The Distributive Politics of Grants-in-Aid

Leah Rosenstiel*

May 2, 2023

Abstract

How does politics affect, and possibly distort, how resources are allocated? I show that where the federal government provides public goods and financial assistance depends not only on who has power within Congress, but also the characteristics of their constituents. In a federal system like the United States, the federal government provides resources by allocating grants to subnational governments based on demographic characteristics. Thus, to maximize funding for their own states, legislators must also distribute funding to states with similar characteristics. Using panel data on education spending and a difference-in-differences design, I demonstrate that grants disproportionately benefit states represented by Senate committee chairs, but this benefit spills over to similar states. However, I find no evidence of committee influence over grants in the House. These findings contribute to our understanding of distributive politics in the United States and sheds light on the consequences of allocating resources within a federal system.

*Assistant Professor, Vanderbilt University. Email: leah.s.rosenstiel@vanderbilt.edu.
I am grateful to Brandice Canes-Wrone, Josh Clinton, James Curry, Nathan Gibson, Ben Hammond, Christina Kinane, Patricia Kirkland, Frances Lee, Naijia Liu, Asya Magazinnik, Nolan McCarty, Eleanor Neff Powell, Molly Reynolds, Molly Ritchie, and Alan Wiseman.

How does politics affect, and possibly distort, how resources are allocated? Often, political actors allocate funding through a decentralized—or committee-led—decision-making process (e.g., Ferejohn 1974; Mayhew 1974; Weingast and Marshall 1988). In a federal system like the United States, the federal government provides public goods, income security, and other resources by allocating grants to subnational governments (Chubb 1985; Ervin Jr. 1965). These programs, also known as grants-in-aid, primarily allocate funding to states using formulas based on demographic characteristics. In total, grants-in-aid account for over a quarter of federal domestic spending and nearly 40% of state and local government funding (*Analytical Perspectives, FY2023* 2022; Dilger and Cecire 2019). However, theories of distributive politics have largely ignored this aspect of the policymaking process. As a result, we know little about the politics of grants-in-aid and the consequences of allocating resources within a federal system.

Drawing on existing work on distributive politics, I develop a theory of allocating grants-in-aid that emphasizes the role of congressional committees and political geography. I argue that areas represented by members of committees, and particularly committee chairs, receive a disproportionate share of funding. This logic is consistent with a large literature arguing that members of key congressional committees direct a disproportionate share of funding to their constituents to improve their chances of reelection (Mayhew 1974; Shepsle and Weingast 1987; Weingast and Marshall 1988). However, allocating funding via formula changes the impact of committee influence on legislative outcomes. When a grant program is designed to benefit one state, other states with similar characteristics also benefit because funds are allocated based on state characteristics. Applying this logic to committees means that, for example, when committee chairs represent high poverty states, they design programs that allocate funding based on poverty. Thus, all states with high poverty—not just those represented by committee chairs—benefit from the program. More broadly, the benefit to states represented by committee chairs should spill over to states with similar characteristics.

To test this theory, I compile a dataset of all education grant programs from fiscal year (FY) 1980 to 2020. First, I estimate the benefit to states represented by Senate

committee chairs using a matched difference-in-differences design. I use variation in the timing of program reauthorizations to measure how much grant additional funding a state receives when its senator becomes chair of the committee with jurisdiction over the program. Second, I use a similar design to examine whether that benefit spills over to states with similar characteristics. Third, I consider a case study of funding for teachers and principals to explore possible mechanisms for committee influence. Finally, I examine whether programs better target poverty when committee chairs represent high poverty places.

I find that allocating funding based on demographic characteristics complicates existing theories of distributive politics. I show that states represented by committee members, and particularly committee chairs, disproportionately benefit from grants-in-aid. However, other states with similar characteristics also benefit, sometimes more than the states represented on the committee. Additionally, I find no evidence of a committee benefit in the House, suggesting that the committee-led particularistic politics governing grants-in-aid is confined to the Senate. These findings join a growing literature that shows that allocating funding based on state characteristics limits legislators' abilities to target funding to specific places (Martin 2018; Rosenstiel 2022). Moreover, if scholars do not account for these spillovers, they will not accurately characterize the influence of congressional committees. Because committee members cannot capture the entire budget, the benefit of committee membership is substantially less than existing theories predict. Additionally, when states not represented by committee members receive a disproportionate share of grants-in-aid, it can appear as though there is no committee benefit. This may explain why existing research on grants-in-aid often fails to find any evidence of committee influence (e.g., Berry, Burden, and Howell 2010; Berry and Fowler 2016; Levitt and Snyder 1995).

These results have important implications for redistribution and economic inequality. Grants-in-aid encompass many of the largest anti-poverty programs, including Medicaid, Temporary Assistance for Needy Families (TANF), the Title I-A education program, and Section 8 Housing Choice Vouchers. If the congressional committee system allows

a senator representing a state with high poverty levels to write redistributive programs, then this would result programs that target funding to all states with high poverty. In line with this prediction, I show that grants-in-aid do a better job of targeting poverty when committee chairs represent high-poverty areas. And if the goal of a program is redistribution, then providing more funding to places with high poverty is a necessary—albeit not sufficient—condition for an effective redistributive program.

Congress and the Distribution of Funding

A long literature explores how congressional committees influence the distribution of federal funding. The underlying assumption in much of this work is that legislators are motivated by reelection (Evans 2011; Ferejohn 1974; Mayhew 1974; Shepsle and Weingast 1981; Weingast and Marshall 1988). To help their reelection chances, legislators try to bring government benefits back to their states or districts—often in the form of government funding. And, this process is facilitated by the congressional committee system. Through the committee assignment process, legislators select onto committees with jurisdiction over policy areas for which their constituents have high demand. Then, these high demanders or preference outliers use their agenda-setting power (Knight 2005; Weingast and Marshall 1988) and veto power (Shepsle and Weingast 1987) within the chamber to procure a disproportionate share of benefits for their states and districts.

The relationship between congressional committees and funding has been subject to substantial empirical testing. There is evidence that high demanders, measured using constituency characteristics, make up certain committees (Adler and Lapinski 1997; Cormack 2021; Hurwitz, Moiles, and Rohde 2001; Sprague 2008) and subcommittees (Adler 2000). There is also evidence that members of key committees and subcommittees are able to procure more transportation funding for their districts (Evans 1994; Knight 2005; Lee 2003), research funding for universities in their states (Payne 2003), and military construction funding for military bases in their states and districts (Hammond and Rosenstiel 2020). Looking across multiple policy areas, Clemens, Crespin, and Finocchiaro (2015)

find that members of Appropriations subcommittees are able to procure more earmarks for their districts. Relatedly, Grimmer and Powell (2013) find that members who lose key committee seats spend more time in their districts, suggesting that committee membership provides an electoral subsidy.

However, not all committee members have equal power in the policymaking process. Committee chairs set the committee's agenda, hire and fire committee staff, and generally act as the floor managers for bills. As a result, committee chairs should procure more benefits than other committee members. In line with this expectation, committee chairs procure more funding for their constituents, are more effective legislators, receive more campaign contributions, and have more value as lobbyists when they leave Congress (Berry and Fowler 2018, 2016; Volden and Wiseman 2014).

Despite the long literature on congressional committees and the prevalence of grants-in-aid, scholars have yet to examine how demographic characteristics interact with committee influence. Grants-in-aid are unique from other types of federal spending because funds are primarily allocated using statutory formulas based on state characteristics, such as population and poverty. For example, grants for adult education are allocated in proportion to each state's relative share of adults who do not have a high school diploma and who are not enrolled in school. Grants for the education of the disadvantaged use a slightly more complicated formula. Grants are allocated to states in proportion to school-age poverty levels multiplied by state average per pupil expenditures. Under this formula, weights are applied to the counts of children in poverty so that places with higher poverty levels and rates receive more funding per child.[1]

There are several reasons why Congress chooses to allocate grants using statutory formulas. Instead of using a formula, Congress sometimes has federal agencies allocate grants on a competitive basis. However, because grant recipients are chosen by the

[1]In addition to specifying a formula, Congress also determines the eligibility criteria for grants-in-aid. Most grant programs provide funding to all states provided states apply for funding and comply with requirements attached to the funding. For example, to receive funding for the education of the disadvantaged, states must administer standardized tests.

bureaucracy, Congress has less control over the distribution of funding (Napolio, n.d.). Additionally, certain places may be less able to compete for funds. In particular, members of Congress have expressed concern that rural areas do not have the capacity to effectively compete for grants.[2] Lastly, unlike formula grants, not all eligible recipients receive funding when grants are allocation using a competition. Because of this uncertainty over funding, competitive grants are not well suited for paying employee salaries, running an annual program, or other activities that need a consistent source of funding. This may explain why Congress chooses to allocate the majority of grants-in-aid are allocated via formula as opposed to a competition.

Existing theoretical work on grants-in-aid focuses on the consequences of allocating funding via formula for bargaining and coalition formation (Martin 2018; Rosenstiel 2022). A common theme in these models is that allocating funding via formula substantially constrains members of Congress. In particular, how members form coalitions—and thus who benefits from grants-in-aid—depends on state characteristics. For example, the same groups of states repeatedly appear in coalitions together (Martin 2018) and senators proposing amendments to formulas form coalitions with senators representing states with similar characteristics to their own state (Rosenstiel 2022). Certain types of states—such as smaller states and states with slower population growth—also disproportionately benefit from grants-in-aid (Larcinese, Rizzo, and Testa 2013; Lee and Oppenheimer 1999), further suggesting that demographic characteristics are an important factor shaping government assistance.

Another consequence of the federal system is that Congress allocates funding to state governments. As a result, Lee (2003, 2004) argues that senators are more likely to amend formula grants than members of the House. Specifically, because formulas do not allocate grants to congressional districts it is difficult for House members to claim credit

[2]For example, the stated purpose of the Rural Education Initiative formula grants is to "address the unique needs of rural school districts that frequently... lack the personnel and resources needed to compete effectively for Federal competitive grants" (20 U.S.C. 7341a).

for formula changes and know how a formula change will affect funding for their district. While much of the existing work on congressional committees focuses on the House, this suggests that Senate committees should exert more influence over grants-in-aid than their House counterparts.

This paper seeks to bring together insights from the literature on congressional committees with the additional constraints that allocating funding via a formula impose. Following the literature on distributive politics, I argue that committee members and committee chairs are able to use their positions in the policy making process to procure more funding for their states. However, these benefits spill over to other, similar states. For example, a senator from New York might propose a grant program where funding is entirely allocated in proportion to population. This formula benefits New York as it is one of the most populous states and will thus receive a large share of funding. However, other populous states, such as California, also benefit from this formula. This logic yields two hypotheses:

Committee Benefits Hypothesis: States represented by committee members, and particularly committee chairs, disproportionately benefit from grants-in-aid.

Committee Spillover Hypothesis: States with similar characteristics to states represented by committee chairs disproportionately benefit from grants-in-aid.

While the Committee Benefits Hypothesis follows directly from existing theories of committee influence (e.g., Weingast and Marshall 1988), the Committee Spillover Hypothesis is an important departure. Weingast and Marshall (1988) argue that members of congressional committees capture the entire budget under their jurisdiction. That is, for example, all federal agriculture funding allocated by Congress would go to states and districts represented by members of the House and Senate agriculture committees. However, the Committee Spillover Hypothesis posits that, when funding is allocated via formula, states with similar characteristics to the committee chair's state also benefit. If true, then the benefits of committee membership are substantially less than existing

theories predict because committee members are not able to capture all of the resources within their jurisdiction. This distinction is important because it highlights how the U.S. federal system constrains committee members' ability to engage in particularistic policymaking.

There are two alternatives to my committee-centered theory of grants-in-aid worth mentioning. First, scholars have argued that a norm of universalism governs distributive politics in Congress (e.g., Stein and Bickers 1994; Weingast 1994). These theories generally posit that coalitions are unanimous or near-unanimous rather than narrow or minimum-winning coalitions. Second, Levitt and Snyder (1995) argue that parties—rather than committees—determine the distribution of federal grants. In particular, Democrats in Congress target funding to Democratic voters. In other words, while it may appear as though funds spill over to states with similar characteristics, parties design programs to benefit all states with similar partisanship. Like the theory I put forth in this paper, both of these alternatives suggest that states other than those represented by committee members should benefit from grants-in-aid.

In this paper, I provide evidence that neither of these alternatives explains the distribution of grants-in-aid. First, states with similar demographic characteristics to the committee chair's state disproportionately benefit from grants-in-aid. This suggests that the goal is to benefit committee chair's state, not to benefit all, or a large number, of states. Additionally, I show that when Congress alters allocation formulas, there are winners and losers. The existence of states that lose funding when a formula is changed is not in line with a norm of universalism. With regards to partisanship, I do not find any differences between Democratic and Republican members of Congress, suggesting that both Democrats and Republicans try to target funding to their constituents. Additionally, states with similar partisanship to the committee chair see no extra benefit from grants-in-aid. This further suggests that it is congressional committees and demographic characteristics, rather than partisanship, that explains the distribution of grants-in-aid.

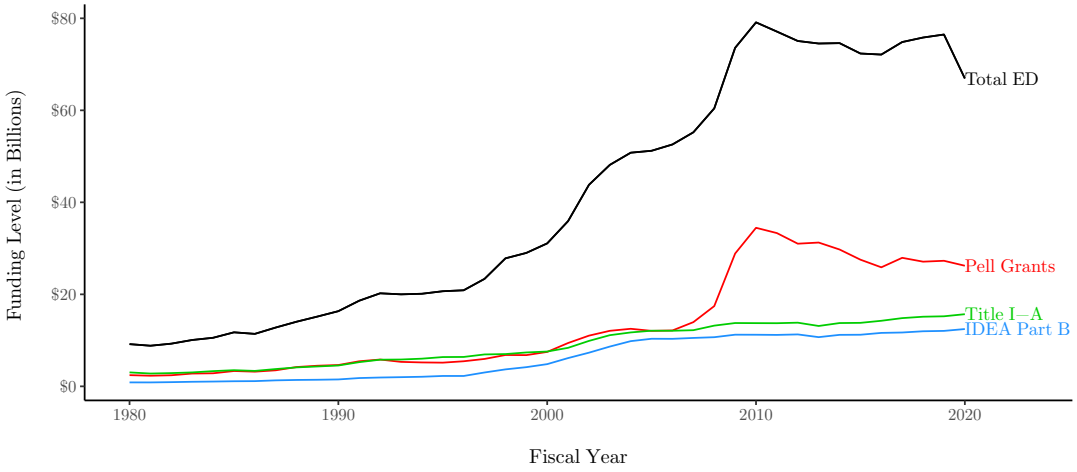
Data

To test my hypotheses, I compile a dataset of all formula grant programs administered by the Department of Education (ED) from FY1980 to FY2020. Education is a useful test case for my theory because there are a large number of education formula grant programs. Moreover, education programs are authorized by different bills that get reauthorized at different times. Senators have the opportunity to the amend allocation formulas when grant programs come up for reauthorization and, as I discuss in the next section, this variation in reauthorization timing allows me to make within state comparisons of similar programs to quantify the benefits of committee membership and serving as committee chair. Additionally, unlike many other federal agencies, ED provides data on state grant amounts going back to 1980 and these grant amounts are comparable over time.

From 1980 to 2020, ED administered 37 formula grant programs, the largest of which are Pell Grants, Title I-A of the Elementary and Secondary Education Act (ESEA), and Part B of the Individuals with Disabilities Education Act (IDEA).[3] For every program, I have data on how much each state received each year. The total funding level for each year is shown in Figure 1 below. In general, federal funding for education increased from 1980 to 2010 and has remained relatively constant since then.

[3]See appendix for a list of programs included. Data on state grant amounts are available on the Department of Education's website. I exclude the Impact Aid program from this analysis because it has been reauthorized by bills reported out of the Health Education Labor and Pensions Committee and the Armed Services Committee. Thus, it is sometimes unclear what bill last reauthorized the program and who the committee members are.

Figure 1: Funding Levels for Education Grants Allocated via Formula



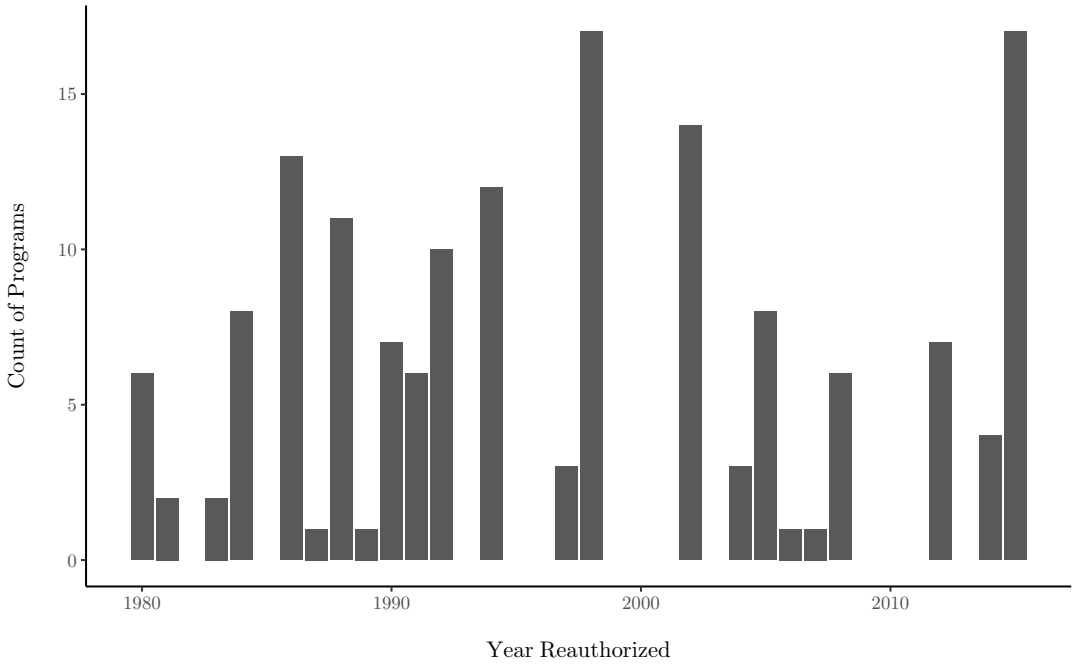
Notes: Figure shows the total funding level for all programs included in the dataset as well as the funding levels for the three largest programs: Pell Grants (Title IV of the Higher Education Act), Title I-A of the Elementary and Secondary Education Act (ESEA), and the Individuals with Disabilities Education Act (IDEA) Part B.

For each program in each year, I hand code when the program was last reauthorized. Programs typically come up for reauthorization every five years. However, if the authorization of appropriations for a given program expire, Congress will typically continue to appropriate funding for that program.[4] Figure 2 shows the number of programs reauthorized in each year. Reauthorizations appear to happen more frequently at the beginning of the panel, but there are still some reauthorizations at the end of the panel. I match each of these reauthorizations to Stewart and Woon's (2017) and Nelson's (1993) congressional databases to determine authorizing committee membership. As all of the programs in the data set are education programs, they all fall under the jurisdiction of the Senate Health, Education, Labor, and Pensions (HELP) Committee and the House Education and Labor Committee.[5]

[4]For example, the authorization of appropriations for many of the education programs in the ESEA expired in 2008, but the bill was not reauthorized until 2015. However, Congress continued to appropriate funding for many of these programs during this period.

[5]During this time period the HELP Committee was also called the Human Resources Committee and the Labor and Human Resources Committee.

Figure 2: Number of Education Formula Grant Programs Reauthorized



Because there may be differences between the chambers, I measure committee membership separately for the House and Senate. One concern is that a state may benefit from having representation on both the House and Senate committees. I estimate this effect in Appendix Table A4 and find no evidence of an additional benefit to bicameral representation.

Measuring State Similarity

To test the committee spillover hypothesis, I measure a state's similarity to the chair's state. I examine similarity across the following state characteristics: population level, population change,[6] poverty level, poverty rate, population density, land area, racial and ethnic makeup,[7] number of immigrants, and per capita income. I use principal

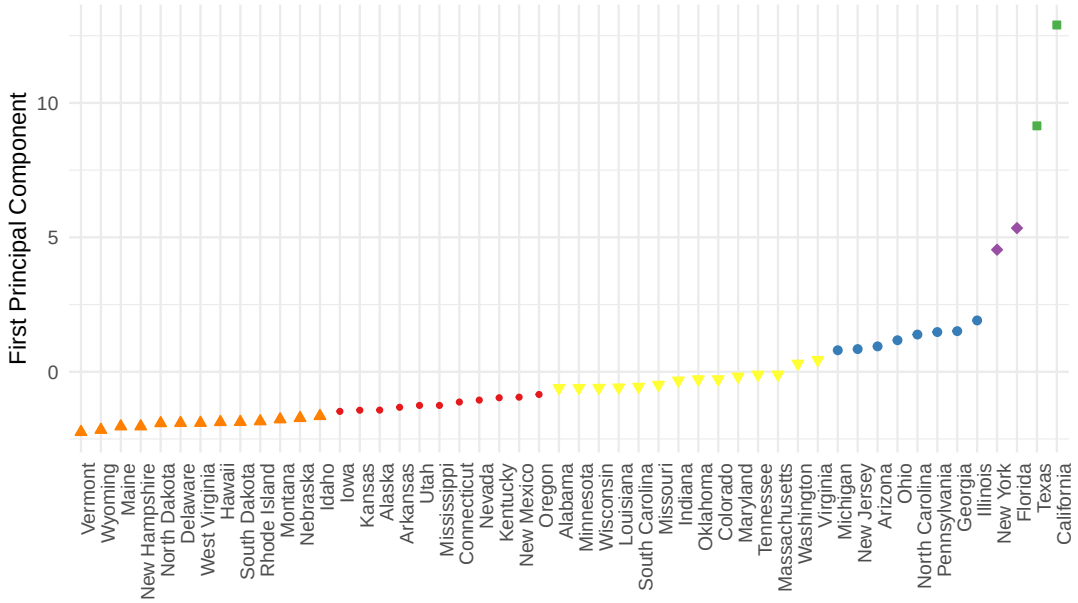
[6]I measure population change as the percentage change in a states population over the last decade.

[7]I include the number of White residents, Black residents, multi-racial residents, and Asian and Pacific Islander or other race residents. These categories are mutually exclusive. I also include the number of Hispanic residents. This is a separate category from race. I

components analysis (PCA) to reduce this multi-dimensional measure down to a single score for each state.[8]

I estimate similarity to the committee chair's state by breaking up states into six groups based on their scores.[9] If a state is in the same group as the committee chair then I count them as similar. Figure 3 shows the scores and similarity group for each state in 2020. The color and shape of each point denotes which group the state belongs to. In the Appendix I show that my results are robust to five groups instead of six groups.

Figure 3: State Similarity, 2020



The committee spillover hypothesis suggests that state demographic characteristics should impact which states benefit from grants-in-aid as opposed to other factors. An alternative explanation is that members of Congress target different states because of partisanship. To test this alternative hypothesis, I also look at partisan similarity—measured using presidential Democratic vote share—to committee chairs.[10] As with the analysis of demographic characteristics, I break up states into six groups based on their

selected these categories because of their availability over time from the U.S. Census.

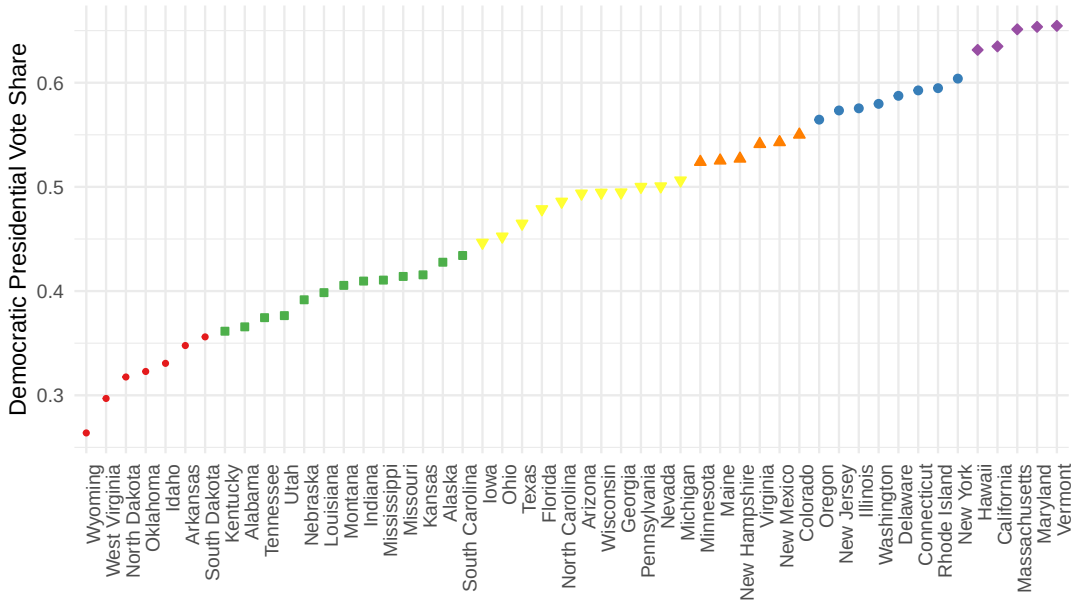
[8]For 2020, the first principal component captures 59% of the variation in the data.

[9]I use k-means clustering to determine groups.

[10]I use presidential vote share data from the MIT Election Lab.

Democratic vote share.[11] If a state is in the same group as the committee chair then I count them as similar. Figure 4 shows the vote share and similarity group for each state in 2020. The color and shape of each point denotes which group the state belongs to.

Figure 4: State Partisan Similarity, 2020



Identification Strategy

I assess the impact of committees on grants-in-aid in three steps. First, I estimate the impact of joining a committee on grant amounts. Second, I estimate the additional benefit of being committee chair. The overall benefit for states represented by committee chairs compared to states with no representation on committee is the sum of these two effects. Third, I estimate the additional funding states with similar characteristics to the committee chairs' state receive.

For all of the analyses, I use a difference-in-differences design that compares grant amounts within the same state and within same year. Specifically, I exploit the fact that programs do not come up for reauthorization at the same time. That is, at the beginning of a legislator's tenure as chair there will be some programs that she has reauthorized (and thus had the ability to change the formulas) and others she has not. Therefore, I can

[11] Again, I use k-means clustering to determine groups.

compare how a state does under a program that the current chair has reauthorized to a similar program that has yet to come up for reauthorization. Put differently, each treated observation has its own control set made up of grant amounts in the same year for the same state under similar programs. The assumption required for identification is that, absent program reauthorization, both treated and control units would have continued along the same pre-treatment trajectories. In the appendix I examine pre-reauthorization trends and find the trends for treated and control units are similar.

To illustrate this identification strategy, consider Senator Ted Kennedy from Massachusetts. Senator Kennedy became chair of the HELP committee in 2007. In 2008, Congress reauthorized the Higher Education Act (HEA), which is under the jurisdiction of the HELP committee. However, the Workforce Investment Act (WIA), which is also under HELP's jurisdiction, had yet to be reauthorized while Senator Kennedy was chair. To estimate the additional formula funding Senator Kennedy was able to bring to Massachusetts, I compare the change in Massachusetts's HEA grant amounts between 2008 and 2009 to the change in Massachusetts's WIA grant amounts over the same time period.

This differences-in-differences design overcomes three potential issues for identification. First, a state's grant amount depends on its formula factors or observable attributes (Martin 2018; Rosenstiel 2022). Comparing the same state in the same year holds state attributes, such as population and poverty, constant. Second, as others have noted, a challenge in measuring the committee advantage is constructing the counterfactual as certain legislators may be more likely than others to select onto a committee (e.g., Grimmer and Powell 2013; Berry and Fowler 2016). Thus I cannot compare a committee member's state to all other states. This design sidesteps this issue by exploiting the plausibly exogenous variation in program reauthorizations, as opposed to which state is represented by the chair, to make within-state comparisons. Third, recent work suggests that two-way fixed effects regression models may produce biased estimates in cases where observations are treated at different times and there are heterogeneous treatment effects (Goodman-Bacon 2018). Imai, Kim, and Wang (2020) demonstrate that the type of

matched difference-in-differences design used here—constructing a control group for each treated unit in the same time period with the same treatment history—is robust to these issues.

More specifically, my analyses use dyadic data in which rows index a state-program-year observation. Treated units are those where the program was reauthorized in that year and the state is represented on the committee, is represented by the committee chair, or is similar to the committee chair's state. Each treated observation is matched to a control set made up of observations for the same state and year but where the program has yet to be reauthorized.[12] I only include observations in the treatment group in year t where the treatment status does not change prior to year $t + 4$. I also only include observations that remained untreated for at least three years prior to reauthorization. More formally, let $D_{ipt} \in \{0, 1\}$ represent the treatment status of state i for program p at time t. Thus, the vector $\mathbf{D}$ for the treatment (T) and control (C) groups is the following:

	$t-3$	$t-2$	$t-1$	t	$t+1$	$t+2$	$t+3$
D_T	0	0	0	1	1	1	1
D_C	0	0	0	0	0	0	0

As formula changes are often phased in over time, I estimate the effect of joining the committee and becoming chair immediately following a formula change and for each of the three subsequent years. To estimate the treatment effect j years after reauthorization, I compare the change in each treated observation's logged grant amount between $t - 1$ and $t + j$ to that of its matched control set. I then compute the means within each time bin from $j = 0$ to $j = 3$. To account for the fact that the same observation may be used in the control group for multiple observations in the treatment group (matching with replacement), I estimate standard errors using a weighted bootstrap (Otsu and Rai 2017). To accommodate the panel structure of the data, I cluster the standard errors by state-program (Imai, Kim, and Wang 2020). A more detailed discussion of the estimation

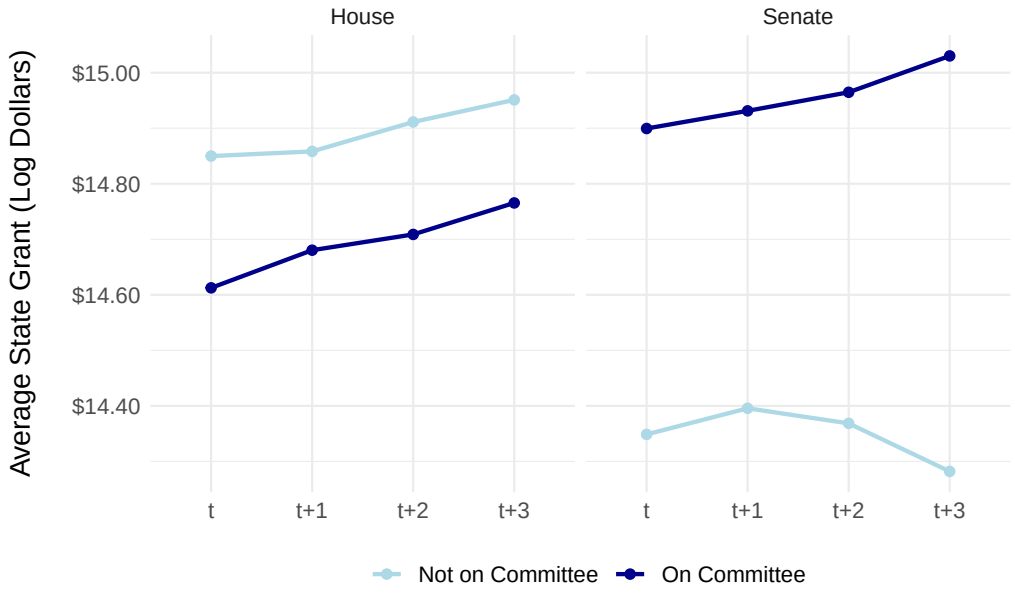
[12]Because of this matching design, I only examine changes to existing programs rather than the creation of new programs. That is, since the control group is made up of existing programs, the treatment group should also be made up of existing programs.

of effect sizes and standard errors can be found in the appendix.

Results

To begin, Figure 5 shows the average grant amount for states when they are and are not represented by committee members. In the House, states receive less funding when represented by committee members compared to non-committee members. However, in the Senate, there is a committee advantage: states receive more funding when represented by committee members compared to non-committee members.

Figure 5: Grants for Committee Members vs Non-Committee Members



Notes: Averages are weighted so that each treated unit is matched to its control set.

To estimate the size of the committee advantage, Table 1 presents the results of the difference-in-differences analysis. Consistent with the first hypothesis, states represented by Senate committee members receive more formula grant funding and this benefit is not just due to committee members being high demanders.[13] In the first year following a

[13]It could be the case that committee members' grants increase because all states' grants increase following reauthorization. In the Appendix, I present a placebo test where I examine the grants of non-committee members and find no significant increase.

reauthorization, committee members' states receive about 15% more education funding. For the Title I-A program, this means that states represented by committee members receive, on average, an additional $46 million.[14]

Further, there is an additional benefit of becoming the Senate committee chair on top of committee membership.[15] In the first year following a reauthorization, committee chairs' states receive an additional 7% on top of the 15% committee advantage. For the Title I-A program, this means that committee chairs' states receive, on average, another $22 million.

Table 1: Effect of Committee Position on Formula Grants, Diff-in-Diff Estimates

	DV: Grant Amount (Log)				
	t	$t+1$	$t+2$	$t+3$	N
Senate Committee Chair	0.068*	0.183*	0.085*	0.115*	145
	(0.033)	(0.093)	(0.04)	(0.049)	
Senate Committee Member	0.136***	0.121***	0.181***	0.333***	1,179
	(0.037)	(0.035)	(0.047)	(0.095)	
House Committee Chair	-0.001	0.029	0.04	0.073	193
	(0.043)	(0.039)	(0.046)	(0.046)	
House Committee Member	0.013	0.072	0.048	0.064	1,170
	(0.043)	(0.039)	(0.046)	(0.046)	

Note: *p<0.05; **p<0.01; ***p<0.001. Standard errors computed based on 1,000 weighted bootstrap samples in parentheses. Unit of analysis is state program. Units are matched based on state and year.

While states represented by senators on the HELP Committee disproportationately benefit from grants-in-aid, I do not find the same effects in the House. I find no evidence

[14]The average state grant for Title I-A in FY2020 was $308 million.

[15]The control group includes programs that have yet to be reauthorized since a legislator became chair. Because committee chairs were on committee prior to being chair, the committee chair effect is primarily comparing how a state does when it was represented by a committee member to when it is represented by the committee chair.

of House Education and Labor committee influence over education formula grants. These results are in line with existing research that suggests that senators are more likely to amend formula grants than members of the House (Lee 2003, 2004).

In the Appendix, I present an additional set of analyses replicating those in Table 1, but broken out by party. I do not find significant differences between states represented by Democratic and Republican committee members. Rather, states represented by both parties disproportionately benefit from grants-in-aid. This suggests that it is particularistic motivations rather than partisanship that shapes grants-in-aid.

Because grants-in-aid are allocated via formula, states with similar characteristics to the committee chair's state should also benefit. Table 2 presents estimates of the relationship between having similar characteristics to the committee chair and a state's grant amount. Consistent with the second hypothesis, states similar to the committee chair's state see an increase in their grant amounts following reauthorization. Specifically, in the first year after a program is reauthorized, states with similar characteristics to the Senate committee chair's state see a 7.9% increase in their grant amounts. However, as in Table 1, I do not find any evidence of House committee influence over grants-in-aid.

An alternative explanation for the politics surrounding grants-in-aid is that members of Congress target funding to Democratic or Republican states. To test this, I re-estimate the analysis using Democratic presidential vote share to measure state similarity. Table 2 presents the results of this analysis. In line with my hypotheses, I do not find a relationship between partisan similarity and state grant amounts.

Table 2: Effect of Committee Chair Similarity on Grants, Diff-in-Diff Estimates

	DV: Grant Amount (Log)				
	t	$t+1$	$t+2$	$t+3$	N
Senate Demographic Similarity	0.059**	0.156***	0.268***	0.193***	175
	(0.022)	(0.032)	(0.066)	(0.049)	
Senate Partisan Similarity	0.006	0.021	0.014	0.026	219
	(0.006)	(0.014)	(0.019)	(0.019)	
House Demographic Similarity	0.016	-0.014	-0.051	0.024	72
	(0.014)	(0.026)	(0.04)	(0.032)	
House Partisan Similarity	0.002	0.002	0.028	0.192	202
	(0.022)	(0.028)	(0.045)	(0.108)	

Note: *p<0.05; **p<0.01; ***p<0.001. Standard errors computed based on 1,000 weighted bootstrap samples in parentheses. Unit of analysis is state program. Units are matched based on state and year. Analyses exclude committee members.

Case Study: Funding for Teachers and Principals

To explore possible mechanisms for how the congressional committee system shapes grants-in-aid, I consider the reauthorization of Title II-A of the Elementary and Secondary Education Act. This program provides funding for preparing, training, and recruiting teachers and principals in elementary and secondary schools. Prior to 2015, funding under Title II-A was allocated using a two-step process. First, each state received the grant amount it received in 2001. Of the remaining funds, 35% were allocated in proportion to current state population and 65% were allocated in proportion to current state poverty.

The effect of this Title II-A funding formula is twofold. First allocating funding in proportion to population and poverty levels benefits larger states. Second, allocating funding based on 2001 grant amounts means that a substantial portion of Title II-A funding is allocated based on state demographic characteristics in 2001. As a result, states with large increases in population and poverty levels receive less per capita funding than other states.

When the Title II-A program came up for reauthorization in 2015, Congress substantially revised the formula. The Senate bill was drafted by Senators Lamar Alexander (R-TN) and Patty Murray (D-WA), the chair and ranking member of the Senate Health, Education, Labor, and Pensions (HELP) Committee, respectively (Camera 2015). Included in this bill was the removal of the 2001 grant provisions from the formula. Both Tennessee and Washington have seen relatively high population growth since 2001. Thus, this change increased the grant amounts for both states (Kuenzi 2015).

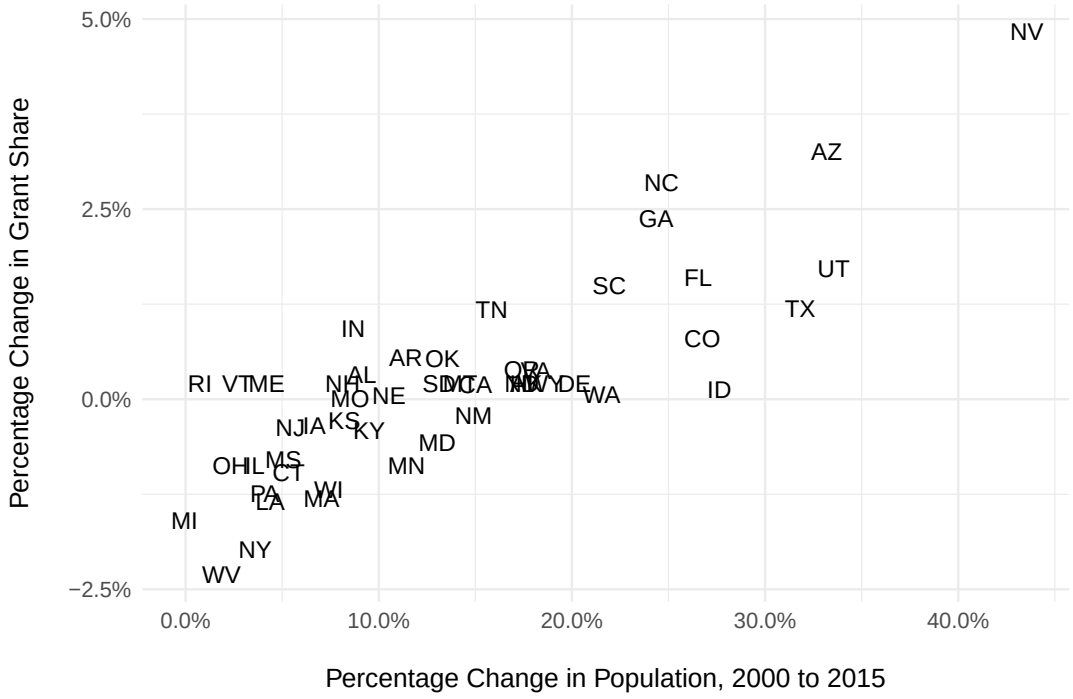
After being introduced, the bill was referred to and considered by HELP. Senator Alexander closely managed the committee markup to prevent controversial amendments that would jeopardize the bill's prospects of passage (Camera 2015; "More Details on U.S. Senate HELP Committee's ESEA Reauthorization Bill" 2015). Because of the control he exercised over markup, it is unsurprising that all of the amendments offered to the Title II-A formula increased Tennessee's grant amount (Kuenzi 2015). For example, Senator Burr of North Carolina proposed an additional amendment to the allocation formula to change the weights on population and poverty from 35% and 65% to 20% and 80%, respectively (*Executive Session to Consider the Every Child Achieves Act of 2015* 2015). Under these changes, a majority of committee members—including Senator Alexander—would see increases in their states' grant amounts (Kuenzi 2015). Senator Alexander also asked Senator Burr for a spreadsheet detailing how every state would fare under the proposed changes (Camera 2015), indicating that he and other senators were concerned about the distribution of funding under the amendment. Ultimately, the bill reported by the HELP committee and passed by the Senate contained both the Burr amendment as well as the removal of the 2001 provision included in the original bill.

As committee chair, Senator Alexander also had the ability to shape the bill at the very end of the legislative process. Typically, the House and Senate committee chairs play an influential role in the conference process (Oleszek et al. 2016). And, the Every Student Succeed Act in 2015 was no exception. Media reports suggest that the lead House negotiators were Representatives John Kline and Bobby Scott, the chair and ranking member of the House Education and Labor Committee (Klein 2015). Similarly, the lead

Senate negotiators were Senators Alexander and Murray (Klein 2015). While the House bill did not make any changes to the Title II-A formula, the conference committee chose to retain the Senate formula changes (*H. Rept. 114-354* 2015), and these were ultimately enacted into law.

Figure 6 summarizes the impact of the Title II-A formula changes. The big winners are states that saw rapid population growth between 2001 and 2015. Notably, the change does not just benefit Senator Alexander's constituents in Tennessee, it benefits all states with large population growth.

Figure 6: Impact of Title II-A Formula Changes



Notes: Data on grants are from the U.S. Department of Education and population data are from the U.S. Census Bureau.

Congressional Committees and Anti-Poverty Programs

To further illustrate the interaction between congressional committees and demographic characteristics, I consider how well grants-in-aid target poverty. This is a particularly important question because many of the largest anti-poverty programs in the United States are grants-in-aid. Programs such as Medicaid and the Children's Health Insur-

ance Program (CHIP) provide more affordable health insurance to low-income people. Similarly, Pell Grants provide funding to help low-income undergraduate students pay for college while Section 8 Housing Choice Vouchers help to provide housing for low-income families. Thus, whether grants-in-aid target poverty has important implications for how well anti-poverty programs fight poverty.

Do anti-poverty programs actually distribute funding to people who are low income? The findings in the previous section suggest yes, but only when chairs represent high poverty areas. To more directly test this question, I look at the how well different programs target poverty depending on who the committee chair was when the program was reauthorized. I examine how well a state's poverty level, poverty rate, and population predict its grant amount when the chair represents a high-poverty area compared to when the chair represents a low-poverty area.[16] If my theory is correct then high-poverty committee chairs should increase the weight the formula places on poverty and decrease the weight the formula places on population.[17] Specifically, I estimate the following linear model using OLS:

$$\log(Grant_{itp}) = \beta_1 Pov_{it} \times ChairHighPov_{itp} + \beta_2 Pop_{it} \times ChairHighPov_{itp} + \beta_3 Pov_{it} + \beta_4 ChairHighPov_{itp} + \beta_5 Pop_{it} + \beta_6 \log(Funding_{tp}) + \epsilon_{itp} \quad (1)$$

where $Grant_{itp}$ reflects state i's grant in year t under program p and $Funding_{tp}$ reflects the funding level for program p in year t. I use two measurements of poverty—a state's poverty levels and a state's poverty rate.[18] I consider the chair's state to have high poverty if its poverty level is in the top 20% for all states. Similarly, I consider the chair state's to have a high poverty rate if their poverty rate is in the top 20% for all states.[19]

[16]As with the previous analyses, this analysis examines all formula grant programs administered by the Department of Education from FY1980 to FY2020.

[17]The theory predicts that $\beta_1 > 0$ and $\beta_2 < 0$.

[18]Poverty rate is calculated by dividing a state's poverty level by its total population.

[19]As the committee chair varies by reauthorization, I cluster the standard errors by

I find that when committee chairs represent high poverty areas, they enact formulas that better target poverty. Table 3 shows the relationship between the chair's state's demographic characteristics and the distribution of grants. When the chair represents a state with a higher level of poverty, poverty is a stronger predictor of a state's grant amount. Similarly, when the chair's state has a higher poverty rate, poverty rate is a stronger predictor of a state's grant amount. In addition, I find that when the chair's state has high poverty, state population is a worse predictor of grant amounts. In other words, when the chair represents a high poverty area, the allocation formula Congress enacts puts more weight on poverty and less weight on population.[20]

reauthorization.

[20]To account for unobserved confounders, I reestimate the model using state, year, and program fixed effects. The results, which are presented in the Appendix, are similar.

Table 3: Chair Characteristics and Targeting Funding to High-Poverty Areas

	DV: Grant Amount (Log)	
	(1)	(2)
Poverty × High Pov. Chair	1.486***	
	(0.154)	
Population × High Pov. Chair	−0.241***	
	(0.024)	
Poverty Rate × High Pov. Rate Chair		9.046***
		(0.421)
Population × High Pov. Rate Chair		−0.038***
		(0.010)
Poverty	−0.311*	
	(0.154)	
High Pov. Chair	−0.743***	
	(0.131)	
Poverty Rate		1.353**
		(0.421)
High Pov. Rate Chair		−1.968***
		(0.110)
Population	0.191***	0.151***
	(0.024)	(0.010)
Funding Level (Log)	1.060***	1.062***
	(0.046)	(0.045)
Constant	−6.478***	−6.665***
	(1.020)	(0.988)
Observations	37,499	37,499
Adjusted R^2	0.626	0.626

Note: *p<0.05; **p<0.01; ***p<0.001. Table presents OLS regression estimates with standard errors clustered by reauthorization in parentheses. Poverty and population levels measured in millions. A chair's state is considered high poverty if its poverty level/rate is in the top 20% for all states. Analyses with state, program and year fixed effects can be found in Appendix Table A7.

Discussion

Taken together, these findings have important implications for how well grants-in-aid target need. The results suggest that who benefits from grants-in-aid, be it places with high poverty or small states, depends on the characteristics of the committee chair's state. Thus, how well allocation formulas target need depends on whether the committee chair represents a state with high need. If Congress is reauthorizing a redistributive formula grant program and the committee chair's state has high poverty then the resulting allocation formula should place more weight on poverty. As a result, other high poverty states should also benefit from the program.

These spillovers may also influence which committees members of Congress join. If a senator representing California chairs the Senate HELP committee, then a senator from Texas knows that their constituents will likely benefit from programs reauthorized by HELP. Thus, the senator from Texas may join a different committee that is not already biased toward more populous states. In this way, the composition of committees may be both a cause and a consequence of how funding is allocated.

One implication of these findings is that the congressional committee system may actually improve how well formulas target need, which is a necessary—albeit not sufficient—condition for effective federal programs. Weingast and Marshall (1988) show how the committee system in Congress facilitates decision making because it allows for the enforcement of legislative bargains. This is due to both committees' agenda setting power and the fact that committees are made up of high demanders. That is, legislators select onto committees with jurisdiction over policy areas for which their constituents have high demand and then exert disproportionate influence over those policy areas. By a similar argument committee chairs can enact and protect formulas that most benefit their states through their agenda setting power. And, if committee chairs have high need for a program (i.e., they are high demanders) then the formulas they enact and protect are likely to be formulas that target funding toward areas with the greatest need.

However, the current congressional committee system may not lead to senators representing high poverty areas writing the allocation formulas for anti-poverty programs.

The reason is that there is no congressional committee focused on poverty. Instead, anti-poverty programs fall under the jurisdiction of many different committees. For example, programs like the Title I-A education program fall under the jurisdiction of the HELP Committee while Temporary Assistance for Needy Families (TANF) falls under the jurisdiction of the Finance Committee. Thus, there is no committee for senators from high poverty areas to sort onto.

Unlike poverty, there are some policy areas aligned with the current committee system. For example, nearly all bills related to agriculture fall under the jurisdiction of the House and Senate Agriculture Committees. Thus, legislators representing states and districts with large farming industries can sort on to this committee. In line with this claim, Adler and Lapinski (1997) find that members of the House Agriculture Committee consistently have higher proportions of constituents employed in farming or living in rural-farming areas compared to non-committee members. Similarly, members of the Armed Services committee typically represent areas with large or important military installations (Adler and Lapinski 1997). The findings in this paper suggest that these committees should write formulas that target need effectively. Thus, for certain types of policies, Congress is well-designed to write programs that target need. However, many of the largest grants-in-aid are anti-poverty programs, which are misaligned with the current committee system.

Conclusion

In the United States, the federal government provides assistance to state and local governments across a wide range of policy areas, including health care, transportation, education, income security, community development, and environmental protection. These programs constitute over a quarter of federal domestic spending (*Analytical Perspectives, FY2023* 2022) and account for over half of state and local government funding for health care and public assistance (Dilger and Cecire 2019). And, unlike other types of federal spending, grants are primarily allocated based on state characteristics.

The findings in this paper illustrate how the congressional committee system shapes

the distribution of federal assistance. In line with existing research, I find that committee members, and particularly committee chairs, are able to direct more grant funding to their states. However, the influence of committees is complicated by the distribution of population, poverty, and other characteristics across states. In addition to benefiting committee members, I find that grants-in-aid also disproportionately benefit states with similar characteristics to committee chairs. For example, when committee chairs represent states with high poverty, Congress enacts formulas that benefits all states with higher poverty levels. This is an important finding because it suggests that allocating resources within a federal system changes who receives government assistance.

The analyses contained in this paper produce several important contributions. First, while grants-in-aid make up a substantial portion of the federal budget and account for the majority of federal assistance, they have received much less scholarly attention than other types of federal spending. This paper joins a small literature that argues that federal grant programs are influenced by political considerations and congressional rules (Curry and Donnelly 2020; Lee 2000; Levitt and Snyder 1995; Martin 2018; Rosenstiel 2022). I add to this literature by developing and testing new predictions about how the congressional committee system shapes grants-in-aid and who benefits from these programs.

Second, this project contributes to a long line of research on the role that congressional committees play in the policymaking process. I present evidence that committee members use grants-in-aid as opportunities to procure more funding to their constituents. However, in contrast to existing work, I show that allocating funding via formula alters the impact of committees on the distribution of federal funding. Distributive theories generally argue that committee members use their influence to capture all of the benefits within their committee's jurisdiction (Weingast and Marshall 1988). However, when funds are allocated using formulas, this committee benefit spills over to similar states. As a result, allocating funding via formula substantially reduces the benefit to committee members. And, because of the prevalence of formula grants, this suggests that the value of committee seats is substantially less than previously thought.

The analyses in this paper focus exclusively on education programs. However, there is reason to suspect that the politics may be similar in other policy areas. For example, more than 90% of federal highway assistance is distributed to states via formula. Since its creation in 1916, Congress has changed this formula several times. Generally, the debates over the formula center on how much each state is receiving and members of Congress argue against changes that reduce funding for their states.[21] Thus, as with education, members of Congress seem to be designing highway assistance programs to benefit their constituents. However, transportation programs fall under the jurisdiction of a different congressional committee. Therefore, more work is needed to assess whether the politics of other Senate committees is similar to those of the HELP committee.

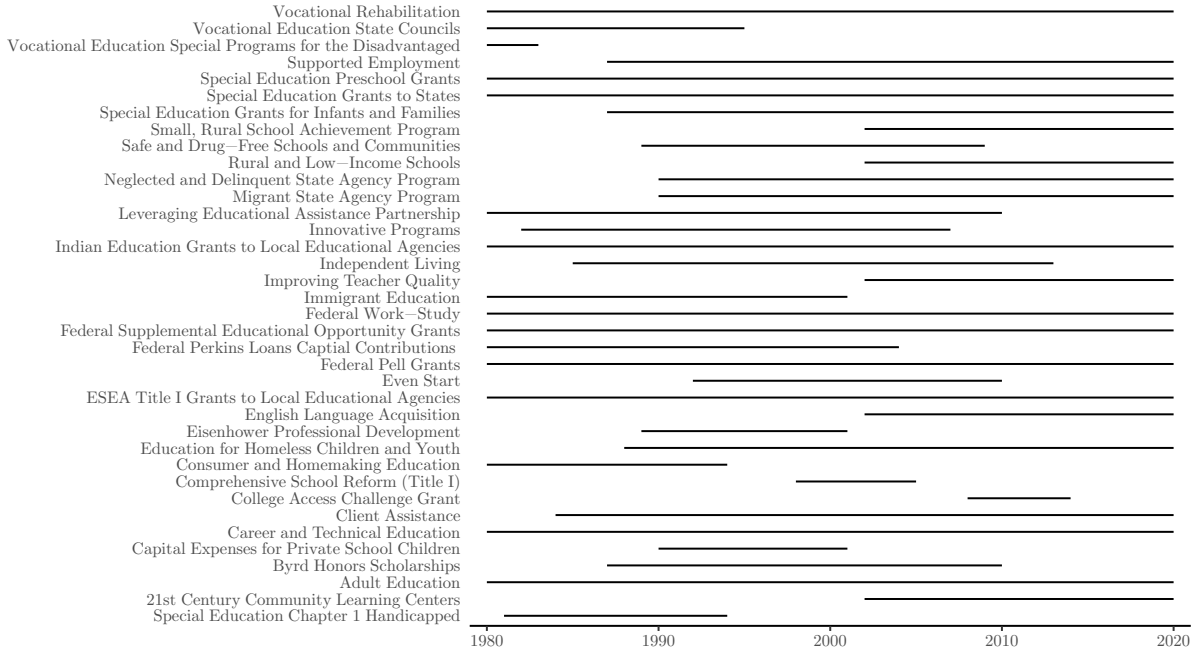
[21]See Kirk (2019) for a more detailed discussion of the history of the highway funding formula.

Appendix

A Data

Figure A1 summarizes which programs are funded in each year in this dataset. The lines on the figure denote what years the program was funded. Programs are only included in the analysis when they received funding.

Figure A1: Formula Grants Administered by ED, FY1980 to FY2020



B Estimating the Committee Advantage

To estimate the committee advantage I use a difference-in-differences design where each treated observation is matched with control observations from the same state in the same time period. Let $D_{ipt} \in \{0, 1\}$ represent the treatment status (committee member/committee chair/similar to committee chair) of state i for program p at time t. I estimate the committee advantage j years after a reauthorization for $j \in \{0, 1, 2, 3\}$ using

$$\hat{\tau}_j = \frac{\sum_{i \in S} \sum_{t \in T} \sum_{p \in P} W_{ipt} \left(Y_{ipt+j} - Y_{ipt-1} \right)}{\sum_{i \in S} \sum_{t \in T} \sum_{p \in P} D_{ipt} \times W_{ipt}} \tag{2}$$

where Y_{ipt+j} is state i's grant amount under program p at time $t+j$; and

$$W_{ipt} = \begin{cases} \frac{-\sum_{p' \in P} \prod_{j'=1}^{3} (1 - D_{ip't-j'}) \prod_{j'=0}^{3} D_{ip't+j'}}{\sum_{p' \in P} \prod_{j'=-3}^{3} (1 - D_{ip't+j'})} & \text{if } D_{ipt+j'} = D_{ipt-j'} = 0 \ \forall \ j' \in \{0,1,2,3\} \\ 1 & \text{if } \prod_{j'=0}^{3} D_{ipt+j'} = \prod_{j'=1}^{3} (1 - D_{ipt-j'}) = 1; \\ & \text{and } \sum_{p' \in P} \prod_{j'=-3}^{3} (1 - D_{ip't+j'}) > 0 \\ 0 & \text{Otherwise} \end{cases}$$

Note that τ is the average treatment effect on the treated (ATT). The denominator reflects the number of treated observations that have at least one control observation in their matched sets. The numerator is equivalent to taking the change in a state's grant amount for treated observations that have a matched set and subtracting it from the average change in that state's grant amounts over the same time period for programs that have yet to be reauthorized. To achieve this, treated observations with a matched control set receive a weight (W_{ipt}) of 1 and control observations receive a weight based on the number of treated observations they are matched to and the number of other control observations in the matched set. To estimate standard errors, I use the weighted bootstrap procedure proposed by Otsu and Rai (2017). Specifically, I treat the weights as covariates and do not re-estimate them within each bootstrap iteration. Following Imai, Kim, and Wang (2020), I use a block bootstrap procedure to sample state-program units to accommodate the panel nature of my data.

The assumption required for identification is that, absent program reauthorization, both treated and control units would have continued along the same pre-treatment trajectories. Provided this assumption is satisfied, I can compare differences in the means of state grant amounts before and after reauthorization among treated and control units, and this estimate represents the effect solely attributable to committee membership or similarity to the committee chair. To test this assumption, I estimate the impact of committee membership prior to reauthorization. Table A1 presents the results of this analysis. I do not find a significant effect of being represented by a committee member or the committee chair. This suggests that treated and control units are similar

prior to program reauthorization. This provides further support for the parallel trends assumption.

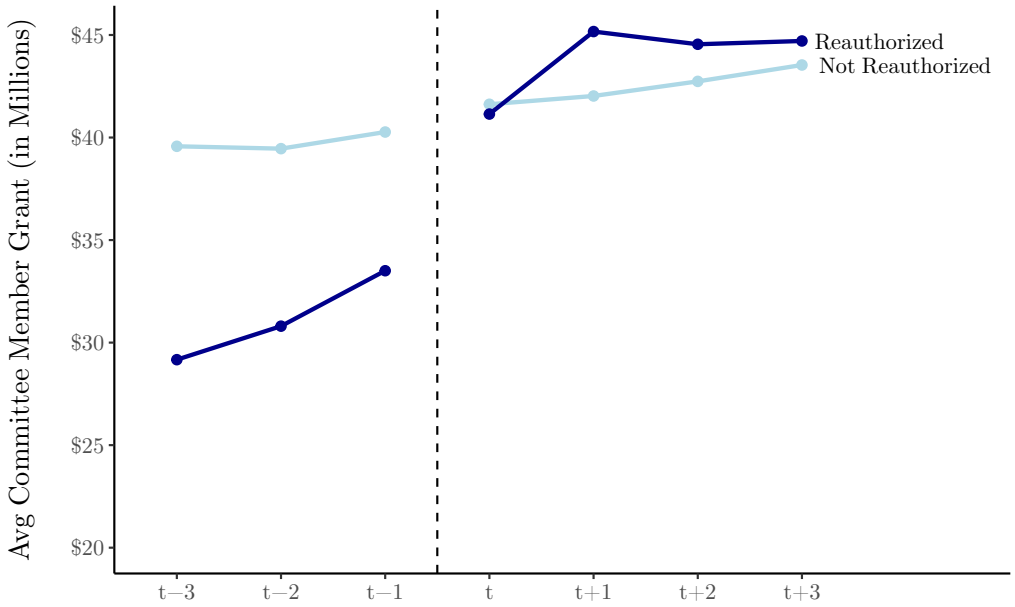
Table A1: Committee Pre-Trends, Diff-in-Diff Estimates

	DV: Grant Amount (Log)		
	$t-3$	$t-2$	N
Committee Chair	0.049	0.049	145
	(0.041)	(0.058)	
Committee Member	-0.008	-0.008	1,179
	(0.042)	(0.04)	

Note: *p<0.05; **p<0.01; ***p<0.001. Standard errors computed based on 1,000 weighted bootstrap samples in parentheses. Count of observations refers to unique number of state-program reauthorizations in each analysis.

The assumption required for identification is that, absent program reauthorization, both treated and control units would have continued along the same pre-treatment trajectories. Provided this assumption is satisfied, I can compare differences in the means of state grant amounts before and after reauthorization among treated and control units, and this estimate represents the effect solely attributable to committee membership or similarity to the committee chair. To test this assumption, Figure A2 examines the pre-reauthorization trends in state grant amounts for committee members. The trends for the reauthorized and not reauthorized grants are similar. This suggests that the parallel trends assumption may be reasonable in this case.

Figure A2: Committee Members' Grants by Reauthorization Status

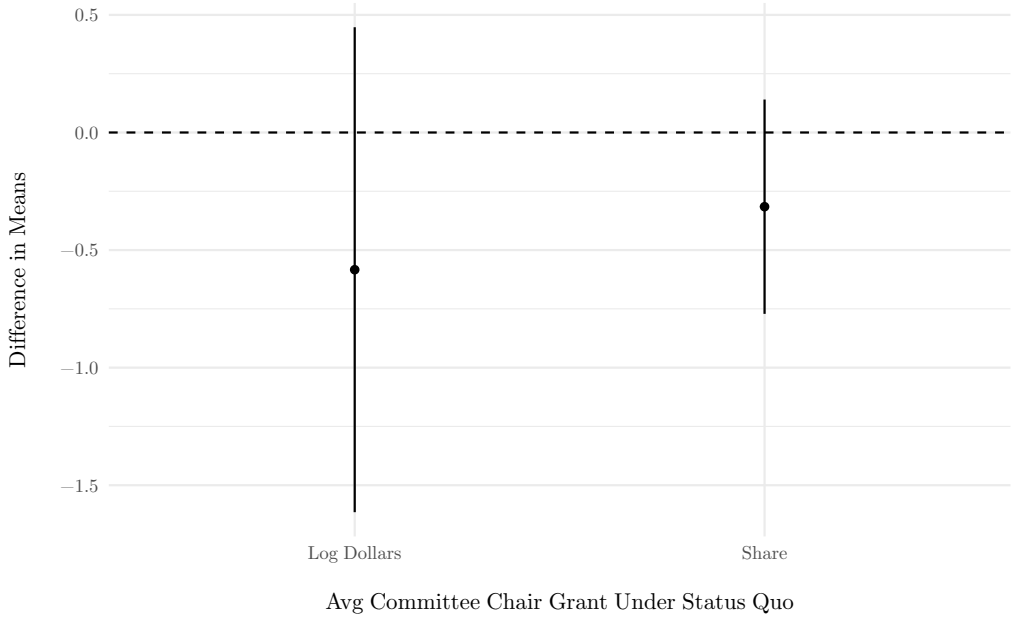


Notes: Averages are weighted so that each treated unit is matched to its control set.

One potential concern with this design is that committee chairs may be strategically selecting which programs to reauthorize. For example, if committee chairs choose to reauthorize programs where their states are doing poorly (and thus have the most room for improvement) then this analysis will overestimate the committee chair benefit. However, a single statute contains multiple formula grant programs as well as other policies. Thus, whether a program gets reauthorized depends on more than just its allocation formula. To empirically test whether committee chairs strategically select programs to reauthorize, I compare chairs' grants under the status quo under programs reauthorized and not reauthorized in a given year. Figure A3 shows the results of this analysis.[22] I find no significant difference between the treatment and control groups. This suggests that chairs are not selecting bills to reauthorize based on how much grant funding their states are receiving under programs included in each bill.

[22]The differences in means were weighted so that each treated unit is matched to its control set.

Figure A3: Chair's Status Quo Grant Balance Between Treatment and Control



Notes: Differences in means are weighted so that each treated unit is matched to its control set. Grant share is measured on a scale from 0 to 100.

C Placebo Test

It is possible that states represented by committee members and the committee chair see an increase in their grant amounts because all states see an increase in their grant amounts following a reauthorization. To account for this, I rerun the analysis for non-committee members and present the results in Table A2. I do not find a significant increase in these states' grant amounts following program reauthorizations.

Table A2: Effect of Committee Position on Formula Grants Placebo Test

	DV: Grant Amount (Log)			
	t	$t+1$	$t+2$	$t+3$
Not On Committee	0.004	0.008	0.037	0.06
	(0.035)	(0.037)	(0.041)	(0.046)
Observations	653	653	653	653

Note: *p<0.05; **p<0.01; ***p<0.001; standard errors computed based on 1,000 weighted bootstrap samples in parentheses

D Role of Parties

Are there differences for Democratic versus Republican committee members? Table A3 presents the committee advantage broken out by party. I find that states represented by both Democratic and Republican committee members disproportionately benefit from grants-in-aid.

Table A3: Effect of Committee Position on Formula Grants, Diff-in-Diff Estimates

	DV: Grant Amount (Log)				
	t	$t+1$	$t+2$	$t+3$	N
Dem. Committee Member	0.063***	0.096**	0.126**	0.454	376
	(0.015)	(0.03)	(0.048)	(0.233)	
Rep. Committee Member	0.172**	0.128**	0.208**	0.262***	812
	(0.056)	(0.049)	(0.063)	(0.07)	

Note: *p<0.05; **p<0.01; ***p<0.001. Standard errors computed based on 1,000 weighted bootstrap samples in parentheses. Count of observations refers to unique number of state-program reauthorizations in each analysis.

E Bicameral Representation

Table A4 examines the role of bicameral committee membership in two ways. The first row compares states represented by both House and Senate committee members to states with no committee representation. The second row compares states with just Senate committee representation to states with no committee representation. I do not find evidence of an additional benefit to bicameral committee representation.

Table A4: Effect of Bicameral Committee Representation on Formula Grants, Diff-in-Diff Estimates

	DV: Grant Amount (Log)				
	t	$t+1$	$t+2$	$t+3$	N
Bicamerial Committee Representation	0.058	0.119*	0.151**	0.1	108
	(0.029)	(0.049)	(0.055)	(0.1)	
Only Senate Committee Member	0.287*	0.133	0.251**	0.289*	319
	(0.131)	(0.098)	(0.096)	(0.129)	

Note: *p<0.05; **p<0.01; ***p<0.001. Standard errors computed based on 1,000 weighted bootstrap samples in parentheses. Count of observations refers to unique number of state-program reauthorizations in each analysis.

F State Similarity

Table A5 re-estimates the spillover analysis, but breaks states into five groups instead of six groups. The results do not change substantially when I use five groups. I do find that Senate partisan similarity is significant at times t and $t+1$, although the effects are substantially smaller than demographic similarity.

Table A5: Effect of Committee Chair Similarity on Grants, Diff-in-Diff Estimates

	DV: Grant Amount (Log)				
	t	$t+1$	$t+2$	$t+3$	N
Senate Demographic Similarity	0.064**	0.158***	0.245***	0.178***	208
	(0.022)	(0.031)	(0.057)	(0.044)	
Senate Partisan Similarity	0.03*	0.041*	0.024	0.031	198
	(0.012)	(0.017)	(0.02)	(0.024)	
House Demographic Similarity	-0.005	-0.023	-0.037	0.014	107
	(0.01)	(0.021)	(0.033)	(0.026)	
House Partisan Similarity	-0.22	-0.083	-0.177	-0.169	64
	(0.161)	(0.11)	(0.145)	(0.143)	

Note: *p<0.05; **p<0.01; ***p<0.001. Standard errors computed based on 1,000 weighted bootstrap samples in parentheses. Unit of analysis is state program.

Are there heterogeneous spillover effects based on level of similarity to the chair? In Table A6, I look at spillovers to states that are one group away from the chair's state ("Moderately Similar to Chair"). Table **??** also re-estimates the spillover effect for states in the chair's group ("Very Similar to Chair"), but excludes states that are one group away from the control group. I find that states that are one group away from the chair also see spillover effects that are similar to states in the same group as the chair. This suggests that there may be a threshold above which there are spillovers and below which there are not spillovers.

Table A6: Effect of Senate Committee Chair Similarity on Grants, Diff-in-Diff Estimates

	DV: Grant Amount (Log)				
	t	$t+1$	$t+2$	$t+3$	N
Very Similar to Chair	0.096***	0.157***	0.335***	0.234***	139
	(0.026)	(0.037)	(0.09)	(0.054)	
Moderately Similar to Chair	0.164**	0.205*	0.193**	0.181**	48
	(0.057)	(0.077)	(0.072)	(0.063)	

Note: *p<0.05; **p<0.01; ***p<0.001. Standard errors computed based on 1,000 weighted bootstrap samples in parentheses. Unit of analysis is state program. Units are matched based on state and year. Analyses exclude committee members.

G Targeting Poverty

To account for possible unobserved confounders, I reestimate the analysis of how well programs target poverty using state, year, and program fixed effects. Table A7 presents the results of these analyses. The main finding—programs target poverty better when the committee chair's state has high poverty—is robust to this alternate specification.

Table A7: Chair Characteristics and Targeting Funding to High-Poverty Areas

	Dependent variable:			
	Grant Amount (Log)			
	(1)	(2)	(3)	(4)
Poverty × High Pov. Chair	1.898***	1.850***		
	(0.235)	(0.218)		
Population × High Pov. Chair	−0.258***	−0.260***		
	(0.032)	(0.032)		
Poverty Rate × High Pov. Rate Chair			6.415***	6.723***
			(0.556)	(0.606)
Population × High Pov. Rate Chair			0.009	−0.0004
			(0.007)	(0.009)
Poverty	−0.451*	−0.232		
	(0.202)	(0.121)		
High Pov. Chair	−0.410***	−0.901***		
	(0.039)	(0.103)		
Poverty Rate			−2.476	−0.203
			(2.360)	(1.660)
High Pov. Rate Chair			−1.289***	−1.831***
			(0.091)	(0.124)
Population	0.058	0.053	−0.008	0.021
	(0.034)	(0.033)	(0.033)	(0.033)
Funding Level (Log)	1.089***	1.052***	1.090***	1.053***
	(0.067)	(0.040)	(0.067)	(0.040)
Observations	37,499	37,499	37,499	37,499
Adjusted R^2	0.747	0.659	0.747	0.659
State FEs	✓	✓	✓	✓
Program FEs	✓		✓	
Year FEs		✓		✓

Note: *p<0.05; **p<0.01; ***p<0.001. Table presents OLS regression estimates with standard errors clustered by reauthorization in parentheses. Poverty and population levels measured in millions. A chair's state is considered high poverty if its poverty level/rate is in the top 20% for all states.

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