. Arnold Schwarzenegger (R-CA), Charlie Crist (R-FL), Jim Douglas (R-VT), and Jodi Rell (R-CT) were keen to accept federal dollars as quickly as possible. Crist, who ultimately parted ways with the GOP and ran as an independent in his unsuccessful bid for Senate in 2010, explained his support of the package this way: "20,000 educators today would be out a job if we hadn't utilized the Recovery Act moneys. Another 60,000 of my fellow Floridians would be out of work today without the opportunity to be able to utilize those moneys in a responsible way" [40].

Other Republican Governors sought to cut back the flow of stimulus funds or rejected them outright—which had a palpable impact on the ultimate timing of the receipt of funds in congressional districts. Rick Perry (R-TX) opposed some \$555 million in federal unemployment benefits because of requirements he contended would raise unemployment insurance on private businesses [41]. Republicans including Haley Barbour of Mississippi, Mark Sanford of South Carolina, and Bobby Jindal of Louisiana also rejected portions of the stimulus, creating significant conflict between their state governments and mayors/localities and, in Sanford's case, a major showdown with the state legislature that forced him to accept funds [42].

There is ample evidence that infrastructure funds were channeled disproportionately to districts with high concentrations of blue collar workers, as the stimulus bill intended. The “mean effect” (ME, or the difference in impact between the highest and lowest values of the variable) is a stunning 204 percent. The average congressional district in the 111<sup>th</sup> Congress had 24 percent of workers in blue collar professions, such as manufacturing and construction. For every increase in one standard deviation above the mean of the percentage of blue collar workers in a district (6.5%), the flow of infrastructure funding increased by about 31 percent. The statistical insignificance of the interaction term for Democrats and blue collar workers reveals no evidence that partisanship played a role in the distribution of funds to a typically Democratic-voting bloc. Rather, those districts with higher concentrations of blue collar workers from states eager to receive stimulus funds availed themselves of federal dollars as quickly as possible.

Yet the model shows contradictory indicators relative to the poverty level of the district and the district unemployment rate as measured by the Census/Bureau of Labor Statistics in December 2008. The poverty rate is a longer-term metric of relative wealth in each district. The model underscores that for each increase of one percent in the district population below the poverty level infrastructure spending increased by 4.4 percent (ME=173%). For the average district (excluding state capitals) the poverty rate was 12.3 percent. For each increase in one standard deviation above the mean poverty rate (5.6%) districts received approximately 25 percent more funds.

By contrast, districts that suffered the most rapid short-term unemployment increases as of December 2008 received fewer funds than those with long-term poverty. The average district unemployment rate stood at 4.2 percent in December 2008. For each increase in one standard deviation above the mean (1.2%), the amount of infrastructure funds procured fell by a stunning 49 percent. Of the ten districts with unemployment reported between 7 and 10.2 percent, half were in the “rust belt” where manufacturing and construction employment dropped off dramatically: Michigan, Illinois, and Pennsylvania.

The data highlight a central paradox in infrastructure stimulus, and a particular conundrum for Democrats. If voters in the 2010 mid-term elections were frustrated with the pace of infrastructure spending and job creation, it may well have been because the funds were distributed in greater measure to those districts suffering from long-term poverty, but *not* those that endured the most sudden effects of job losses in the immediate aftermath of the financial crisis that shook Wall Street in Fall 2008. The next sub-section that analyzes the locus of jobs created and saved reconfirms the vital point about the slow pace of job creation largely due to the complexities of fiscal federalism and the ability of state and local agencies to procure stimulus funds.

### Stimulus Spending for Non-Infrastructure Program

The second column in Table 2 provides a district analysis of spending for programs unrelated to infrastructure projects. These programs typically involved funding for various programs such as education, research and development, etc. Of the six statistically significant variables, two contradict spending for infrastructure. Districts of members from both parties with greater seniority received more stimulus dollars in this category (ME=97.2%). And members from more marginal electoral districts also procured more stimulus funding through June 2010, though the substantive effect is relatively lower (ME=-49.5%). As a member's share of the district vote in the 2008 dropped from 56 to 51 percent, spending for “other” programs increased by 4.5 percent.

What is most telling from the analysis of district receipts of non-infrastructure programs is the substantive significance of the percent district government workers (federal, state, local) in the member's district (ME=186%). A one-standard deviation (4.0%) increase in the percent of government workers over the mean (14.7%) yields a net increase in funding of 34 percent. Interaction terms (not shown) by party show no statistical significance or substantive impact.

The data clearly convey that part of the story of district-level procurement of non-infrastructure funds related to “government capacity.” Districts with state and local governments with greater expertise and bureaucratic capability were better able to maneuver through the complex process of fiscal federalism. And it should not be surprising that members with greater seniority were able to lend their *savoir-faire* to the complex grant and contract procurement stages. Similarly, members from marginal districts had strong electoral incentives to ensure that their constituents maximized stimulus funds as they looked to House elections in November 2010.

It is also telling that the substantive significance of non-infrastructure funds is greater for districts with higher poverty levels (ME=250%). The lion's share of non-infrastructure spending was allocated to districts with long-term poverty—a fact that is highly consistent with the expressed purpose of elements of the stimulus package proposed by President Obama and passed by the Democratic Congress. But receipt of those funds was largely contingent upon the skill level of state and local agencies to procure the funds by charting their path through the difficulties of federal red-tape. Majority Hispanic districts were particularly at a disadvantage on infrastructure and non-infrastructure fund procurement alike (ME=-106% and -80%, respectively). There is certainly no evidence that Democrats circumvented this key voting bloc of their party in the allocation of funds. Rather, half of all majority Hispanic districts had fewer than 13 percent district government workers. It is the ability of such districts to take full advantage of the stimulus dollars available that is in question.

### Saving and creating jobs: Expectations versus reality

As noted earlier White House economic advisors undertook a study in January 2009 in which they predicted the anticipated job benefits of ARRA by congressional district. Unfortunately, the White House did *not* make available to the public the variables employed in the forecast model (population, employment, and the industrial composition) when the study was published in February 2009. Moreover, the model focused on the predicted number of jobs to be created and saved after all stimulus spending had been appropriated—a four-year long process to last through 2012. Finally, the forecast did not provide a “staggered” estimation of job creation by quarter, nor did the forecast account for lags in appropriations or job creation, or the complexities of fiscal federalism.

Nonetheless it is possible to analyze the political and socioeconomic characteristics of the districts in which the White House expected the greatest job growth and juxtapose those expectations with the reality of the jobs reported to have been created or saved through June 2010. Column 1 in Table 3 employs the same model as that for infrastructure and other programmatic spending in order to ferret out the potential predictors of job growth/preservation (natural log) from the White House district-by-district forecast through 2012. Column 2 shows the results of the model for the natural log of the actual number of jobs saved and created through the end of the second quarter of 2010, and differs only inasmuch as spending in the district is included as a control variable.

	Jobs Predicted, February 2009 <sup>A</sup>	Jobs Saved/ Created,
<b>Q2 2010<sup>A</sup></b>		
Years in Office	.01	1.00**
Member's Margin of Victory, 2008	.01	-1.00
% District Vote for Obama, 2008	.09****	1.00
Democratic Leader	.02	1.18*
Committee Chair	-.38	-1.18**
Appropriations Committee Member	-.34	-1.05
"Blue Dog" Democrat	-.60	1.05
Democratic Governor in State	2.5****	-1.01
Democratic State Legislature	-2.0****	-1.09**
Split-Party Control, State Legislature	.78	1.01
District Population Change, 2000 Census	1.0****	-1.00
Majority Black District	.83	-1.07
Majority Hispanic District	-5.3****	1.02
% District Blue Collar Workers	.09**	-1.01*
% District Blue Collar Workers x Democrat	.01	1.00
% District Below Poverty Line	-.06	1.01**
% District Unemployed, December 2008	-1.7**	1.05**
% District Government Workers	-.05	1.01*
Log Total Spending In District	-----	2.18****
R <sup>2</sup>	.58	.65
N	389	389

\*\*\*\*p<.001 \*\*\*p<.01 \*\*p<.05 \*p<.10

Dependent variable is the natural log transformation of spending for each category. <sup>A</sup>Robust regression results. R<sup>2</sup> is derived from rregfit in STATA.

**Table 3:** Effects (%) on ARRA Jobs Prediction (2009) and Jobs Saved/Created Through Q2 2010, State Capital Districts Excluded.

Column 1 shows that only a few variables are statistically significant, though the explained variance is a respectable 58 percent. The only political variable that makes logical sense in the model is the district-level vote for Obama in 2008, but the substantive effect is quite small (ME=6.5%). For a one standard deviation (14.8%) increase in the district vote for Obama over the mean (53.7%), expected job growth is augmented by just 1.3 percent. The proxy variables for fiscal federalism are contradictory. Members from districts in states with Democratic governors are forecast to profit from an additional 2.5 percent in job growth, but the effect is all but canceled out by the negative correlation with a Democratic state legislature. The model does highlight that the White House forecast a slightly higher number of jobs in traditionally blue collar districts (ME=3.75%). But the model also accentuates that the stimulus would not necessarily help those districts with the highest unemployment rates as of the end of December 2008 (ME=-14.1%). It is notable that the variable for poverty is not statistically significant, nor is the variable for the district percent of government workers. Obviously the White House expected a largely uniform increase in job growth across all congressional districts—consistent with the criticism that the forecast by district varied too little to be trustworthy.

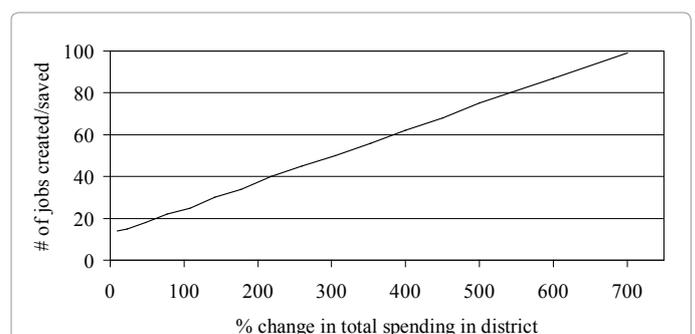
The variable with the greatest substantive significance, however, is population change (ME=72.7%). A one standard deviation (7.94%) increase above the average of the district changes in population from 1990-2000 (6.2%) raises the expected level of job creation/preservation by nearly eight percent. Twenty-eight districts had population growth in excess of 20 percent. Not surprisingly most (79%) were in "sunbelt" states including Arizona (metro Phoenix), California (southern), Florida (central), Georgia (metro Atlanta), Texas, and Nevada. It is in these fast-growing, technologically innovative areas of the country that the White House expected job growth to be spurred by the president's "green" agenda and prioritization of infrastructure projects.

By contrast, sixty-eight districts in the 111th Congress had negative population growth in the decade prior. These districts were predicted to save or create between one and 27 percent fewer jobs. Just over half were located in the erstwhile industrial heartland of the country spanning from New York and Pennsylvania to Ohio, Illinois, and Michigan. The model suggests, at a minimum, that the White House anticipated that districts in these states would be least capable of taking full advantage of the stimulus bill—perhaps as a reflection of their state's inability to alter industrial capacity to meet the challenges of manufacturing "eco-friendly" products, producing jobs in environmental sciences, procuring grants and contracts at the local level, etc.

The penultimate question is how White House expectations correspond to the jobs created and saved through June 2010 in advance of the mid-term elections. Column 2 of Table 3 casts significant light on the locus of job growth. The focus is on the nine statistically significant variables. Consistent with the analysis of funds procured by districts in Table 2, the data show that job creation/preservation was greatest in the districts of the most senior members. The mean effect of 53 percent is the greatest for all of the statistically significant variables. It is reasonable to conclude that as their time in office increased members were better able to help district businesses and governments maneuver through the grants and contracting process for stimulus funds. In a similar vein, members of the Democratic leadership were somewhat better placed to procure funds, but the mean effect is small (1.18%).

What is most telling in the analysis in Column 2 is that the second greatest effect is for the percent blue collar workers in members' districts—and the variable is negatively related to job growth (ME=-42%). The effect is particularly disconcerting given that stimulus funds, as Table 2 showed, flowed more freely to blue collar districts. Nevertheless, at least through June 2010 districts with higher concentrations of construction and manufacturing jobs did not see a large turnaround in job growth in their industries. There is some evidence that districts with the highest unemployment as of December 2008 saw some increase, but the mean effect is quite small (9.9%). In real terms, this amounts to under 25 jobs per district.

The fate of predominantly blue collar districts must be juxtaposed with the variables for poverty and the percent district workers employed by government. Those districts with long term poverty realized a larger net increase in jobs (ME=39%). Similarly, districts with a higher proportion of government workers netted a larger percentage of jobs (ME=22%). Overall, the data accentuate precisely what Governor Crist of Florida argued: The greatest, immediate impact of the stimulus package on job creation/preservation was to save government jobs and



**Note:** Data derived from Column 2, Table 3  
**Figure 3:** The Relationship between Stimulus Dollars and Job Creation/ Preservation through June 2010 (State capital Districts Excluded).

shored up the most economically vulnerable through federal and/or shared programs for unemployment, welfare, education, etc.

Finally, the data emphasize the “threshold” effect of spending in non-state capital districts. The mean effect of the log of spending by district is 19 percent. A one standard deviation (1.3%) increase in spending over the mean (4.2%) yields a net gain of about 2.8 percent increased growth in jobs. Figure 3 shows the impact in more dramatic terms by transforming the effect into real job growth. Doubling the amount of spending in a district (mean=\$74 million) only yields a net gain of about 10 jobs. Six times the average amount of spending raises the number of jobs created/saved by approximately 60 jobs.

### Reprise: Stimulus Choices, the 2010 Mid-Term Elections, and Beyond

As of June 2010 the average number of jobs created or saved in Democratic-held congressional districts (non-state capitals) was 585 (s.d.=721). For Republicans the figure was 480 (s.d.=665). Including state capital districts increases the numbers rather dramatically. Democratic districts reported an average of 2,020 jobs (s.d.=5,682), while Republican districts reported an average of 1,137 jobs (s.d.=3,270). Assuming the jobs created/saved in state capital districts were focused on statewide programs, Democratic districts clearly outperformed their Republican counterparts in the grand scheme of stimulus spending (t-test with non-constant variance reveals  $p=.04$ ). But as Reifler and Lazarus contend, much of the effect may be “self-selection.” If partisanship influenced the distribution of stimulus funds, and the number of jobs created and saved, the phenomenon is not because of the way the ARRA bill was conceived by the White House and Capitol Hill. Rather, Democrats—both at the congressional and state levels (governors, state legislatures)—were perhaps far more eager to advance the president’s goals that emphasized health care, research and development, “green jobs,” and education. Democrats had stronger incentives to capitalize more vigorously on the availability of federal monies than Republicans [43].

To the chagrin of congressional Democrats, many voters in the mid-term elections of 2010 apparently failed to grasp the real or perceived benefits of the stimulus package at the state and local levels [44]. This analysis places into sharp relief several paradoxes. First, job creation/preservation in specific congressional constituencies appeared very weak vis-à-vis the monthly job losses nationwide, which continuously ranged between 400,000-500,000 per month from late 2008 through early 2010—a figure that equates to an average of approximately 1,000 jobs per month for every congressional district on a national scale. The creation of 400 or 500 jobs in a particular district via the stimulus package by June 2010 seemed insignificant to the unemployed, many of whom simply gave up searching for gainful employment.

Second, the largest share of jobs created or saved by ARRA was not geographically concentrated. The jobs were scattered across the states largely in terms of government programs from education to welfare-jobs for which state agencies had significant difficulties reporting a precise geographic impact. Indeed, of the approximately 722,000 jobs reported to have been created or saved by the stimulus package as of June 2010, 512,000 were located in state capital districts. The data convey in no uncertain terms the difficulties involved in accounting for the local effect of federal dollars doled out to the states for general transfer payments.

Valid arguments that the economy could have been plunged further into recession without the funds allocated for statewide or federal/state shared programs seemed to fall on deaf ears to, President Obama’s

admission prior to the 2010 elections that “there’s no such thing as shovel-ready projects” [45] may be interpreted much more as a brief treatise on the perils of allocating (and tracking) block grants through the labyrinthine federal system than a mea culpa on the ways in which stimulus dollars failed to shore up state and local governments. But his self-criticizing comments did nothing to instill confidence in his signature economic plan. Indubitably, Obama’s remarks solidified for many in the GOP that the stimulus was wasteful and did not have the intended effect of putting people back to work quickly. To the extent that unemployed workers and a more generally disillusioned electorate voted against Democrats in 2010, the data per se from Recovery.gov suggest one source of major discontent.

Controversies about the stimulus did not preclude President Obama from winning a second term in 2012. Continued GOP control of the House of Representatives, however, assured that another 2009-style fiscal stimulus package was not in the cards for the White House. With interest rates continuing at historically low levels in Obama’s second term, there is still not much room for the Federal Reserve to maneuver on this front. Thus, the Obama economic team has come full circle to re-live the fundamental dilemma it faced at the beginning of the president’s first term. As of late 2013, the Fed’s fourth round of “quantitative easing” to insure a munificent money supply is popular on Wall Street, but this unconventional policy of buying commercial assets and Treasury notes is as controversial as the fiscal stimulus package, and the negative impact on the value of the US dollar has been palpable. With a sluggish economic recovery, a burgeoning federal debt, and gridlock in Washington over budgeting, the question as to which party voters will assign blame or credit for national policy choices, local economic realities, and their individual fortunes is as complex as fiscal federalism itself.

Variable	Minimum	Maximum	Mean	Std. Deviation
Member's Years in Office	1	54	10.58	9.17
Member's Margin of Victory, 2008 (%)	45	100	67.87	13.39
% District Vote for Obama, 2008	23	95	53.73	14.80
Democratic Leader	0	1	.04	.19
Committee Chair	0	1	.05	.22
House Appropriations Member	0	1	.14	.35
"Blue Dog" Democrat	0	1	.12	.32
Member with Democratic Governor in State Capitol	0	1	.55	.50
Member with Democratic State Legislature in State Capitol	0	1	.69	.46
Member with Split Party Control of State Legislature	0	1	.12	.33
% District Population Change, 2000 Census	-27.4	45.3	6.21	7.94
% District Population Change, 2000 Census, x Democratic Member	-10.7	36.8	2.30	5.02
Majority Hispanic District	0	1	.06	.23
Majority Black District	0	1	.06	.23
% District Rural	0	78.7	20.98	19.84
% District Blue Collar Workers	1.4	43.1	24.13	6.53
% District Blue Collar Workers x Democrat	0	43.1	14.14	12.78
% District Population Below Poverty Line	2.9	42.2	12.33	5.63
% District Unemployed, December 2008	1.9	10.2	4.19	1.15
% District Government Workers	7.1	29.0	14.72	3.95

Appendix 1: Summary Statistics for Variables in the Regression Analyses.

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