# Legislative Resources, Staff, and Inequality in Representation

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#### ABSTRACT

Members of Congress are provided substantial resources for the task of representing their districts. A common trade-off legislators make in the use of their resources is between constituency service and policy representation, with certain populations and district traits determining the nature of this allocation choice. This paper focuses on legislative staff who are responsible for fulfilling each of these spheres of representation. Using comprehensive congressional staff employment data and congressional disbursement records, I show that offices that allocate their staff resources more towards policy representation relative to constituency service disproportionately come from electorally safe, wealthy, and urban districts. I then demonstrate these investment choices largely remain constant within districts, suggesting district traits, such as electoral competition or demographics, drive these decisions, with competitive districts systematically spending less on personnel. The consequences of these patterns hold important implications for equality of representation and the formation of policy agendas within Congress.

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## Introduction

The decentralized, legislator-centric nature of Congress allows members to respond to their constituents and districts with flexibility, making representation a multi-faceted enterprise (Mayhew 1974; Eulau and Karps 1977; Fenno 1978). Members benefit from substantial autonomy in how they spend their institutionally-allocated resources, allowing them to develop their own styles geared towards their idiosyncratic district demands largely outside of the control of party leadership (Hall 1996; Bernhard and Sulkin 2018). Research shows that variation in representation styles has important implications for the collective policy that comes from Congress (Ashworth and Bueno de Mesquita 2006; Grimmer 2013).

An argument in support of a decentralized legislature is better responsiveness to constituent preferences. These legislatures result in collective policy that represents, broadly, the country as a whole – or, at the very least, each member is given a chance to influence the policy process and no particular district stands at a disadvantage. In reality, this institutional arrangement has produced disproportionate representation in Congress, especially in policy, with wealthier citizens advantaged relative to poorer populations (Gilens 2005; Wlezien and Soroka 2011; Ellis 2017; Miler 2018). This paper argues that staffing is the mechanism through which legislative offices respond to constituent preferences and that analyzing the use of staffing sheds light onto why inequality in policy representation exists in Congress. Legislative staff, I argue, are an especially important and useful mechanism for examining representation in Congress. Choices in staffing are a function of member and constituent preferences and capture a meaningful signal of legislator priorities (e.g., Matthews 1960; Fiorina 1989; Madonna and Ostrander N.d.). Looking specifically at two of the classic spheres of representation (Eulau and Karps 1977), policy and constituency service, I show asymmetries in how individual legislators allocate staff related to district traits.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>Following existing work (e.g., Eulau and Karps 1977; Griffin and Flavin 2011; Harden 2013), this paper broadly defines policy representation as how district preferences translate

Using a comprehensive dataset of congressional staff employment matched to district demographics and member of Congress insitutional data, I find that 1) members spend roughly 75% of their allocated resources on personnel; and 2) electorally safer, wealthier, and more urban districts devote more of their staff resources towards policy and fewer resources towards constituency service. I find that offices in the poorest districts in the sample spend 19% less on policy than the wealthiest districts and the most urban districts spend 20% more on policy than the most rural districts. The largest spending differences are over half a million dollars per year. I also demonstrate evidence that some districts are consistently spending more on policymaking activities and less on constituency service. The districts with the lowest levels of spending on policy and constituency service – with implications for representation of constituents – are those with frequent legislator turnover. When a new member is elected to a district, holding fixed time-invariant district traits, that district sees a 10 fold *decrease* in policy investment relative to the typical year-over-year average in changes to policy spending. Constituents in competitive districts are represented by members with less of a focus on policymaking, at least as measured by resource use.

This finding holds important implications for the literature on legislative organization, policymaking in Congress, and the formation of policy agendas. Staff are pivotal to the legislative enterprise, enabling representational activities both in the district and in Washington (Price 1971; Salisbury and Shepsle 1981; Romzek and Utter 1997). A large body of research, for instance, shows that staff facilitate the entrepreneurial efforts of members (Malbin 1980), seek out and filter policy-relevant information (Whiteman 1995; Hertel-Fernandez, Mildenberger and Stokes 2018), and influence the legislative activity of an office (Montgomery and Nyhan 2017; Crosson et al. 2018). Staff are often the link between constituents and representatives, deciding who gets their voice heard by the legislator herself (Grose 2011). In into policy action (e.g., bill introductions, position taking, voting) and constituency service as individualized (or group-level) assistance with various facets of government. I discuss this more below.

the broader comparative legislative politics literature, staff are a central feature of debates on the appropriate level of independence members of parliament should possess from party leadership due to their perceived influence (e.g., Högenauer and Neuhold 2015; Pegan 2017). On Capitol Hill in particular – the focus of this paper – the importance of staff has resulted in a high demand for their experience by private sector employees (Blanes i Vidal, Draca and Fons-Rosen 2012; McCrain 2018), which has gained increased salience due to the recently well-documented focus on low staff salaries, especially relative to outside employers.<sup>2</sup>

With this context, I show below that across districts there are substantial differences in how legislators allocate staff including how much of their budget they spend on staff and whether they focus more on policy or constituency service. These differences are driven by district traits, such as competitiveness and demographics, and member characteristics, such as committee status and seniority. Using a unique dataset of financial disbursements from congressional offices, I also establish important facts about how legislators seemingly trade off the use of their vast representational allowance – an understudied feature of legislator behavior. I conclude by discussing the broader implications of these findings for reforming congressional capacity and how studying legislative resources adds insight into the growing literature inequality in representation.

### Theoretical and Institutional Background

The argument from classic congressional scholarship is that members develop both Washington and home styles, specifically tailored to what they believe will maximize three goals: 1) re-election chances; 2) advancement within Congress; and 3) policy impact (Fenno 1978). To achieve these goals, members are allocated substantial resources that they can use almost entirely to their discretion, with little oversight or control by party leadership. Existing work has studied this allocation in terms of the degree to which members invest in their

<sup>2</sup>This phenomenon has recently manifested in a joint committee on "modernizing" Congress with staff a central focus of reform. home style versus their Washington style, typically as measured by focus on constituency service versus policy investment (e.g., Eulau and Karps 1977; Cain, Ferejohn and Fiorina 1987; Fiorina 1989; Adler, Gent and Overmeyer 1998). Since each member of the House is given equal access to resources (with the exception of party and committee leaders), each member is provided an equal opportunity to affect the policy process while securing their own electoral fortunes.

I argue that staffing is the key resource available to members of Congress for the fulfillment of the three classic objectives. The allocation of this resource is a function of members' preferences regarding their focus towards constituency service and/or policy activity. The unique part of this argument, however, is that the nature of the staffing resource and members incentives surround how to use it produces *unequal* opportunities to influence the policy process. As I now outline, this is largely due to constraints on members' allocation choices based on the nature of their districts. Importantly, this can be a constant feature of a district such that certain districts and their constituents remain largely voice-less in congressional policymaking.

To motivate the focus on the staffing resource in representation, I first describe the institutional features of congressional staffing in the U.S. House of Representatives and the previous research on the importance of staff in Congress. This discussion serves to highlight the idiosyncratic features of the staffing labor market. I finally outline theories of resource allocation in Congress to generate empirically testable hypotheses about the relationship between staffing, resource allocation, and representation through policy.

### **Congressional Staff**

The features of staffing present in Congress are uniquely American and, for the most part, unique to Congress.<sup>3</sup> In the U.S. House of Representatives, members appropriate for themselves substantial resources (called the Member's Representational Allowance, or MRA) for

<sup>&</sup>lt;sup>3</sup>The institutional arrangement of allocating individual legislators substantial resources for both policy and constituency service staffing is uncommon in developed democracies and

use in staffing and other representational activities such as franking and district office leases. Each member is allocated the same resources for use on personnel (roughly \$1.4 million in 2018; see the appendix for overtime trends) and offices are allowed a maximum of 18 full-time equivalent employees. However, offices are free to allocate as many or as few resources to their D.C. office as they see fit. A typical House offices employs junior staff to respond to constituents' correspondence both in D.C. and in the District, caseworkers that have specific responsibilities related to helping constituents with more demanding tasks (e.g., social security complaints, immigration, etc.), and occasionally, but not always, dedicated communications staff.<sup>4</sup> Offices also employ policy-oriented staff who often take on a variety of policy portfolios. In House offices, the Legislative Director and Chief of Staff are typically the most senior staff and take on management roles and policy tasks.

This paper focuses on the U.S. House because of the fixed and limited resources members are given for use on personnel, as opposed to the Senate where offices are provided substantially more resources that vary depending on a formula that includes the size of the state and its population. In the House, the fixed amount of resources are constraining for many offices both in terms of the salaries they are able to offer staff (e.g., Montoya-Galvez 2018) and the number of staff allocated towards certain tasks.<sup>5</sup> This fixed resource constraint means it is difficult to reward qualified staff with pay raises and promotions unless turnover occurs.<sup>6</sup>

<sup>4</sup>Fenno (1978) and Grose (2011) have more detailed descriptions of casework examples.

<sup>5</sup>Since the pool of money provided to members for staffing is fixed, there is necessarily a tradeoff between how many staff are employed and their salaries. I investigate this further below.

<sup>6</sup>Both the work-life balance issues and the salary constraints are frequently cited in surveys of staff for why they consider leaving Capitol Hill (Congressional Management Foundation 2012). Mayhew's (1974) classic description of Congress. Party leadership has little-to-no control over individual member's staffing decisions and, as a result, substantial heterogeneity exists in how individual offices use this resource. The weighting of resource use reflects legislators' "style" (Fenno 1978; Bernhard and Sulkin 2018), which in turn shapes their behavior in Congress and the output of congressional policymaking and deliberation – what Grimmer (2013) calls collective representation. Examining the use of legislative resources is a glimpse inside the thought process of a legislator. By analyzing how these choices change – or do not change – over time, or within a district depending on who is elected, presents a useful method for analyzing legislator style.

What are some of the aspects that shape styles? A substantial qualitative literature finds that staff enable the entrepreneurial efforts of members, particularly in seeking out information on policy opportunities and how it can benefit the member's district (Price 1971; Malbin 1980; Fox and Hammond 1977). Staff also seek information on existing policy in order to inform the member's voting decisions (Kingdon 1989; Whiteman 1995; Curry 2015).<sup>7</sup> In general, staff are vital in shaping the policy agenda of an office through determining what information sources to pursue, what to pass on to their boss, and what policy areas the member will benefit from pursuing – and members prioritize the allocation of staff based on district and electoral incentives (Hall 1996). More broadly, scholars demonstrate that members rely on staff to serve as their proxy in constituent service and communication through taking important meetings and hiring staff that can relate to their districts (Grose 2011; Whiteman 1995). Members, and as a result parties, benefit when legislators adeptly use their staff resources.

More recent research has found evidence that staff directly shape an office's policy behavior. Hertel-Fernandez, Mildenberger and Stokes (2018) demonstrate a direct link between

<sup>7</sup>Curry (2015) suggests that this has become an increasingly important role played by staff in modern Congresses, as members are often kept in the dark about legislation by leadership. staffing and representational outcomes in policymaking. They show that when offices are more connected to special interests – and thus staff are using these interests as information sources for their bosses – the offices are more likely to misstate their constituents' views on policy. Montgomery and Nyhan (2017) show that offices connected via sharing senior staff tend to behave more alike than otherwise expected, including making the office more effective (see also Crosson et al. 2018). The broad importance of staff in Congress has resulted in a strong demand for their skillsets (and connections) among private employers, especially lobbyists (Blanes i Vidal, Draca and Fons-Rosen 2012; Cain and Drutman 2014).

This discussion makes two features of staffing in Congress clear. First, staff are vital resources that, if used properly, enable members to succeed in the representational aspect of their jobs (both in policy and constituency service). Second, and as a result, staff are individually important, especially in the relatively small offices of the U.S. House where each staffer is typically tasked with multiple roles. Members, understanding their importance, carefully allocate this resource based on incentives produced by seeking re-election, representing their constituents, and securing institutional influence.

### Members of Congress' Use of Staff Resources

Given finite resources and time, legislators face decisions on what activities in which to invest. The classic conceptualization of dimensions of representation suggests four possibilities: policy, service, particularistic goods, and descriptive (Eulau and Karps 1977). The focus of this paper is on the policy and constituency service allocation decision.<sup>8</sup> I follow other empirical research and broadly define policy representation as the response to district preferences in the policy realm, including voting behavior, crafting and introducing policy, and position taking. The effects of staff, argued above, are important in policy representation through gaining information about policy and turning it into legislation and voting

<sup>8</sup>This is also, broadly, how newly elected members are told to approach allocating staff funds (see Cantor 2012). choices. Constituency service is defined as specific assistance provided to constituents or district groups as it pertains to government services or functions. In a congressional office, these typically manifest as casework regarding government programs and interactions with constituents in D.C. or the district office.<sup>9</sup>

The evidence suggests legislators believe they are better able to signal to voters their competence through constituency service rather than policy work, with constituency service an observable signal of ability and performance (Cover 1980; Cain, Ferejohn and Fiorina 1987; Butler, Karpowitz and Pope 2012; Dropp and Peskowitz 2012; Peskowitz 2018). Ashworth and Bueno de Mesquita (2006) formalize this intuition and demonstrate that, in equilibrium, in more competitive districts legislators will invest more of their resources in constituency service and less in policy tasks. Legislators in both settings have a preference for policy impact per se, but they value re-election more. As a result, they show, legislators in competitive districts contribute less to the "global good" of policy. Crosson et al. (2019) find that over time legislators are, on average, investing (through staff spending) less in policy and more in constituency service and other areas, suggestive of the idea that they see particular electoral rewards to prioritizing constituency service. However, this finding does not show which legislators from what type of districts are those more or less likely to buck the trend, or when legislators change their allocation choices at an individual level.

In addition to electoral vulnerability determining resource allocation, legislators respond to demand for constituency service depending on the populations they represent. A common finding is that socio-economic status of a district is linked to demand for constituency service, with poorer populations more highly weighting a legislator's delivery of constituency service

<sup>&</sup>lt;sup>9</sup>It is possible that these tasks overlap. For instance, constituency service staff can provide policy information through interactions with constituents. However, it is uncommon for constituency service staff to possess substantive policy responsibility which would directly translate that information into legislation or position taking. In other words, policy staff will still be the filter for that information.

(Grose 2011; Harden 2013). The idea in this research is that these populations are more likely to interface with government programs and require assistance from congressional offices with these programs. On the reverse side, wealthier more urban populations place more policy-specific demands on offices which entail less interaction with government agencies (e.g., Griffin and Flavin 2011). In the appendix, I demonstrate some evidence for this idea, showing that wealthier and more urban districts correlate with lower amounts of government spending related to large programs such as social security.

A challenge in empirically testing these propositions is finding a credible measurement of constituency service and policy focus. A common measurement strategy is to use surveys to determine a legislator's focus on one area versus the other. However, and as discussed in greater detail in Dropp and Peskowitz (2012), a more desirable measurement would capture a less-fungible dimension of resource allocation – an actual measure of a legislator's revealed preferences. Staff, I argue, represent such a measure. The allocation of staffing is difficult to change drastically within an office due to the inflexibility and transaction costs associated with altering allocations once a particular allocation has been set. The resource patterns vis-a-vis electoral competitiveness and district demographics suggested by previous work will also be present in examining staffing allocations. What is typically referred to as 'style' in congressional research is more accurately a reflection of how members match their use of resources to their idiosyncratic goal of re-election and representing their constituents. This leads to two testable hypotheses:

*Hypothesis 1:* Districts with populations that place more demand on offices for constituency service work will have more resources allocated to constituency service.

*Hypothesis 2:* More electorally competitive districts will have more staffing resources allocated to constituency service than policy.

I discuss heterogeneity within these broad hypotheses below, such as when we might expect legislators to change allocations at the individual level versus when districts are

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represented by different legislators. First, however, I discuss the data and measurement strategies to establish stylized facts about the use of legislative resources.

## **Data and Stylized Facts**

### Congressional Staff and Member of Congress Data

This paper uses a comprehensive dataset of congressional staffing employment histories from 2001-2014 acquired from the private firm Legistorm. Legistorm collects and clean publicly the available congressional disbursement staff employment data including rectifying name mismatches and standardizing job titles. Taking the Legistorm data, which is over 600,000 observations, I aggregate up from semesterly reports into yearly office- and staffer-year datasets. These data include over 75,000 unique staffers for over 250,000 staffer-year observations which were aggregated into office-level measures of staffing allocations and human capital. The data include job titles and salary information for the staffers.

I specifically focus on personal office staff. There are a number of theoretical and institutional reasons for this. These staff are directly responsive to the member herself, with little concern for principle-agent problems (see Kingdon 1989). One could imagine that committee staff subsidize efforts of rank-and-file members. Existing evidence in fact points to the opposite: members are skeptical of information they are provided by committee staff since they are agents of the committee chair and have little incentive to consider the idiosyncrasies of the district of rank-and-file members (see Fox and Hammond 1977; Whiteman 1995; Curry 2015).<sup>10</sup> Even when provided information from committee or party leadership, offices and staff verify its applicability to the member's idiosyncratic preferences. More generally, personal staff will be those who know the member's district the best and to whom the member will look for unbiased information about policy and district preferences.

<sup>10</sup>Curry (2015) in particular notes the difficulty rank-and-file members have in gaining access to the policy expertise of committee staff even when they seek out. I address the concern about committee staff more in the empirics below. The primary measures used in the analyses that follow come from binning job titles into areas of responsibility – most broadly, policy staff and constituency service staff.<sup>11</sup> Job titles on Capitol Hill are largely homogenous across offices in terms of the responsibilities they are assigned. Policy staff job titles include common roles such as Chief of Staff, Legislative Director, Legislative Assistant, any policy specialist, and other relevant titles (the full list of which is available in the appendix). Constituency service titles also include titles commonly associated with district work, such as Caseworker, Field Director, or titles containing the word 'district'.<sup>12</sup>

For the measure of allocation, I construct office-year level salary totals for each category of job title. I argue this measure is preferable to other possible methods of observing staffing allocations because of the uniform fixed resource constraint among House offices. For instance, measuring total staffers allocated towards a role might result in systematic bias if each of the policy staffers in, for instance, poor/rural districts are low paid relative to constituency service staffers.<sup>13</sup> I do construct an additional measure using salaries, discussed in greater detail below, which is the ratio of salary allocated to each role since not all members use their total staffing allocation. This is done by first creating a staffer-year level dataset which calculates their total yearly salary, adjusting the yearly salary for inflation to 2016

<sup>11</sup>The categories of job titles not included in the analyses below are communications staff, administrative staff, and junior staff.

<sup>12</sup>This coding process broadly follows the recommendations of Petersen (2011) and aligns with the recent conventions in the literature (e.g., Montgomery and Nyhan 2017; McCrain 2018; Shepherd and You 2019).

<sup>13</sup>There's also a data constraint that increases the likelihood of measurement error using total staff instead of salary. Since frequent turnover occurs on the Hill, it is likely the data would over count the number of staffers assigned to a role due to imprecision in the dates of employment. These dates are generally accurate within years, but the specific months and days of employment are less so. This is not a concern with Salary. dollars, and then aggregating salaries up to the office level by binned job title. I then merge in legislator- and district-level data from Foster-Molina (2017) and committee assignment data from Stewart III and Woon (2017).

Finally, I collect a unique dataset of congressional office expenditures, a mandated reporting as part of receiving the MRA. These data are released publicly every quarter by the House and Senate and include the individual staffers an office employs and their pay, as well as other features of an office: such as rent expenditures, franked mail expenditures, office supplies, travel, and other expenses allowed under the MRA. I use a cleaned version of these data from ProPublica (2020) and aggregate up to the member-year within each category of spending. These data are rarely used in congressional research (Peskowitz 2018, is a recent exception), and as far as I know they have not been used to explicitly analyze how legislators tradeoff their resources. I present additional findings using these data below, but as a first cut Figure 1 displays the top-line breakdowns of expenditures by category as well as the distribution of personnel expenditures within the data. As is obvious, the bulk of office expenditures fall under personnel.<sup>14</sup>

### **Descriptives of Staffing Heterogeneity**

Before moving onto models that examine the proposed relationships outlined above, I demonstrate that substantial heterogeneity exists in both staffing allocations and the human capital of member's staff across districts and members. I also show that there are clear differences in allocations in different types of districts. Establishing this heterogeneity is important to show that there are a variety of staffing arrangements that each member pursues, and that it is not purely predicted by, for instance, how many terms a member has served. Figure 2 shows similarity on average in salary spending towards policy, however with substantial

<sup>&</sup>lt;sup>14</sup>Figure 1 in the appendix displays aggregate personnel expenditures overtime, as well as how it relates to the limits established for total MRA spending. There are little on-average differences between the parties in how the MRA is used.



Figure 1: Members' Representational Allowance Distributions

variance within each term of tenure.

Are there clear differences in how members represent districts on average? To examine this I turn to two figures displaying the distribution policy spending across districts binned into 'high' and 'low' categories based on percent urban, median income, and competitiveness. For urban and income, this is calculated by whether the district falls above (below) one standard deviation above (below) the mean. Districts are deemed competitive if their Cook-PVI is between -5 and 5, and safe otherwise. Figure 3 displays these distributions, showing that more urban, wealthier and safer districts tend to invest more in policy. I now move to multivariate examinations of these patterns.

### **Empirical Results**

To examine in greater detail the trends outlined previously I turn to a series of regressions with staff allocations and total staff as outcomes. After assessing the evidence for the hypotheses from above, I then disentangle whether it is the case that districts tend to display the same staffing patterns regardless of who represents them or, instead, it is wholly dependent on the specific member representing the district.

The left panel depicts the overall usage of MRAs among members in my data. The right figure plots the density of personnel expenditures.



Figure 2: Policy Allocation and Congressional Tenure

This figure plots the distribution of policy staff salary allocation (at the office level) by term in Congress.



(c) Policy Allocation - Competitiveness

Figure 3: Each panel plots the distributions of districts' policy spending, with districts divided into two categories. Panels (a) and (b) divide districts based on whether they fall one standard deviation above or below the mean of percent urban and median income, respectively. Panel (c) divides districts into safe or competitive categories based on whether the Cook-PVI is less than or equal to 5 or greater than or equal to -5 (competitive); otherwise the district is marked safe.

### Staffing Allocation and Experience

The first independent variables of interest, derived from Census data, are (log) Median Income and Percent Urban. Hypothesis 1 suggests that districts with poorer and more rural populations place higher demands on congressional offices for constituency service and wealthier populations have more policy-specific demands. Thus, we should see offices in these districts spending more on constituency service and less on policy. Safer districts with wealthier, more urban populations can focus on policymaking and allocate accordingly.<sup>15</sup>

The final independent variable of interest is the district competitiveness, with the theoretical expectation outlined in Hypothesis 2 being more competitive districts should invest more in constituency service. I measure this through Cook PVI, an ex ante measure of district competitiveness.<sup>16</sup> Cook PVI takes the average of the presidential vote in the two most recent elections within a district and compares it to the national average in those same elections. For instance, if a district voted 60% for Trump in 2016, and the national average was 50% for the Republican candidate, that district would be an R+10 district. To construct the measure, if a member representing this district is a Republican they are assigned a score of 10. If there is a mismatch in representation and the member is a Democrat, they are assigned a score of -10.

For each outcome, I run two sets of models, one with only district traits and the other

<sup>15</sup>As shown in the appendix, there is a strong positive correlation between district wealth and the urbanness of the district. However, it is also possible that there is an interaction between these two variables in particularly poor, urban districts that produce heterogeneity in the results. I show results with this interaction in the appendix that display the same trends as below. The primary difference is that particularly wealthy, rural districts spend much less on constituency service than wealthy urban districts.

<sup>16</sup>The main advantage of this measure is it is not directly manipulable by legislators as opposed to a legislator's voteshare (Peskowitz 2018)

with district traits and member-level characteristics.<sup>17</sup> These models take the following form:

$$Allocation_{it} = Income_{it} + Urban\%_{it} + CookPVI_{it} + CookPVI_{it}^2 + \gamma_{it} + \lambda_t + \epsilon_d$$

Where  $Allocation_{it}$  are allocations towards policy or constituency service, as measured by total salary allocated per year or total staff allocated to that position type.  $Income_{it}$  is district median income, and  $CookPVI_{it}$  and its square are the Cook-PVI for that member iin time t.<sup>18</sup> All models include year fixed effects,  $\lambda_t$ . Most models also include member and district time-varying controls  $\gamma_{it}$  – however, district demographic traits are highly stationary within redistricting period since they are measured by the Census, so for models with district by redistricting period fixed effects I remove district-specific controls. Finally,  $\epsilon_d$  are standard errors clustered at the district.

As for specific controls, previous literature has also noted differential demands for constituency service based on the demographic makeup of the population (e.g., Grose 2011; Griffin and Flavin 2011). To control for this I include **Percent White**. Additionally, the size of a district is a structural feature that may necessitate more spending on constituency service, so I also control for the (log) Square Miles of the district.

To control for member traits that may also determine differences in allocation, I include

<sup>17</sup>Table 1 in the appendix displays summary statistics for all measures and variables used.

<sup>18</sup>There are practical and theoretical reasons to suggest a non-monotonic relationship between competitiveness and allocations. For instance, Ashworth and Bueno de Mesquita (2006) suggest that at especially low levels of electoral security legislators may determine that no amount of constituency service will help their prospects. One could also imagine that particularly safe legislators can essentially free-ride on the activity of others and invest little in both categories. This discussion suggests a quadratic form, but in the appendix I show results that allow competitiveness to take more flexible forms with little difference in the interpretation of the results. Tenure for how long the member has been in Congress; Majority to control for any differences related to whether members are in the minority versus majority; Cmte. Chair and Cmte. Ranking Member to separate out differences based on committee leadership status;<sup>19</sup> Party Leader, a dummy variable for whether the member holds a leadership position within the party; and Ideological Extremity, the absolute value of the first dimension of DW-NOMINATE since a large body of research suggests extreme members exhibit different legislative and representational behavior (e.g., Wawro 2001; Hitt, Volden and Wiseman 2017). These models also include year fixed effects to account for common time-based shocks.

Table 1 presents the results from this first set of regressions. These pooled regressions serve to describe the overall difference among districts based on their traits and the members who represent them. The evidence from this set of models is suggestive of allocation differences based on district demographics and socio-economic status. In some cases, such as with Percent Urban, there is a trade off between policy and constituency service. With others, as with district size and wealth, the coefficients point the same direction. I explore this further below.

A move from the 10th percentile to the 90th percentile in district wealth predicts a roughly 7% increase in policy spending relative to the sample average. The same move in the percent urbanness of a district predicts a 15% increase in policy spending and a 10% decrease in constituency service spending.<sup>20</sup> Quantities are similar in magnitude when using total numbers of staff as outcomes. In support of Hypothesis 1, districts with traits associated with less demand for constituency service (wealthier, more urban) are predicted to invest less in constituency service staff and, in some instances, more in policy staff. This evidence,

<sup>19</sup>This is especially important given committee leaders' access to additional staffing resources; see Sinclair (2007), Curry (2015) and Madonna and Ostrander (N.d.).

<sup>20</sup>Since these models are cross-sectional, I am not suggesting that a particular district will undergo such a drastic shift in socio-economic status and concomitant change in staffing; these models are meant to illustrate the difference between, e.g., rural versus urban districts. however, is qualified by the fact that some of these socio-economic indicators predict higher spending in both types of staff. Figure 4 plots the predicted values using the recovered coefficients on **Percent Urban** for both policy and constituency service spending, showing evidence of a tradeoff.

Hypothesis 2, built on research showing a tradeoff between constituency service in policy related to competitiveness, predicts more competitive districts will spend less on policy and more constituency service. I then extend that logic to argue that safer districts will also possess more experienced staff. The predicted results show that policy allocation is increasing in district safety; however, constituency service is also increasing in district safety (though with a smaller slope). These increases are substantively important, with a +10 district spending about as much more on policy salaries as half a typical staffer's annual salary (i.e., a  $\sim$ \$25,000 increase, roughly half of a staffer's average salary which is just over \$50,000). This is coherent with the expectations from above – safer districts are spending more on policy – but they are not necessarily trading off constituency service.

In Table 8 in the appendix, I demonstrate that these patterns are robust in terms of substantive interpretation and statistical significance to alternative measures of resource allocation. Instead of aggregate spending and aggregate number of staff allocated, I use the ratio of policy and constituency service spending to total personnel spending and the ratio of policy spending to constituency service spending. All interpretations are consistent with the results from Table 1.

### District or Legislator-Driven Staffing

The evidence above suggests substantial differences across members and districts in their allocation schemes and the human capital of their staffs. However, these cross-sectional results do not shed much light onto the larger question of whether these allocations are driven by idiosyncratic member choices or underlying demand from the district for policy versus constituency service. On average, do members who represent the same district choose similar allocations? Or, alternatively, do we see substantial variation *within* district depending on

(1) (log) Median Income 61,528.7 <sup>3</sup> Percent Urban 68,834.5 (8,834.5 (8,834.5 (8,834.5 (8,834.5 (8,834.5 (105.1 (105.1 (105.1) (105.1) (105.1) (11.5)				ם טומוו טמומיו				100 2011 100
(log) Median Income       61,528.7*         Percent Urban       (8,834.5         Percent Urban       469.5**         Competitiveness       (105.1)         Competitiveness       (323.4)         Competitiveness Sqrd.       -40.4**         (11.5)       (11.5)		(2)	(3)	(4)	(5)	(9)	(2)	(8)
Percent Urban (8,834.2 Percent Urban 469.5** (105.1 Competitiveness 1,959.7* (323.4 (10.5.1 (10.5.1) (10.5.1) (10.5.1) (11.5)	*** 43,	$960.9^{***}$	-11,832.9	6,046.1	$0.7^{***}$	$0.6^{***}$	$-0.4^{**}$	$0.3^{*}$
Percent Urban         469.5**           Competitiveness         (105.1]           Competitiveness         (323.4)           Competitiveness Sqrd.         -40.4**	2) (9	$_{9,461.8})$	(8, 594.3)	(8,991.5)	(0.1)	(0.1)	(0.1)	(0.2)
(105.1) Competitiveness 1,959.7* (323.4) Competitiveness Sqrd40.4**	** 1,0	$357.3^{***}$	$-503.4^{***}$	$-584.3^{***}$	$0.01^{***}$	$0.01^{***}$	$-0.01^{***}$	$-0.02^{***}$
Competitiveness 1,959.7* (323.4 <u>*</u> ) Competitiveness Sqrd40.4** (11.5)	(	(155.5)	(111.3)	(169.5)	(0.001)	(0.002)	(0.002)	(0.003)
(323.4) Competitiveness Sqrd. –40.4** (11.5)	*** 1,0	$928.3^{***}$	880.7**	$2,110.2^{***}$	-0.001	0.005	$-0.03^{***}$	-0.01
Competitiveness Sqrd40.4** (11.5)	(1	(363.2)	(359.6)	(391.6)	(0.004)	(0.005)	(0.01)	(0.01)
(11.5)	**	$-31.2^{**}$	$-31.4^{**}$	$-57.9^{***}$	-0.0002	-0.0002	-0.0001	-0.0003
	~	(12.1)	(12.7)	(13.0)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
(log) Square Miles	4,	$410.5^{***}$		$4,354.2^{***}$		0.02		$0.1^{***}$
		1,481.8)		(1, 398.2)		(0.02)		(0.03)
Percent White	ŝ	$99.3^{***}$		$-260.8^{**}$		$0.004^{***}$		$-0.01^{***}$
	Ŭ	(116.0)		(123.3)		(0.002)		(0.002)
Tenure	2,5	$968.0^{***}$		-588.7		-0.004		$-0.1^{***}$
	Ŭ	(514.1)		(475.7)		(0.01)		(0.01)
Majority	I	-3,561.6		$-11,975.3^{***}$		0.1		$-0.1^{*}$
		3,722.9)		(3,948.5)		(0.1)		(0.1)
Cmte. Chair	Ι	-8,279.3		$17,512.1^{*}$		$-0.6^{***}$		0.1
	(1	0,608.8)		(10, 150.7)		(0.1)		(0.2)
Cmte. Ranking Member	-28	$3,683.1^{***}$		9,899.2		$-0.6^{***}$		-0.04
	(1	1,067.4)		(10,996.9)		(0.1)		(0.2)
Party Leader	7	0,320.3		$90,756.7^{***}$		-0.3		0.2
	(2	1,794.4)		(26, 326.8)		(0.2)		(0.2)
Ideological Extremity		5,375.0		$-74,299.7^{***}$		$-0.3^{**}$		$-1.2^{***}$
	(1	0,052.0)		(9,780.5)		(0.1)		(0.2)
N 6,095		6,077	6,095	6,077	6,095	6,077	6,095	6,077
${ m R}^2$ 0.05		0.1	0.02	0.04	0.03	0.04	0.04	0.1

Table 1: Policy and Constituency Service Allocations

All variables are at the office-year level or district-year level. Some socio-economic indicators are only available every two years due to data avialability. All models include Congress fixed-effects and report robust standard errors.



Figure 4: Allocation Trade-Off and Urban Districts

This figure plots the predicted values from the coefficient on Percent Urban from Table 1 across the range of values of Percent Urban in the data.

who is elected?

The logic from above dictates that certain features of districts shape allocations and staffing human capital and this should remain consistent within a district as long as the district also remains unchanged. A method to assess this empirically is with district fixed effects. I construct these for each district by redistricting period, so each district will have a different fixed effect for the post-2000 redistricting cycle and the post-2010 redistricting cycle. Since the district socio-economic indicators are measured through the census, they remain constant from 2000-2010 and begin to vary by year post-2010 due to the American Community Survey. Since there is little variation within district, I exclude these from models with district fixed effects.<sup>21</sup>

I also run models with legislator fixed effects, a more demanding specification since fixed

<sup>21</sup>Further, even if there is variation post-2010 there is likely substantial year to year measurement error since the ACS constructs these at the district level based on state estimates. (time-invariant) district traits will be subsumed by these fixed effects. However, district socio-economic characteristics can and do vary within member through two sources. First, if a member represents a redistricted district these characteristics will change. Second, if a member serves long enough they will see their district change as well. Finally, there is substantial variation produced within a district and within a member through changes to the member's seniority, committee status, majority status, and district competitiveness. These changes will constitute the bulk of the variation in this set of models. The expectation outlined in the above hypotheses is that staffing allocations will not vary a large degree within a given legislator's tenure since features of a district produce demands on offices to which members respond accordingly. What should change a member's allocations, and what does vary over time, is a district's competitiveness. In other words, the expectation is that within these fixed effects specification there will be little variation driven by changes to district characteristics and the bulk of the variation will come through changes to district competitiveness and member institutional status. Table 2 presents results with both sets of fixed effects.

As expected, most socio-economic coefficients become much less precisely estimated as they are largely absorbed by the fixed effects. Within district variation (models 1 and 3) in competitiveness suggests that when districts become safer, the members that represent them spend more on policy and constituency service. In the legislator fixed effects specification we see the same pattern. Similarly, when districts are represented by more senior members, those members spend more on policy and benefit from more experienced staff. The prediction from this set of results is that *constituents in safer districts benefit from more spending on policy and more spending on constituency service relative to competitive districts.* This result suggests a possible positive feedback loop given the logic of resource usage from above: members in safer districts also benefit from an increase in constituency service spending, holding fixed district traits. As constituency service is presumed to assist in re-election more than policy output, this suggests members in safe districts get the best of both worlds:

	Policy S	taff Salary	Const. Serv	ice Staff Salary
	(1)	(2)	(3)	(4)
Competitiveness	2,018.4**	1,931.5	1,648.2	2,556.4**
a	(888.1)	(1,216.7)	(1,097.0)	(1,111.0)
Competitiveness Sqrd	-43.7	-11.5	-40.9	2.3
	(33.7)	(46.0)	(40.5)	(43.5)
Tenure	$6,624.2^{***}$	54,065.4	-74.2	-3,182.0
	(1, 316.2)	(44, 586.8)	(1, 148.9)	$(23,\!635.0)$
Majority	2,982.9	-196.0	-7,412.0	-6,718.0
	(5,562.1)	(4,797.6)	(5, 368.5)	(4, 420.9)
Cmte. Chair	$-15,\!083.7$	-5,152.3	1,501.9	$37,\!243.8^{***}$
	(19, 293.3)	(19,625.7)	(17,086.3)	(14, 106.4)
Cmte. Ranking Member	-9,563.5	-4,624.4	45.1	$28,913.2^{*}$
	(20, 800.8)	(18, 462.4)	(16, 649.3)	(15, 393.4)
Party Leader	-2,217.4	-56,517.0	28,089.9	40,713.5
	(51, 272.4)	(40, 458.5)	(40,028.9)	(36,004.3)
Ideological Extremity	57,370.8**	$-132,744.0^{*}$	-35,460.9	-41,445.7
	(26, 570.8)	(76, 223.6)	(27,066.9)	(61, 182.6)
(log) Median Income		15,253.4		45,716.8
		(50,941.3)		(40.571.9)
Percent Urban		-722.9		774.6*
		(616.1)		(413.4)
(log) Square Miles		-4.272.0		$10.269.1^{*}$
( 3) - 1		(5.310.8)		(5.777.0)
Percent White		204.5		-626.8
		(768.7)		(712,7)
Fixed Effects	District	Member	District	Member
N	6 136	6 077	6 136	6 077
R <sup>2</sup>	0.4	0.5	0.6	0.7

Table 2: Allocations - Fixed Effects Models

\*p < .1; \*\*p < .05; \*\*\*p < .01

All variables are at the office-year level or district-year level. Some socio-economic indicators are only available every two years due to data avialability. All models include year fixed-effects. Even numbered columns also include district by redistricting period fixed effects, odd numbered columns include member fixed effects. All models report robust standard errors clustered at either the district or member.

securing their electoral fortunes and providing policy outputs for their constituents. If a district is systematically competitive or safe, as many are, this has clear implications for which districts are represented in the collective policy output of Congress.

How is it possible for members of Congress to spend simultaneously more on policy staff and constituency service staff? The answer is two-fold. First, members can spend their MRAs in other areas than personnel such as franked mail as Figure 1 shows. Little is known from existing work about how members strategically use their MRA and I explore this more below, finding a trade-off between personnel spending and franked mail spending. Second, newly elected members must staff an office which takes time. If a district has frequent turnover (such as those that are competitive), there will be on-average lower spending in personnel. I investigate this explanation in the next section, finding substantially less spending in personnel among newly elected members.

There is, however, some evidence of a policy/constituency service trade off in this set of results. When districts become more urban there is a corresponding increase in constituency service allocation.<sup>22</sup> A similar pattern is suggested when districts are redistricted to become larger. A likely explanation for these results is that legislators must invest in getting to know new constituents – to re-establish their electoral constituency (Fenno 1978).

There is some additional evidence that speaks to the benefits of committee and party leadership positions. Committee chairs, ranking members, and party leaders tend to spend substantially less on policy but more on constituency service. In other words, they benefit from their access to committee and party resources by supplementing their personal offices resources to help secure their electoral fortunes. This is likely another way that leadership has consolidated control over policy (Curry 2015; Sinclair 2016). These patterns from the cross-sectional regressions maintain with the within-member models – when members gain

<sup>22</sup>This is not uncommon in the data. For instance, in the reverse direction, in the PA-7th, the district went from 99% urban to 87% urban following the 2010 redistricting which corresponded with Rep. Meehan divesting in constituency service positions of power they invest in constituency service. It is possible, then, that constituents of these districts can benefit from policy representation through the member's position as a committee leader while simultaneously benefiting from greater spending on constituency service. This is likely due to substituting committee resources for personal staff resources.

The comparisons between the cross-sectional, within-district, and within-member results illustrates a key point from the basic argument: the allocations members make do not drastically change throughout their careers and districts are largely represented the same way when new members come into office (in the long run). Put differently, district characteristics determine resource allocations. The size of the cross-sectional results indicates that the biggest difference in representational patterns is across districts. When certain traits change in the district, such as its urban versus rural split, or the member's status, such as the member's prestige or opportunity for policy impact, there is a corresponding change to staffing patterns.

#### Implications of legislator turnover and competitiveness

In the final set of analyses, I test an implication from the collective results above. As suggested by the above regressions, members with longer tenure lengths invest more of their resources in policy and less in constituency service. These trends hold when using district fixed-effects, also suggesting that *districts* that maintain more senior members see the benefits of these staffing patterns in their policy representation in Congress. A logical implication, then, is that districts with frequent turnover in legislators – even if they are safe for one party – stand at a disadvantage in staffing. It takes time for newly elected members to fully staff up an office, often into the second year of a Congress.

I code three new dummy variables: New Member indicating whether the district is in the first year of representation by a new member; First Term Member indicating whether the member is in the first term, since some members are redistricted into new districts; and Member's Last Term indicating if the member is in their last term, since staff may leave offices when they know a member is on their way out. These determinations are made within district-redistricting period, so all observations within the first year of these periods (2001 and 2011) are dropped. Additionally, I interact New Member and First Term Member to separate whether the district is represented by a freshman or a member who has been redistricted into the district. All models include Congress and district fixed effects so observed and unobserved time-invariant district traits are held constant, estimating the changes to allocation based on the member representing the district. Table 3 presents these results.

	Policy Staff Salary	Const. Service Staff Salary	Total Policy Staff	Total Const. Serv. Staff
	(1)	(2)	(3)	(4)
New Member	$-52,366.2^{***}$	-20,128.6	$-0.8^{***}$	-0.1
	(16, 818.7)	(13, 466.8)	(0.2)	(0.2)
First Term Member	-13,019.7	$-25,\!114.3^{***}$	-0.1	-0.04
	(8,949.3)	(7,065.6)	(0.1)	(0.1)
New Member*First Term	-20,133.2	-8,364.8	-0.4	$-0.5^{*}$
	(19, 267.4)	(15,628.9)	(0.3)	(0.3)
Member's Last Term	$-49,666.7^{***}$	$-30,001.5^{***}$	$-0.5^{***}$	$-0.4^{***}$
	(9,909.4)	(9,690.5)	(0.1)	(0.2)
Tenure	3,800.8**	$-2,423.0^{*}$	-0.02	$-0.1^{***}$
	(1,742.4)	(1,321.3)	(0.02)	(0.03)
Competitiveness	$1,560.9^{*}$	-983.7	0.003	-0.03
	(835.0)	(917.8)	(0.01)	(0.02)
Competitiveness Sqrd	-10.1	40.4	-0.000	-0.000
	(34.0)	(40.1)	(0.000)	(0.001)
(log) Median Income	57,935.9*	8,727.3	$1.0^{**}$	-0.2
,	(32,248.8)	(37, 355.9)	(0.5)	(0.5)
Percent Urban	$-1,721.6^{**}$	1,161.0**	-0.02	0.02
	(808.6)	(547.8)	(0.01)	(0.01)
Ν	4,324	4,324	4,324	4,324
$\mathbb{R}^2$	0.5	0.7	0.5	0.7

Table 3: New Member in District

p < .1; \*\*p < .05; \*\*\*p < .01

All variables are at the office-year level or district-year level. All models include year and district by redistricting period fixed effects. Robust standard errors are clustered by district. Observations in the first year of a redistricting cycle have been dropped.

The evidence here shows that across the board new members in a district, regardless of their seniority, cut staffing allocations – however, senior members spend more on policy and less on constituency service relative to more junior members. Interestingly, there does not seem to be a significant interaction between whether the legislator newly representing a district is in their first term or more experienced – either way they decrease staffing allocations and the total staff assigned to both policy and constituency service roles. The same is true for members in their last term. To get a sense of magnitude of these changes, the typical year-over-year change in within-district policy spending is an increase of \$5,700 and \$2,300 in constituency service spending. There is over a 10-fold *decrease* relative to this baseline when a new member is elected to a district.

#### Analyzing the use of resources

Finally, I turn to one additional set of analyses in attempt to clarify a puzzle from above. Taking the results of Table 1 it is clear that there is no evidence of a trade off in policy versus constituency service predicted by district competitiveness. This is somewhat puzzling since members have finite budgets, and these results paint a picture of increasing spending in both categories when the district is safe, as shown in Figure 5. One explanation is that members do not use their resources in personnel and instead use them elsewhere when faced with a more competitive electoral environment.

To analyze this explanation, I run models of the form in Table 1 but with the outcomes as total expenditures in franked mail and total expenditures in personnel. Figures 6(a) and 6(b) graphically display the results from these regressions, presented in full in the appendix, across the range of competitiveness and congressional tenure. They suggest a straightforward story: members in more competitive environments substitute franked mail spending for personnel spending.<sup>23</sup> Additionally, more senior members spend less on franked mail and more on staff. The appendix also shows that constituency service spending is itself a substitute for franked mail – the more salary allocated towards constituency service, the less is spent on franked mail.

<sup>&</sup>lt;sup>23</sup>Peskowitz (2018) shows that members do in fact spend more on franked mail in competitive electoral environments; however, it has yet to be established that this is a substitute for personnel spending.



(a) Competitiveness and Policy Allocation

(b) Competitiveness and Constituency Service Allocation

Figure 5: The figure on the left plots the predicted values from Table 1 with policy salary as the outcome, and the figure on the right with constituency service allocation as the outcome.

## Discussion

Previous research clearly establishes the importance of staff in Congress and in legislative politics more broadly. More professional legislatures, a categorization which takes into account resources allocated to members for professional staff, are more productive (Squire and Hamm 2005), provide better checks against the executive branch (Bolton and Thrower 2016; Shair-Rosenfield and Stoyan 2017), and can affect a state's credit risk evaluation (Fortunato and Turner Forthcoming). In Congress, staff influence an office's effectiveness and policy agendas (Montgomery and Nyhan 2017), seek out and process information for entrepreneurial efforts (Malbin 1980; Whiteman 1995; Hertel-Fernandez, Mildenberger and Stokes 2018), and perform a bulk of the day-to-day representational activities of a congressional office (Hall 1996). Among available representational resources and sources of professionalization, staff are arguably the most important.

The results above demonstrate substantial heterogeneity in how legislators and districts use their staffing resource. In support of existing theories of legislator resource allocation I show that more electorally secure districts spend substantially more on policy – but they also spend more on constituency service. Using staff as a measure of a legislator's revealed preferences and priorities suggests important differences among electorally secure and com-



Figure 6: Each panel plots the distribution of high and low policy districts, as determined by whether a district spends greater (less) than one standard deviation above (below) the mean in policy staffing. The left plot shows this distribution over the urbanness of a district and the right plot over the median income of the district.

petitive districts. In addition, I show that districts with frequent turnover of legislators spend substantially less in personnel. In short, constituents from safe districts tend to be represented more in policymaking *and* constituency service, as measured by staffing allocations and human capital.

A feature unique to staffing and not other legislative resources, however, is the labor market and career concerns for staff. Districts and legislators that offer more opportunity for policy impact, through higher investment in policymaking, present better career building opportunities for staff. Thus, not only are these districts spending more in policymaking efforts, they may be at a significant disadvantage in their ability to attract experienced staff. Future work would benefit in examining how legislator styles and strategic choices in resource allocation affect their performance on the congressional labor market.

Finally, I find interesting and unexpected results related to legislators in positions of committee or party leadership. In contrast with expectations, districts represented by these leaders see a divestment in policy and a substantial increase in constituency service spending. The likely reason for this is that these legislators substitute committee and/or party resources for their personal staff. The implication from this result is that constituents in districts represented by these legislators also benefit from greater representation in policy and increased spending in constituency service.

## Conclusion

In Congress, one implication of the institutional design of providing large budgets to individual members has been diversity in legislator "styles" (Fenno 1978; Bernhard and Sulkin 2018). The collective impact of these styles, when aggregated to the entire legislature, is that some members asymmetrically impact collective representation from the legislative body as a whole (Grimmer 2013). Here, I have argued that variation in style as measured by resource use is a natural reflection of legislators responding to demands from constituents and to electoral pressures. Aligning with prior theory and evidence, the evidence in this paper suggests legislators allocate their finite and valuable personnel resources largely according to the idiosyncratic features of their districts and constituents.

The unique contribution of this paper is the finding that *certain* offices from specific types of districts are regularly investing more staff resources in policy or constituency service. In the aggregate, as shown above, wealthier urban districts have advantages in staffing. Given the importance of staff as a mechanism through which constituent preferences are converted to policy representation, these inequalities are important in shedding light onto why we see larger, systematic inequalities in the collective representation of Congress (Griffin and Flavin 2011; Ellis 2017; Miler 2018). Legislators that are in safe districts can potentially further magnify their advantage by gaining more prestigious positions and attracting better staff. Constituents in these districts receive more policymaking representation. It is possible then that the "rich" members in Congress – those in secure seats, with policy-oriented districts and institutional power – get richer because of staffing, and rich constituents benefit from more policy tailored to their ideal points for the same reasons.

Given scant research across longer time series in legislators' use of resources, how substantively large are these results?<sup>24</sup> Should we expect even larger differences across districts in use of staffing? Are these findings attenuated by risk averse legislators attempting to maximize their probability of re-election and over-investing in campaign-related roles (e.g., Jacobson 2010)? How much, then, are legislators responding to specific district demands? Should we expect a higher degree of responsiveness in allocations based on district demographics? Examining specific district-based allocations, such as the locations of district offices, would shed light onto these questions. If parties could optimally control staffing at the member-level, how different would it look from the current arrangement?

A logical implication from this paper, and a fertile area for future research, is directly examining staffing patterns and policy outcomes in Congress. Though previous research has clearly established staff matter in policymaking, little research has attempted to ex-

<sup>&</sup>lt;sup>24</sup>Though, see Crosson et al. (2019) for an important exception.

amine changes in staffing patterns on specific areas of legislator behavior. For instance, are legislators with more experienced staff better able to parse information, relying less on party-provided information, and thus behave in a more bipartisan manner? Do freshmen legislators with high visibility (e.g., Rep. Alexandra Ocasio-Cortez) attract different sorts of staff that then enable pursuits of different policy agendas? Recent research by Shepherd and You (2019) suggests one promising approach: examine the behavior of offices based on whether they send more or less staff into lobbying.

Though this paper does not exploit institutional variation because of the time frame studied (due to data availability), it does have implications for a broader comparative literature on legislative professionalism and institutional design. Congress is unique in the way it handles the allocation of resources to members relative to other advanced democracies. For instance, most European democracies allocate scarcely any resources to members for the purpose of policymaking (e.g., Hammond 1996; Pegan 2017). For those that do give money to members for staff oriented towards legislative activity, the resources are much lower than Congress and typically controlled explicitly by the party.<sup>25</sup> In Canada, the expansion of personal legislative staff has produced a debate over the appropriateness of individual MPs possessing too much independence from the party (Dickin 2016). Future research on legislative politics in the comparative literature and in the U.S. states will benefit from careful consideration of staffing schemes theoretically and empirically.

Finally, what are the policy implications of the results presented here? The Select Committee on Modernization is tackling important questions on reforming congressional capacity with a heavy focus on personnel. One of their conclusions is that members likely need larger representational allowances. What is unclear, however, is *how* members would spend more money. Is it necessarily true that we would see an increase in staff salaries? Or might members simply allocate more towards non-personnel uses? If they do spend more on personnel,

<sup>&</sup>lt;sup>25</sup>Additionally, some U.S. states allow parties the right to confirm staffing hiring decisions made by legislators (see Squire and Hamm 2005).

one outcome may be an exacerbation of the trends I document here: the rich continue to get richer and the members from competitive districts or poorer parts of the country continue to get outpaced in policy spending. These are important considerations for reformers to consider moving forward.

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## Appendix

### Data Description and Job Titles

As discussed in the paper, the congressional staff employment history dataset was acquired from the firm Legistorm. However, the basis for this dataset are publicly available reports released twice yearly, then quarterly (post-2007) by the House and Senate.<sup>26</sup> Only recently have these data been released as CSVs, with the majority of the data in the 2000s released as PDFs. Legistorm first converted the raw data into text and then undertook a substantial amount of cleaning and manual processing of the data.

As an example, in the raw data there are frequently inconsistencies from report to report with regard to a person's name or job title. In one report their name may be "Joseph M Smith" and the next "Joe Smith"; or their job title may be "Leg. Dir" in one and "Legislative Director" in the next. Legistorm unified these when possible and also manually checks individuals' names against other online sources (such as LinkedIn) to verify the fidelity of the automatic processing.

Beyond the data processing just outlined, Legistorm maintains the original structure of the raw data which was semesterly reports prior to 2008 and then quarterly reports thereafter. To process this data and get into a legislator-year level dataset I did the following. First, I removed all staffers from the dataset that held temporary positions or were interns. I then aggregated up each staffer's yearly salary by summing the total salary per calendar year as determined by the start and end date of the report (I then adjusted this for inflation to 2016 dollars). Next, I narrowed down the data to one observation per staffer per year, using the last report's information per staffer in a given year. For example, if there are four reports per staffer in one year, I take the information from the last report as that staffer's yearly information (with the exception of the already-aggregated salary). Finally, I coded

<sup>26</sup>For example: https://www.house.gov/the-house-explained/opengovernment/statement-of-disbursements/archive the staffer's position title into bins as outlined below. The omitted category from the below tables is a consolidation of junior, administrative and constituent service staff.

This process resulted in a dataset where each staffer has one observation per year. I then aggregated this dataset to get the member-level staffer traits that are described in detail in the paper, including the member's policy staff allocation and experience levels. This produced a member-year level dataset which was then merged to various existing datasets of member-level traits (committee assignments, individual characteristics, etc.). Summary statistics of the the variables and measures used in the paper are in Table 1.

Statistic	Ν	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Policy Staff Salary	6,162	431,283	141,930	0	347,773	512,558	1,897,729
Constituency Service Staff Salary	6,162	334,260	142,160	0	247,520	419,859	1,262,334
Total Policy Staff	6,162	6	1.9	0	5	7	27
Constituency Service Salary Ratio	6,162	0.3	0.1	0.0	0.2	0.4	0.9
District Median Income	6,162	$51,\!137$	13,980	20,451	41,441	58,289	113,376
Percent Urban	6,103	79.7	19.7	21.2	65.0	98.6	100.0
(log) District Sq. Miles	6,162	7.4	2.0	-1.9	5.9	8.9	14.5
Percent White	6,162	65.4	23.0	2.2	52.6	83.8	97.1
Cook-PVI	6,154	10.0	9.9	-27.0	4.0	15.0	44.0
Tenure	6,162	5.8	4.3	1	2	8	30
Majority	6,162	0.5	0.5	0	0	1	1
Committee Chair	6,162	0.05	0.2	0	0	0	1
Committee Ranking Member	6,162	0.05	0.2	0	0	0	1
Party Leader	6,162	0.01	0.1	0	0	0	1
1st-dim. DW-NOM	6,144	0.1	0.5	-0.8	-0.4	0.6	1.4

Appendix Table 1: Summary Statistics

### Job Title Coding

The decisions on how to code staff positions in this paper are largely based on the processes described in Montgomery and Nyhan (2017), Cain and Drutman (2014), McCrain (2018), and Madonna and Ostrander (N.d.).<sup>27</sup> Fortunately, this process was made easier

<sup>27</sup>This process is based on the delineation of job titles to tasks laid out by the Congressional Research Service (Petersen 2011). Petersen notes, however, there is some heterogeneity within an office based on the tasks staff are assigned as it relates to their job titles. This should produce noise in the estimates, and will be accounted for in models with member fixed effects. because of the extensive cleaning of the data done by Legistorm. For instance, in the raw data a Legislative Director may be: Legis. Director, Leg. Director, Leg. Dir. or any other possible variation. Legistorm cleans most possible variations and assigns them the proper title. Table 2 below detail the list of job titles which were combined to form the designation "policy staff" as employed in the paper. Table 3 and 4 list constituency service and district job titles, respectively, which were combined into the constituency service job title measure in the paper.

Appendix Table 2: Policy Staff Position Titles

Chief of Staff\* Legislative Director Legislative Correspondent Legislative Assistant\*\* Legislative Aide\*\* Legislative Coordinator Legislative Adviser Policy Analyst Policy Adviser\*\* Senior Adviser\*\* Policy Aide Policy Director Director of Policy Policy Coordinator Counsel Policy Specialist **Research** Assistant Policy Analyst Fellow\*\* Law Clerk **Research** Director Legislative Research Assistant Legislative Clerk Legislative Analyst U.S. Senate Aide National Security Adviser Special Adviser Appropriations Associate Legislative Associate Senior Legislative Associate Legal Fellow Transition Aide Appropriations Director Adviser Legislative Liaison

\*anything containing "Chief of Staff" and not "assistant to" \*anything containing

 $District^{**}$  $Constituent^{**}$ Casework\*\* Mail\*\* State\*\* North / South / East / West\*\* Any state name\*\* Community\*\* Field Representative Regional\*\* County\*\* **Outreach** Coordinator Special Projects Coordinator Field Director Grants Coordinator **Director of Operations Outreach** Director **Projects Director** Field Deputy Area Representative Field Assistant Staff Director Outreach Representative Case Manager Congressional Liaison Director of Outreach **Deputy Director** Economic Development Director Federal Liaison **Projects Specialist** Area Director Director of Economic Development Case Assistant **Project Director Operations Director Projects Coordinator** Economic Development Specialist Special Projects Project Manager Field Coordinator Field Office Manager Director of Intergovernmental Affairs **Outreach** Assistant Project Coordinator Military Liaison **Projects Manager** Senior Field Deputy Economic Development Representative **Project Specialist** Veterans Liaison Congressional Assistant

Appendix Table 3: Constituency Service Staff Positions

\*\*anything containing

### Appendix Table 4: District Staff Positions

Special Projects Coordinator Field Director Director of Operations Outreach Director Projects Director Field Deputy\*\* Area Representative Field Assistant\*\* Staff Director Outreach Representative Director of Outreach Deputy Director Projects Specialist Area Director Operations Director

\*\*anything containing

### Additional Descriptives and Results

This section visualizes bivariate correlations and other descriptive statistics relevant to the main results of the paper. Figure 1 shows the over time trends in aggregate office spending on personnel as well as the total MRA allocations given to members. In Figure 2 we see a positive correlation between mean district income and how much a given district spends on policy salary. This figure displays one observation per district, showing that within a district on average, there is a positive correlation across the sample between income and salary investment, regardless of who is representing the district. Figure 3 plots the correlation between district income and the urbanness of a district.

Figures 4 and 5 display the correlation between district income and percent urban and government entitlement spending, measured as low-variance spending from Berry and Fowler (2015). These figures support the idea that wealthier and more urban districts place fewer demands on congressional offices for assistance with government programs. Thus, in the reverse direction, offices in poorer and more rural districts must face higher demand from constituents and allocate more resources to constituency service.

Finally, Figures 6 and 7 show the density of standard deviations of policy spending within an office. The left panel in Figure 6 shows the standard deviation of total amount of salary spent on policy and the right panel shows the ratio of total salaries allocated that go to policy. These standard deviations are fairly concentrated and relatively low, suggesting again that once offices make their initial allocation decisions they tend not to change much. Similarly, Figure 7 shows a very high correlation between an office's salary allocation in time t with time t + 1 (in this case, years), again showing path dependence in allocation choices over time.

Table 5 plots results using policy staff ratios and constituency service staff ratios in the fixed effects specifications presented in the main paper. We see broadly the same patterns using ratios as overall salary expenditures, with the notable difference being district competitiveness. Importantly, though, these results show further evidence that within district



Appendix Figure 1: Aggregate Staff Spending and MRA Totals

This figure plots the average total salary spent on staffing per office over time as well as the total MRA allocation. Note that members are only permitted to spend a portion of their MRA on personnel.

and member, initial staffing allocations are unlikely to change.

Table 6 displays the same results as Table 1 in the manuscript, however the functional form of district competitiveness is allowed to vary. Consistent with previous theoretical work, these results show different expenditure regimes depending on extremes in district competitiveness. However, the extremes should not be taken too literally given relatively few observations. Interestingly, there appears to be a non-monotonic relationship in policy and constituency service allocation in especially safe districts. Figure 8 plots the predicted values from these regressions.

In Table 7 I plot the same models as Table 1 in the manuscript, but include an interaction between median income and percent urban. This accounts for the fact that, although there is a strong positive correlation between income and urbanness, some urban districts may be poor and drive heterogeneity in the results. To ease interpretation, Figure 9 plots the predictions from this interaction and the 33rd, 66th and 99th percentiles of district urbanness.



Appendix Figure 2: District Income and Policy Staff Allocation

This figure plots the mean district income (across the whole sample) against the mean policy staff allocation within the district, averaged across all members representing that district in the sample.



Appendix Figure 3: Urbanness and District Income

This figure plots the mean district income on the y axis and mean percent urban on the x axis.

	Policy St	aff Salary		Const. Service Staff Salary		
	(1)	(2)	(3)	(4)		
Competitiveness	-0.001	-0.000	-0.001	0.001		
	(0.000)	(0.001)	(0.001)	(0.001)		
Tenure	$-0.002^{*}$	0.04	$-0.01^{***}$	-0.003		
	(0.001)	(0.04)	(0.001)	(0.03)		
Majority	-0.003	$-0.01^{**}$	$-0.01^{**}$	$-0.01^{***}$		
	(0.004)	(0.004)	(0.004)	(0.003)		
Cmte. Chair	$-0.1^{***}$	$-0.1^{***}$	$-0.03^{**}$	-0.01		
	(0.01)	(0.01)	(0.01)	(0.01)		
Cmte. Ranking Member	$-0.1^{***}$	$-0.1^{***}$	$-0.03^{**}$	-0.01		
	(0.01)	(0.01)	(0.01)	(0.01)		
Party Leader	-0.04	$-0.1^{*}$	0.001	0.02		
	(0.03)	(0.03)	(0.03)	(0.02)		
Ideological Extremity	$0.1^{***}$	-0.1	-0.02	0.000		
	(0.02)	(0.1)	(0.02)	(0.1)		
(log) Median Income		0.02		0.04		
		(0.04)		(0.03)		
Percent Urban		-0.000		$0.001^{*}$		
		(0.000)		(0.000)		
(log) Square Miles		-0.01		0.01		
		(0.004)		(0.004)		
Percent White		0.000		-0.000		
		(0.001)		(0.001)		
Fixed Effects	District	Member	District	Member		
Ν	$6,\!136$	6,077	6,136	6,077		
$\mathbb{R}^2$	0.5	0.6	0.6	0.7		

### Appendix Table 5: Salary Ratios - Fixed Effects Models

\*p < .1; \*\*p < .05; \*\*\*p < .01

The outcome variable is the ratio of salary allocated towards policy or constituency service out of the total salary allocated. All variables are at the office-year level or district-year level. Some socioeconomic indicators are only available every two years due to data avialability. All models include Congress fixed-effects. Even numbered columns also include district by redistricting period fixed effects, odd numbered columns include member fixed effects. All models report robust standard errors clustered at either the district or member.

	Policy S	taff Salary	Const. S	ervice Staff Salary
	(1)	(2)	(3)	(4)
(log) Median Income	48,097.4***	42,665.4***	3,030.3	3,126.7
	(9,553.0)	(9,467.6)	(9,217.5)	(9,014.8)
Percent Urban	1,011.3***	1,039.1***	$-786.1^{***}$	$-625.3^{***}$
	(159.5)	(155.4)	(176.8)	(170.3)
(log) Square Miles	$3,304.5^{**}$	$3,825.7^{**}$	829.5	3,036.5**
	(1,457.5)	(1,503.5)	(1, 434.6)	(1,450.8)
Percent White	415.3***	401.1***	$-500.4^{***}$	$-256.6^{**}$
	(114.0)	(116.0)	(125.0)	(123.0)
Competitiveness	$1,859.5^{***}$	1,801.6***	529.6	1,824.8***
-	(316.5)	(358.1)	(367.4)	(393.8)
Competitiveness Squared	16.2	17.3	80.2***	$51.4*^{-1}$
	(25.1)	(25.0)	(29.9)	(28.9)
Competitiveness Cubed	$-1.2^{*}$	$-1.4^{**}$	-3.3***	-3.1***
-	(0.7)	(0.7)	(0.7)	(0.7)
Tenure		$2,977.2^{***}$	· · ·	-567.9
		(514.1)		(473.9)
Majority		-3,248.0		$-11,268.5^{***}$
		(3,726.1)		(3,942.4)
Cmte. Chair		-8,062.6		$18,000.3^{*}$
		(10,611.3)		(10, 159.6)
Cmte. Ranking Member		$-29,205.6^{***}$		8,721.7
e		(11,029.5)		(10,991.5)
Party Leader		20,613.5		91,417.6***
•		(21,793.5)		(26, 547.2)
Ideological Extremity		5,974.7		$-72,948.3^{***}$
<u> </u>		(10,036.2)		(9,798.1)
Ν	6,095	6,077	6,095	6,077
$\mathbb{R}^2$	0.1	0.1	0.03	0.05

### Appendix Table 6: Salary Models - Competitiveness Robustness

 $^*p$  < .1;  $^{**}p$  < .05;  $^{***}p$  < .01 All variables are at the office-year level or district-year level. Some socio-economic indicators are only available every two years due to data avialability. All models include Congress fixed-effects and report robust standard errors.



Appendix Figure 4: District Income and Entitlement Spending

This figure plots the correlation between a district's median income and how much money is spent on government entitlement programs.

Generally, the same relationship maintains from the results without the interaction. However, we do see in constituency service allocation that wealthier, rural districts allocate much less to constituency service relative to wealthier, urban districts.

Table 8 displays the base models from Table 1 in the manuscript using salary ratios rather than aggregate salary spending or total staff as the outcome. Policy Staff Salary Ratio is the ratio of policy spending to all staff spending, and Constituency Service Staff Salary Ratio is the ratio of constituency service spending to all staff spending. Finally, Policy / Const. Service Salary is a direct comparison between the two spending categories. So larger numbers for this dependent variable indicate more policy spending relative to constituency service spending. These results demonstrate the same patterns as the primary results.

Figure 10 displays the correlation between franked mail expenditures and constituency service salary allocation. This correlation suggests that constituency service spending and franked mail spending are substitutes, as discussed in the main text. Table 9 shows regres-



Appendix Figure 5: District Percent Urban and Entitlement Spending

This figure plots the correlation between a district's percent urbanness and how much money is spent on government entitlement programs.



Appendix Figure 6: Within Office Standard Deviations in Allocation



Appendix Figure 7: Allocation Correlations



Appendix Figure 8: Predicted Values Across Competitiveness Each figure plots the predicted results from the coefficients on district competitiveness in Table 6.

	Policy Staff Salary	Const. Service Staff Salary
	(1)	(2)
(log) Median Income	119,059.9***	$-274,229.3^{***}$
	(35,927.0)	(38,770.1)
Percent Urban	9,658.2**	$-34,666.9^{***}$
	(4,201.9)	(4,527.1)
Perc Urban $\times$ Income	4,730.7***	7,106.3***
	(1,470.4)	(1,380.9)
(log) Square Miles	404.0***	-140.2
	(116.1)	(120.8)
Percent White	$1,132.3^{***}$	914.2***
	(232.8)	(232.5)
Competitiveness	2,984.2***	$-833.4^{*}$
	(513.3)	(478.5)
Tenure	-3,987.9	$-13,069.0^{***}$
	(3,723.3)	(3,933.7)
Majority	-8,655.4	16,359.5
	(10,569.5)	(10,066.7)
Cmte. Chair	$-29,070.2^{***}$	6,998.6
	(11,012.6)	(10,889.6)
Cmte. Ranking Member	19,111.1	93,008.8***
	(21,736.2)	(25,823.8)
Party Leader	9,367.0	$-57,368.7^{***}$
	(9,758.8)	(9,590.9)
Ideological Extremity	$-806.4^{**}$	$3,215.3^{***}$
	(395.4)	(424.0)
Ν	6,077	6,077
$\frac{R^2}{}$	0.1	0.05

### Appendix Table 7: Salary Models - Interaction

p < .1; p < .05; p < .01

All variables are at the office-year level or district-year level. Some socio-economic indicators are only available every two years due to data avialability. All models include Congress fixed-effects and report robust standard errors.



Appendix Figure 9: Urban / Income Interaction

These figures plot the predictions from the main specifications, however including an interaction between percent urban and district median income.

	Policy Sal	ary Ratio	Const. Service	Salary Ratio		Policy / Const. Service Salary	
	(1)	(2)	(3)	(4)	(5)	(9)	
(log) Median Income	$0.03^{***}$	$0.03^{***}$	-0.002	0.01	0.01	-0.1	
ì	(0.01)	(0.01)	(0.01)	(0.01)	(0.1)	(0.1)	
Percent Urban	$0.001^{***}$	$0.001^{***}$	$-0.001^{***}$	$-0.001^{***}$	$0.004^{**}$	$0.004^{**}$	
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.002)	(0.002)	
(log) Square Miles	$0.003^{***}$	0.0005	$0.002^{*}$	$0.002^{*}$	$-0.03^{**}$	$-0.03^{**}$	
	(0.001)	(0.001)	(0.001)	(0.001)	(0.01)	(0.01)	
Percent White	$0.0004^{***}$	$0.0003^{***}$	$-0.0003^{***}$	$-0.0002^{**}$	$0.004^{***}$	$0.003^{**}$	
	(0.0001)	(0.0001)	(0.0001)	(0.001)	(0.001)	(0.001)	
Competitiveness	$-0.001^{***}$	$-0.001^{***}$	$-0.001^{***}$	$-0.001^{***}$	$0.01^{***}$	0.002	
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.002)	(0.002)	
Tenure		$-0.003^{***}$		$-0.01^{***}$		$0.1^{***}$	
		(0.0004)		(0.0004)		(0.01)	
Majority		-0.005*		$-0.01^{***}$		-0.04	
		(0.003)		(0.003)		(0.04)	
Cmte. Chair		$-0.1^{***}$		$-0.03^{***}$		$-0.2^{**}$	
		(0.01)		(0.01)		(0.1)	
Cmte. Ranking Member		$-0.1^{***}$		$-0.02^{**}$		-0.2	
		(0.01)		(0.01)		(0.2)	
Party Leader		$-0.1^{***}$		0.004		0.2	
		(0.01)		(0.02)		(0.5)	
Ideological Extremity		$0.03^{***}$		$-0.04^{***}$		0.0***	
		(0.01)		(0.01)		(0.1)	
Z	6,095	6,077	6,095	6,077	6,020	6,008	
$\mathbb{R}^2$	0.04	0.1	0.04	0.1	0.01	0.03	
p < .1; *p < .05; **p < .05; **p < .05	< .01						

Appendix Table 8: Salary Ratio Robustness

All variables are at the office-year level or district-year level. Some socio-economic indicators are only available every two years due to data avialability. All models include Congress fixed-effects and report district clustered standard errors.



Appendix Figure 10: Franked Mail and Constituency Service

This figure plots the empirical correlation between franked mail expenditures and constituency service salary allocations.

sions used to create Figure 6 in the manuscript. These results show that safer districts spend less on franked mail and more on personnel. Additionally, more senior members spend less on franked mail and more on personnel.

	Personnel 1	Expenditures	Franked Ma	il Expenditures
	(1)	(2)	(3)	(4)
(log) Median Income	4,032.6	34,272.3	$14,824.5^{***}$	-18,134.9
	(14,736.7)	(51,877.7)	(3,981.3)	(11.769.4)
Percent Urban	182.0 (314.5)	1,105.7 (1,072.1)	$202.5^{**}$ (80.0)	111.3 (259.2)
(log) Square Miles	2,201.4	$19,294.3^{**}$	-276.5	-519.8
	(2,849.9)	(9,289.9)	(628.1)	(1,989.4)
Percent White	$475.2^{**}$	706.5	0.5	183.6
	(194.4)	(706.8)	(50.7)	(204.2)
Competitiveness	$3,387.6^{***}$	$5,853.4^{***}$	$-1,517.2^{***}$	$-683.2^{*}$
	(685.0)	(2,207.5)	(212.2)	(394.7)
Competitiveness Squared	-25.9 (20.8)	-80.3 (64.0)	$19.3^{***}$ (6.2)	13.4 (12.0)
Tenure	$7,722.4^{***}$	$9,370.1^{***}$	$-1,657.7^{***}$	$-1,697.2^{***}$
	(819.3)	(2,184.6)	(209.4)	(356.7)
Majority	-12,371.7	-15,823.0	$11,161.5^{***}$	$28,649.2^{***}$
	(8,469.7)	(47,130.1)	(2,345.1)	(6,811.4)
Cmte. Chair	16,977.3	21,654.1	-3,364.6	(-5,443.5)
	(19.639.4)	(32,776.9)	(3.537.9)	(7,555.0)
Cmte. Ranking Member	-19,292.4	-42,400.0	$7,334.8^{**}$	4,614.5
	(16,956.9)	(39,813.2)	(3.671.6)	(7.531.3)
Party Leader	993.9	38,222.5	$-15,643.6^{***}$	-9,562.9
	(14,849.1)	(95,406.9)	(3,916.4)	(9,697.2)
Ideological Extremity	$-100,391.9^{***}$	-141,605.0	5,401.5	-11,660.5
	(18,291.1)	(94,669.3)	(5,323.3)	(14,275.2)
Fixed Effects:	Year	Year + District	Year	Year + District
N R <sup>2</sup>	$\begin{array}{c} 2,193 \\ 0.2 \end{array}$	$\begin{array}{c} 2,193 \\ 0.6 \end{array}$	$\begin{array}{c} 2,193 \\ 0.3 \end{array}$	$\substack{2,193\\0.8}$

### Appendix Table 9: Use of MRA Resources

 $^*p<.1;$   $^{**}p<.05;$   $^{***}p<.01$  All variables are at the office-year. Some socio-economic indicators are only available every two years due to data avialability. All models include year fixed-effects and report robust standard errors.