

Congressional Staff and Effective Legislating in the House of Representatives

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Abstract

Existing studies of legislative entrepreneurship and effectiveness largely “black box” the role of the thousands of congressional staff working behind the scenes in Congress. Journalistic and qualitative accounts of Congress, however, assign significant importance to staff in the day-to-day functioning of the lawmaking process. Employing a comprehensive dataset of congressional staff employment histories matched to a variety of legislative outcomes, this paper analyzes how staff impact a legislator’s ability to be effective. Using a within-member design that exploits variation in experience levels within a legislator’s staff over time, the results suggest members with more experienced staff produce more bills and more important legislation, and see their legislation progress further in the policymaking process. These findings contribute to our understanding of policymaking in Congress and have important implications for bolstering congressional capacity.

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1 Introduction

Behind the scenes in Congress are thousands of staffers, often working long hours for low pay and little public recognition of their efforts. A large research agenda in political science has studied these public employees through interviews and case studies and concluded they are political professionals with unique skillsets, and they often possess substantial independence in the halls of Congress (e.g., Price, 1971; Salisbury and Shepsle, 1981; Romzek and Utter, 1997). With few exceptions (Montgomery and Nyhan, 2017), we have little understanding of the precise impact of staff on the legislative process. The majority of literature on variation in legislative productivity, for example, “black boxes” congressional staff to focus on legislators as individuals (e.g., Mayhew, 1974; Wawro, 2001).

This gap in our understanding of Congress is especially salient in the current environment. All evidence points to these staffers as central to the functioning of Congress, as members themselves readily admit. Yet, the research and journalistic accounts that focus on staff have found important – and worrying – trends related to Capitol Hill staff. LaPira and Thomas (2017), for instance, document a decline in resources for staff and internal support agencies combined with increased demand in the lobbying industry for individuals with government experience (e.g., Blanes i Vidal, Draca and Fons-Rosen, 2012; McCrain, N.d.). The evidence suggests there may be legitimate cause for concern in Congress’ ability to perform its constitutionally mandated tasks, and that the root of these problems is the difficulty in retaining and developing staff. Representative democracy relies on legislators possessing expertise and willingness to respond to constituent demands. With more constraints than ever on a legislator’s time, and fewer internal resources available for expert assistance, staff are taking on increasing responsibilities (Grim and Siddiqui, 2013).

Since the majority of scholarship on congressional policymaking focuses on the legislators themselves, assuming away the complex and important role of staff behind the scenes, we have little understanding of the large-scale impact of staff in this process outside of interviews and case studies. In what follows, I develop a framework for thinking about policymaking

that centers on the distinct avenues through which staff can affect legislator behavior and legislative effectiveness. Heterogeneity among members' staff experience, both across members and within an office over time, provides empirical leverage for assessing staff's role in the legislative process. I employ an empirical strategy that looks at variation in staff experience within members, allowing me to assess an individual legislator's change in effectiveness as a product of variation in their staff.

This paper opens the black box, taking advantage of a comprehensive dataset of congressional staffers' career history from 2000-2016 matched to various datasets of legislative activity. This detailed empirical analysis of congressional staff's role in policymaking directly contributes to recent work on legislative effectiveness and congressional productivity (e.g., Wawro, 2001; Volden and Wiseman, 2014; Curry, 2015). The argument and findings presented here suggest staff are instrumental in a legislator's success at producing legislation, determining the legislation's quality and success, and influencing the overall effectiveness of the legislator. This research also highlights the need for policymakers to focus on reforming congressional capacity and bolstering the resources available to members and their staff.

To proceed, I first discuss extant literature on legislative effectiveness and productivity and then tie it into research on congressional staff and policymaking in Congress. I argue that staff are both understudied in political science and provide a furtive avenue for empirical research into the mechanisms of effective lawmaking. I then discuss the data and measures used to analyze congressional staff and their impact on the policy process in the House of Representatives. I conclude by presenting robustness checks and addressing some plausible alternative explanations of the findings and considering the contribution of this work for both policymakers and scholars of Congress.

2 Policymaking in Congress and the Role of Staff

Policymaking in Congress is complex and only getting more difficult as members must increasingly rely on their own staff (e.g., Ehrenfreund, 2017; LaPira and Thomas, 2017). Yet, little research exists on the specific effects of staff in policymaking. Furthermore, recent research on Congress has found power becoming concentrated in leadership in the modern era (Volden and Wiseman, 2014; Curry, 2015; Sinclair, 2016). The ability of rank-and-file members to be productive legislators hinges largely on their own initiative and staff. Here, I argue that staff are understudied in the Congress literature, especially in large-scale empirical settings, and that the the changing policy process in Congress increases the salience of focusing on staff.

2.1 Legislative Effectiveness and Productivity

The subject of the majority of existing work on a member’s ability to effectively produce policy has almost solely been on the expertise and capacity possessed by committees and committee staffs. Historically, the focus on committees and their capacity was sensible. Committees received large appropriations to hire and retain professional staff that were then able to cultivate expertise (Gilligan and Krehbiel, 1987; Hirsch and Shotts, 2012).

In the modern era, the emphasis on committees in this context is less clear as much of the burden of policymaking has shifted to individual legislators. After the reforms implemented during the speakership of Newt Gingrich, the number of committee staff in the House dropped from a high of 2,233 in 1992 to a low of 1,262 in 2014.¹ According to Curry (2015), this substantial decline in capacity at the committee level has resulted in rank-and-file members possessing little information about policy proposals.

Since 2000, there has also been a slow decline in the average number of staffers per office (Figure 1). Not only do members have drastically fewer committee staff resources

¹Adler and Wilkerson (2013) claim that Congress “lobotomized” its own capacity through cuts to committee staff and other internal support agencies (p.59). See Clarke (N.d.) for more on cuts to internal support agencies and Mills and Selin (2017) on efforts by committees to bolster missing capacity.

available to them, their personal staff are smaller and increasingly underpaid while the members themselves are devoting more of their time to fundraising than ever (Grim and Siddiqui, 2013). Nonetheless, some members remain more “effective” or “entrepreneurial” than others in the legislative process, even controlling for positions of institutional power and previous legislative experience. Following Hall (1998), Wawro (2001) argues that not all members are equally productive, and some choose to “invest time, staff, and other resources” into crafting policy and becoming effective political entrepreneurs, while others free ride on the entrepreneurial efforts of their colleagues. Wawro concludes that the career concerns of the members, and the availability of institutional incentives that serve as rewards for entrepreneurial activity, are most correlated with whether a member chooses to make this investment. Volden and Wiseman (2014, 21) similarly define legislative effectiveness as “the proven ability to advance a member’s agenda items through the legislative process and into law.” However, as in Wawro (2001), staff are not included within the framework of effectiveness.² The consideration of staff in this context is important: as previous research has suggested (discussed below), staff affect both a legislator’s ability to be effective and their choice to engage in certain legislative activities.

Extant research, then, has established that heterogeneity exists in legislative productivity and that certain members, conditional on their own ability and/or their institutional position and despite diminished congressional capacity, are more effective at creating policy or achieving certain legislative outcomes. Moreover, this research has often conceptualized this heterogeneity as a choice of the legislator; either the legislator chooses to engage in producing policy or they do not. A more realistic interpretation, I argue, is that many legislators are *constrained* in this choice due to lack of experienced staff. Little empirical work has opened the black box surrounding individual legislators and analyzed how staff impact legislative effectiveness – a salient question given stylized facts about diminished capacity in Congress and the variation among legislators in entrepreneurial ability. While the majority of the

²Volden and Wiseman (2014, 19) consider staff insofar as whether the member has “administrative effectiveness” and an ability to manage staff, though they do not measure this.

previously mentioned empirical research on legislative productivity in Congress focuses on the legislator themselves, a large body of research suggests a member’s staff is pivotal in either facilitating or constraining this ability.

2.2 Congressional Staff

In gaining empirical and theoretical tractability, the existing research on variation in legislative productivity largely conceptualizes legislators as individuals, not the “head of an enterprise” of an organization of staffers (Salisbury and Shepsle, 1981, 559). Despite the focus of an older literature that found that a member’s personal staff has substantial importance and independence in the policymaking process (e.g., Price, 1971; Fox and Hammond, 1977; Malbin, 1980; Salisbury and Shepsle, 1981; Hall, 1998), scant recent scholarship has examined the empirical impact on staff in Congress. Opening the “black box” surrounding staff generates clear, testable empirical implications in how they affect legislator behavior.

To understand staff’s role in Congress as it relates to legislative productivity, it is first necessary to consider the demands placed on a congressional office. Beyond the constituent service tasks, such as casework, meeting with constituents, and managing correspondence, the office monitors legislative activity, prepares for committee hearings and markups, crafts new policy, and decides how to vote on complex legislation, often with little time for deliberation. Moreover, the complexity of the policy a legislator is asked to consider has increased significantly overtime. In the 80th Congress, bills averaged 2.5 pages. By the 109th Congress, the average length increased to more than 15 pages (Curry, 2015).³ The member herself is not capable of performing a fraction of these tasks – especially with the demands of fundraising – and turns to her staff (Whiteman, 1995; Leal and Hess, 2004).⁴

Added to a member’s responsibilities is managing an entire office, which can be as small as 10 in the House to over 100 in the Senate (see Figure 1 for staff levels in the House, which

³Similarly, Ornstein, Mann and Malbin (2009) reports that the *Federal Register* increased in length by more than 500 percent over the same period.

⁴Hall (1998, 23) quotes one representative: “I feel like I’m spread thin all the time. There’s never any time to read or think and issue through.”

is the focus of this paper). Effective legislators must balance this responsibility with the other demands on their time. Salisbury and Shepsle (1981, 395) states the most accurate conceptualization of Congress, then, is not a “nominally atomistic legislature of 535 individuals” but an “industry” of thousands of “political firms”. Anecdotal evidence suggests some members struggle in the management role, resulting in toxic workplaces.⁵ Further, accounts of the actual day-to-day job of being a congressional staffer suggest it has gotten worse in recent years. For instance, before retiring Rep. Nick Rahall entered a statement into the Congressional Record praising his staff for sacrificing “higher paying jobs in the private sector, and precious time with their family and friends” while possessing “selfless willingness to stand silently as their jobs and benefits are slashed in some ill-conceived sacrificial exercise” (Congressional Record (2014); see also Cain and Drutman (2014)).⁶

Nonetheless, ample evidence suggests members must rely heavily on their staff; for instance, a 1992 Library of Congress report states that “virtually nothing is done in Congress so exclusively by members of Congress themselves that staff have no impact on the outcome” (Rundquist, Schneider and Pauls, 1992). A common view is that staff are political professionals who provide policy expertise and institutional memory while possessing “substantial but qualified” autonomy within Congress (Price, 1971; Romzek and Utter, 1997). Some research finds that because of members’ dependence on staff, staff are able to exert a significant influence on the actions of their boss (e.g., Price, 1971; Hall, 1998). Montgomery and Nyhan (2017) find evidence of the influence of staffers on their bosses’ legislative activity through the networks created by senior and policy staff who move offices. Others have worried that staff have too much influence and agency (e.g., DeGregorio, 1988; Malbin, 1980).⁷ DeGregorio (1995) finds through interviews that because of the influence of staffers, members are hesitant to delegate important tasks to anyone but their most loyal staff. Curry (2015)

⁵For example, Representatives Sheila Jackson-Lee (Strong, 2011), Joe Sestak (Madrak, 2009) and most recently Tim Murphy (Bade, Sherman and Bresnahan, 2017) were common subjects of journalistic accounts on terrible workplace environments (see also Gale, 2015, on “The difficult bosses of Capitol Hill”).

⁶The benefits in this quote is likely referencing multiple threats of cutting congressional staffers’ access to health insurance (Lesniewski, 2017).

⁷Malbin (1980) goes so far as calling staff “Unelected representatives.”

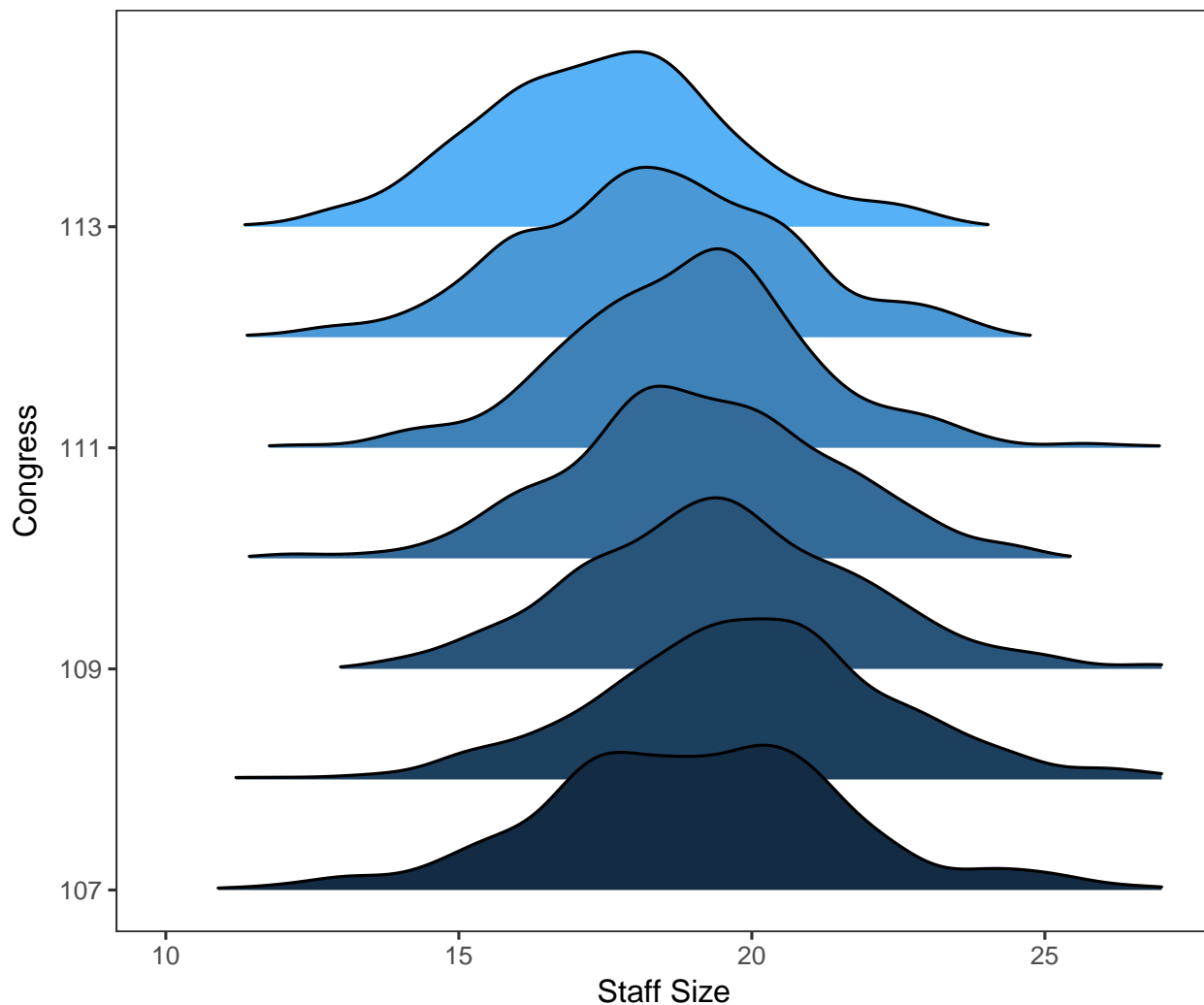


Figure 1: Number of Staff per Office

This figure plots the number of congressional staff per House office during the 107th through 113th Congresses. It shows that a) the number of staffers per office has, on average, decreased over time and b) there is not a very large variation in the number of staffers per office. In the online appendix I show there is limited variation by party in staff size overtime.

argues that in modern Congresses reliance on staff has increased as the leadership provides less information about policy as it is being formed (they legislate “in the dark”) and, as a result, time to consider legislation is shorter than ever.

The demands on both members and staff has increased in recent years due to the previously discussed cuts to Congress’ internal resources (and a lack of increase in staffer pay). The result is an increasingly complex policy environment thrust on fewer and fewer staffers who work in an institution with record low levels of public trust. Survey evidence suggests work-life balance is a particular source of frustration among congressional staffers.⁸ Some staff choose to work on Capitol Hill and are willing to withstand these suboptimal conditions out of a “public service motivation ” (e.g., Perry and Wise, 1990; Romzek and Utter, 1997; Congressional Management Foundation, 2012). However, research has argued that precisely because of members substantial reliance on staff, staff gain valuable experience and connections which are rewarded in the lobbying industry. As a result, staff likely remain on the Hill to maximize their earning potential. The “credentialing experience” of working on Capitol Hill described by Salisbury and Shepsle (1981) seems to be more valuable than ever in the private sector (e.g., Blanes i Vidal, Draca and Fons-Rosen, 2012; Cain and Drutman, 2014; McCrain, N.d.).

The result of the interaction between staff incentives and the value of Capitol Hill experience with the institutional constraints on salary levels is substantial variation within and among offices in the number of staff and the experience they possess (Figure 1A). The salary constraint is frequently binding for House offices because they cannot create a new position for a deserving staffer – a staffer is often better served leaving for a new office if she wishes to move up.⁹ Offices are then faced with a problem: how do they encourage staff to invest in expertise and retain them once they do? Moreover, unlike federal bureaucrats, there are

⁸<http://www.congressfoundation.org/projects/life-in-congress/aligning-work-and-life-in-the-us-house-and-senate>

⁹A recent survey by the Congressional Management Foundation (2012) found that a majority of staff cite salary as a reason for leaving their current office, and 45% cite compensation as a reason to leave the Hill entirely.

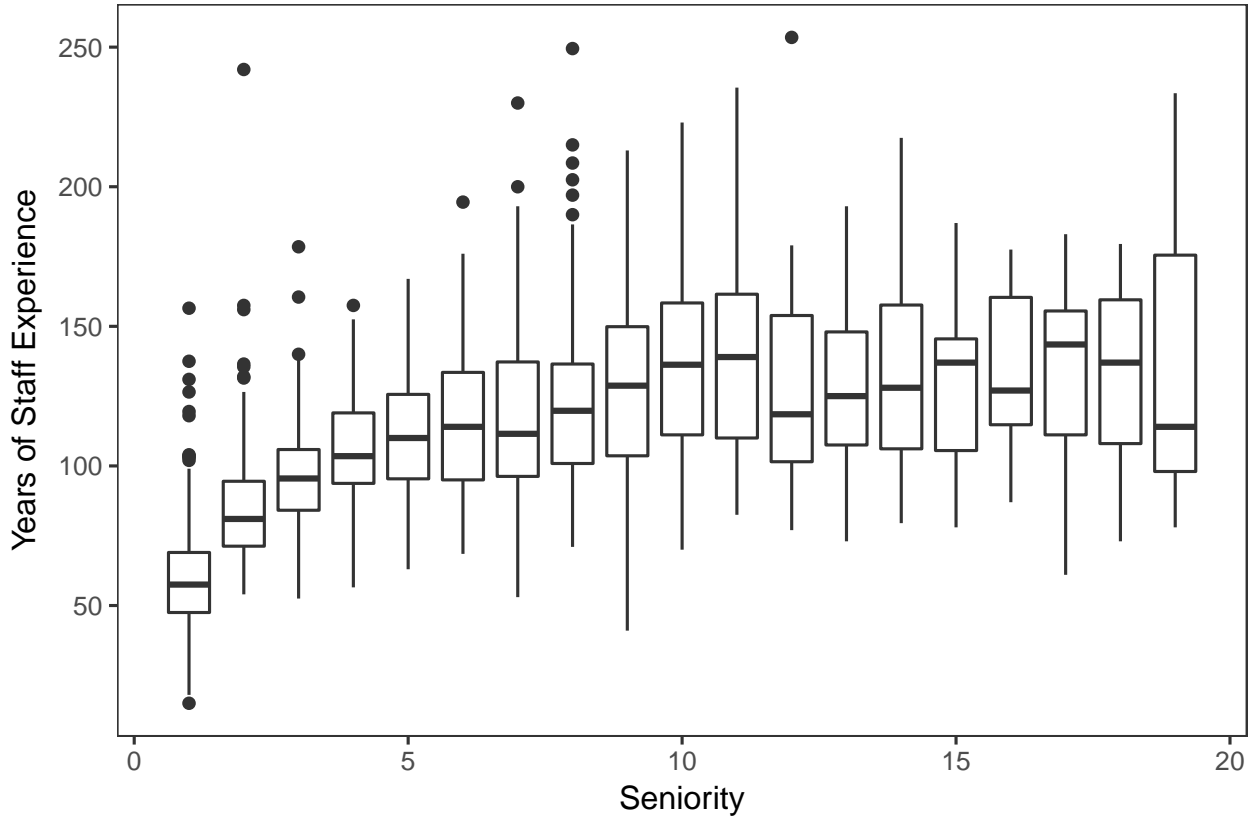


Figure 2: Congressional Seniority and Years of Staff Experience

This figure plots the distribution of Years of Staff Experience at each level of congressional seniority (the number of terms the member has been in Congress). I subset the data to members with less than 20 terms of experience for aesthetic purposes.

no civil service protections for staffers. Congressional staffers can be fired, their pay is often far lower than federal employees on the grade scale system, and many face substantial uncertainty in their futures because of the threat of losing an election.

The bureaucracy literature on the question of expertise development and personnel retention in federal agencies finds that cultivating expertise hinges on civil service protections. These protections (which do not exist for Hill staff) incentivize bureaucrats to invest in expertise because it “increases the horizon over which this investment can payoff” (Gailmard and Patty (2007, 875); see also Gailmard and Patty (2012)). If the outside option is too high, which is typically the case for individuals with Hill experience, then personnel are better off taking their skills to the private sector. However, staff may be willing to forego

current wages due to the well understood payoff for their Capitol Hill experience in the private sector (McCrain (N.d.); see also Bogardus and Leven (2011)). To maximize this payoff, staff seek out new and better opportunities when they are available, such as a more positive work environment, a more prestigious policy portfolio or title, or a higher paycheck.¹⁰ While pay is a factor in retaining staff, legislators lose staff often for reasons other than the specific dollar amount on their paycheck.

In sum, the expectation from academic research, journalistic accounts and anecdotal evidence is that staff are vital in the policy process. It is difficult for offices to retain good staff due to inherent job insecurity, the incentives for staff to build their careers and move to new offices, and the lack of flexibility in offering pecuniary benefits. As a result, there is substantial variation across members and within offices over time in their levels of staff experience and expertise. While it is likely true that effective members attract good staff, there are frequently constraints on their ability to retain them and few incentives exist for staff to remain in one place for long. One member may lose key staff because of an inability to increase salary or a poor work environment, whereas other offices may present a more positive environment and keep the staffer with little change to their salary. Similarly, one office may attract good staff because of their reputation or electoral security, mitigating the effect of inevitable turnover, while other offices may be limited in their selection because of a poor reputation and electoral insecurity. I now discuss specifically how staff effect legislative productivity, generating empirically testable hypotheses.

3 The Impact of Staff on Policymaking

What are observable paths through which staff affect policymaking and effective legislating? A well-established fact in political science is legislators want to produce policy (Mayhew, 1974). From the logic of the previous section, the most straightforward area in which staff

¹⁰Revolving door research has shown higher lobbying revenue associated with more senior job titles and experience working for members on certain committees (Blanes i Vidal, Draca and Fons-Rosen, 2012; McCrain, N.d.).

make a difference is in a member's ability to produce legislation. Producing legislation is difficult and costly (Krehbiel, 1992), and as Volden and Wiseman (2014) and Wawro (2001) show there is substantial heterogeneity among legislators in their ability to a) produce policy, b) produce important policy and c) move policy along in the legislative process. Much of this efficacy is linked to positions of institutional power, such as committee chairs. However, the majority of rank-and-file members are not in party or committee leadership and must rely on their own staff and not the resources within the committee. Curry (2015) finds that rank-and-file legislators are especially reliant on their staff and lean on their expertise and relationships with other staff.

Moreover, as the previous section discussed, substantial variation exists in the capacity possessed by a member's staff. This capacity also changes over time within offices as staff pursue new and better opportunities that bolsters their resume or offers a better work environment, and members are often unable to offer increased compensation to get good staff to stay. Importantly, staff experience is not necessarily correlated with the number of staff employed in the office. A member may choose to employ more staff, for instance, but as discussed previously all members are equally constrained by the salaries they are able to offer.¹¹ members who employ more staff are forced to pay them less on average. As a result, I do not expect staff size to predict variation in effectiveness. Moreover, if the size of a member's staff in the House did predict a substantial increase in effectiveness it would be problematic for my argument since I expect experience, not number of employees, to be the key to legislative productivity.

Staff specifically affect legislative activity by working closely with other offices, committees and stakeholders to craft legislation that is capable of satisfying their constituents and special interests, making it out of committee, onto the floor, and eventually up for a vote (Malbin, 1980). They utilize their experience, through relationships and issue area expertise, to find opportunities for legislative entrepreneurship (Price, 1971; Wawro, 2001) and credit

¹¹Empirically, there is little correlation between the two – see Figure 2A in the Online Appendix.

claiming (Mayhew, 1974). Once bills are introduced, staff work with other legislators, their staffs, and special interests to secure support and increase the probability it advances in committee. If a member does not possess capacity in their staff, even if the legislator herself is skilled at producing legislation, their productivity in these areas will be limited.¹² These concepts will be directly observable in the quantity of bills the member introduces and how many bills progress through the legislative process, leading to the first hypothesis:

Hypothesis 1: *members with more experienced staff will produce more legislation and have more legislation progress through the legislative process.*

Additionally, as many have observed, there is substantial variation in the importance of the many bills introduced every year (e.g., Adler and Wilkerson, 2013; Volden and Wiseman, 2014). Some legislation is much more important than others and is more complicated to create. To create important and impactful policy, technical policy knowledge is needed, which is gained through previous experience in the policy process. Experienced staff will have an advantage over inexperienced staff in both of these areas. Succinctly, a member with more experienced staff will also be more successful in producing *important* bills.

Related to the importance of the policy is the ability to enhance its quality. As a large literature studies, policymaking is difficult and even expertly crafted policy can fail to work as expected in the real world (Callander, 2011). In the canonical model (Gilligan and Krehbiel, 1987), the outcome of the policy depends on a stochastic shock, capturing the concept of uncertainty. The committee can choose to make a costly investment to observe the uncertainty for a given policy.¹³

Extensions of this framework reconceptualize uncertainty, modeling the choice of “quality” invested in a policy effort as a linearly additive benefit to all legislators (this is typically referred to as valence; e.g., Hirsch and Shotts, 2012; Hitt, Volden and Wiseman, 2017).

¹²To be clear, I do expect some legislators to be more skilled at creating legislators than others, but even among these legislators staff will be impactful. I address this specifically in the empirical strategy.

¹³Gilligan and Krehbiel (1987) call this investment “specialization” and explicitly note that it could be a product of staff: “Concrete manifestations of this form of specialization include...allocating staff to study a problem or to draft legislation” (p. 301).

A feature of these models is that quality is valued by all legislators universally and that if quality is high enough it can wash out potential loss in utility caused by distance from an ideological ideal point. In other words, high quality bills will receive more bipartisan support. Hitt, Volden and Wiseman (2017) explicitly model the legislator’s choice of quality investment but, importantly, make the investment more or less costly depending on the individual lawmaker’s effectiveness. As I have argued, staff are pivotal in this process. Some legislators will be greatly constrained in their choice to invest in quality, whereas offices with highly experienced staff can more “cheaply” invest in quality. Further, while others have argued that this capacity is a trait of the legislator herself, there is good reason to think that staff primarily provide this ability and it varies throughout the course of the legislator’s career.¹⁴ More experienced staff will be better able to find opportunities for bipartisan action and use their relationships to generate support among outside groups and stakeholders – as Montgomery and Nyhan (2017) show, the information networks among staffers affect legislator behavior. Staff with more Hill experience will also have connections to other offices and committees that will help them craft policy that is of a higher quality. This leads to the final two hypotheses:

Hypothesis 2: *members with more experienced staff will produce more important legislation.*

Hypothesis 3: *Bills produced by legislators with more experienced staff will receive more bipartisan support.*

In the next section, I detail the data used to test these hypotheses, its limitations, and the measures constructed to capture staff experience.

¹⁴Hitt, Volden and Wiseman (2017, 577) even note that legislative staff are a promising area for future work in exploring how “such costs might be altered.”

4 Data and Methods

To test the hypotheses outlined previously, I employ a comprehensive longitudinal dataset of congressional staff employment histories matched to a variety of other datasets on congressional legislative activity. This section outlines these data and their limitations and then discusses the empirical strategy for testing the hypotheses.

4.1 Data Overview

Data on congressional staff are publicly available and released by the House and Senate online (for the post-2000 era).¹⁵ However, the raw data are difficult to work with for two reasons. First, much of the data only exists in PDF format and is poorly formatted. Second, there are a number of name inconsistencies in the data where staffers will have their name slightly vary from report to report. The data used in this paper are acquired from *Legistorm* (2016), a private firm that extensively cleans the raw data.¹⁶ The data provided by Legistorm cover 2001-2016 and information on all paid staff during that period. Included in the data is which office the staffer worked for, their position title (which has also been cleaned), their salary, and the staffer's name. In the raw form the data are released quarterly, and Legistorm maintains this format. I also exclude temporary employees, part-time employees, shared employees and interns from the data.

I construct other measures and covariates, described below, from the Adler and Wilkerson (2006) Congressional Bills Project data¹⁷, Stewart III and Woon's (2017) committee assignment data¹⁸, Volden and Wiseman's (2014) legislative effectiveness data, roll call vote data from Roberts and Crespin (2017), and bill cosponsorship data from GovTrack (2017). While the data cover the 107th to the 113th Congress, most of the analyses in the paper use data starting during the 108th Congress due to measurement limitations, discussed more

¹⁵<https://disbursements.house.gov/>

¹⁶Examples of this cleaning are in the Online Appendix.

¹⁷Available at <http://www.congressionalbills.org/download.html>

¹⁸Available at http://web.mit.edu/17.251/www/data_page.html

below. I also restrict the analysis to the House for both data availability and theoretical reasons, as described previously.

4.2 Dependent Variables

The dependent variables in the empirical strategy I outline below capture different legislative outcomes, including producing policy, the varying success of legislation, and voting and sponsorship of individual bills. In the first specifications, I employ the Legislative Effectiveness Scores created by Volden and Wiseman (2014).¹⁹ These scores capture legislative productivity weighted by the importance of the legislation produced and the success of the legislation. These scores are calculated at the Congress level. I also run models employing the constituent parts of the effectiveness scores, including the total number of bills introduced, the number of important bills introduced, and how many of these bills progress through various stages of the legislative process.

Finally, I run models at the individual bill level. The outcome variables here are related to bipartisan support of the bill, captured by counting how many bipartisan cosponsors a bill receives and, conditional on a bill getting a floor vote, how many bipartisan votes it receives. Whether a vote is bipartisan is determined by the number of votes from the opposite party of the member who introduced the bill. These data are constructed from Roberts and Crespin's (2017) data and GovTrack's (2017) cosponsorship data merged with the CBP data.

4.3 Independent Variables

The logic outlined above asserts that members benefit from more experienced staff, so an ideal measure would capture experience and expertise of the staff. Unfortunately expertise is largely unobservable, thus, as the primary measure of staff capacity, I use the time series structure of the data to determine how many years of experience staffers within an office have on Capitol Hill. This variable is called **Years of Staff Experience** and is a cumulative

¹⁹Their methodology is outlined at <http://www.thelawmakers.org/#/method>

measure of the years of experience possessed by staff within an office in a given year.²⁰ To avoid making arbitrary decisions about when is best during the two year period of an individual Congress to measure a member’s staff, I calculate this measure at the yearly level and average them together to form the Congress level measure. This measure follows directly from the logic detailed previously. Staff will seek to work in offices based on the level of opportunity they provide and the work environment within the office. More experienced staff will join offices that offer the best opportunities, and those offices with the best reputation and ability to retain staff will possess more experienced staffs even with limited ability to offer higher salaries. Figure 1A below shows substantial variation within this variable within level of congressional seniority. Table 1 and Table 2 show summary statistics of these variables.

Table 1: Summary Statistics

Statistic	Mean	St. Dev.	Min	Max
Legislative Effectiveness Score	0.994	1.444	0.000	18.686
Important Bills Introduced	14.235	10.672	0	119
Total Bills Action in Cmte.	1.875	2.674	0	27
Total Bills Action Beyond Cmte.	1.933	2.888	0	37
Years of Staff Experience	103.089	35.410	15.000	253.500
(log)Years of Staff Experience	4.571	0.373	2.708	5.535
Seniority	5.755	4.463	1	30
Majority	0.548	0.498	0	1
Female	0.175	0.380	0	1
Cmte. Chair	0.048	0.213	0	1
Subcmte. Chair	0.214	0.410	0	1
Vote Percentage	66.660	12.729	23	100
DW-NOM 1st Dimension	0.508	0.206	0.010	1.423

These data represent the subset of the dataset after from the 108th to the 113th Congress. For most regressions, the number of observations is 2,176, though due to some missingness in the data certain models use fewer observations.

This measure accounts for staff experience but cannot capture expertise, though it is reasonable to think the two should be correlated. Staff gain expertise through learning

²⁰I log this variable in the analysis since the data are right-skewed to account for skewed residuals, though results are robust when using an untransformed version of this variable and when using the median years of staff experience in the office (reported in the online appendix).

Table 2: Bill-Level Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Total Cosponsors	40,256	16.818	34.313	0	432
Bipartisan Cosponsors	40,256	3.860	13.056	0	252
Bipartisan Votes	3,121	117.242	87.141	0	256
Bipartisan Vote Indicator	3,121	0.896	0.305	0	1

This table represents bill-level data from the 108th to the 113th Congress. The bipartisan votes data subsets the bill data to any bill that received a floor vote.

about the legislative process and developing relationships across the Hill. Further, descriptive statistics show substantial variation in these measures within offices (Figure 1A), suggesting some members are able to attract more experienced staff than others. It is also important to note here the issue of left censoring when constructing this measure. As I cannot observe staff prior to 2000 in the data, there is necessarily some measurement error in the cumulative staff experience variable. To attempt to mitigate this concern, I subset the analyses that follow to begin in the 108th Congress, and I present additional robustness checks on this variable in the appendix.²¹ I further subset the data to remove members in leadership role, since they have access to much more staff resources and are faced with different responsibilities than rank and file legislators.

4.4 Empirical Strategy

The empirical strategy I employ follows directly from the hypotheses. The goal is to analyze the predicted impact of staff capacity on 1) legislative productivity and 2) bipartisan support. In the first set of models, I run cross-sectional regressions of legislative effectiveness as predicted by staff experience. These models are essentially the same used in the main results from Volden and Wiseman (2014) and take the form:

$$LES_i = \beta \cdot Staff_i + \mathbf{X}'_i \cdot \theta + \gamma_t + \epsilon_i \quad (1)$$

²¹The congressional staff employment history dataset begins in 2000, in the middle of the 106th Congress.

In this OLS model, LES_i is an individual legislator’s Legislative Effectiveness Score, $Staff_i$ is the legislator’s measure of staff experience (depending on the specification), and \mathbf{X}'_i is a vector of individual level covariates. I also include year fixed-effects, γ_t , and a vector of individual specific, mean zero residuals (ϵ_i) clustered at the member level. The benefit of this modeling strategy is the ability to recover coefficient estimates for time-invariant traits of the legislator (such as previous experience as a state legislator, their gender, etc.).

To test the final hypothesis, I include models similar to Equations 1, but change the unit of analysis to the individual bill. The concept here is that staff resources are “attached” to a bill, and the bill-level outcomes are predicted by the variation in these resources.

However, the significant drawback of this strategy is it does not address the fundamental problem of endogeneity whereby a highly effective legislator attracts highly effective staff, and what may appear to be the influence of staff is in fact the legislator’s individual effectiveness. Furthermore, as I have argued in this paper, a legislator’s staff capacity varies over time. To address this concern and measure the time-varying staff capacity, I run models exploiting within-member variation of the following form:²²

$$LES_{it} = \alpha_i + \beta \cdot Staff_{it} + \mathbf{X}'_{it} \cdot \theta + \gamma_t + \epsilon_{it} \quad (2)$$

Here, along with a Congress fixed-effect, α_i is a legislator fixed-effect, capturing any time-invariant observable and unobservable trait of the legislator, such as their inherent legislative skill. Thus, the outcome of interest, the legislator’s effectiveness, is now predicted at time t (the individual Congress). With the inclusion of observable time-varying characteristics (captured by \mathbf{X}'_{it}), β , the coefficient on staff experience, is primarily identified by changes in levels of staff experience. The benefit of this modeling strategy is the ability to partial out a legislator’s individual (time-invariant) ability, an unobserved and confounding variable in cross-sectional regressions of legislator effectiveness. In other words, this model identifies

²²A number of recent papers model within-member variation in Congress to analyze the effects of variation in a member’s institutional status on various outcomes (e.g., Grimmer and Powell, 2013; Berry and Fowler, 2015; Alexander, Berry and Howell, 2016; Berry and Fowler, N.d.)

staff’s impact on legislative effectiveness for even highly skilled legislators. A possible issue with this strategy occurs if staff leave or join an office based on, for example, a member’s willingness to be effective over time. If a legislator is not interested in producing legislation then that legislator follows a different trend not predicted by staff variation. I attempt to address this concern by including controls for majority status, seniority, and vote share in the previous election.²³

The covariates included in specifications of these models include, as mentioned, majority status, which is important as it is related with a legislator’s ability to produce legislation due to committees being balanced in favor of the majority; seniority of the legislator, which is a time trend based on the number of terms they have been in Congress;²⁴ and vote share (and its square), which captures the electoral vulnerability of the member. Vote share is particularly important because electoral security shapes both the incentives of the staff and the member.²⁵ I also include dummy variables for committee chair and subcommittee chair status, which research has shown makes members more effective due to increased access to committee resources (Berry and Fowler, 2015; Volden and Wiseman, 2014). Finally, I include the absolute value of the first dimension DW-NOMINATE score, which captures the extremity of each member, since it is possible that staff only matter for moderate legislators, for instance.

5 Results

In the first set of results, I run a run a model of the form of Equation 1, which resembles the models from Volden and Wiseman (2014). This cross-sectional specification regresses the legislative effectiveness scores (LES) on the member’s institutional status, their majority

²³The idea is that these three things affect a legislator’s underlying ability to produce legislation. If they are in the minority, then it is more difficult to get bills out of majority-controlled committees. If they are very senior, they may have less interest in producing legislation and can rely on reputation for re-election. The same logic follows for legislators with high electoral security.

²⁴Note: seniority is defined as the ‘experience’ or ‘tenure’ of the legislator – *not* the rank of the member among their party.

²⁵I use this version of the vote share variable because it is the same used in Volden and Wiseman (2014).

status, demographic variables, the vote percentage they received in the previous election, and the number of cumulative staff years. Standard errors are clustered at the individual member. As previously mentioned, to mitigate measurement error, I subset the data to begin at the 108th Congress. Table 3, model 1, reports these results. In models 2 through 4 I introduce Congress and year fixed-effects as described in Equation 2.

Table 3: Legislative Effectiveness Models

	Legislator Effectiveness Score			
	(1)	(2)	(3)	(4)
Staff Size	0.014 (0.010)	0.029 (0.022)	0.004 (0.021)	-0.010 (0.022)
(log)Years of Staff Experience	-0.160 (0.128)		1.044*** (0.295)	0.710*** (0.247)
Seniority	0.057*** (0.014)			-0.025 (0.053)
Majority	0.583*** (0.055)			0.605*** (0.082)
Female	0.006 (0.069)			
Cmte. Chair	3.245*** (0.390)			3.291*** (0.581)
Subcmte. Chair	0.352*** (0.080)			0.319*** (0.119)
Vote Percentage	0.001 (0.018)			-0.005 (0.034)
Squared Vote Percentage	-0.00004 (0.0001)			0.00003 (0.0002)
DW-NOM Absolute Value	0.064 (0.142)			-0.906 (0.828)
Constant	0.655 (0.783)			
Fixed Effects?	None	Cong. + Member	Cong. + Member	Cong. + Member
N	2,116	2,176	2,176	2,116
R ²	0.391	0.425	0.432	0.653

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

The unit of analysis for each model is at the legislator-Congress level for the 108th through 113th Congress. Model 1 presents a regression in the form of the main results from Volden and Wiseman (2014), adding in years of staff experience. Models 2 through 4 include legislator and Congress fixed-effects. In all models, robust standard errors are clustered at the legislator level.

These results show support for Hypothesis 1: an increase in staff experience predicts a higher legislative effectiveness score. Model 1 is a recreation of the main results from

Volden and Wiseman (2014) adding in staff size and staff experience, showing that seniority, majority status and positions of institutional authority (committee chairs) are predicted to be more effective legislators as expected. Staff experience in this specification is negative and not significant. However, models 2 through 4 introduce Congress and year fixed-effects, partialing out time-invariant legislative ability and showing that, within a legislator, an increase in staff experience predicts a higher LES. Across all models we see that the size of a member's staff is not significant in predicting variation in effectiveness, supporting the argument that staff experience, not how many staff a member has, is what is important. Models 3 and 4 bring in staff experience, which is statistically significant and substantively interesting. Taking the results from model 4, a one standard deviation increase over the mean of years of staff experience predicts a 25% increase in the legislator effectiveness score, holding the other variables at their means. An increase in staff experience from the 25th percentile to the 75th percentile predicts a nearly 70% increase in the LES.

However, since legislator effectiveness scores are difficult to interpret on their own, I now turn to analyses using tangible legislative outcomes as the dependent variable. All of these dependent variables are captured and weighted within the LES formula. In Table 4, models 1 and 2 employ a dependent variable that counts how many bills the legislator introduces that receive action in committee (e.g., the bills are reported from a committee). Models 3 and 4 use how many bills the legislator introduced that receive action beyond the committee (the bill reached the floor of the House), and models 5 and 6 use how many "important" bills a legislator introduces as the outcome variable.²⁶ All models employ legislator and Congress fixed-effects with standard errors clustered at the individual legislator.

What do we make of the results from Table 4? The mean number of bills with action in committee and action beyond committee per member is relatively low on average, at just below 2 (Table 1). In both of the results for these outcomes (models 2 and 4), an increase from

²⁶Importance here is determined by whether Volden and Wiseman coded the bill as either "substantive" or "substantive and significant". For more information on their coding schemes visit: <http://www.thelawmakers.org/#/method>.

Table 4: Bill Importance and Progression

	(1)	(2)	(3)	(4)	(5)	(6)
	Bills with Action In Cmte.		Bills with Action Beyond Cmte.		Important Bills Introduced	
(log) Years of Staff Experience	1.785*** (0.450)	1.106** (0.462)	2.275*** (0.523)	1.560*** (0.494)	9.091*** (1.946)	7.614*** (2.162)
Staff Size		-0.029 (0.039)		-0.021 (0.040)		-0.358** (0.171)
Seniority		0.015 (0.080)		-0.011 (0.098)		-0.056 (0.450)
Majority		1.209*** (0.146)		1.293*** (0.155)		2.589*** (0.685)
Cmte. Chair		4.425*** (0.786)		6.067*** (1.069)		4.741*** (1.529)
Subcmte. Chair		0.722*** (0.214)		0.537** (0.227)		0.869 (0.759)
Vote Percentage		0.006 (0.059)		-0.003 (0.066)		0.433 (0.263)
Squared Vote Percentage		-0.00003 (0.0004)		0.00004 (0.0004)		-0.003 (0.002)
DW-NOM Abs. Value		0.017 (1.306)		-1.014 (1.706)		-4.676 (4.334)
N	2,202	2,116	2,202	2,116	2,202	2,116
R ²	0.513	0.681	0.468	0.673	0.668	0.705

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

The unit of analysis for each model is at the legislator-Congress level for the 108th through 113th Congress. All models include legislator and Congress fixed-effects with standard errors clustered at the individual legislator.

the 25th to 75th percentile in staff capacity predicts an additional bill, which is a 50% increase over the mean number of bills. Similarly, in model 6 the same increase in staff capacity predicts 3 additional important bills introduced by a legislator within a Congress. With the mean number of these bills introduced at 14, three additional bills represents a 20% increase in the total number of important bills introduced. Thus, even controlling for positions of institutional power such as committee chairs and any time-invariant legislative ability, changes in a legislator's staff's experience predicts substantive changes in their legislative output.

5.1 Staff Experience Heterogeneity

Due to the variety of previously outlined responsibilities of congressional offices, staff are typically assigned specific roles. Some staff work primarily on policy concerns while others perform administrative tasks or liaise with constituents. An empirical implication of the theory in this paper is that there should be heterogeneity among how much experience across different levels of staff predicts increased effectiveness. In other words, if staff experience matters for legislative productivity, more experience among the more important levels of staff will predict higher effectiveness.

To measure this empirically, I place staff into categories of seniority and responsibility following the convention of Montgomery and Nyhan (2017) (and outlined specifically in the appendix).²⁷ Staff who work specifically in the policy areas (as opposed to those who primarily perform administrative or constituent service roles) are labeled as **Policy Staff** (for example, chiefs of staff and legislative assistants). I then code a separate category as **Junior Staff**, such as staff assistants and legislative correspondents, who primarily deal with constituent correspondence, Capitol Hill tours, and answering phones. The expectation is that the level of experience among policy staff should positively predict effectiveness, and the level of experience among is unrelated to legislative effectiveness. Table 5 displays the

²⁷The results are robust to different categorizations of policy staff and junior staff

results from models with these independent variables.

These results show that indeed the level of experience among policy staff does predict increased effectiveness while the experience of junior staff is not significant either statistically or substantively. These findings bolster the previous results; if I were not to find evidence of this heterogeneity one would be worried about spuriousness of the findings. This result also supports the placebo test performed by Montgomery and Nyhan (2017) who show that networks created by senior staff do influence legislator behavior but those created by junior staff do not. These results also complement recent revolving door studies that find more senior staff are more valuable in the lobbying industry (McCrain, N.d.) – likely because they are the staff most influencing legislative outcomes.

5.2 Bill-Level Models

Finally, I present results where the unit of analysis is the individual bill in Table 6, testing the final hypothesis. Models 1-4 use all bills introduced in the 108th-113th Congress. In model 2, the coefficient on years of experience is not significant at conventional levels and the result is relatively small, though positive as the hypothesis predicts. In model 4, the coefficient is positive and significant, though the predicted number of additional bipartisan cosponsors is small. An increase from the 25th percentile to the 75th percentile predicts an additional 0.7 bipartisan cosponsors per bill. In model 6, with the number of bipartisan votes as the outcome, the coefficient is negative and insignificant. Finally, in model 7, which employs a dummy variable for whether a bill receives any bipartisan votes, the coefficient is negative and insignificant. Neither of these final two results show support for the last hypothesis.

These results show some support for the hypothesis that staff experience affects whether a bill garners more bipartisan support, though the substantive magnitude is small. One interpretation of this last set of results is that cosponsoring as an outcome has little to do with the staff capacity attached to the bill because it is a relatively costless action for a

Table 5: Legislative Effectiveness and Staff Experience Heterogeneity

	Legislative Effectiveness Score			Important Bills Introduced		
	(1)	(2)	(3)	(4)	(5)	(6)
(log)Policy Staff Experience	0.400** (0.167)		0.396** (0.167)	3.848*** (1.090)		3.850*** (1.089)
(log)Junior Staff Experience		0.084 (0.072)	0.079 (0.067)		0.007 (0.500)	-0.037 (0.494)
Seniority	-0.015 (0.053)	-0.020 (0.052)	-0.023 (0.054)	0.057 (0.471)	0.088 (0.481)	0.061 (0.468)
Majority	0.592*** (0.077)	0.569*** (0.076)	0.591*** (0.077)	2.421*** (0.655)	2.212*** (0.661)	2.422*** (0.656)
Cmte. Chair	3.368*** (0.583)	3.345*** (0.586)	3.370*** (0.584)	5.535*** (1.498)	5.292*** (1.548)	5.535*** (1.499)
Subcmte. Chair	0.325*** (0.119)	0.337*** (0.118)	0.326*** (0.118)	0.948 (0.748)	1.052 (0.759)	0.948 (0.750)
Vote Percentage	0.007 (0.034)	0.011 (0.033)	0.005 (0.034)	0.570** (0.251)	0.628** (0.250)	0.571** (0.252)
Squared Vote Percentage	-0.00004 (0.0002)	-0.0001 (0.0002)	-0.00002 (0.0002)	-0.003** (0.002)	-0.004** (0.002)	-0.003** (0.002)
DW-NOM Abs. Value	-0.869 (0.830)	-0.898 (0.830)	-0.884 (0.832)	-4.296 (4.336)	-4.428 (4.323)	-4.289 (4.331)
Staff Size	0.001 (0.020)	0.009 (0.020)	0.0004 (0.020)	-0.229 (0.177)	-0.148 (0.181)	-0.229 (0.177)
N	2,116	2,116	2,116	2,116	2,116	2,116
R ²	0.653	0.651	0.653	0.704	0.700	0.704

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

All models include legislator and Congress fixed-effects with standard errors clustered at the legislator level. The independent variables separate staff experience by different levels of "importance" of the staffer. Models 1-3 employ the legislative effectiveness score as the dependent variable and models 4-6 use the number of important bills introduced as the dependent variable.

Table 6: Bill-Level Analysis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Number of Cosponsors	Number of Cosponsors	Number of Bipartisan Cosponsors	Number of Bipartisan Cosponsors	Number of Bipartisan Votes	Bipartisan Votes	Bipartisan Votes Dummy
(log)Years of Staff Experience	2.282*** (0.839)	1.237 (1.135)	0.569* (0.320)	1.051*** (0.371)	2.007 (13.186)	-13.196 (13.131)	-0.076 (0.052)
Staff Size		0.178 (0.150)		-0.109** (0.053)		2.971* (1.616)	0.010** (0.005)
Seniority		0.232** (0.118)		0.002 (0.037)		1.221 (0.822)	0.010*** (0.003)
Majority		3.341*** (0.692)		2.110*** (0.287)		-132.526*** (8.495)	-0.164*** (0.027)
Cmte. Chair		-2.600* (1.376)		-0.712 (0.538)		0.991 (12.950)	-0.012 (0.041)
Subcmte. Chair		-0.636 (0.822)		0.046 (0.326)		21.045** (10.215)	0.061* (0.033)
Female		2.895** (1.179)		-0.547 (0.416)		-16.512 (11.398)	-0.051 (0.045)
DW-NOM 1st Dim. Dist.		1.526 (2.116)		-1.383** (0.601)		-49.335** (19.978)	-0.026 (0.071)
N	40,370	40,136	40,370	40,136	3,121	3,101	3,101
R ²	0.002	0.006	0.002	0.008	0.041	0.317	0.065

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

The unit of analysis in these models is the individual bill. Each model includes Congress fixed-effects with standard errors clustered at the individual legislator. Models 1 through 4 include all bills introduced in the 108th-113th Congress. Models 6 and 7 include all bills with votes in the same time period.

member to take. If a member primarily uses cosponsorship as a signal to others within the institution for agenda-setting reasons (e.g., Kessler and Krehbiel, 1996) or as a position taking signal to constituents (e.g., Koger, 2003), it is likely that how experienced the staff are that wrote the bill have little effect in this process. Nonetheless, I do find some support for the idea that staff increase a bill's quality, garnering it more bipartisan support. Additionally, I find no support for the theory that staff experience increases the number of bipartisan votes a bill gets. This analysis is preliminary and deserves further consideration, however. For example, it is worth considering which bills should be included (i.e., only the substantive and significant ones), and whether there is a better measure of bipartisan support. This is a furtive area for future work.

The appendix includes robustness checks for Table 3 and 4 employing alternative versions of the staff experience independent variable and smaller subsets of the data (to address potential issues of measurement error). Specifically, in separate specifications I include the untransformed count of total years of staff experience and the median years of total staff experience. The results are all statistically significant and substantively similar to the results presented here. I also include models with a lagged legislator effectiveness score. This captures how effective the legislator was in the previous Congress, attempting to address the concern that high quality staff join already effective offices, and that staff variation does not in fact predict increased effectiveness. The results maintain with this variable.²⁸ The results also maintain across the primary specifications presented above and the alternative specifications when run on a shorter subset of the data (e.g., 109-113th Congress).

²⁸Beck and Katz (2011) demonstrate that in time-series models with fixed-effects and a small t (which is the case here), including a lagged dependent variable can introduce bias primarily on the coefficient of the lagged dependent variable. Arellano and Bond (1991) offer another solution to this bias, which will be presented in a future version of this project. This coefficient is not significant in these robustness checks.

6 Discussion and Conclusion

This paper has argued that staff are pivotal actors working behind the scenes in Congress. This argument aligns with a large, generally older, literature that found staff to possess substantial autonomy in the legislative process. Additional research has found heterogeneity in legislative entrepreneurship and effectiveness among members in the House. In this paper, I constructed an argument for how staff will impact a legislator's effectiveness and measured staff experience for all members in the House from the 108th to 113th Congress. I then demonstrated evidence that there is substantial variation in the experience levels of a member of the House of Representative's staff – despite the fact that all (non-leadership) members are equally constrained in how much they are able to offer in salaries. Finally, I presented results that suggest members with more experienced staff are more effective legislators based on their ability to produce more policy, produce more important policy, and have that policy progress further in the legislative process.

There are three key takeaways from these findings. First, staff deserve more attention in the Congress literature. If staff are able to impact policymaking in such an observable way as I measure in this paper, there are likely many other avenues in which staff are impactful – either observable or unobservable. Future work would benefit from further detailed measures of staff capacity and a longer time series which could take into account the significant changes to staffing levels that occurred in the 1990s. Another fruitful research agenda might consider how staff are able to alleviate problems created by hyper-partisanship. For example, are staff able to create bipartisan relationships? Are legislators with more experienced or expert staff able to alleviate uncertainty in policymaking? This research speaks directly to a large body of work in political science that focuses on developing policy under conditions of uncertainty (e.g., Gilligan and Krehbiel, 1987; Callander, 2011; Hirsch and Shotts, 2012; Hitt, Volden and Wiseman, 2017). The results in this paper are suggestive that studying staff may shed light onto these research questions.

Second, the recent focus on diminished congressional capacity has merit. In fact, a recent

survey of staffers find that the staffers themselves do not believe Congress has the capacity it needs to function.²⁹ As Congress has seemingly hamstrung itself by removing resources to internal support agencies, it has placed the burden of developing expertise on the members. This is untenable as Congress has also failed to increase the resources available to members to hire and retain staff. Representative democracy relies on elected officials possessing some capacity to respond to constituent demands, and it remains an open question as to how possible this is given the paucity of resources to which it currently has access. A recent article in *Roll Call*, for example, suggests staff leaving for the private sector are directly impacting the Republican Congress' ability to fulfill its promised legislative agenda.³⁰ Beyond creating legislation, it is unclear to what degree Congress is able to fulfill its oversight role over the executive branch, a salient concern during recent administrations. Future work such as Clarke (N.d.) that sheds light onto the effects of diminished capacity within Congress is promising.

Finally, the importance of staff magnifies the salience of studying the political economy of the labor market for these public employees. While a large literature on the bureaucracy has considered the impacts of personnel on policymaking within agencies (e.g., Gailmard and Patty, 2012; Bertelli and Lewis, 2012; Bolton, Potter and Thrower, 2015), a similar literature does not exist on the legislative branch. This is despite substantial prima facie evidence that the incentives with which these employees are faced are potentially troubling vis-a-vis the revolving door (Blanes i Vidal, Draca and Fons-Rosen, 2012; McCrain, N.d.), and the American people may be right not to trust Congress because of undue influence by private interests. Exploring the correlates of revolving door lobbying, including when and why employees leave Capitol Hill and where they are hired, is promising and would provide further insights into the labor market for congressional staff. Congressional staff, their incentives, and the policy impacts of their career concerns are all fertile ground for future research.

²⁹<http://www.congressfoundation.org/projects/resilient-democracy-coalition/state-of-the-congress>

³⁰<http://www.rollcall.com/news/policy/staff-departures-undermine-gop-legislative-agenda>

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7 Online Appendix

7.1 Data Description

This section presents some additional summary statistics and figures of the data used in the analysis.

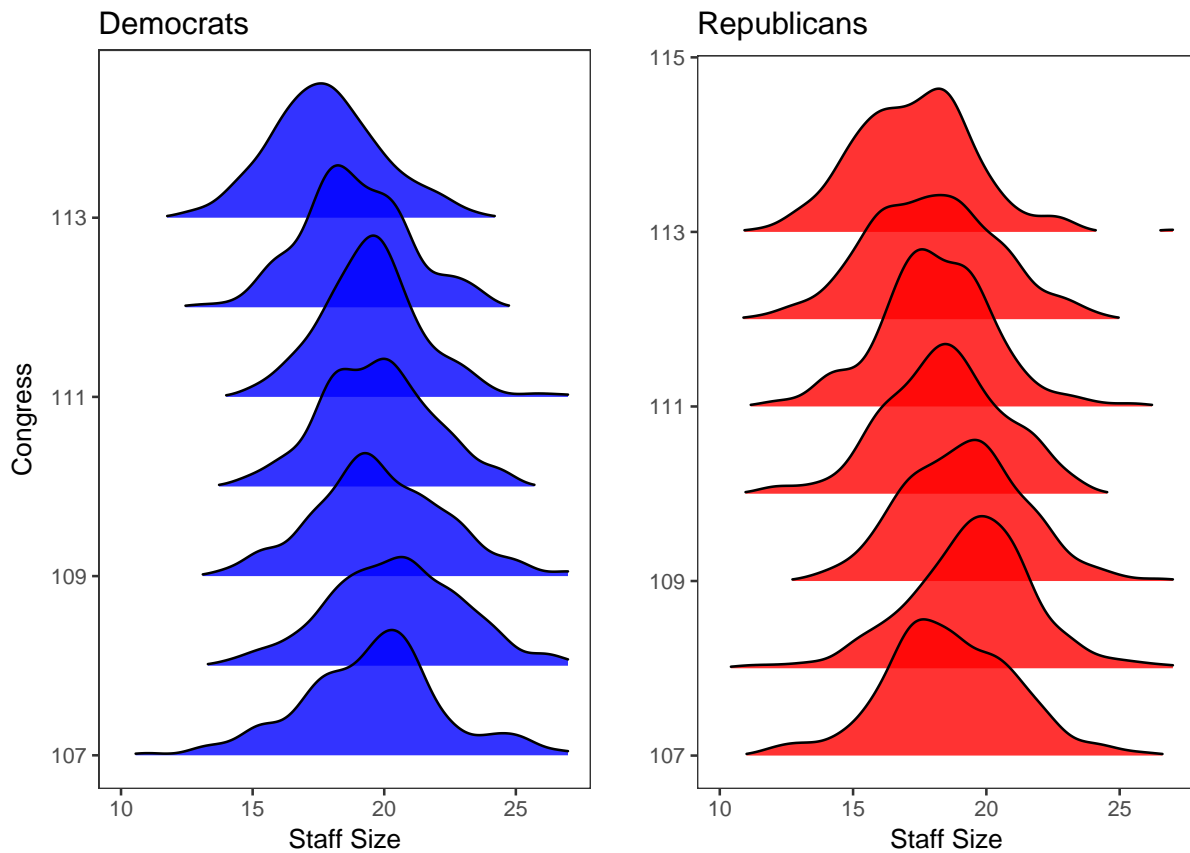


Figure 1A: Number of Congressional Staff by Congress and Party

This figure shows the density of the number of staffers per office per Congress divided by party.

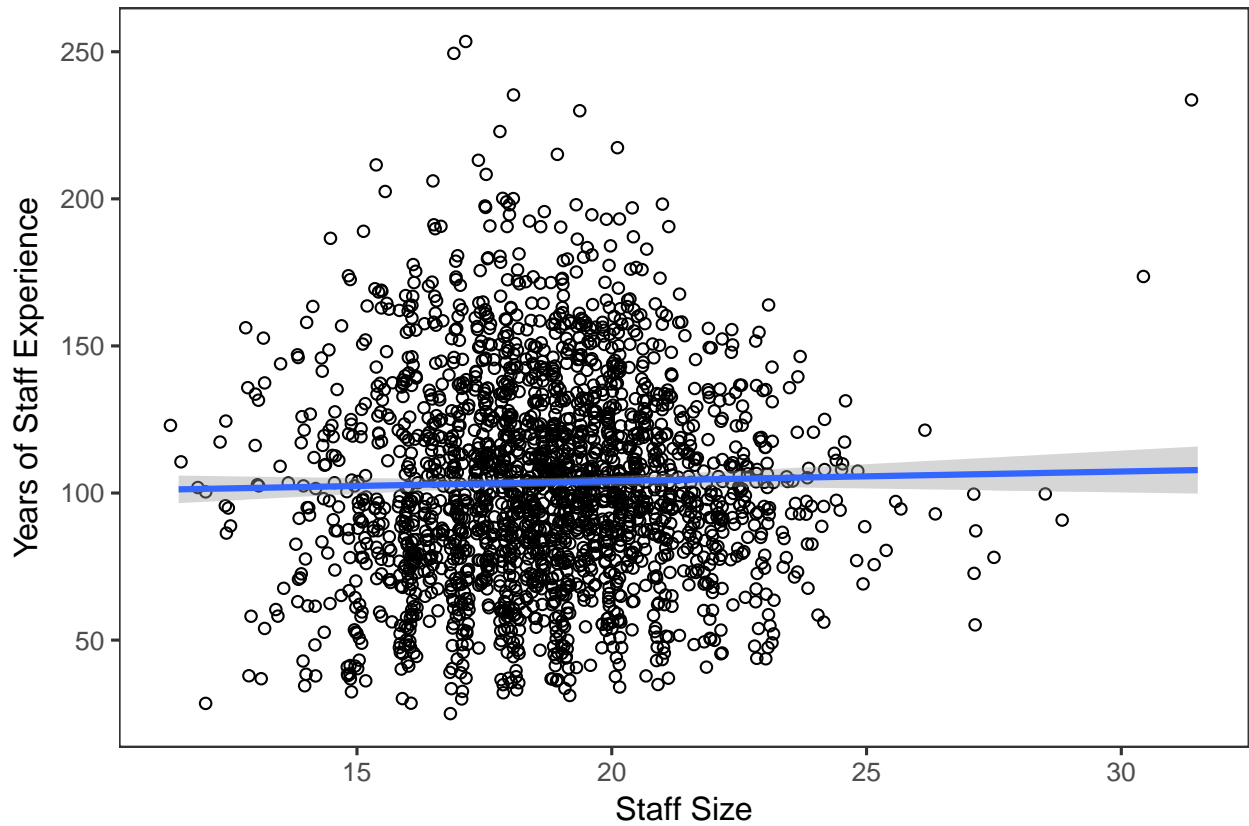


Figure 2A: The Correlation Between The Number of Staff and Years of Staff Experience

This figure depicts that there is virtually no correlation between the number of staff an office hires and the number of years of experience possessed by the staff.

7.2 Robustness Checks

This section presents robustness checks of some of the main results in the paper, including alternate specifications of the independent variable, the inclusion of a lagged dependent variable, and models run on smaller subsets of the data. All results are substantively the same as the main results, and the majority also remain statistically significant.

Table 1A: Robustness Checks: Legislative Effectiveness Models with Alternate IVs

	Legislator Effectiveness Score					
	(1)	(2)	(3)	(4)	(5)	(6)
Staff Size	-0.013 (0.026)	-0.009 (0.023)	0.015 (0.021)	-0.014 (0.027)	-0.014 (0.029)	0.007 (0.025)
(log) Years of Staff Experience	1.078** (0.427)			0.543* (0.292)		
Years of Staff Experience		0.007** (0.003)			0.005 (0.004)	
Median Years of Staff Experience			0.076** (0.033)			0.079* (0.043)
Seniority	-0.088 (0.071)	-0.031 (0.052)	-0.020 (0.054)	-0.010 (0.055)	-0.015 (0.054)	-0.011 (0.058)
Majority	0.618*** (0.089)	0.580*** (0.078)	0.586*** (0.078)	0.575*** (0.108)	0.553*** (0.104)	0.556*** (0.104)
Cmte. Chair	3.246*** (0.593)	3.285*** (0.583)	3.344*** (0.584)	2.908*** (0.671)	2.909*** (0.670)	2.968*** (0.675)
Subcmte. Chair	0.286** (0.132)	0.336*** (0.117)	0.332*** (0.118)	0.391*** (0.134)	0.410*** (0.131)	0.412*** (0.131)
Vote Percentage	-0.006 (0.042)	0.003 (0.033)	0.005 (0.033)	-0.024 (0.041)	-0.018 (0.040)	-0.018 (0.039)
Squared Vote Percentage	0.00004 (0.0003)	-0.00001 (0.0002)	-0.00003 (0.0002)	0.0002 (0.0003)	0.0001 (0.0003)	0.0001 (0.0003)
DW-NOM Absolute Value	-0.813 (0.918)	-0.810 (0.830)	-0.855 (0.836)	0.021 (0.658)	0.085 (0.661)	0.089 (0.663)
Lag LES	0.020 (0.073)					
Data Range	108-113th Cong.	108-113th Cong.	108-113th Cong.	109-113th Cong.	109-113th Cong.	109-113th Cong.
N	1,796	2,116	2,116	1,698	1,698	1,698
R ²	0.654	0.653	0.652	0.689	0.689	0.690

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

This table shows results employing different specifications of the staff experience independent variable, the inclusion of a lagged dependent variable, and different ranges of the data. Models 1-3 are run on the same data as the models reported in the paper. Models 4-6 are run on a smaller subset of the data beginning in the 109th Congress. All models include legislator and Congress fixed-effects with standard errors clustered at the legislator level.

Table 2A: Robustness Checks: Production Models with Alternate IVs

	Important Bills Introduced			Bills with Action In Cmte.			Bills with Action Beyond Cmte.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(log)Years of Staff Experience	8.695*** (2.971)	0.054** (0.024)		1.923** (0.777)	0.012* (0.006)		2.547*** (0.849)	0.016** (0.007)	
Years of Staff Experience									
Median Years of Staff Experience			0.567* (0.330)			0.113** (0.055)			0.162** (0.064)
Seniority	0.259 (0.646)	-0.060 (0.462)	0.023 (0.474)	-0.139** (0.064)	0.003 (0.080)	0.023 (0.079)	-0.102 (0.100)	-0.027 (0.091)	-0.0003 (0.089)
Majority	3.354*** (0.692)	2.288*** (0.660)	2.330*** (0.662)	1.254*** (0.164)	1.171*** (0.141)	1.178*** (0.141)	1.261*** (0.178)	1.239*** (0.148)	1.250*** (0.148)
Cmte. Chair	4.683*** (1.581)	4.849*** (1.550)	5.304*** (1.559)	4.444*** (0.802)	4.407*** (0.790)	4.508*** (0.785)	6.029*** (1.091)	6.045*** (1.078)	6.183*** (1.077)
Subcmte. Chair	0.453 (0.816)	1.053 (0.751)	1.023 (0.757)	0.627*** (0.230)	0.749*** (0.211)	0.743*** (0.213)	0.504** (0.249)	0.575*** (0.222)	0.566** (0.224)
Vote Percentage	0.002 (0.251)	0.549** (0.253)	0.568** (0.251)	-0.002 (0.073)	0.017 (0.058)	0.023 (0.057)	0.010 (0.086)	0.013 (0.065)	0.020 (0.064)
Squared Vote Percentage	-0.0001 (0.002)	-0.003** (0.002)	-0.003** (0.002)	0.00002 (0.0005)	-0.0001 (0.0004)	-0.0001 (0.0004)	-0.00004 (0.001)	-0.0001 (0.0004)	-0.0001 (0.0004)
Staff Size	-0.331 (0.204)	-0.285 (0.177)	-0.107 (0.190)	-0.026 (0.044)	-0.029 (0.041)	0.010 (0.038)	-0.027 (0.048)	-0.020 (0.042)	0.034 (0.039)
DW-NOM Abs. Value	-6.422 (5.030)	-3.868 (4.382)	-4.219 (4.377)	-0.097 (1.468)	0.178 (1.312)	0.095 (1.316)	-0.949 (1.809)	-0.792 (1.709)	-0.904 (1.724)
Lag LES	-0.255 (0.193)			-0.069 (0.110)			-0.006 (0.135)		
N	1,796	2,116	2,116	1,796	2,116	2,116	1,796	2,116	2,116
R ²	0.726	0.702	0.702	0.687	0.681	0.680	0.675	0.673	0.672

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

This table shows robustness checks employing alternate specifications of the staff experience independent variables on bill production and advancement outcome variables. It also has models employing a lagged LES as an independent variable. All models include Congress and legislator fixed-effects with standard errors clustered at the individual legislator.

7.3 Staff Coding Decisions

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) and Madonna and Ostrander (N.d.). Fortunately, this process was made easier 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. The tables below detail the list of job titles for each category of position.

While the purpose of dividing staff in this way to separate out the “importance” of staff by job title, there is a large amount of heterogeneity across offices in the responsibilities assigned to certain job titles. For instance, in many offices a Legislative Correspondent is an entry level role responsible for managing the massive amount of mail and email an office receives, some offices assign these staffers substantive policy portfolios. In other words, this is a noisy measure of staff importance.

Table 3A: Senior Staff Position Titles

Chief of Staff*
Legislative Director

*anything containing “Chief of Staff” and not “assistant to”

Table 4A: Legislative Staff Position Titles

Legislative Correspondent
 Legislative Assistant*
 Legislative Aide*
 Legislative Coordinator
 Legislative Adviser
 Policy Analyst
 Legislative Fellow
 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

Table 5A: Press Staff Position Titles

Press*
 Media*
 Communications*
 Speechwriter
 Public Affairs*
 Writer

*anything containing