

Voting's Rewards: Voter Turnout, Attentive Publics, and Congressional Allocation of Federal Money

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Scholars have had limited success empirically demonstrating the importance of political participation. This study shows that political participation matters because it influences political rewards. Political participation, specifically voting, acts as a political resource for geographic groups. Voting is a resource because members of Congress seek to maximize the benefits of Federal budget allocations going to their districts. Members of Congress not only try to direct resources into their districts, but they also attempt to allocate strategically those resources to the areas that provide the best return in terms of votes. Hence, areas within congressional districts that vote at higher rates will be privileged over areas that vote at lower rates.

“The blunt truth is that politicians and officials are under no compulsion to pay much heed to classes and groups of citizens that do not vote.”
(Key 1949, 527)

Perhaps V.O. Key expressed most succinctly the understanding that certain groups are ignored by the political system because they do not or cannot participate in politics. Despite this conventional wisdom, scholars have had limited success empirically demonstrating the relationship between political participation and political rewards. Some researchers reject the notion entirely, instead claiming that because the policy preferences and attitudes of voters and nonvoters differ only at the margins, non-voting has no clear consequence (Highton and Wolfinger 2001; Teixeira 1992; Wolfinger and Rosenstone 1980; but see Verba, Schlozman, and Brady 1995 for evidence to the contrary). The first claim lacks evidence; the second ignores how political elites react to political participation in deciding who gets what. This study offers a clear test of the hypothesis that participation influences political rewards by examining the relationship between geographic voting patterns and the allocation of federal discretionary spending to those locations. In short, it shows that voting matters.

While my interest centers primarily on the consequences of collective voter participation, the argument focuses on congressional behavior to understand the relationship between participation and political rewards. This study tests the hypothesis that political participation, specifically voting, serves as a political resource for geographic regions because members of Congress seek to maximize the electoral benefits of federal largess to their districts. Members of the House and Senate not only try to direct resources into their districts, they try to allocate those resources strategically to the areas likely to provide them the best return on the “investment,” in terms of votes. Hence, areas within districts that vote at higher rates are privileged over areas that vote at lower rates.

Participation and Political Rewards

Research on political participation starts with the theoretical presumption that collective inequality in political participation will lead to collective inequality in political representation (see Lijphart 1997).¹ Theories of political participation explain that those with higher socioeconomic status participate at higher levels and are

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¹Others make a compelling case for the individual psychological benefits to political participation (Finkel 1985; Pateman 1970). This argument, however, is focused on collective benefits.

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therefore advantaged in the political system (Rosenstone and Hansen 1993; Verba, Schlozman, and Brady 1995; Wolfinger and Rosenstone 1980). Even though democratic theories of participation rely on this assumption (e.g., Verba, Schlozman, and Brady 1995), very few studies have documented material benefits stemming from political participation, a rather glaring omission.

Studies have found relationships between participation and political rewards at the state and local level, but not at the federal level.² First, state spending on welfare benefits is directly, but modestly, related to the level of turnout by the poor (Hill and Leighley 1992). Welfare spending is higher in states where the poor vote at higher rates. However, the relationship between welfare spending and voting rates by the poor is moderated by the degree of liberal party control in state legislatures (Hill, Leighley, and Hinton-Anderson 1995). The combination of liberal party control in state legislatures and high turnout levels among the poor produces higher welfare spending.

At the local level, public services improved for blacks when they entered the electorate more fully after the Voting Rights Act of 1965 (Button 1989; Keech 1968). In a comparative study of black voting and social services in Tuskegee, Alabama and Durham, North Carolina, key city services such as street paving and garbage collection markedly improved for blacks as they were more fully incorporated into the electorate, as did access to recreation, library, and hospital facilities (Keech 1968, 78). In Durham, policy decisions over the location of resources such as fire stations and recreation facilities as well as decisions over urban renewal were significantly influenced by black enfranchisement (Keech 1968).

These studies demonstrate that at the state and local level politicians have successfully shifted political rewards in line with political participation. Groups that participate at lower levels due to exclusionary practices or lack of resources receive comparatively worse services and treatment by elected officials who have incentives to reward higher voting groups. Nevertheless, little direct evidence

²One study of note implies, but does not test, a relationship between participation and political rewards at the federal level. Mebane (1994) argues that incumbent politicians have strong incentives to shift benefits from recipients of means-tested programs, who are less likely to vote, to groups that are more likely to reward them with votes and indeed finds that in election years, means-tested program benefits are reduced slightly to compensate for small election-year reductions in payroll taxes. Nevertheless, the voting argument is not directly tested. One can also make the argument indirectly from comparative studies that find a positive relationship between national turnout and the level of votes for left-leaning parties (Pacek and Radcliff 1995) and a positive relationship between turnout and welfare spending (Hicks and Swank 1992) in advanced industrial nations.

is available at the federal level, the level of most scholarly and public attention with respect to voting.

Voter Turnout and Congressional Allocation of Federal Money

The relationship between political participation and political rewards is simple. Members of Congress both control the key source of rewards—the portion of the federal budget that is allocated on an annual basis³—and they must seek reelection at two or six-year increments. Thus, citizens have the votes that members of Congress need and members of Congress are willing to reward citizens for their votes.

It is well understood that members of Congress use budgetary discretion to funnel pork-barrel projects to their districts in attempts to gain favor with their constituents (Ferejohn 1974; Mayhew 1974). Much of the research on distributive politics focuses on members of Congress' differing ability to and desire for securing goods for the folks back home. Not all members are equally successful at obtaining projects. Senior members of Congress and high-ranking members are better able to secure funds through key committee positions (Fenno 1973; Ferejohn 1974). And not all members need pork equally; members facing tighter reelection races (Stein and Bickers 1994) and members who have recently suffered close elections (Bickers and Stein 1996) are more likely to try to bring resources to their districts. Tight races encourage the strategic necessity of pork-barrel projects, but the ability to secure resources depends on member rank and seniority.

Members of Congress attempt to distribute pork-barrel projects to their districts, and evidence suggests that this behavior is an effective electoral strategy. Incumbent members of Congress who are successful at procuring projects for their districts are rewarded in the next electoral cycle. Pork-barrel projects improve incumbent vote margins (Alvarez and Saving 1997; Levitt and Snyder 1997) and deter quality challengers by making incumbents seem less vulnerable (Bickers and Stein 1996).

While it is useful to demonstrate that the strategy of obtaining pork-barrel projects has electoral payoffs, it is not necessary to this argument. Members of Congress will continue to secure pork-barrel projects as long as they *believe* that these projects have electoral payoffs,

³The discretionary part of the federal budget dropped from 1974 to 1980, possibly as a result of the Budget Control and Impoundment Act of 1974, but has increased since 1980 (Alvarez and Saving 1997).

regardless of the scientific evidence.⁴ As Mayhew noted, “How much particularized benefits count for at the polls is extraordinarily difficult to say, but it will be hard to find a Congressman who thinks he can afford to wait around until precise information is available. The lore is that they count” (1974, 57).

Past research on distributive politics has added much to our understanding of the differing strategies and capabilities of members of Congress to obtain distributive goods for their districts as well as the impact of those projects on electoral fortunes. An important part of pork-barrel strategy, though, has been overlooked—the distribution of resources within districts.⁵ As Fenno (1978) reminds us, members of Congress have multiple, overlapping constituencies—not one homogenous district. Especially with larger districts and geographically limited pork, members of Congress must decide which grant efforts to support. It is the contention of this article that rather than simply bringing goods back to their electoral districts, members of Congress will try to maximize the effect of domestic policy outlays by targeting the money toward areas within their districts where it will be most effective at increasing the electoral margin—areas with higher participation rates. It is this strategic behavior that leverages votes into resources. Three targeting strategies are explored as ways to maximize the electoral benefits stemming from pork-barrel projects: targeting active publics, targeting competitive areas, and targeting core supporters.

Active, Hence Attentive, Publics

Members of Congress interpret higher voter participation within geographic areas as an indication of an attentive public. Attentive publics are “those citizens who are aware that a specific issue is on the congressional agenda, know what alternatives are under consideration, and have relatively firm preferences about what Congress should do” (Arnold 1990, 64–5). Attentive publics, in general, watch members of Congress more closely than do inattentive publics, so members of Congress pay closer attention in return. To increase the effectiveness of pork-barrel spend-

⁴Douglas Arnold (1990, chapter 4) uses a similar line of argument in *The Logic of Congressional Action*.

⁵Questions about where to locate pork-barrel projects have received some attention by scholars, but it has remained in the periphery of discussions. For example, Ferejohn (1974) notes that one member of Congress was plagued by the disputes over the location of a post office that he had acquired for the district. Ferejohn also points out that the location of pork-barrel projects may not help constituents in the district equally. For example, a dam tends to help those upstream and hurt those downstream.

ing within their districts, members of Congress may try to target that money toward attentive publics.

Narrowly targeted benefits with clear traceability to representatives characterize distributive policy. The clear benefits of these policies makes them more noticeable to constituents in the target area. The clear traceability of the policy means the effort of the member of Congress is more likely to be understood and rewarded. In contrast, most pieces of nondistributive policy have less visible causal paths and less obvious implications.⁶ Hence, decisions about the dispersion of pork barrel may stimulate a high level of attention and strategy by the member of Congress.

If a member of Congress wants to gain rewards from pork-barrel legislation, he or she should target the project in ways that maximize positive attention. Pork located in an area with very inattentive publics may not be as readily connected with the member of Congress, and thus the representative may not reap the maximum electoral rewards. In other words, inattentive publics may recognize that a new bridge or V.A. hospital is being built, but may not reliably connect the event to their Congressperson.⁷ Meanwhile, other areas with more attentive publics may notice the project and respond negatively toward the member of Congress. However, by locating the pork in an area with a high concentration of attentive constituents, the member of Congress maximizes the political rewards that may stem from building a bridge or fixing a road.

For members of Congress, there is probably no better indicator about the location of attentive versus inattentive publics than the level of political participation in a geographic area. Areas with high concentrations of attentive publics are most likely to vote at higher rates than areas with less attentive publics. Indeed voting research consistently finds a high relationship between voting and attention to politics (see, for example, Brady, Verba, and Scholzman 1995). Hence, voter turnout can reliably serve as a surrogate for the location of attentive publics.

This kind of strategic behavior by Congress members translates voting into political capital. It is not voter turnout, per se, that matters, but that high voting areas represent attentive publics. Those areas that vote at higher rates will get more from the federal government in the form of per capita domestic spending. This does not imply that no attention is paid to inattentive or low turnout areas, simply that relatively more attention is paid to high turnout areas.

⁶Even something like voting to raise taxes is obscured by the fact that taxes are deducted from paychecks rather than paid in full at the end of the year.

⁷Indeed this is the job of credit claiming, but credit claiming will obviously be easier with attentive rather than inattentive publics.

Rival Motivations: Core Supporters and Competitive Areas

Locating resources within the most active parts of the district is but one possible strategy. Members of Congress may follow other strategies or engage in a combination of strategies simultaneously. Instead of rewarding the most participatory parts of their districts, members of Congress may try to reward their supporters in order to maintain the coalition that placed them into office, or they may attempt to shore up politically marginal areas by targeting benefits to electorally competitive regions. Both strategies emanate from Fenno's (1978) distinction between geographic and reelection constituencies. Members of Congress do not see their districts as uniform entities. Rather, the district is parsed into those areas that provided strong support in the last election and those areas that proved electorally vulnerable. Members of Congress may shift resources to previously supportive areas to reinforce that support, or shift resources to areas where their support is marginal in hopes of converting opposition to support. These strategies are not inherently mutually exclusive. Members of Congress can engage in some combination, though they face constraints from limited resources.

All three posited strategies suggest a congressional process that allows for targeting of federal expenditures. This process is complicated by the interaction between Congress and the bureaucracy, with the bureaucracy making final decisions on individual grants (Arnold 1979). Stein and Bickers suggest that the "key is how hard a legislator works in identifying and assisting potential grant applicants in his or her district" (1995, 123). Because time and energy are limited, legislators and their staffs must allocate these scarce resources among competing demands (Hall 1996). In perhaps subtle ways, grant applicants from areas with more attentive publics are likely to be favored over those with less attentive publics precisely because of the perceived electoral rewards from discretionary assistance. Political actors care about these populations because the "population of politically aware constituents is likely to supply most of an incumbent's active political support and opposition, including campaign contributors and volunteers, as well as potential challengers" (Stein and Bickers 1995, 124). Hence, applications from more politically active areas may receive more effort and attention from members of Congress and their staffs than do applications from less active areas.

The implications of these three strategies for the relationship between voting and political rewards differ. The attentive public strategy suggests most directly that participation itself is a political resource. It is indiscriminate with respect to specific support of particular politicians:

areas that vote at higher rates benefit. The core supporter and competitive areas strategies imply that it is not the act of voting that matters, rather it is the vote choice.

Research Design and Methods

This section develops the model used to test the attentive public hypothesis, as well as the potential core supporter or competitive area strategies for distributing pork-barrel projects.

Most prior studies of congressional budget allocations have compared behavior among members of Congress, and, therefore, across congressional districts or states. This study adopts a different approach, instead using counties as the unit of analysis in order to examine congressional strategy *within* congressional districts for House member and *within* states for the Senators.

Counties have several advantages. Most important, counties offer variation *within* congressional districts and states. With an average of seven counties per district and sixty-one counties per state, using counties as the unit provides enough variation to allow for meaningful analysis. Further, county information reasonably reflects the kind of information members of Congress would possess. A member of Congress can be expected to know about variations in turnout at the county level, though they would be less likely to know this information at the precinct level and thus are less likely to use such information in decision making. Counties are also logical units of government that provide natural boundaries for members of Congress in understanding the landscape of their districts. Finally, many of the programs that are federally supported influence a wider area than a census tract or precinct.

While counties offer the ability to test within-districts hypotheses, there are two shortcomings of this approach for analysis of House member behavior. First, some counties lie in multiple districts and cannot be easily assigned to one district versus another. Second, some districts have only one county and therefore contain no variation. Both of these problems are concentrated in urban areas. Although most congressional districts contain multiple counties and 86 percent of counties (2,686 out of 3,141) fall within a single congressional district, 38 percent of congressional districts (167 out of 435) must be excluded from the analysis due to these limitations. Furthermore, the differences between the counties that are included in the analysis and the counties that must be dropped are not insignificant (see Table A1). The primary analysis of the House is conducted with a subset of congressional districts that are smaller in

population and distinct in several ways from the excluded districts.

Consequently two sets of results are presented in the House analyses. The first set of analysis includes measures to examine all three posited strategies but includes only the 2,686 counties that avoid the previously mentioned problems. The second set of analysis presents a restricted model—testing only the attentive public hypothesis, not the core supporters or competitive areas strategies—but with the full set of counties. These two sets of analyses produce similar results with respect to the influence of voter turnout on federal spending. In addition, the results from both house analyses are consistent with the analyses using the Senate data, which fortunately suffer from neither of the problems—all counties fit within one state and all states have multiple counties. While there is some risk that the House analyses are biased because of the loss of urban counties, the consistency of findings between the two sets of House findings and the set of Senate findings should partially mitigate this concern.

Moreover, members of Congress from districts where their constituencies are less concentrated may exercise more discretion with respect to the geographic location of public goods. A member of Congress from Manhattan or San Francisco, on the other hand, has such a concentrated constituency that the question of location of resources may be less pressing. Any major improvement to U.S. Highway 101 running through San Francisco will be appreciated by a large cross-section of the district, for example. Likewise, money funneled to one of the congressional districts in Manhattan to reduce crime may be felt by constituents across the district and in neighboring districts, while the same money funneled to the one district in Montana may be noticed by far fewer constituents.

Key Measures

I use per capita federal expenditures of grant programs within counties as the dependent variable. Following the work of Bickers and Stein (1996; and Stein and Bickers 1994), I rely on measures that include only programs that are discretionary, excluding entitlement programs. I use the total amount of block grants, grants, formula grants, project grants, and cooperative agreements available from the Consolidated Federal Funds Report⁸ compiled by the U.S. Census (beginning in 1983).⁹ The data consists of

⁸Data on grants in the Consolidated Federal Funds Report come from the FAADS database.

⁹Others separate new and continuing grant programs (Stein and Bickers 1995), but the interest here is not whether the grants are

the receipts of financial assistance from each domestic spending program of the federal government. There are 1,482 programs administered by 63 agencies. The total dollar amount is divided by the county population (also available from the Census Bureau) to compute per capita federal expenditures.

The decision to use a measure of per capita federal expenditures rather than the number of new and continuing grants warrants discussion. Students of discretionary spending have increasingly gravitated to the latter measure introduced by Stein and Bickers (1995) for empirical and theoretical reasons. On the empirical side, while many prior studies failed to find a relationship between federal spending and electoral behavior, Stein and Bickers (1995, 132–34) show that the number of new grants is related to constituency awareness of the grants and, consequently, the electoral margin. The theoretical argument is that the number of grants is identifiable and members of Congress can and do use individual grants to placate key interests.

Nevertheless, it is important to point out the empirical and theoretical limitations of an approach based solely on the number of awards. First, in analyzing the effects of changes in grant numbers on constituency awareness, Stein and Bickers (1995, 132) find that a one standard deviation change in the number of awards shifts constituency awareness of grants by only 3.4 percent. In other words, the empirical basis for choosing the number of grants as the measure is not overwhelmingly compelling. In addition, others have since found empirical evidence connecting per capita spending with changing vote margin. Using an instrumental variables approach, Levitt and Snyder (1997) find that for every \$100 in per capita spending, members of Congress receive nearly a 2 percent increase in electoral margin, concluding that their results “provide strong evidence that increased federal spending in congressional districts helps incumbents win votes” (1997, 50).

While the findings of Levitt and Snyder suggest an equally plausible, if not stronger, empirical basis for choosing a per capita spending measure, the choice here to use actual dollar values rather than number of grants is firmly rooted in the distinction between concrete distributive equality and symbolic politics (Edelman 1964). As Stein and Bickers (1995) point out, the electoral fortunes of a member of Congress may well be furthered by obtaining ten 10-thousand dollar grants rather than one

new or old, but whether areas that vote at higher rates get more federal funds. Also, taking away a continuing grant from an attentive public is probably more noticeable than granting one in the first place. Separating grants into new and continuing grants hinders the main theoretical interest of this article.

one-million dollar grant. However, the entire community of a county may benefit more from the latter, while only particular interests may benefit from the former. Grants, especially small grants may more often represent symbolic politics. The metric of rewards measured in dollars more clearly distinguish regions that receive greater or fewer resources. It is hard to argue with the assertion that, as far as the benefit to constituents is concerned, more money is better than less money. The same cannot be said of the number of grants.

The three allocation strategies—attentive publics, core supporters, and competitive areas—are operationalized as follows. Voter turnout (attentive publics) is measured by the percentage of adult citizens voting within the county in the last election, calculated using the census figures for the adult population and the actual number of votes for the Senate or House. The incumbent vote share (core supporters) is measured as the percent of the vote for the congressional incumbent in the most recent election. The competitiveness (competitive areas) of the county is measured by how close to a 50/50 split the Democrat and Republicans vote margins were in the last election. A county where votes are evenly divided between Democrats and Republicans is receives the highest score of 0; a county voting 60/40 (in either party's favor) receives a score of -10.¹⁰ Again, both vote share and competitiveness measures are missing for counties that cross over congressional districts.¹¹

Control Measures

Several alternative influences on the distribution of federal spending must also be considered. Foremost among these, the needs and abilities of an area powerfully influence the distribution of resources (Stein 1981), as does the partisan composition of a county (Levitt and Snyder 1995).

Areas with higher unemployment, crime, and poverty possess greater need. Unemployment as measured is the

¹⁰The correlation between vote margin and competitiveness is frequently high, though they tap theoretically different contexts. For example, a county won by an incumbent 55 percent to 45 percent has the same competitiveness as a county lost by the incumbent 45 percent to 55 percent. In years where this correlation was highest, the models were reestimated including only one of the two factors at a time. No significant changes were detected.

¹¹Voting information used to calculate turnout, competitiveness, and incumbent support from 1982 to 1990 was retrieved from ICPSR (1995). For 1992, presidential data taken from the U.S. Census Department courtesy of Congressional Quarterly, Inc. is used as a surrogate for both House and Senate analyses, as equivalent data to that from 1982 to 1990 is unavailable through public resources.

county-level civilian unemployment rate. Crime rate is the number of serious crimes per 1,000 persons. The poverty rate is the percent of people living below the federally recognized poverty line. Additionally, areas with older populations and areas with lower educational achievement and income also give rise to greater needs. These factors take on additional importance because of their known relationship with voter turnout. Age, education, and income are consistently the strongest determinants of voter participation (Verba, Schlozman, and Brady 1995; Wolfinger and Rosenstone 1980). Older, more educated, and wealthier citizens are more likely to vote. Hence, these factors must be accounted for in order to test the distinct influence of voter turnout on federal expenditures. Age is measured by the average age within a county, the percent of people older than 65, and the percent of people younger than 18. Education is measured by the percentage of individuals in the county with a college degree. Income is the average family income. In addition to these factors, measures of racial composition, population size, and population density of the county are included. Race, measured by the proportion of white citizens, is included because of its possible relationship with voter turnout and because the conflation of poverty with race may make race an indicator of need. Population size and density are included because especially large or highly dense areas may receive less federal money per capita due to geographic concentration of services (e.g., highways). Demographic, unemployment, crime, poverty, and population information is taken from the U.S. Census Department.

While needs may determine much of federal spending, not all areas are equally adept at acquiring federal resources (Stein 1981). Two measures are used to tap the relative ability of areas to garner federal resources: the total government revenue and the total number of government employees.

In addition to the needs and abilities of an area, the partisan composition may also influence the distribution of resources. On one hand, areas with a partisan majority of the same party as the party in power may receive additional rewards due to control of congressional leadership (Levitt and Snyder 1995). On the other hand, Republican leaning areas may be less appreciative of discretionary spending because of fiscal conservatism (Sellers 1997). The Democrats were in control of leadership during the period covered by this study, so the expectations from the two influences are the same: Republican areas will receive less in distributive resources than Democrat areas. The partisan composition of the county is the percentage of voters supporting the Republican candidate.

The sources and descriptions of the data are further elaborated in the appendix.

Statistical Considerations

To model the influence of voter turnout on federal expenditures I use robust regression rather than ordinary least-squares regression.¹² The data contains a number of outliers that may unduly influence the estimates. Some of these are counties that are exceptionally high in federal per capita expenditures, usually because of the location of a long-standing government project. Others are counties that are extremely low in population, thus distorting per capita spending. For example, Yellowstone County, the home to Yellowstone National Park has virtually zero population and comparably few discretionary federal grants. However, small changes in federal spending produce large shifts per capita spending because the population is so small. These counties are the exception rather than the norm. To explain the relationship between participation and political rewards within a typical range of counties, the leverage these outlying cases exert on the results must be reduced.

Robust regression is a weighted least-squares estimator that is insensitive to such outliers. Cases are iteratively reweighted by the inverse of their residuals. Observations with larger residuals from the least-squares estimates are weighted by a factor approaching zero whereas observations with small residuals are weighted by a factor approaching one. This procedure reduces the influence of extreme outliers on the estimates to give a more accurate assessment of the relationship between political participation and political rewards. Interpretation of the linear model estimated via robust regression is identical to that of OLS.

To estimate the influence of voter turnout on federal expenditures while accounting for continuity in budgets, I model the effect of voter turnout on *changes* in federal expenditures. This accomplishes two things. First, it recognizes that budgets are long-term projects that have institutional stability and therefore change incrementally (Wildavsky 1984). Allocations to certain areas may be tied to long-standing projects. Second, it offers a tougher test of the influence of voter turnout on expenditures because the inclusion of the lagged dependent variable can suppress the explanatory power of other variables (Achen 2000).

The change-score model is:

Per capita grant expenditures_t = *f*(per capita grant expenditures_{t-1}, voter turnout, incumbent

vote share, competitiveness, partisan composition, area needs and abilities)

Results

The House-based (Table 1a and Table 1b) and Senate-based (Table 2) analyses offer a mixed picture of empirical support. Among the three potential allocation strategies, only the influence of voter turnout has a relatively consistent effect on the distribution of grant monies over the period from 1984 to 1994.¹³ Members of Congress appear to shift money toward areas that vote at higher rates, *ceteris paribus*. Voter turnout significantly influences the distribution of resources in four out of the six two-year cycles examined. Most importantly, the pattern of voter turnout in relation to changes in spending—positive and statistically significant for all periods except from 1986 to 1988 and from 1990 to 1992—fits well with the budgetary politics of the 1980s and 1990s.

In 1985 Congress passed the Gramm-Rudman-Hollings Act, intended to rein in the discretionary federal spending by members of the House and Senate (see Wildavsky and Caiden 2001). This bill did not necessarily alter Congress members' strategic preference, but restricted their ability to implement their preferences by reducing discretionary funds in general. New spending fell immediately after the act and nondefense discretionary spending was slashed by 11, 20, and 24 billion dollars in 1986, 1987, and 1988 (Miller 1989). The results of this act are reflected in the null effect of voter turnout on change in spending between 1986 and 1988 following a positive effect in the previous two-year cycles.

The well-known weakness of the Gramm-Rudman-Hollings Act is also reflected by the return of a positive influence of voter turnout on discretionary allocations in the 1988 to 1990 cycle. After the Gramm-Rudman-Hollings Act failed to rein in Congress, Congress passed the Budget Impound Act of 1990 to provide a stronger

¹³The analyses presented here treat each county as an independent observation, though in reality a county's federal resources may be correlated with that of other counties within a district or state. If the independent variables fail to account for all of the covariation within districts or states, then the errors across observations may exhibit spatial correlation. While the estimates remain unbiased, they are inefficient. The standard errors and hypotheses based on them may be misleading. However, with average *t*-values of 3.0 and 4.8 for the coefficients on voter turnout across Tables 1 and 2, respectively, the problem would have to be of a large magnitude before hypothesis testing suffers. When the models presented were reexamined using OLS models and robust standard errors to account for the potential spatial correlation, the standard errors changed only at the margins and not enough to change *t*-values below an accepted level.

¹²Initial diagnostics of the models estimated with OLS found two interrelated violations to the OLS assumptions: a significant number of outliers and heteroskedasticity. Robust regression corrects for these two conditions (see Western 1995; StataCorp 1999, 256).

TABLE 1a The Influence of Aggregate Turnout on Changes in Per Capita Federal Grant Expenditures (House-Based Analysis, Bi-Annual Changes 1984–1994)

	1983 ^a –1984	1984–1986	1986–1988	1988–1990	1990–1992	1992–1994 ^b
Percent voting in past election	.833** (.172)	.417* (.194)	.022 (.056)	.129** (.039)	–.312** (.084)	.714 [#] (.372)
Incumbent vote share in past election	.546** (.199)	.021 (.172)	–.010 (.130)	–.283* (.140)	–.087 (.212)	.480 [#] (.278)
Competitiveness of past election	–.852 (.253)	–.329 (.238)	.389* (.171)	.207 (.187)	–.191 (.260)	.910* (.453)
Percent voting Republican in past election	–.192 [#] (.101)	.072 (.099)	–.077 (.080)	–.080 (.079)	–.084 (.121)	–1.77** (.303)
Lag of grant programs per capita federal expenditures	.448** (.003)	.528** (.004)	.661** (.004)	.943** (.005)	1.03** (.005)	.796** (.009)
Percent under poverty rate	3.87** (.437)	5.92** (.468)	4.38** (.396)	5.25** (.422)	8.53** (.569)	5.62** (.622)
Crime rate	.002** (.001)	.005** (.001)	.002 (.001)	.0009 (.001)	.002 (.002)	.004* (.002)
Unemployment rate	4.21** (.472)	6.81** (.623)	2.11** (.523)	1.23 (.792)	5.44** (.924)	5.33** (1.07)
Average income	–.005** (.001)	–.004** (.001)	–.003** (.001)	–.002 [#] (.001)	.001 (.001)	–.006** (.002)
Percent with college education	1.90** (.637)	1.59* (.700)	1.16* (.561)	.078 (.594)	1.60 [#] (.829)	.145 (.754)
Percent white	–.761** (.192)	–.248 (.203)	–.202 (.167)	–.162 (.177)	.001 (.252)	–.578* (.258)
Average age	–5.69** (1.28)	–1.99 (1.34)	–3.37** (1.15)	–2.12 [#] (1.27)	–2.50 (1.76)	–3.29* (1.52)
Percent over 65	7.27** (1.18)	–.105 (1.23)	3.34** (1.04)	2.71* (1.14)	8.68** (1.59)	3.11* (1.43)
Percent under 18	–.092 (.949)	–2.18* (1.00)	.518 (.816)	–.698 (.898)	.950 (1.24)	–1.31 [#] (.722)
Population density	–.022** (.007)	–.016* (.007)	–.010 (.007)	.001 (.007)	–.003 (.010)	.008 (.013)
Population	.0002 (.0001)	.0002 (.0001)	.0004** (.0001)	.0002 (.0002)	.0001 (.0001)	.001 (.001)
Government revenue	.030** (.005)	.014* (.006)	.006 (.005)	.003 (.005)	.013 [#] (.007)	.015** (.004)
Government employees	–.001 (.004)	.0008 (.004)	–.004 (.004)	–.001 (.004)	.0005 (.006)	.001 (.005)
Constant	183.02** (57.75)	145.33* (61.03)	71.27 (51.34)	94.82 (55.03)	–98.76 (77.76)	288.98** (56.77)
Number of cases	2603	2544	2494	2432	2488	2358
Adjusted r ²	.915	.880	.916	.939	.948	.864

Notes: **p < .01; *p < .05; [#]p < .10; standard errors in parentheses.

^aFAADS data begins in 1983; ^bElection data from 1992 is based on presidential voting at the county level.

Source: See appendix.

Estimates are robust regression estimates.

TABLE 1b The Influence of Aggregate Turnout on Changes in Per Capita Federal Grant Expenditures (House Based Analysis, Bi-Annual Changes 1984–1994)

	1983 ^a –1984	1984–1986	1986–1988	1988–1990	1990–1992	1992–1994 ^b
Percent voting in past election	1.05** (.146)	.575** (.161)	-.032 (.052)	.121** (.037)	-.333** (.077)	.609# (.315)
Incumbent vote share in past election	—	—	—	—	—	—
Competitiveness of past election	—	—	—	—	—	—
Percent voting Republican in past election	-.264** (.086)	.069 (.087)	-.175** (.065)	-.060 (.069)	.002 (.103)	-1.89** (.259)
Lag of grant programs per capita federal expenditures	.484** (.002)	.529** (.004)	.746** (.004)	1.03** (.004)	1.11** (.004)	.849** (.007)
Percent under poverty rate	3.97** (.399)	5.92** (.424)	4.06** (.348)	4.11** (.376)	7.51** (.512)	4.66** (.549)
Crime rate	.003** (.001)	.005** (.001)	.001 (.001)	.002# (.001)	.001 (.001)	.005** (.001)
Unemployment rate	4.51** (.431)	6.93** (.567)	1.58** (.470)	.701 (.714)	4.04** (.829)	4.61** (.938)
Average income	-.002* (.001)	-.004** (.001)	-.0005 (.0001)	-.001 (.001)	.001 (.001)	-.003** (.001)
Percent with college education	1.55** (.535)	.873 (.584)	.799# (.460)	.279 (.497)	1.56* (.688)	.411 (.623)
Percent white	-.674** (.171)	-.163 (.180)	-.212 (.146)	-.172 (.156)	.022 (.223)	-.657** (.219)
Average age	-7.04** (1.15)	-3.47** (1.20)	-3.05** (1.01)	-1.22 (1.11)	-1.73 (1.54)	-3.26* (1.33)
Percent over 65	6.99** (1.07)	.017 (1.11)	1.61# (.922)	1.60 (1.01)	7.24** (1.41)	2.26# (1.27)
Percent under 18	-.834 (.839)	-3.66** (.881)	-.544 (.719)	-.684 (.798)	.773 (1.09)	-1.28* (.623)
Population density	-.0004 (.002)	-.001 (.001)	.0008 (.001)	.001 (.001)	.001 (.002)	.004 (.005)
Population	-.0001 (.0001)	-.00006** (.00002)	-.00006* (.00001)	-.00004** (.00001)	-.0001** (.0002)	.001 (.001)
Government revenue	.029** (.005)	.015** (.005)	.001 (.004)	.002 (.004)	.011# (.006)	.010** (.003)
Government employees	.003* (.001)	.004** (.001)	.003** (.001)	.001** (.0003)	.003** (.001)	.0001 (.002)
Constant	235.22** (50.04)	207.72** (52.86)	110.33* (43.43)	58.12 (47.63)	-123.54# (66.64)	301.24** (47.06)
Number of cases	3048	2965	2927	2846	2906	2842
Adjusted r ²	.944	.895	.935	.960	.958	.889

Notes: **p < .01; *p < .05; #p < .10; standard errors in parentheses.

^aFAADS data begins in 1983; ^bElection data from 1992 is based on presidential voting at the county level.

Source: See appendix.

Estimates are robust regression estimates.

TABLE 2 The Influence of Aggregate Turnout on Changes in Per Capita Federal Grant Expenditures (Senate-Based Analysis, Bi-Annual Changes 1984–1994)

	1983 ^a –1984	1984–1986	1986–1988	1988–1990	1990–1992	1992–1994 ^b
Percent voting in past election	2.08** (.241)	1.33** (.274)	-.010 (.050)	.129** (.035)	-.004 (.271)	.656* (.317)
Incumbent vote share in past election	-.054 (.434)	.723** (.278)	.197 (.201)	-.416 (.292)	-.995* (.468)	-.589** (.224)
Competitiveness of past election	-.394 (.581)	-.646# (.359)	-.335 (.279)	.715# (.389)	.157 (.531)	-.278 (.376)
Percent voting Republican in past election	-.898** (.247)	-.788** (.125)	-.045 (.156)	-.400** (.143)	-.167 (.109)	-1.82** (.261)
Lag of grant programs per capita federal expenditures	.471** (.003)	.526** (.004)	.865** (.005)	1.09** (.005)	1.11** (.006)	.847** (.007)
Percent under poverty rate	1.62** (.604)	6.14** (.475)	3.31** (.437)	2.91** (.481)	7.02** (.582)	4.67** (.555)
Crime rate	.008** (.002)	.007** (.001)	.0009 (.001)	.002# (.001)	.002 (.002)	.005* (.001)
Unemployment rate	5.32** (.582)	5.51** (.649)	.854 (.602)	-.008 (.854)	3.95** (.941)	4.80** (.939)
Average income	-.002 (.01)	-.005** (.001)	-.001 (.001)	-.001# (.0007)	-.0005 (.001)	-.003** (.001)
Percent with college education	.703 (.723)	1.22# (.704)	.204 (.577)	.581 (.563)	1.52# (.840)	.368 (.623)
Percent white	-.837** (.260)	-.076 (.188)	-.524** (.176)	.081 (.210)	-.542* (.247)	-.696** (.220)
Average age	-7.34** (1.55)	-3.36* (1.42)	-3.06* (1.27)	-1.83 (1.28)	-.561 (1.85)	-3.84** (1.34)
Percent over 65	7.33** (1.54)	.086 (1.26)	1.53 (1.12)	3.10* (1.22)	6.92** (1.67)	2.57* (1.26)
Percent under 18	-2.13# (1.13)	-2.47* (1.09)	.197 (.869)	-.102 (.899)	1.96 (1.34)	-1.25* (.624)
Population density	.003# (.001)	.001 (.004)	.001 (.001)	.0007 (.001)	.010 (.006)	.005 (.005)
Population	-.0002** (.00002)	.0004** (.0001)	-.00005** (.00001)	-.00003* (.00001)	-.001 (.001)	.001 (.001)
Government revenue	.013* (.006)	.009 (.006)	.025 (.005)	.008 (.005)	.011 (.007)	.010** (.003)
Government employees	.006** (.001)	-.011** (.003)	.002** (.001)	.0009** (.0003)	.0006 (.004)	.001 (.001)
Constant	315.84** (72.50)	137.27* (62.73)	101.75# (53.52)	45.63 (57.08)	-49.55 (81.56)	341.87** (49.47)
Number of cases	1787	2265	2027	1765	2265	2842
Adjusted r ²	.935	.880	.951	.971	.955	.889

Notes: **p < .01; *p < .05; #p < .10; standard errors in parentheses.

^aFAADS data begins in 1983; ^bElection data from 1992 is based on presidential voting at the county level.

Source: See appendix.

Estimates are robust regression estimates.

set of constraints on members (see Wildavsky and Caiden 2001). As with the Gramm-Rudman-Hollings Act, the immediate impact of the Budget Impound Act was to stymie the influence of voter turnout on budget allocation. However, the evidence from 1992 to 1994 indicates that this act, too, did not impose lasting constraints on congressional behavior.

A second effect of the budget acts can be seen in how the coefficient on lagged federal expenditures varies over time. The effect of the prior year's budget on the current budget increases sharply between the 1984–1986 cycle to the 1986–1988 cycle and it remains high through 1994. Indeed the influence of prior budgets on current ones approaches a 1-to-1 relationship from 1986 to 1994. The budget acts appear to have limited congressional discretion in spending in favor of more fixed spending.

Comparing the influence of voter turnout on federal expenditures in Tables 1a and b and Table 2, the pattern with respect to the House of Representatives and of the Senate is consistent. The only exception occurs in the 1990–1992 cycle, where voter turnout is negatively related to changes in federal expenditures in the House but not the Senate.

The effects of incumbent vote share and electoral competitiveness are mixed and appear inconclusive. In some years high incumbent vote share in a county is related to increased allocations to the county, in other years the relation is negative (or reversed). The same is true for competitiveness. Only voter turnout is generally consistent in its positive influence on the distribution of federal grants.¹⁴

Partisan composition also plays a distinct role in shaping federal expenditures. The coefficient on the percent voting for Republican candidates has a negative and statistically significant influence on federal expenditures in three cycles for the Senate and two for the House. Areas that voted for the out party—in this case the Republicans, since the Democrats still held control of the House through 1994—are penalized while areas that vote Democrat are rewarded. This result is consistent with two explanations: Democrat incumbents had an easier

time rewarding their districts because of their majority status (Levitt and Snyder 1995) and fiscally conservative members do not perceive the same benefits from pork-barrel projects that fiscally liberal members do (Sellers 1997).

Consistent with prior research, the needs and abilities of a county encourage greater federal spending (Stein 1981). Areas with higher crime, poverty, or unemployment receive more money than do areas with lower crime, poverty, or unemployment. Poorer counties and counties with smaller white populations also receive comparatively more in grant money. And indicators of a county's ability to lure grant money also appear to positively influence county shares of grants.

The results presented in Tables 1a and b and Table 2 establish a general relationship between voter turnout and federal expenditures, but the relationship is not conclusive. Voter turnout may be acting as a surrogate for other omitted characteristics of the county that influence federal spending. To test for this possibility, I examine yearly changes in federal spending in relation to the timing of elections. Tables 3a and b, the House-based analysis, and Table 4, the Senate-based analysis, disaggregate the evidence presented in Tables 1 and 2 to show yearly shifts in federal expenditures. If the effect of voter turnout on federal expenditures results from the political importance of votes, then we should see a clear effect of voter turnout on changes in federal spending across election years but see no such relationship in periods without elections. As federal spending in one year is determined by legislation in the prior year,¹⁵ we should see the effect of voter turnout on federal expenditures in changes between odd and even years (e.g., 1983–1984) rather than from even to odd years (e.g., 1984–1985). On the other hand, if voter turnout is masking an unobserved characteristic of the county, the influence of voter turnout on federal expenditures should be similar across all years.

Before the implementation of the Gramm-Rudman-Hollings Act (1984–1987), the expected pattern holds. Overall, the pattern holds for 6 of the 10 years examined. The four years where the pattern does not hold can be plausibly explained as a function of the budgetary politics of the late 1980s and early 1990s. As Stein and Bickers note, “politics as usual” was suspended for most of this time period (1995, 70).

The first two years that defy the expected pattern are 1988 and 1989, which follow the Stock Market Crash of 1987 and the subsequent 1987 Budget Summit Act. The positive finding on 1989 and null finding on 1988 are reconcilable because at this summit, a two-year pact covering

¹⁴Tests for interactive effects between turnout and the other two strategies found no discernable pattern. The absence of statistical evidence of more complex strategies is highly consistent with our basic understanding of congressional elections and the importance of incumbency. Given the role of incumbency advantage and the reduced role of partisanship in congressional elections, the attentive public strategy allows members of Congress to convert opposition in active areas and to reinforce support in highly participatory areas. Ignoring areas where citizens are more likely to vote and to vote against the incumbent in favor of attending to areas full of active supporters would put members of Congress in significant peril and perhaps invite challengers.

¹⁵The fiscal year starts on October 1.

TABLE 3a The Influence of Aggregate Turnout on Changes in Per Capita Federal Grant Expenditures (House-Based Analysis, Annual Changes from 1984–1993)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Percent voting in past election	.832** (.172)	.058 (.055)	.607** (.177)	-.055 (.168)	.042 (.055)	.103* (.052)	.082* (.037)	-.071# (.042)	-.194* (.079)	.014 (.196)
Incumbent vote share in past election	.546** (.199)	-.224 (.166)	.147 (.158)	.161 (.149)	.006 (.127)	-.123 (.120)	-.116 (.133)	-.519** (.148)	-.179 (.202)	.122 (.196)
Competitiveness of past election	-.852** (.253)	-.002 (.205)	-.373# (.218)	-.401# (.206)	.363* (.167)	-.139 (.158)	.036 (.178)	.739** (.199)	-.069 (.246)	-.235 (.248)
Percent voting Republican in past election	-.192# (.100)	-.257** (.084)	.068 (.090)	-.231** (.086)	-.076 (.078)	-.065 (.074)	-.091 (.075)	.228** (.084)	-.209# (.114)	-.146 (.111)
Lag of grant programs per capita federal expenditures	.448** (.003)	.531** (.003)	.564** (.004)	.742** (.005)	.701** (.005)	.901** (.004)	.875** (.005)	1.01** (.004)	.887** (.005)	.898** (.004)
Number of cases	2603	2606	2544	2544	2492	2494	2432	2433	2487	2486
Adjusted r ²	.915	.919	.907	.919	.915	.962	.942	.967	.948	.959

Notes: **p < .01; *p < .05; #p < .10; standard errors in parentheses.

Source: See appendix.

Estimates are robust regression estimates.

TABLE 3b The Influence of Aggregate Turnout on Changes in Per Capita Federal Grant Expenditures (House-Based Analysis, Annual Changes from 1984–1993)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Percent voting in past election	1.05** (.146)	.051 (.053)	.669** (.149)	.043 (.038)	-.008 (.050)	.112* (.048)	.073* (.035)	-.089* (.040)	-.192* (.073)	.070 (.156)
Incumbent vote share in past election	—	—	—	—	—	—	—	—	—	—
Competitiveness of past election	—	—	—	—	—	—	—	—	—	—
Percent voting Republican in past election	-.264** (.086)	-.157* (.071)	.035 (.080)	-.214** (.069)	-.132* (.063)	-.048 (.061)	-.078 (.066)	.173* (.074)	-.109 (.097)	-.152 (.094)
Lag of grant programs per capita federal expenditures	.484 (.002)	.832** (.003)	.568** (.003)	.825 (.004)	.828** (.004)	.915** (.004)	.936** (.004)	1.01** (.004)	.945** (.004)	1.00** (.004)
Number of cases	3048	3052	2964	2966	2926	2926	2844	2846	2905	2903
Adjusted r ²	.944	.966	.915	.941	.951	.962	.950	.969	.959	.969

Notes: **p < .01; *p < .05; #p < .10; standard errors in parentheses.

Source: See appendix.

Estimates are robust regression estimates.

fiscal years 1988 and 1989 set ceilings on discretionary spending, effectively establishing a two-year budget for this period (White and Wildavsky 1989, 518–21).

The second two years in which the expected pattern is not observed are 1991 and 1992. The negative coefficients on both years reflect not only the important Bud-

get Impound Act of 1990, but perhaps more importantly the 1990 Deficit Cutting Agreement that cut 182.4 billion dollars in discretionary spending from 1991 to 1995 (Shuman 1992, 317). Those counties that had previously been rewarded for their participation suffered in these cutbacks.

TABLE 4 The Influence of Aggregate Turnout on Changes in Per Capita Federal Grant Expenditures (Senate-Based Analysis, Annual Changes from 1984–1993)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Percent voting	2.08**	.106	1.59**	-.134	-.023	.112*	.077*	-.075*	.058	.042
in past election	(.242)	(.196)	(.253)	(.239)	(.052)	(.051)	(.035)	(.038)	(.252)	(.254)
Incumbent vote share	-.054	.088	.464 [#]	.239	.094	.413*	-.344	.527	1.12*	.120
in past election	(.434)	(.348)	(.258)	(.241)	(.212)	(.205)	(.292)	(.322)	(.435)	(.439)
Competitiveness of	-.395	-.141	-.172	-.555 [#]	-.740*	-.216	.185	.278	.628	-1.02*
past election	(.581)	(.465)	(.332)	(.312)	(.293)	(.283)	(.390)	(.427)	(.492)	(.498)
Percent voting	-.898**	-.188	-.623**	-.727**	-.674**	.233	-.329*	.205	-.466**	-.072
Republican in	(.247)	(.198)	(.116)	(.108)	(.164)	(.159)	(.035)	(.158)	(.101)	(.103)
past election										
Lag of grant programs	.471**	.851**	.513**	.763**	.811**	.918**	.921**	1.04**	.937**	1.01**
per capita federal	(.003)	(.004)	(.004)	(.005)	(.005)	(.005)	(.005)	(.004)	(.005)	(.005)
expenditures										
Number of cases	1787	1788	2265	2265	2027	2027	1765	1765	2263	2263
Adjusted r ²	.935	.964	.882	.911	.940	.957	.963	.976	.949	.960

Notes: **p < .01; *p < .05; [#]p < .10; standard errors in parentheses.

Source: See appendix.

Estimates are robust regression estimates.

For the crucial years, the period from 1984 to 1987, the expected pattern emerges and the substantive effects are considerably stronger than they appear through the remainder of the series. These additional analyses shed light on a process that may have faltered during the deficit reduction activity of the late 1980s and early 1990s.

Substantive Results

There is a substantial range across election cycles and institutions in the impact of voter turnout on spending. Overall, the average impact of a 1 percent change in turnout on the per capita grant program spending for the House (for the significant coefficients) is .52 with a range from .13 to .83; for the Senate the average effect is 1.05 with a range from .13 to 2.1. The big picture, however, deserves some clarification. For example, the median county, Grant County in New Mexico, received \$601 in grants programs from the federal government for every man, woman, and child in the county in 1994. Grant County has a population of 30,000. In 1992, turnout was at 53 percent in Grant County. According to the analysis presented in Table 1, the county as a whole would have received an additional \$21,420 dollars in federal grants for every 1 percent increase in voter turnout. County-level voter turnout averaged 60 percent with a ten-point standard deviation. A change of one standard deviation in voter turnout would

have amounted to a difference of about \$214,200 dollars in federal grant expenditures.

While this figure appears substantively large, it is important to not overstate the effects of voter turnout on federal expenditures, relative to other factors. Using the same years (1992–1994), for every one percent change in the poverty rate, counties received an additional \$5.62 per person; for every one percent change in the unemployment rate, counties received an additional \$5.33 per person. For a county the size of Grant County, the actual dollar figures would be \$168,600 for every 1 percent change in the poverty rate and \$159,900 for every 1 percent change in the unemployment rate. The variance is smaller for both poverty rates and for unemployment; even so, a one standard deviation shift would amount to \$1.17 million for poverty rates and \$506,000 for unemployment. Clearly, county needs factor more into the total dollar amount than does political participation.

Conclusions

The results provide a powerful and simple demonstration of one process by which citizens are rewarded for their political participation—counties that vote at higher rates are rewarded with higher per capita federal expenditures. While it is important to demonstrate that political

participation has clear collective rewards, there is a downside to these results. It is difficult to normatively justify political participation being rewarded with federal funding. These findings suggest that the logic of congressional vote maximization may shift scarce federal allocations away from those areas in society that need it most—based on concentrations of social problems—toward those areas that participate the most. This finding is partly tempered by the concurring finding that community needs remain the predominant force acting on the distribution of federal expenditures.

These results also complement prior research documenting the relationship between political participation and political rewards in two important ways. First, prior evidence has only been found at the state and local level, whereas the evidence presented here shows a positive relationship between political participation and geographically targeted expenditures at the federal level. Moreover, I elaborate a clear rationale for the process that I describe and demonstrate empirically. Second, while prior evidence has focused on demographic constituencies these findings demonstrate the benefit of thinking in geographic terms.

In addition to providing evidence of positive political rewards for political participation, I identify an important second layer of political calculation by members of Congress in deciding the allocation of federal expenditures. Not only do members of Congress typically try to bring resources back to their districts; they also try to locate those resources in ways that improve their electoral fortunes by targeting areas that vote at higher rates. This too has some unfortunate implications. If members of Congress allocate resources based on participation, then inequalities in representation are further exacerbated.

How can this set of results inform our wider understanding of the relationship between participation and representation? As Hall (1996) reminds us, members of Congress (like most politicians) have difficult and demanding jobs, but only limited resources. With these factors in mind, it should be no surprise that political actors will find any strategy that reduces the size of their constituency while not reducing electoral margins to be a welcomed one. Political participation is clearly one such avenue. By not voting, citizens make the jobs of political actors easier by providing politicians a relatively clear way to minimize their workload. If participation was more widespread, political actors would have to make harder choices about whom to represent and how to distribute resources in society.

Most importantly, this study lends much needed empirical support to the frequently made contention that

V.O. Key called “the blunt truth”: unequal participation leads to unequal representation.

Data Appendix

Note: Original sources are listed for each measure, but most of this data has been compiled onto a single location in the *USA Counties* CD-Rom produced by the U.S. Census Bureau.

Measures of Federal Awards (available 1983–1994)

- Total grant money spent in target county. Source: Consolidated Federal Funds Report (CFFR) and the Federal Assistance Award Data System (FAADS); Bureau of the Census. “The principal source of grants data was the information submitted to the FAADS. The Bureau of the Census is the Executive Agent for the Office of Management and Budget and is responsible for the operation of the FAADS reporting system. The FAADS data represent the federal obligation incurred at the time the grant is awarded. The amounts reported do not represent actual expenditures since obligations in one time period may not result in outlays during the same time period. Moreover, initial amounts obligated may be adjusted at a later date, either through enhancements or de-obligations. The data were derived by summing the quarterly reports that covered financial assistance awarded between October 1 and September 30. All grant awards were reported by state, county, and city of the initial recipient. For many grants, this recipient is the state government even though the grant monies are subsequently distributed to county, municipal, or township governments. These “pass-through” grants generally appear in the CFFR at the state capital city (and in the associated county). No attempt is made in the CFFR to assign the dollar amounts for these pass-through programs to locations other than the state capital” (Source notes from U.S. Census Bureau).

Measures of Political Variables

For figures from 1982 through 1990

House of Representatives

- Turnout: Percent of adult population voting. Total number of recorded votes for member of Congress divided by the adult population of the county. Sources: ICPSR 13, General Election Data for the United States, 1950–1990 and Bureau of the Census for population.
- Incumbent vote share: Percent of votes going to the incumbent’s party.

TABLE A.1 Descriptive Statistics for House-Based Analysis

	1984 Model				1986 Model				1988 Model			
	Full	Included	Excluded	Percent Difference ^a	Full	Included	Excluded	Percent Difference ^a	Full	Included	Excluded	Percent Difference ^a
Per capita grant expenditures in dollars (dependent)	334	317	406	-27%	383	371	432	-16%	398	380	462	-21%
Per capita grant expenditures in dollars (lagged)	181	141	358	-120%	334	316	403	-26%	383	369	435	-17%
Percent voting Republican in past election	43%	44%	42%	5%	46%	47%	40%	15%	43%	43%	44%	-2%
Percent voting in past election	44%	45%	36%	20%	55%	55%	51%	7%	41%	43%	30%	33%
Competitiveness of past election	—	20%	—	na	—	22%	—	na	—	23%	—	na
Incumbent vote share in past election	—	67%	—	na	—	68%	—	na	—	69%	—	na
Percent under 18	29%	30%	29%	1%	29%	30%	29%	1%	30%	30%	29%	1%
Percent over 65	13%	14%	11%	20%	13%	14%	11%	18%	13%	14%	12%	15%
Average age	30.9	31.2	29.6	5%	30.9	31.2	29.8	5%	30.9	31.2	29.9	4%
Percent with college education	12%	11%	15%	-33%	12%	11%	14%	-29%	12%	11%	14%	-29%
Average income in dollars	9756	9442	11145	-17%	11218	10878	12562	-15%	12282	11852	13815	-16%
Unemployment rate	10.4	10.5	9.9	6%	8.6	8.8	7.9	10%	8.7	8.9	7.8	13%
Crime rate (serious crimes per 100,000 persons)	2827	2513	4217	-60%	2766	2437	4072	-59%	2861	2490	4187	-59%
Percent under poverty rate	16%	16%	14%	14%	16%	16%	15%	10%	16%	16%	14%	17%
Percent white	88%	90%	81%	10%	88%	90%	81%	10%	88%	89%	87%	3%
Population	21278	35169	999975.7	-453%	212785	35024	916651	-414%	212785	35422	845862	-381%
Population density (population/sq. miles)	220	92	788	-316%	220	93	724	-287%	220	94	672	-263%
Per capita government revenue from all government units within county	1060	1026	1211	-17%	1060	1028	1188	-15%	1060	1012	1232	-21%
Number of government employees at all levels within a county	7309	1169	34521	-456%	7309	1164	31642	-417%	7309	1175	29203	-383%

(continued on next page)

TABLE A.1 Descriptive Statistics for House-Based Analysis (continued)

	1990 Model				1992 Model			
	Full	Included	Excluded	Percent Difference ^a	Full	Included	Excluded	Percent Difference ^a
Per capita grant expenditures in dollars (dependent)	495	473	564	-18%	695	679	754	-11%
Per capita grant expenditures in dollars (lagged)	398	376	467	-23%	495	477	556	-16%
Percent voting Republican in past election	46%	41%	45%	-9%	43%	43%	45%	-5%
Percent voting in past election	52%	53%	42%	22%	41%	42%	33%	24%
Competitiveness of past election	—	24%	—	na	—	21%	—	na
Incumbent vote share in past election	—	70%	—	na	—	68%	—	na
Percent under 18	30%	30%	29%	1%	30%	30%	29%	3%
Percent over 65	13%	14%	12%	12%	13%	14%	12%	15%
Average age	30.9	31.2	30.1	4%	30.9	31.2	30.1	4%
Percent with college education	12%	11%	14%	-24%	12%	11%	14%	-27%
Average income in dollars	13895	13440	15351	-14%	15285	14749	17174	-16%
Unemployment rate	6.2	6.3	5.9	6%	7.2	7.2	7.1	1%
Crime rate (serious crimes per 100,000 persons)	3002	2635	4177	-51%	3044	2656	4416	-58%
Percent under poverty rate	16%	16%	14%	15%	16%	16%	13%	19%
Percent white	88%	89%	84%	6%	88%	89%	84%	5%
Population	212785	34000	785369	-353%	212785	33725	844957	-381%
Population density (population/sq. miles)	220	92	630	-245%	220	90	678	-267%
Per capita government revenue from all government units within county	1060	1019	1192	-16%	1061	1017	1217	-19%
Number of government employees at all levels within a county	7309	1141	27062	-355%	7309	1134	29113	-383%

Note: ^aPercent difference is measured as: (included-excluded)/full.

- Competitiveness of last election: The competitiveness of the county is measured as difference from 50 percent of the Democrat and Republican vote split. A county voting 50/50 Democrat and Republican is scored highest at zero whereas a county voting 60/40 is code as -10.
- Percent of votes going to the Republican candidate is a measure of the partisanship of the district.

Senate

- Turnout: Percent of adult population voting. Total number of recorded votes for the most recently elected Senator divided by the adult population of the county. Sources: ICPSR 13, General Election Data for the United States, 1950–1990 and Bureau of the Census for population.
- Incumbent vote share: Percent of votes going to the incumbent's party.
- Competitiveness of last election: The competitiveness of the county is measured as difference from 50 percent of the Democrat and Republican vote split. A county voting 50/50 Democrat and Republican is scored highest at 0 whereas a county voting 60/40 is code as -10.
- Percent of votes going to the Republican candidate is a measure of the partisanship of the district.

For figures from 1992

- Election data from 1992 is based on presidential voting at the county level. The data is available from Congressional Quarterly, Inc. Presidential data is used as a surrogate for both House and Senate analyses, as equivalent data from 1982 to 1990 is unavailable through public resources.

Measures of needs of area

- Age: Three measures of age are used. The mean age is measured by the average age within a county. Aged is the percent of the county population over age 65 and youth is the percent of the county under the age 18. Source: U.S. Census Bureau.
- Education: Education is the percentage of persons over the age 25 in the county with a college degree. Sources: U.S. Census Bureau; U.S. National Center for Education Statistics.
- Income: Income is the median family income. Source: U.S. Census Bureau.
- Unemployment: Unemployment is the county level civilian unemployment rate. The unemployment rate for all civilian workers represents the number of unemployed as a percent of the civilian labor force. Source: U.S. Bureau of Labor Statistics.

- Crime: Crime rate is the number of serious crimes per 1,000 persons. Serious crimes, as defined by the FBI, are murder and nonnegligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, arson, and motor vehicle theft. Source: Federal Bureau of Investigation.
- Poverty: The poverty rate is the percent of people living below the federally recognized poverty line. Source: U.S. Census Bureau.
- Race: The racial composition of the counties is a measure of the percent of white citizens. Source: U.S. Census Bureau.
- Population: Population size is simply the number of people living in the county. Source: U.S. Census Bureau.
- Density: The density of the county is the population divided by the land area in square miles. Source: U.S. Census Bureau.

Measures of ability of area

- Government revenue: Per capita government revenue from all government units within a county. Source: 1992 Census of Governments.
- Government employees: Total number of governmental employees at all levels within a county. Source: 1992 Census of Governments.

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