# The Staff that makes Politics*

Marco Battaglini† Eleonora Patacchini‡ Carlo Schwarz§

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**Abstract**

This paper studies the role of congressional staffers in the policy-making process. Using a new, comprehensive dataset that links U.S. congressional staffers to legislators' activities from the 113th to the 118th Congresses, we provide causal evidence on how staffers' expertise shapes legislative outcomes. To address endogeneity in staffing, we exploit quasi-exogenous variation in the supply of staffer expertise induced by election-induced turnover of legislators, combined with educational networks that mediate staffer mobility. We show that greater staffer expertise causally increases the number of bills legislators introduce in a given policy area. Moreover, staffer expertise improves legislative success: for majority-party members, higher staffer expertise increases the probability that bills pass at least one chamber and ultimately become law, while no such effects are found for minority-party members. These findings highlight the importance of staffers as a key input into legislative production and recast policy-making as a team-based process.

**Keywords**: US politics, Congress staffers
**JEL Codes**: P19, L14, D83

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†Cornell University, battaglini@cornell.edu
‡Cornell University, eleonora.patacchini14@gmail.com
§Università Bocconi, Department of Economics, CEPR, IGIER, PERICLES, CAGE, carlo.schwarz@unibocconi.it.

# 1 Introduction

Politicians are central actors in the economic and political organization of society. A large body of research in political economy has therefore focused on understanding how politicians shape policy outcomes, emphasizing the role of electoral incentives (Fiorina 1974; Ansolabehere et al. 2001; Lizzeri and Persico 2001), ideology and values (Poole and Rosenthal 1985; Gennaioli and Tabellini 2019; Enke 2020), institutional constraints (Persson et al. 1997, 2000; Persson and Tabellini 2005), political networks (Cohen and Malloy 2014; Harmon et al. 2017; Battaglini et al. 2020), and the media environment (Gentzkow 2006; DellaVigna and Kaplan 2007; Snyder and Strömberg 2010). In this literature, policy-making is typically modeled as the outcome of choices made by individual politicians, whose preferences, incentives, and constraints determine legislative behavior and policy outputs.

In contrast to this politician-centered view, a fundamental component of the policy-making process has received surprisingly little attention: the role of political staffers. Unlike models in which politicians craft their policy agenda, policy production is in nearly all cases a team process in which political staffers play a crucial role. In fact, on average, staffers outnumber House members by 20 to 1 (Petersen 2021). For example, it is the staff that is responsible for drafting and revising bills (e.g., Nourse 2002) and it is not rare for staffers to handle background negotiations between politicians (e.g., Curry & Lee 2020).

Motivated by the central role of staffers in the legislative process, this paper provides some of the first causal evidence on the influence of congressional staffers on the actions of politicians. We show that differences in staffer expertise affect the amount of legislation politicians produce, the quality and legislative success of the bills they introduce, and the policy areas on which they focus their legislative activity.

For our analysis, we assemble a new comprehensive database of U.S. congressional staffers for the 113th to 118th U.S. Congress (2013-2025) and link it to highly granular information on legislators' policy-making activities, including bill production, legislative success, and policy areas. This novel data allows us to move beyond descriptive accounts and to causally assess whether differences in the expertise of political staffers translate into differences in the quantity, quality, and success of legislation. In doing so, the paper addresses three central questions: Do staffers affect how much legislation politicians produce? Do they influence the quality and legislative success of the bills that are proposed? And does staffer expertise shape the policy areas in which politicians are active?

The paper proceeds in four parts. First, we provide descriptive evidence on the market for congressional staffers, documenting patterns in staffer experience, specialization, and allocation across legislators. In this part, we also present motivational correlations showing that staffers' expertise is a strong predictor of the number of bills a congress member introduces in a given policy area. Second, we introduce our identification strategy, which exploits quasi-random variation in the supply of staffers together with educational connections across staffers to isolate exogenous changes in staffer expertise. Third, using this strategy, we estimate the causal effect of staffer expertise on legislative production, focusing on the number of bills introduced by a congress member. Finally, we examine how staffer expertise affects legislative success, analyzing the probability that bills advance through Congress and ultimately become law.

In the first part, we begin by documenting several stylized facts about the market for congressional staffers. The average congress member employs roughly 30 staffers, with a highly right-skewed distribution in which some legislators employ more than 100 staffers. Staffers are nearly evenly split by gender and are highly educated: almost all hold at least a bachelor's degree, slightly more than 20 percent have a master's degree, and around 10 percent hold a PhD. The staffer labor market is characterized by substantial turnover, with the majority of staffers remaining in Congress for less than two congressional terms. Consistent with this high degree of mobility, most staffers work for only a single congress member over their congressional careers. Beyond these descriptive patterns, we show that staffer expertise is a strong predictor of legislative activity. In particular, a doubling of a staffer's expertise in a given policy area is associated with an increase of approximately 0.49 bills introduced by a congress member in that area.

In the second part, we introduce an instrumental variables strategy that generates plausibly exogenous variation in the expertise available to each congress member to overcome the endogeneity in the relationship between staffer expertise and legislative activity. The strategy exploits the fact that when a congress member leaves office, their staffers become available for hire, creating shocks to the supply of congressional expertise. We combine this source of variation with information on educational ties across staffers, which play an important role in facilitating job mobility within Congress. As a result, each congress member is differentially exposed to a hiring pool whose size and expertise depend both on the characteristics of staffers made available by departing legislators and on the educational connections between those staffers and the congress member's existing staff team. In line with this motivation, we show that educational connections predict which congress members staffers work for in subsequent congressional terms.

The first-stage regressions show that exposure to the hiring pool in a given congress is a strong predictor of the staffer expertise a politician has at their disposal in a particular policy area. A doubling of the available expertise in the hiring pool is associated with a 10% increase in the expertise of a congress member's staff. This relationship remains robust when conditioning on policy-area-by-congress fixed effects, which absorb changes in the overall salience of specific policy areas (e.g., increased attention to the federal budget), as well as congress-member-by-congress fixed effects, which control for time-varying shifts in a legislator's overall productivity or institutional position (e.g., becoming a committee chair or party leader). Our findings are robust to a wide range of sensitivity checks, including specifications with more restrictive fixed effects, alternative measures of the educational network and staffer experience, different transformations of the key variables, trimming of potential outliers, restricting the sample to a stable panel of politicians, and leave-one-politician-out exercises.

The identifying assumption underlying this strategy is that variation in exposure to staffer expertise through educational connections is orthogonal to a congress member's legislative priorities. In particular, conditional on fixed effects, the timing with which staffers become available and the educational links of a congress member's existing staff should not systematically align with contemporaneous changes in legislative focus. In support of this assumption, we show that past educational connections have no predictive power for hiring outcomes when the same staffers become available at different points in time. Put differently, had these staffers entered the hiring pool in an alternative period, they would have been hired by different congress members, consistent with educational connections shaping matching frictions rather than reflecting targeted or strategic hiring related to policy priorities.

In the third part of the paper, we use this instrumental variables strategy to estimate the causal effect of staffer expertise on legislative production. Instrumenting for staffer expertise, we find a positive and statistically significant effect on the number of bills a congress member introduces in a given policy area. Quantitatively, a doubling of staffer expertise is associated with an increase of approximately 0.4 additional bills. These estimates are obtained while controlling for policy-area-by-congress fixed effects, which absorb changes in the overall salience of specific policy areas (such as increased attention to the federal budget), as well as congress-member-by-congress fixed effects, which account for time-varying shifts in a legislator's overall productivity or institutional position (for example, becoming a committee chair or party leader).

Consistent with our identifying assumptions, we find no effect of a placebo hiring pool constructed using educational connections staffers would have had if they had

entered the hiring pool in an alternative period. This absence of placebo effects supports the interpretation that the estimated relationship reflects exogenous variation in staffer expertise rather than unobserved changes in legislators' policy priorities. Our findings are also robust to a wide range of sensitivity checks, including specifications with more restrictive fixed effects, alternative measures of the educational network and staffer experience, different transformations of the key variables, trimming of potential outliers, restricting the sample to a stable panel of politicians, and leave-one-politician-out exercises.

In the fourth and final part of the paper, we examine whether staffer expertise also affects the quality of legislation, as measured by how far bills progress in the legislative process. Using our instrumental variables strategy, we estimate the effect of staffer expertise on the number of bills that pass either chamber of Congress and on the number of bills that ultimately become law. For both outcomes, we find positive and statistically significant effects of staffer expertise, but only for congress members who belong to the majority party. This pattern suggests that staffer expertise translates into legislative success primarily when institutional conditions allow legislators to effectively advance their policy proposals.

This paper contributes to three related strands of the literature. First, it relates to a large body of work in political economy that studies the determinants of politicians' policy-making behavior. A central focus of this literature has been on electoral incentives and accountability (Downs 1957; Fiorina 1974; Ansolabehere et al. 2001; Lizzeri and Persico 2001), ideology and preferences (Poole and Rosenthal 1985; Alesina and Giuliano 2015; Gennaioli and Tabellini 2019; Enke 2020), and institutional constraints shaping policy outcomes (Persson et al. 1997, 2000; Persson and Tabellini 2005). More recent work emphasizes the role of political networks and information frictions, showing that social connections, physical proximity, and shared backgrounds among politicians affect legislative behavior and effectiveness (Cohen and Malloy 2014; Harmon et al. 2017; Battaglini et al. 2020). In this literature, policy-making is typically modeled as the outcome of decisions made by individual politicians. Our paper complements this work by shifting attention to the production side of policy-making and by highlighting the role of staffers as a key input into legislators' policy choices and outputs.

Second, the paper relates to a smaller but growing literature that studies congressional staffers. Existing work has examined the backgrounds, beliefs, and knowledge of staffers (Crosson et al. 2018; Hertel-Fernandez et al. 2019), their career paths and labor market dynamics (Salisbury and Shepsle 1981), and the role of staff turnover and internal organization within legislative offices (Montgomery and Nyhan 2017). While

this literature provides important descriptive insights, it has largely stopped short of establishing causal evidence on how staffers affect the policy-making behavior of elected officials. To the best of our knowledge, this paper is the first to provide systematic causal evidence that staffer expertise shapes both the quantity and success of legislation, thereby placing staffers at the center of the policy-making process rather than treating them as background actors.

Third, the paper is related to the literature on lobbying and other external influences on policy-making. A large body of work documents how interest groups, firms, and lobbyists shape political outcomes through access, information provision, and persuasion (Blanes i Vidal et al. 2012; Bertrand et al. 2014; Battaglini and Patacchini 2018; Shepherd and You 2020). This literature highlights the importance of expertise and informational advantages in influencing policy. Our analysis complements this work by focusing on expertise that resides inside the legislature rather than outside it. While lobbyists attempt to influence policy from the outside, congressional staffers are directly involved in drafting legislation and coordinating the legislative process. By studying staffers, we therefore shed light on an internal channel through which expertise affects policy outcomes.

# 2 Data

Our analysis combines three primary data sources that allow us to link the characteristics of congressional staffers to the policy-making activities of U.S. legislators. First, we use baseline data on politicians and ideology from VoteView.com, including DW-NOMINATE scores that capture legislators' ideological positions based on roll-call voting. Second, we assemble comprehensive legislative data on all bills introduced in Congress using the U.S. Congress API, which provides detailed information on bill sponsorship, policy areas, and legislative outcomes. Third, we construct a novel dataset on congressional staffers by combining information from Leadership Connect and LegiStorm, which together offer near-universal coverage of staffers working for members of Congress, along with detailed records on their career histories and educational backgrounds. Our empirical analysis focuses on the period spanning the 113th to the 118th U.S. Congresses, covering the years 2013 through 2025.

## 2.1 Congress Member Data

Information on congress members is obtained from VoteView.com, which provides comprehensive data on the composition and behavior of the U.S. Congress. From this source, we collect identifiers for each legislator, party affiliation, chamber, and congressional session, as well as detailed information on roll-call voting behavior. A key variable in our analysis is the DW-NOMINATE score, which summarizes legislators' ideological positions based on their voting records and places them on a common liberal–conservative scale. VoteView also provides information on legislators' tenure and committee assignments, which we use to construct measures of congressional experience and to control for institutional roles that may affect legislative activity. These data allow us to track individual legislators consistently across congresses and to account for both cross-sectional and time-varying differences in ideology and institutional position.

## 2.2 Congressional Bills Data

Legislative data are obtained from the U.S. Congress API, which provides comprehensive bill-level information for all legislation introduced in Congress. Using this source, we collect data on all bills introduced between the 96th and the 118th Congresses, resulting in a sample of approximately 130,000 bills. For each bill, we observe the bill title, legislative status, summary, and full text, as well as detailed information on the sponsoring legislator and all co-sponsors. The data further include classifications into 33 broad policy areas and a set of more granular subject categories, allowing us to link legislative activity to specific policy domains. For bills that advance to a recorded vote, we additionally observe DW-NOMINATE–based measures derived from roll-call voting, which we use to characterize the ideological content of legislation. Together, these data allow us to track both the production and progression of legislation at a highly granular level.

## 2.3 Staffers Data

Our staffer data are drawn primarily from Leadership Connect, a commercial database with near-universal coverage of congressional employees that is widely used in government relations and lobbying. The dataset includes staff working in individual congressional offices, committee staff, and other congressional employees, and contains detailed biographical and occupational information, including job titles, employing offices, educational background, and historical employment records. In total, the raw data cover 84,768 individuals observed as congressional employees at some point in time.

To focus on staffers directly employed by individual legislators, we restrict attention to employees explicitly identified as working in the office of a specific member of Congress. In particular, we retain individuals whose occupation records include the phrases "Office of Senator," "Office of Representative," or "Office of Delegate." [1] This restriction allows us to isolate staffers who are directly involved in supporting the legislative activities of individual members, rather than committee or administrative staff.

While a subset of individuals in the dataset does not report a current occupation at the time of scraping, Leadership Connect provides detailed historical employment strings that allow us to reconstruct prior congressional service. Using these records, we identify former staffers who previously worked in congressional offices, even if they are no longer actively employed. As a validation exercise, we compare our staffer selection based on occupation strings with an alternative indicator provided by the database—the current employing member identifier—and find no evidence of missing current staffers, confirming the exhaustiveness of our filtering procedure.

Using the historical employment records, we reconstruct full congressional career paths for both current and former staffers. This procedure yields a panel dataset containing 224,365 occupation records corresponding to 56,196 unique individuals, spanning the $80^{\text{th}}$ through the $118^{\text{th}}$ Congresses. [2] The resulting data allow us to track staffer mobility across offices and over time, as well as to measure accumulated congressional experience and policy-specific expertise.

Descriptive statistics indicate that the average number of staffers per House or Senate office is stable over time (see Figure B.5). A modest decline in the $118^{\text{th}}$ Congress reflects incomplete coverage at the time of data collection rather than a structural break. The stability of staff counts across congresses suggests that the data do not suffer from systematic missingness or time-varying coverage issues.

### Measuring Staffer Expertise

We measure staffer expertise based on the legislative experience staffers accumulate through their prior exposure to policy-making in Congress. The core idea underlying our measure is that staffers develop policy-specific expertise by working on legislation introduced by the members they serve. Formally, for each staffer $s$ working for congress member $i$ during congress $c$, we create one observation for each of the 33 broad policy areas $p$. We then merge these data with the universe of bills introduced in Congress, classified by sponsoring legislator and policy area. This allows us to measure the extent

[1] In the main analysis, we exclude Delegates and focus exclusively on House and Senate offices.

[2] Our main empirical analysis focuses on the period from the $113^{\text{th}}$ to the $118^{\text{th}}$ Congresses.

to which a staffer has been exposed to legislative activity in a given policy domain throughout their congressional career.

Formally, we define the expertise of staffer $s$ in policy area $p$ during congress $c$ as:

$$\text{Expertise}_{spc} = \sum_{c'=80}^{c-1} \text{Bills}_{i(s)pc'} \tag{1}$$

where $\text{Bills}_{i(s)pc'}$ denotes the number of bills introduced in policy area $p$ during congress $c'$ by the congress member $i(s)$ for whom staffer $s$ worked at that time. In words, a staffer's expertise in a policy area is given by the cumulative number of bills in that area introduced by the legislators they previously served, across all prior congresses. This measure captures the idea that staffers acquire policy-specific knowledge through repeated involvement in the legislative process, including drafting, revising, and coordinating bills within a given domain. Importantly, the measure depends only on past legislative activity and therefore evolves over time as staffers gain experience. Because our data allow us to observe the full congressional career histories of staffers, we can construct these expertise measures using legislative activity from all prior congresses in which a staffer was employed, including congresses that predate the start of our main analysis period in the 113$^{\text{th}}$ Congress.

Analagously, we construct an aggregate measure of staffer expertise for each congress member. Specifically, for congress member $i$ in policy area $p$ during congress $c$, we define:

$$\text{Expertise}_{ipc} = \sum_{s \in i(c)} \text{Expertise}_{spc} \tag{2}$$

where the sum aggregates the policy-specific expertise of all staffers working for congress member $i$ during Congress $c$. This aggregation yields a measure of the total policy-specific expertise available to a legislator through their staff in a given Congress. Overall, this approach defines expertise based on staffers' cumulative exposure to legislative activity rather than formal credentials alone, allowing us to capture meaningful differences in policy-relevant experience across staff teams.

### Validating Staffer Expertise

We validate our measure of staffer expertise by examining whether it predicts subsequent career moves within Congress. A common career path for congressional staffers is to transition from member offices to congressional committees, which typically specialize in

a narrow set of policy areas. If our expertise measure captures meaningful, policy-specific knowledge, staffers with greater expertise in a given policy domain should be more likely to move to committees whose jurisdiction aligns with that domain. Consistent with this prediction, we find that staffer expertise strongly predicts the policy focus of the committee to which a staffer subsequently transitions. This pattern provides external validation that our measure captures substantive, policy-relevant experience rather than simply reflecting general tenure or seniority.

To implement this validation exercise, we focus on staffers who transition from a member's office to a congressional committee at any point in their career. For each such transition, we examine the committee to which the staffer moves and relate this choice to the staffer's accumulated policy-specific expertise at the time of the move. To do so, we map each congressional committee to the policy areas that fall within its legislative jurisdiction and construct staffer-level measures of expertise in those areas. We then estimate regressions of the following form:

$$\text{I[Works for Comittee]}_{ip(c)} = \alpha + \theta \cdot \text{Staffer Exp.}_{ip} + \mathbf{X}'\beta + \epsilon_i p \tag{3}$$

where the dependent variable, Works for Committee$_{ip(c)}$, is an indicator equal to one if staffer $i$ works for a committee $c$ associated with policy area $p$. The key explanatory variable, Staffer Exp.$_{ip}$, measures staffer $i$'s accumulated expertise in policy area $p$ prior to the transition. The coefficient of interest, $\theta$, captures the extent to which policy-specific expertise predicts specialization in subsequent committee assignments. The vector $\mathbf{X}$ includes a rich set of fixed effects and controls. In particular, we include staffer-by-congress fixed effects to absorb all time-varying staffer characteristics such as overall experience and career stage, committee-by-congress fixed effects to control for changes in committee staffing needs over time, and policy-area-by-congress fixed effects to capture variation in the salience of different policy domains across congresses. Together, these controls ensure that identification comes from within-staffer variation in relative expertise across policy areas.

This specification, therefore, relates the probability of transitioning to a given committee to a staffer's relative expertise in the corresponding policy domains, controlling for overall experience and other observable characteristics. As a result, it provides a direct test of whether staffers' policy-specific experience predicts specialization in subsequent committee assignments. We present the regression results in Table 1.

Table 1 reports the results of the validation exercise linking staffers' policy-specific expertise to subsequent committee assignments. Across all specifications, staffer expertise

in a given policy area is a strong and statistically significant predictor of working for a committee associated with that policy domain. In our preferred specifications, which include staffer-by-congress, committee-by-congress, and policy-area-by-congress fixed effects, the coefficient on policy-area expertise remains positive and precisely estimated. Quantitatively, a one-unit increase in the inverse hyperbolic sine of policy-specific expertise is associated with an increase of between 2.2 and 4.1 percentage points in the probability of transitioning to a corresponding committee, relative to a mean transition probability of 11 percent.

Importantly, these estimates are identified from within-staffer variation across policy areas, holding constant overall experience, career stage, and time-varying committee demand. The stability of the coefficients across specifications with increasingly restrictive fixed effects suggests that the results are not driven by general seniority or unobserved staffer characteristics. Instead, they indicate that staffers systematically sort into committees that align with their accumulated policy expertise, providing strong validation that our expertise measure captures meaningful, policy-relevant experience rather than generic congressional tenure.

**Table 1: Validation Staffer Expertise**

| | *Dep. var.:* I[Works for Committee] | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Exp. Pol. Area) | 0.024*** | 0.041*** | 0.040*** | 0.022*** | 0.040*** |
| | (0.001) | (0.002) | (0.002) | (0.001) | (0.002) |
| Observations | 84,056 | 84,056 | 84,056 | 84,056 | 84,056 |
| Mean of DV | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| $R^2$ | 0.01 | 0.02 | 0.02 | 0.04 | 0.05 |
| Staffer × Congress FE | | Yes | | | Yes |
| Committee × Congress FE | | | Yes | | Yes |
| Policy Area × Congress FE | | | | Yes | Yes |

*Notes:* This table presents

### Staffers' Educational Connections

In our main analysis, we exploit educational connections between congressional staffers to construct measures of potential access to the hiring pool. Educational backgrounds are drawn from self-reported records in Leadership Connect and LegiStorm, which include information on attended institutions and, in many cases, graduation years. These data allow us to construct staffer-level networks based on shared educational backgrounds that plausibly facilitate information flows and matching in the congressional labor market.

Educational information is available for a substantial share of staffers. Specifically, 56.7 percent of staffers report at least one educational institution. To ensure consistent identification of institutions, we apply a comprehensive cleaning and standardization procedure to all reported education records. This process harmonizes naming conventions, removes artifacts, and strips degree-level information, yielding a standardized set of university identifiers. As a result, educational connections are defined at the university level (e.g., "Harvard University") rather than at the level of specific schools within universities.

Using these standardized identifiers, we construct staffer–staffer adjacency matrices that capture whether two staffers attended the same university within a given graduation-year window. We consider four alternative definitions of educational ties: graduation within three years, five years, or nine years, as well as an unrestricted specification with no temporal constraint. Across these definitions, we identify 234,534 staffer-to-staffer connections, corresponding to an average of 7.54 educational links per staffer.

Finally, we construct educational networks separately for different groups of staffers based on job responsibilities. In particular, we focus on senior and policy staffers—both separately and jointly—while excluding administrative and constituency service staffers. This restriction reflects our theoretical focus on staffers who are most directly involved in legislative production and most likely to influence hiring decisions and policy outcomes.

**Summary Statistics**

Table 2 reports summary statistics for the main variables used in the analysis. The table first summarizes the scale of the data, including the number of unique staffers, congress members, and congress-member–by–congress observations, as well as the number of congress-member–policy-area–by–congress cells used in the main regressions. The table also reports descriptive statistics for the main legislative outcomes. As expected, the distribution of these outcomes is highly skewed, with a large mass at zero and a long right tail reflecting heterogeneity in legislative activity across members and policy areas. We also report our novel staff expertise measures. These variables exhibit substantial dispersion across congress members and policy areas, reflecting meaningful variation in staffer experience and specialization.

# 3 The Market for Staffers in the US Congress

This section provides an overview of the market for congressional staffers and presents motivating evidence on the relationship between staffer expertise and legislative activity.

## Table 2: Summary Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Nr. of Staffers: | | | | | | 51,196 |
| Nr. of Congress Members: | | | | | | 956 |
| Nr. of Congress Members x Congress Pairs: | | | | | | 3,296 |
| Nr. of Congress Members x Policy Area x Congress Pairs: | | | | | | 108,768 |
| | **Mean** | **SD** | **Median** | **Min** | **Max** | **Obs** |
| **Main Outcomes** | | | | | | |
| Num. Bills Sponsored | 0.87 | 2.26 | 0.00 | 0.00 | 100.00 | 89,892 |
| Num. Bills Passed House | 0.06 | 0.51 | 0.00 | 0.00 | 32.00 | 89,892 |
| Num. Bills Passed Senate | 0.06 | 0.50 | 0.00 | 0.00 | 53.00 | 89,892 |
| Num. Bills became Law | 0.02 | 0.17 | 0.00 | 0.00 | 9.00 | 89,892 |
| **Staffer Expertise Variables** | | | | | | |
| Total Staff Exp. in Policy Area | 64.05 | 169.61 | 0.00 | 19.00 | 9481.00 | 89,826 |
| pol_area_staff_exp_d1 | 11.84 | 13.85 | 0.00 | 7.00 | 93.00 | 89,826 |
| pol_area_staff_exp_d2 | 8.18 | 12.06 | 0.00 | 3.00 | 92.00 | 89,826 |
| pol_area_staff_exp_d3 | 6.06 | 10.56 | 0.00 | 2.00 | 91.00 | 89,826 |
| pol_area_staff_exp_d5 | 3.78 | 8.34 | 0.00 | 1.00 | 90.00 | 89,826 |
| pol_area_staff_exp_d10 | 1.66 | 5.29 | 0.00 | 0.00 | 77.00 | 89,826 |
| **Placebo Staffer Expertise Variables** | | | | | | |
| Placebo Pool Expertise Staffer | 70.67 | 102.44 | 0.00 | 35.00 | 1671.00 | 89,892 |
| pool_pla_a_staff_exp_d1_lag | 10.98 | 8.83 | 0.00 | 8.00 | 60.00 | 89,892 |
| pool_pla_a_staff_exp_d2_lag | 7.44 | 7.35 | 0.00 | 5.00 | 55.00 | 89,892 |
| pool_pla_a_staff_exp_d3_lag | 5.39 | 6.12 | 0.00 | 3.00 | 51.00 | 89,892 |
| pool_pla_a_staff_exp_d5_lag | 3.26 | 4.48 | 0.00 | 2.00 | 42.00 | 89,892 |
| pool_pla_a_staff_exp_d10_lag | 1.29 | 2.35 | 0.00 | 0.00 | 26.00 | 89,892 |

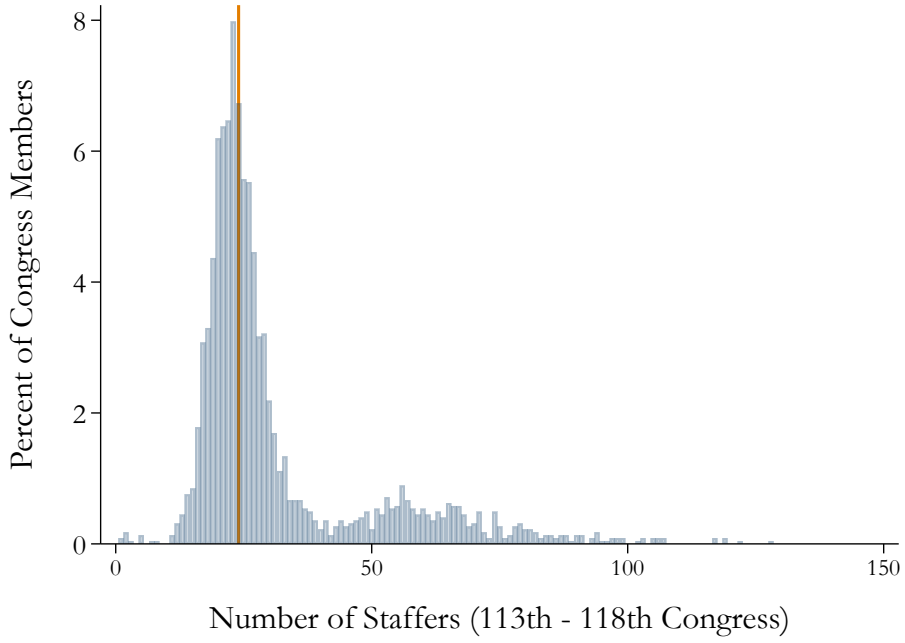
*Notes:* This table presents

We begin by documenting a set of stylized facts about the size, composition, and dynamics of congressional staff teams, highlighting patterns in education, gender, and career mobility. We then examine how variation in staffer expertise across policy areas correlates with differences in legislative production by members of Congress. These descriptive patterns establish the empirical relevance of staffers in the policy-making process and motivate the causal analysis developed in the subsequent sections.

## 3.1 Careers and Mobility of Congressional Staff

We begin by examining the size of congressional staff teams. Figure 1 plots the distribution of the number of staffers employed by individual members of Congress. The figure shows that the average congress member employs roughly 30 staffers, but the distribution is highly right-skewed. While most legislators employ between roughly 20 and 40 staffers, a non-trivial share employ substantially larger teams, with some offices exceeding 100 staffers. This dispersion highlights considerable heterogeneity in staffing resources across members, suggesting that differences in staff capacity may play an important role in shaping legislative activity.

**Figure 1: Number of Staffers by Congress Member**




*Notes:* The figure shows

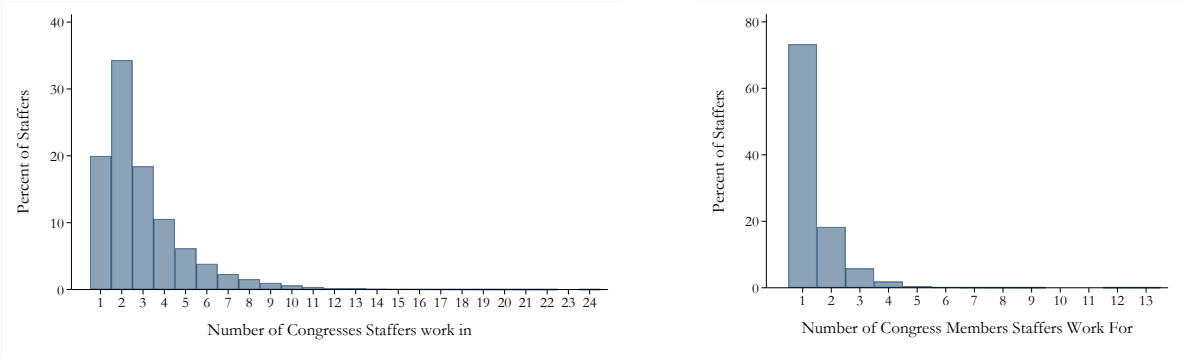
Appendix Figure B.2 and Figure B.3 provide additional detail on the educational and gender composition of congressional staffers. Appendix Figure B.2 shows that congressional staffers are highly educated: the vast majority hold at least a bachelor's degree, with a substantial share holding a master's degree and a smaller but non-negligible fraction holding a PhD. Appendix Figure B.3 documents the gender composition of the congressional staff workforce, which is approximately balanced between female and male staffers, with only a small share of staffers for whom gender information is missing.

Together, these figures highlight that congressional staffers are both highly educated and broadly representative in terms of gender composition.

We next turn to the career dynamics of congressional staffers. Figure 2 illustrates two central features of staffer career trajectories. Panel (a) plots the distribution of staffer tenure in Congress and shows that careers are typically short-lived: most staffers remain in Congress for only one or two congressional terms, with a rapidly thinning right tail of longer tenures. Panel (b) documents the number of different congress members a staffer works for over their congressional career. The majority of staffers work for a single member, while a smaller share transitions across offices, and only a very limited number work for multiple legislators. Together, these patterns highlight that congressional staffing is characterized by high turnover and limited mobility across offices, reinforcing the importance of understanding how staffer experience is accumulated and reallocated over time.

**Figure 2: Career Trajectories of Staffers**

**(a) Average Tenure of Staffers** **(b) Number of Politicians**



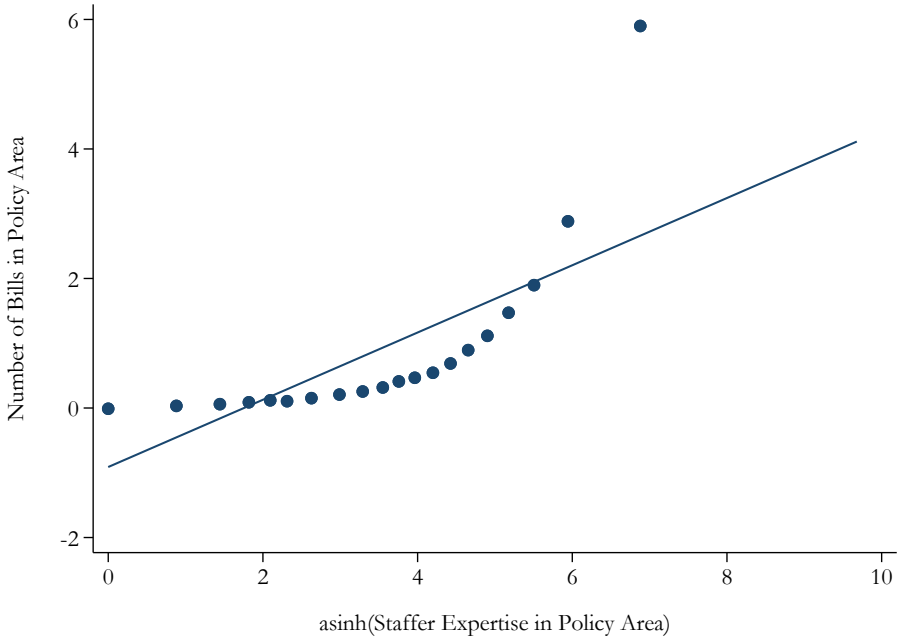

*Notes:* The figure shows

## 3.2 Motivational Evidence: Staffer Expertise and Number of Bills

We next present motivating evidence on the relationship between staffer expertise and legislative production. Building on the descriptive patterns documented above, we examine whether variation in the policy-specific expertise of a congress member's staff is systematically associated with differences in legislative output across policy areas. This analysis is intentionally descriptive and does not seek to establish causality. Rather, it serves to document robust correlations between staffer expertise and bill production, and to motivate the instrumental variables strategy developed in the subsequent section.

We begin by visualizing this relationship in Figure 3. The figure presents a binscatter of the number of bills introduced by a congress member in a given policy area against the corresponding level of staffer expertise in that area, with both variables transformed using the inverse hyperbolic sine. Importantly, the binscatter partials out the total number of staffers employed by a congress member, ensuring that the relationship does not simply reflect differences in office size but instead captures variation in policy-specific expertise. The figure reveals a strong and approximately linear positive association: congress members with greater staffer expertise in a policy domain tend to introduce more legislation in that area. This pattern is evident across most of the support of the data and is not driven by a small number of extreme observations.

**Figure 3: Binscatter Staffer Expertise and Number of Bills**




*Notes:* The figure shows

### OLS Estimates

We next quantify the relationship between staffer expertise and legislative output using panel OLS regressions of the following form:

$$\text{Num. Bills}_{ipc} = \theta \cdot \text{Staffer Expertise}_{ipc} + \alpha_i + \rho_p + \delta_c + \varepsilon_{ipc} \tag{4}$$

where Num. Bills$_{ipc}$ is the number of bills congress member $i$ sponsors in policy area $p$ during congress $c$. The variable Staffer Expertise$_{ipc}$ captures the policy-area–specific expertise of the staffers working for member $i$ in congress $c$ as defined in Equation (2). We include congress-member fixed effects $\alpha_i$, which absorb all time-invariant differences across legislators (e.g., baseline ability or persistent preferences), policy area fixed effects $\rho_p$, which control for time-invariant differences in the number of bills by policy area, and congress fixed effects $\delta_c$, which control for shocks common to all members in a given congress (e.g., changes in the legislative agenda). Under this specification, the coefficient $\theta$ captures how changes in the composition of a member's staff are associated with changes in legislative activity. We also report more restrictive specifications in which we include policy area $\times$ congress and congress member $\times$ congress fixed effects. The latter specification then only exploits variation in the number of bills across policy areas sponsored by the same congress members.

Table 3 reports OLS estimates of the relationship between staffer expertise and legislative production. Across all specifications, staffer expertise in a given policy area is positively and precisely associated with the number of bills introduced by a congress member in that area. In our baseline specification, a doubling of staffer expertise is associated with an increase of approximately 0.47 bills, relative to a mean of 0.82 bills per congress–policy-area cell. The estimated relationship is highly stable across increasingly demanding specifications. Columns (2) through (4) introduce policy-area–by–congress fixed effects, policy-area–by–chamber–by–congress fixed effects, and congress-member–by–congress fixed effects, which control for changes in the salience of policy areas, chamber-specific legislative conditions, and time-varying legislator productivity, respectively. The magnitude of the coefficient on staffer expertise remains largely unchanged across specifications, suggesting that the correlation is not driven by aggregate shifts in legislative priorities or by general increases in legislative activity among more productive members.

While these correlations are remarkably stable across specifications, they do not have a causal interpretation and may reflect a range of confounding factors. For example, more capable or more ambitious legislators may both attract more experienced staffers and introduce more legislation, or staffers may sort endogenously into offices with higher legislative activity. We therefore next turn to our instrumental variables estimates, which exploit plausibly exogenous variation in staffer expertise to assess its causal impact on legislative production.

**Table 3: Effect of Staffer Expertise on Number of Bills**

| | *Dep. var.: Number of Bills* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Staffer Exp.) | 0.519*** | 0.539*** | 0.542*** | 0.543*** | 0.543*** |
| | (0.013) | (0.014) | (0.014) | (0.014) | (0.014) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| $R^2$ | 0.28 | 0.31 | 0.32 | 0.34 | 0.34 |
| Congress Member | Yes | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes | Yes |
| Congress FE | Yes | Yes | | | |
| Connecting University FE | | Yes | Yes | Yes | Yes |
| Pol. Area × Congress FE | | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | | Yes | Yes |
| Congress Member × Congress FE | | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

# 4 Theoretical framework

To guide the interpretation of our empirical results, we propose a simple theoretical framework that illustrates how access to experienced congressional staff, mediated by predetermined educational networks, translates into legislative capacity and bill introduction.

## 4.1 Setup

Consider member of Congress $i \in \mathcal{I}$, policy area $p \in \mathcal{P}$, and Congress $c = 1, 2, \ldots$. Let $B_{ipc}$ denote the number of bills introduced by member $i$ in policy area $p$ during Congress $c$.

Legislative output is shaped by (i) staff experience relevant to $p$, and (ii) other determinants of legislative activity (e.g., member seniority/experience, district characteristics, party status, committee roles, and time-varying shocks), which are not modeled explicitly but are accounted for in the empirical strategy through fixed effects and controls.

## 4.2 Predetermined educational networks and exposure to the hiring pool

At the beginning of Congress $c$, turnover among exiting members generates a pool of available staffers $\mathcal{S}_c$.

Each staffer $s \in \mathcal{S}_c$ has policy-relevant congressional experience $\text{Exp}_{spc} \geq 0$ for area $p$ ("experience" in our setting).

Offices differ in their exposure to this pool through predetermined educational ties. Let

$$G_{is} \in \{0, 1\}$$

be an *indicator* equal to one if office $i$ is connected to staffer $s$ via a shared educational institution within a graduation-year window, and zero otherwise. Because these ties are formed years before entry into Congress, they are treated as predetermined with respect to contemporaneous legislative needs.

Define office $i$'s exposure to experienced staff in area $p$ as

$$Z_{ipc} \equiv \sum_{s \in \mathcal{S}_c} \text{Exp}_{spc} G_{is}. \tag{5}$$

## 4.3 Hiring with reduced frictions

Educational ties reduce search, screening, and information frictions, increasing the probability that office $i$ hires staffers from $\mathcal{S}_c$ who have experience in $p$. A parsimonious reduced-form representation is:

$$H_{ipc} = h(Z_{ipc},\, X_{ic},\, \eta_i,\, \eta_{pc},\, \eta_c) + u_{ipc}, \qquad \frac{\partial h}{\partial Z} > 0, \tag{6}$$

where $H_{ipc}$ is realized staff experience in office $i$ relevant to area $p$ during Congress $c$, $X_{ic}$ denotes observed member/office covariates (optional), and $(\eta_i, \eta_{pc}, \eta_c)$ denote the fixed effects used in the empirical analysis. Equation (6) captures that, holding constant those factors, higher exposure $Z_{ipc}$ leads the office to hire (some of) the available experienced staffers, raising realized experience $H_{ipc}$.

## 4.4 Bills introduced as a function of staff experience

Bills introduced are produced according to a general drafting-capacity relationship:

$$B_{ipc} = F(H_{ipc},\, X_{ic},\, \eta_i,\, \eta_{pc},\, \eta_c) + \varepsilon_{ipc}, \qquad \frac{\partial F}{\partial H} > 0. \tag{7}$$

This formulation makes explicit that staff experience is a direct determinant of $B_{ipc}$, while other determinants (e.g., member experience/seniority) are absorbed by the empirical strategy.

## 4.5 Staff learning-by-doing (experience accumulation)

The learning mechanism operates through staffers: experience accumulates while working in Congress. A simple office-level reduced-form law of motion is:

$$H_{ip,c+1} = \Psi(H_{ipc},\, X_{i,c+1},\, \eta_i,\, \eta_{p,c+1},\, \eta_{c+1}) + \nu_{ip,c+1}, \qquad \frac{\partial \Psi}{\partial H} > 0, \tag{8}$$

where $\Psi(\cdot)$ captures experience accumulation from continued time on the Hill (including the fact that staff can learn more the longer they remain employed), without separating "retention" and "learning" as distinct channels. The innovation $\nu_{ip,c+1}$ captures changes due to new hires, departures, and reassignments.

## 4.6 1.6 Testable Implications

The model yields a set of predictions aligned with our empirical design.

**(T1) First stage: exposure to the pool predicts realized staff experience.** Estimating the first stage implied by (6) should yield a positive relationship:

$$H_{ipc} = \pi Z_{ipc} + \mathrm{FE} + u_{ipc}, \qquad \hat{\pi} > 0.$$

This captures that educational ties reduce frictions and increase hiring from the available pool.

**(T2) Staff experience increases bills introduced.** Instrumenting $H_{ipc}$ with $Z_{ipc}$ in a second stage consistent with (7) should yield a positive causal effect of staff experience on bills introduced:

$$B_{ipc} = \alpha H_{ipc} + \mathrm{FE} + \varepsilon_{ipc}, \qquad \hat{\alpha} > 0.$$

**(T3) Learning-by-doing implies persistence in legislative output.** Since staff experience accumulates over time (Equation (8)), current staff experience should predict future bill introductions:

$$B_{ip,c+1} = \theta H_{ipc} + \mathrm{FE} + \varepsilon_{ip,c+1}, \qquad \hat{\theta} > 0,$$

to the extent that experience persists in the office and continues to raise drafting capacity.

**(T4) Policy specificity: within-area effects exceed cross-area effects.** Because $Z_{ipc}$ and $H_{ipc}$ are defined at the policy-area level, effects should be concentrated within the same domain:

$$B_{ip'c} = \alpha^{\text{cross}} H_{ipc} + \text{FE} + \varepsilon_{ip'c}, \qquad p' \neq p,$$

with the prediction $\alpha^{\text{within}} > \alpha^{\text{cross}}$.

**(T5) Placebo for exclusion/selection: exposure is orthogonal to lagged experience.** A key empirical implication of predetermined networks is that contemporaneous exposure to the hiring pool should not predict *pre-determined* staff experience in the office prior to the pool becoming relevant. In particular, the model motivates the placebo:

$$H_{ip,c-1} = \kappa Z_{ipc} + \text{FE} + \xi_{ip,c-1}, \qquad \hat{\kappa} \approx 0,$$

i.e., $Z_{ipc}$ should be uncorrelated with lagged staff experience.

**(T6) Timing with overlapping exposures.** Because exposures recur and overlap across congresses, a single "first treatment" event study may not be feasible. Instead, the model implies that *future* exposure to a hiring pool should not predict current realized experience or current output, once fixed effects are included:

$$H_{ipc} = \pi_0 Z_{ipc} + \pi_{+1} Z_{ip,c+1} + \text{FE} + u_{ipc}, \qquad \hat{\pi}_{+1} \approx 0,$$

and analogously,

$$B_{ipc} = \beta_0 Z_{ipc} + \beta_{+1} Z_{ip,c+1} + \text{FE} + \varepsilon_{ipc}, \qquad \hat{\beta}_{+1} \approx 0.$$

These lead-placebo restrictions operationalize the "no anticipatory effects" prediction in settings with repeated, overlapping exposure shocks.

**(T7) Majority-party gating for success outcomes.** For success outcomes $S_{ipc}$ (e.g., bills passing the House or becoming law), a two-stage interpretation can reconcile broad effects on introductions with concentration of success in the majority:

$$S_{ipc} = g_{ic}\, q(H_{ipc}) + \text{noise}, \qquad q'(\cdot) > 0, \qquad g_M > g_m,$$

where $g_{ic}$ is higher for majority-party members. Thus, the impact of $H_{ipc}$ on $S_{ipc}$ is predicted to be larger in the majority even if the effect on $B_{ipc}$ is present more generally.

# 5 Identification Strategy

The central challenge in estimating the effect of staffer expertise on legislative activity is that the composition of a congress member's staff is endogenous. More capable or more productive legislators may attract more experienced staffers, and staffers may strategically sort into offices with greater legislative influence or policy relevance. As a result, OLS estimates may conflate the effect of staffer expertise with unobserved legislator characteristics or reverse causality. To address these concerns, we develop an instrumental variables strategy that exploits plausibly exogenous variation in the expertise available to congress members through the congressional staff labor market.

The strategy combines two sources of variation. First, we exploit election-induced turnover of congress members. When a politician leaves Congress—whether due to electoral defeat, retirement, or other reasons—their staffers must find new employment if they wish to remain in congressional politics. This creates shocks to the supply of staffers available for hire in each congress. Importantly, the expertise embodied in this hiring pool varies naturally across congresses depending on which politicians exit and, consequently, which staffers and policy-specific skills become available. This variation generates shifts in the amount of expertise that can potentially be hired in different policy areas at different points in time.

Second, we exploit the fact that staffer mobility is mediated by educational networks. Staffers who become available for hire are more likely to join the office of a congress member whose existing staff share educational ties with them. These connections facilitate information flows and matching in the congressional labor market, increasing the likelihood that available staffers are hired by certain offices rather than others. Together, election-induced staffer availability and educational connections generate plausibly exogenous variation in the policy-specific expertise to which a congress member is exposed in a given congress.

Combining these two sources of variation allows us to construct an instrument for staffer expertise that varies across congress members, policy areas, and congresses. The identifying assumption is that, conditional on fixed effects, the timing and composition of staffers becoming available due to other politicians leaving Congress, and their educational connections to a member's existing staff, are orthogonal to unobserved changes in that member's legislative priorities. A key advantage of this approach is

that we observe the near universe of congressional staffers, implying that all relevant expertise that becomes available for hire is captured in the data.

The resulting variation in staffer expertise is plausibly exogenous to individual legislators' policy-making decisions. Congress members have no direct control over the re-election outcomes of their peers and therefore cannot systematically influence the timing or composition of staffers who become available for hire. Moreover, educational connections between staffers are predetermined and fixed prior to the period of analysis, making it unlikely that they respond to contemporaneous changes in a legislator's policy priorities. Any time-invariant factors that affect a congress member's propensity to hire experienced staffers—such as baseline ability, reputation, or office resources—are absorbed by congress-member fixed effects. We further control for the universities through which staffers are connected, allowing the analysis to abstract from any direct effects associated with hiring graduates from particular institutions.

We present our instrumental variable in four steps. First, we describe how we construct the policy-area–specific pool of staff expertise that becomes available for hire in each Congress. Second, we provide supporting evidence for the validity of our instrumental variables strategy, including tests of the underlying identifying assumptions. Third, we present the first-stage estimates linking exposure to the hiring pool to realized staffer expertise. Finally, we assess the robustness of the first-stage results across a range of alternative specifications and sample restrictions.

## 5.1 Constructing Staffers' Expertise Pool

We construct the staffer hiring pool by combining information on congressional turnover with educational connections between staffers. We begin by identifying the set of congress members who leave Congress at the end of a given term. Specifically, we define the set of leavers as all legislators who are observed in congress $c$ but do not appear in congress $c+1$. We then identify the staffers who worked for these departing legislators during their final term in office. These staffers constitute the pool of individuals who become available for hire in the subsequent congress.

Next, we determine which remaining legislators are connected to these available staffers through educational networks. A staffer formerly employed by a departing legislator is considered connected to a congress member $j$ if they share an educational tie with at least one staffer employed by $j$, defined as attendance at the same university within a 5-year window around the graduating year.

Using this information, we construct a policy-area–specific hiring pool measure for each congress member $j$ and congress $c$. The hiring pool aggregates the expertise of

staffers who become available due to other legislators leaving congress, weighting each staffer's policy-specific expertise by whether they are connected to member $j$ through the educational network. Intuitively, this measure captures the amount of relevant expertise to which a legislator is exposed through the combination of staffer availability and network-mediated access. Formally, the staffer hiring pool is defined as:

$$\text{Staffer Hiring Pool}_{ipc} = \sum_{s=1}^{N_{jc}} \text{Expertise Staff}_{spc} \cdot \text{I}[\text{Connected}_{ij} = 1] \tag{9}$$

where $\text{Staffer Hiring Pool}_{ipc}$ is the staffer hiring pool available to congress member $i$ in policy area $p$ during congress $c$. The variable aggregates the policy-specific expertise embodied in staffers who become available for hire due to other legislators leaving Congress. The summation runs over all staffers $s \in N_{jc-1}$ who worked for departing congress members $j$ in the previous congress and are therefore potential hires in congress $c$. The term $\text{Expertise Staff}_{spc}$ denotes staffer $s$'s accumulated expertise in policy area $p$ at the beginning of congress $c$, constructed based on the staffer's prior legislative experience. The indicator function $\text{I}[\text{Connected}_{ij} = 1]$ equals one if staffer $s$ is connected to congress member $i$ through an educational tie to at least one of $i$'s current staffers, and zero otherwise. As a result, the hiring pool measure captures the total amount of policy-specific expertise to which a legislator is exposed through staffers who are both available for hire and connected through the educational network.

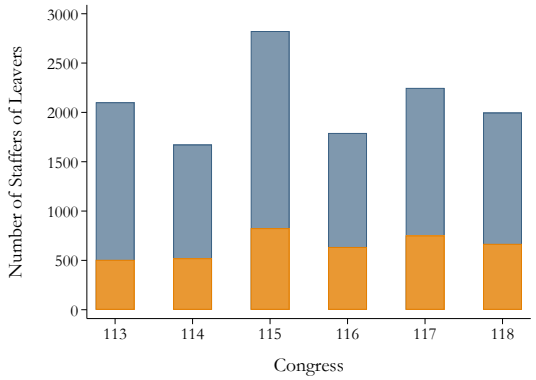
Figure 4 visualizes the key sources of variation underlying our instrumental variables strategy. Panel (a) shows the number of staffers employed by congress members who leave Congress at the end of each term, with the subset of those staffers who continue working in the subsequent congress highlighted in orange. This panel illustrates that congressional turnover consistently generates a sizable pool of staffers who become available for hire in each congress. Panel (b) plots the distribution of policy-area–specific expertise among the staffers of departing legislators. The distribution is highly right-skewed, indicating substantial heterogeneity in the type and amount of expertise that becomes available across policy areas and congresses.

Panel (c) documents the number of educational connections between staffers of departing legislators and staffers of remaining members of Congress. While many staffers have relatively few connections, a non-trivial share is linked to multiple offices, creating differential access to the available pool of expertise across legislators. Finally, Panel (d) shows the resulting distribution of policy-area–specific hiring-pool expertise across congress members. This panel illustrates how the interaction of staffer availability and network connections generates meaningful variation in the amount of expertise

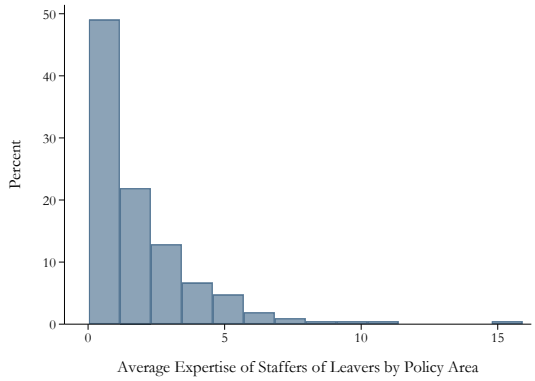
to which different legislators are exposed. Together, the four panels highlight that election-induced turnover and educational networks jointly produce substantial and heterogeneous variation in hiring-pool expertise, which we exploit in the first-stage analysis.

**Figure 4: Visualizing Sources of Instrumental Variation**

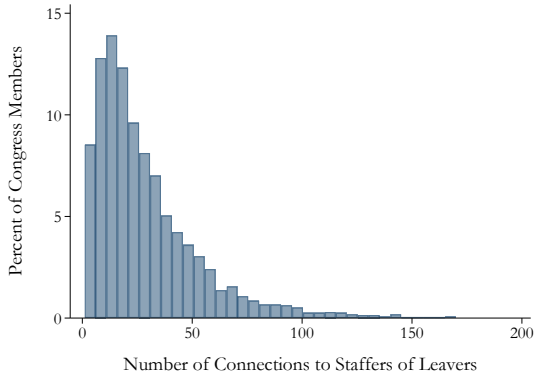
**(a) Number of Staffers of Leavers by Congress**



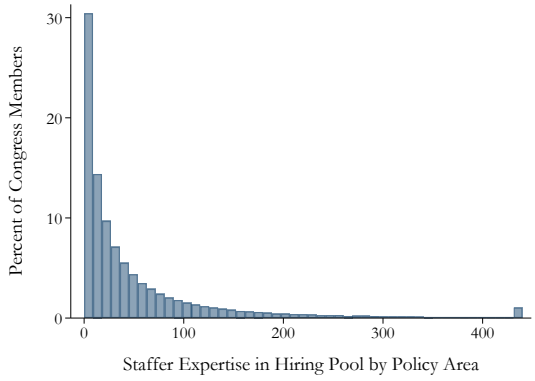

**(b) Expertise of Staffers of Leavers by Policy Area**




**(c) Connections to Staffers of Leavers**




**(d) Variation in Hiring Pool by Policy Area**




## 5.2 Validation of Instrumental Variable Strategy

We next provide supporting evidence for the validity of our instrumental variables strategy. A key component of the identification approach is that educational connections between staffers facilitate job mobility within Congress and shape how available staffers are allocated across offices. In this section, we document that these educational ties are a strong predictor of staffer hiring outcomes, consistent with the view that networks

operate as matching frictions in the congressional labor market rather than reflecting strategic or policy-driven hiring decisions.

To document the role of educational connections in shaping staffer allocation, we estimate regressions at the staffer–politician level among staffers whose employing congress member leaves Congress. The dependent variable, Works For$_{sp}$, is an indicator equal to one if staffer $s$ works for politician $p$ in the subsequent congress. The key explanatory variable, Connected$_{sp}$, is an indicator for whether staffer $s$ has an educational connection to at least one staffer employed by politician $p$.

The specification includes staffer fixed effects, $\theta_s$, which absorb all staffer-specific characteristics such as experience, policy expertise, and general employability, as well as politician fixed effects, $\gamma_p$, which control for differences across legislators in staff size, resources, or attractiveness as employers. As a result, identification comes from comparing, for a given staffer, the relative likelihood of joining different politicians' offices depending on whether an educational connection exists. A positive coefficient on Connected$_{sp}$ therefore indicates that educational ties significantly increase the probability that an available staffer is hired by a given office, consistent with educational networks facilitating matching in the congressional labor market.

Table 4 reports regression results examining whether educational connections predict the allocation of staffers who become available when their employing congress member leaves office. Panel A shows that educational connections are a strong and statistically significant predictor of subsequent staffer–politician matches. Conditional on staffer and politician fixed effects, staffers are more likely to work for a politician in the next congress if an educational connection exists between the staffer and the politician's office. Although the unconditional probability of any given staffer–politician match is small, the estimated effect of an educational connection is precisely estimated and economically meaningful relative to the baseline hiring probability.

Panel B splits connections by party affiliation. The results show that educational connections within the same party strongly predict hiring outcomes, while connections across party lines have no statistically significant effect. This pattern is consistent with staffer mobility being facilitated by educational networks operating within partisan labor markets, and it aligns with institutional features of congressional hiring. Taken together, the results provide direct evidence that educational ties shape how staffers are allocated across offices, supporting the central mechanism underlying our instrumental variables strategy.

Figure 5 provides an additional placebo test that highlights the importance of timing in our identification strategy. The figure plots estimates of the effect of educa-

**Table 4: Hiring Regressions at the Politician Staffer Pair Level**

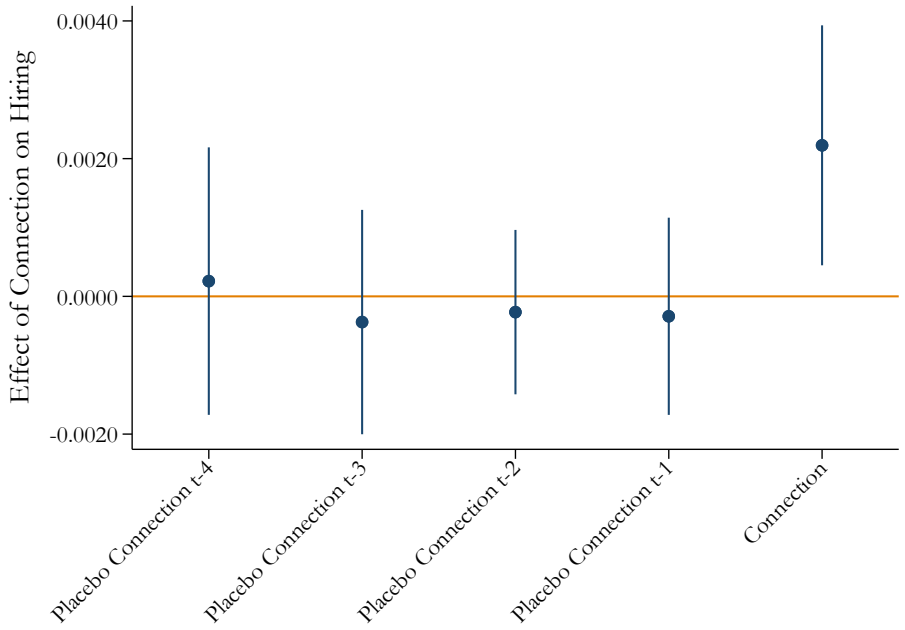
| | *Dep. var.: I[Hired]* | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| **Panel A: All Connections** | | | | |
| Connection | 0.002*** | 0.002** | 0.002*** | 0.002** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| Observations | 6,718,673 | 6,718,673 | 6,718,673 | 6,718,673 |
| Mean of DV | 0.001 | 0.001 | 0.001 | 0.001 |
| $R^2$ | 0.000 | 0.002 | 0.001 | 0.003 |
| **Panel B: Split by Party** | | | | |
| Connection same Party | 0.003*** | 0.003*** | 0.003*** | 0.003*** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| Connection other Party | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| Observations | 6,718,673 | 6,718,673 | 6,718,673 | 6,718,673 |
| Mean of DV | 0.001 | 0.001 | 0.001 | 0.001 |
| $R^2$ | 0.000 | 0.002 | 0.001 | 0.003 |
| Staffer FE | | Yes | | Yes |
| Congress Member FE | | | Yes | Yes |

*Notes:* This table presents

tional connections on staffer hiring when the same connections are shifted to earlier congresses. Specifically, we examine whether connections that existed one or more congresses prior to the period in which a staffer becomes available predict subsequent hiring outcomes. Across all placebo specifications, the estimated effects are small and statistically indistinguishable from zero. In contrast, the contemporaneous educational connection exhibits a positive and statistically significant association with hiring.

This pattern indicates that it is the timing of the connection—coinciding with the moment when a staffer becomes available for hire—that drives the observed allocation of staffers across offices. The absence of effects for lagged connections supports the interpretation that educational ties operate as a matching mechanism at the time of hiring, rather than reflecting persistent relationships or unobserved similarities between staffers and legislators. Together, these results provide further support for the validity of our instrumental variables strategy.

**Figure 5: Importance of Timing of Connections**




*Notes:* The figure shows

## 5.3 First Stage

We now turn to the first-stage relationship linking exposure to the staffer hiring pool to realized staffer expertise. Specifically, we estimate the following first-stage regression:

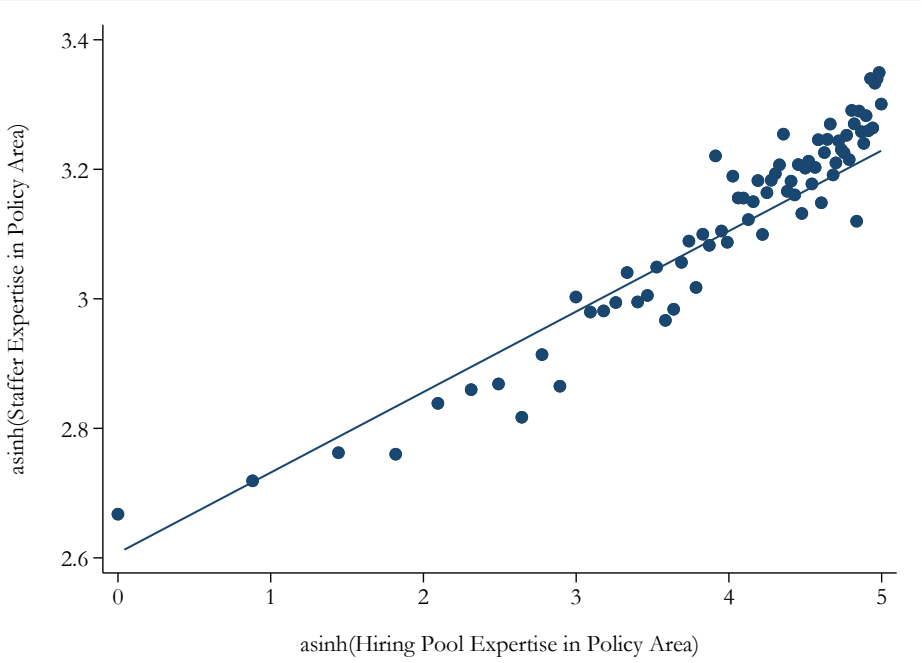
$$\text{Exp. Staffers}_{ipc} = \gamma \cdot \text{Staffer Pool}_{ipc} + \alpha_i + \rho_p + \delta_c + \varepsilon_{ipc} \tag{10}$$

where $\text{Exp. Staffers}_{ipc}$ denotes the policy-area–specific expertise of the staffers employed by congress member $i$ in congress $c$, constructed as described in Section 2.3. The variable $\text{Staffer Pool}_{ipc}$ measures the policy-area–specific expertise available for hire by congress member $i$ in congress $c$, based on staffers who become available due to other legislators leaving Congress and who are connected to $i$ through the educational network. The specification includes congress-member fixed effects $\alpha_i$, which absorb all time-invariant differences across legislators, policy-area fixed effects $\rho_p$, which capture persistent differences in legislative activity across policy domains, and congress fixed effects $\delta_c$, which control for aggregate shocks affecting all members in a given congress. Under this specification, the coefficient $\gamma$ captures the extent to which exogenous

variation in exposure to the hiring pool translates into realized staffer expertise within a legislator's office.

We begin by visualizing the first-stage relationship in Figure 6. The figure plots a binscatter of realized staffer expertise in a given policy area against the corresponding level of expertise available in the hiring pool, with both variables transformed using the inverse hyperbolic sine. The figure reveals a strong, positive, and approximately linear relationship: congress members who are exposed to greater policy-area–specific expertise in the hiring pool employ more staffer expertise in that area. This pattern is evident across the full support of the data and is not driven by a small number of extreme observations. The visual evidence underscores the relevance of the instrument and provides an intuitive illustration of how variation in hiring-pool exposure translates into realized staffer expertise.

**Figure 6: Binscatter Staffer Expertise by Policy Area and Pool**




*Notes:* The figure shows

Table 5 reports the first-stage estimates linking exposure to the staffer hiring pool to realized staffer expertise. Across all specifications, greater exposure to policy-area–specific expertise in the hiring pool is associated with significantly higher staffer expertise employed by congress members. In the baseline specification, a doubling of hiring-pool expertise is associated with an increase of approximately XXX percent in

realized staffer expertise, and the estimated relationship remains positive and precisely estimated across increasingly restrictive sets of fixed effects.

Columns (2) through (4) successively introduce policy-area–by–congress fixed effects, policy-area–by–chamber–by–congress fixed effects, and congress-member–by–congress fixed effects. These controls account for changes in the salience of policy areas, chamber-specific legislative conditions, and time-varying shifts in legislator productivity. The stability of the coefficient across these specifications indicates that the first-stage relationship is not driven by aggregate trends or by unobserved changes in legislator behavior. Overall, the results provide strong evidence that the hiring-pool measure is a powerful predictor of realized staffer expertise, supporting the relevance of the instrument and validating the core mechanism of the identification strategy.

**Table 5: Effect of Staffer Hiring Pool on Staffer Expertise**

| | *Dep. var.: Asinh(Staffer Expertise)* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Exp. Hiring Pool) | 0.135*** | 0.207*** | 0.138*** | 0.132*** | 0.132*** |
| | (0.004) | (0.006) | (0.007) | (0.007) | (0.007) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 3.43 | 3.43 | 3.43 | 3.43 | 3.43 |
| $R^2$ | 0.65 | 0.67 | 0.67 | 0.68 | 0.68 |
| Congress Member | Yes | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes | Yes |
| Congress FE | Yes | Yes | | | |
| Connecting University FE | | Yes | Yes | Yes | Yes |
| Pol. Area × Congress FE | | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | | Yes | Yes |
| Congress Member × Congress FE | | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

### Placebo Test

In Table 6, we present a placebo test designed to further assess the validity of the first-stage relationship. In addition to the actual hiring-pool measure, the table includes a placebo hiring pool constructed using the same set of staffers but assigning them to the hiring pool one congress earlier than when they actually became available. This placebo pool captures the counterfactual exposure a congress member would have faced had the same staffers been seeking employment in an alternative period.

Across all specifications, the coefficient on the actual hiring pool remains positive and highly statistically significant, with magnitudes similar to those reported in Table 5.

In contrast, the placebo hiring pool has no predictive power for realized staffer expertise once more restrictive fixed effects are included. In particular, after controlling for policy-area–by–congress and congress-member–by–congress fixed effects, the estimated coefficient on the placebo hiring pool is small and statistically indistinguishable from zero.

This pattern supports the identifying assumption underlying the instrumental variables strategy. It indicates that realized staffer expertise responds to contemporaneous, network-mediated exposure to available staffers rather than to spurious correlations driven by persistent relationships or unobserved trends. Together with the baseline first-stage results, the placebo test provides additional evidence that the instrument captures meaningful variation in the supply of staffer expertise.

**Table 6: Effect of Staffer Hiring Pool on Staffer Expertise**

| | *Dep. var.: Asinh(Staffer Expertise)* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Exp. Hiring Pool) | 0.127*** | 0.193*** | 0.138*** | 0.132*** | 0.132*** |
| | (0.004) | (0.007) | (0.007) | (0.007) | (0.007) |
| asinh(Placebo Exp. Hiring Pool) | 0.063*** | 0.078*** | -0.004 | -0.009 | -0.009 |
| | (0.006) | (0.007) | (0.009) | (0.009) | (0.009) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 3.43 | 3.43 | 3.43 | 3.43 | 3.43 |
| $R^2$ | 0.65 | 0.67 | 0.67 | 0.68 | 0.68 |
| Congress Member | Yes | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes | Yes |
| Congress FE | Yes | Yes | | | |
| Connecting University FE | | Yes | Yes | Yes | Yes |
| Pol. Area × Congress FE | | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | | Yes | Yes |
| Congress Member × Congress FE | | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

### First Stage Robustness

We further assess the robustness of the first-stage relationship between exposure to the hiring pool and realized staffer expertise. Appendix Tables XXX-XXX report a series of sensitivity analyses that demonstrate the stability of the first-stage estimates across a wide range of alternative specifications. These include regressions with more restrictive fixed effects, alternative definitions of the educational network, and different measures of staffer experience. We also consider alternative transformations of the expertise

variables, trim potential outliers, restrict the sample to a stable panel of politicians, and implement leave-one-politician-out exercises. Across all of these checks, the estimated relationship between hiring-pool exposure and staffer expertise remains positive and statistically significant, supporting the relevance of the instrument.

# 6 The Effect of Staffer on Production of Bills

Having established the validity and relevance of our instrumental variables strategy, we now turn to estimating the causal effect of staffer expertise on legislative production. In this section, we use the variation in staffer expertise generated by election-induced turnover and educational networks to quantify how changes in the policy-specific expertise of a congress member's staff affect the number of bills the member introduces in a given policy area. This analysis moves beyond the descriptive correlations presented earlier and isolates the impact of staffer expertise on legislative output, holding constant time-invariant legislator characteristics and common shocks to policy areas and congressional sessions.

## 6.1 IV Estimates

We estimate the effect of staffer expertise on legislative production is estimated using the following second-stage equation:

$$\text{Num. Bills}_{ipc} = \beta \cdot \widehat{\text{Exp. Staffers}}_{ipc} + \alpha_i + \rho_p + \delta_c + u_{ipc} \tag{11}$$

where $\widehat{\text{Exp. Staffers}}_{ipc}$ denotes the predicted value of policy-area–specific staffer expertise obtained from the first-stage regression in Equation (10).

Table 7 presents the baseline second-stage instrumental variables estimates of the effect of staffer expertise on legislative production. Across all specifications, greater policy-area–specific staffer expertise causally increases the number of bills introduced by a congress member. In the baseline specification, a doubling of staffer expertise is associated with an increase of approximately 0.36 bills, relative to a mean of 0.88 bills per congress–policy-area cell. The estimated effect remains positive and statistically significant across specifications that include increasingly restrictive sets of fixed effects.

Columns (2) through (4) successively introduce policy-area–by–congress fixed effects, policy-area–by–chamber–by–congress fixed effects, and congress-member–by–congress fixed effects. These controls account for time-varying changes in policy salience, chamber-specific legislative environments, and shifts in individual legislators' overall productivity.

**Table 7: IV Effect of Staffer Expertise on Number of Bills**

| | *Dep. var.: Number of Bills* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Staffer Exp.) | 0.216*** | 0.352*** | 0.289*** | 0.289*** | 0.289*** |
| | (0.040) | (0.035) | (0.059) | (0.060) | (0.060) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Robust F-stat. | 951.32 | 1020.80 | 364.40 | 342.04 | 341.61 |
| Congress Member | Yes | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes | Yes |
| Congress FE | Yes | Yes | | | |
| Connecting University FE | | Yes | Yes | Yes | Yes |
| Pol. Area × Congress FE | | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | | Yes | Yes |
| Congress Member × Congress FE | | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The stability of the coefficient across specifications suggests that the estimated effect is not driven by aggregate trends or unobserved changes in legislator behavior.

The reported first-stage F-statistics are well above conventional thresholds, indicating a strong instrument across all specifications. Taken together, the results provide robust causal evidence that increases in staffer expertise lead to higher legislative output.

## 6.2 Balance Test

The validity of our instrumental variable strategy rests on the assumption of the exogeneity of the staffers' underlying connections to the hiring pool. As such, our strategy is akin to a Bartik-type instrument that exploits the exogeneity of the shares. **?** show that a Bartik-type instrument (Bartik, 1991) is numerically equivalent to a GMM estimator that uses the shares as instruments, so that identification can be attributed to the exogeneity of the shares rather than of the aggregate shocks. Under this interpretation, the identifying assumption is that the shares—in our setting, the connections of each member of Congress to the pool—are uncorrelated with the structural error, conditional on the controls. While this assumption cannot be tested directly, it carries a testable implication that is analogous to a covariate balance check in a randomized experiment: if the shares are as good as randomly assigned, they should be uncorrelated with predetermined characteristics of the members (see **?**).

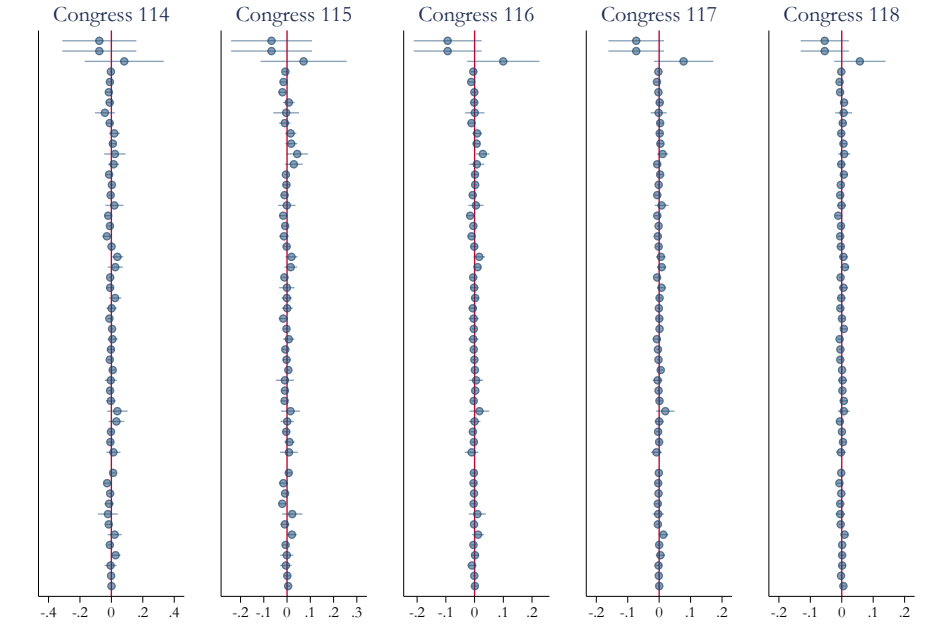
We assess balance by relating each congress member's connections to the pool to a rich set of observable characteristics. As the number of connections varies by congresses,

we estimate:

$$Characteristic_i^t = \beta\, Connections\ to\ Pool_i^t + Chamber\ FE + \epsilon_i \tag{12}$$

where $Characteristic_{it}$ is one of a set of observable characteristics of member $i$ serving in congress $t$, and $Connections\ to\ pool_{it}$ is the number of connections that determines the member's exposure to the hiring pool. Overall, we consider the following observable characteristics: 1) the member's seniority and tenure (the first and last congress in which they serve and their congressional term), 2) a full set of indicators for the member's home state, and 3) the two dimensions of the DW-NOMINATE score that capture their ideological position. We standardize both the connection measure, so that each $\beta$ is expressed in standard deviation. All regressions include congress fixed effects, which absorb common shifts across congresses, and chamber fixed effects account for systematic differences between the House and the Senate. We estimate Equation (12) separately for each characteristic and plot the resulting estimates of $\beta$, together with their 95% confidence intervals, in Figure 7.

**Figure 7: Balance of the Shares with Respect to Member Characteristics**




*Notes:* The figure reports estimates of $\beta$ from Equation (12), i.e. separate regressions of each (standardized) member characteristic on the (standardized) number of connections to the pool, controlling for congress and chamber fixed effects. Each marker is a point estimate and the horizontal bars denote 95% confidence intervals; standard errors are clustered at the member level. The characteristics are the first and last congress served, the congressional term, a full set of home-state indicators, and the first and second DW-NOMINATE dimensions.

Figure 7 shows that a member's connections to the pool are unrelated to virtually all observable characteristics. The estimated coefficients are uniformly small and statistically indistinguishable from zero. The state indicators cluster tightly around zero, and while the continuous characteristics—member tenure and the two DW-NOMINATE dimensions—are estimated less precisely, their confidence intervals also contain zero in every case. We find no evidence that members with more connections differ systematically in their seniority, geographic origin, or ideology. The absence of any systematic relationship between the shares and these predetermined characteristics lends credence to a causal interpretation of our estimates.

## 6.3 Placebo Test: Earlier Connections

We next subject the instrumental variable estimates to a placebo test, which exploits the timing of connections following the same logic as Figure 5. There, we documented that educational connections predict staffer allocation only when they coincide with the exact moment a staffer becomes available for hire, whereas the same connections that had existed in earlier congressional periods carry no predictive power.

To further support the validity of our instrument we show that placebo instruments built from connections that would have linked the same available staffers to the same offices had they been formed in an earlier congress do not have predictive power for staffer expertise or the later outcomes in our analysis. To implement this test, we construct placebo hiring pools identical to our baseline instrument, except that we construct them based on connections that existed in earlier congresses. Formally, for an offset of $k$ congresses, we define

$$Staffer\ Pool_{ipc}^{(k)} = \sum_{s=1}^{N_{jc}} Expertise\ Staff_{spc} \cdot \mathrm{I}[\mathrm{Connected}_{ij}^{t-k} = 1] \tag{13}$$

where $Expertise\ Staff_{spc}$ is, as in **??**, the policy-area–specific expertise of staffer $s$ who becomes available for hire in congress $c$, and $\mathrm{I}[\mathrm{Connected}_{ij}^{t-k} = 1]$ is the indicator for an educational tie between staffer $s$ and a member of congress member $i$'s existing staff team *as it would have stood $k$ congresses earlier*. The set of available staffers and their expertise is held fixed at its actual, contemporaneous value; only the connection structure is shifted back in time. We consider offsets of $k \in \{1, 2, 3\}$ congresses. By construction, $Staffer\ Pool_{ipc}^{(0)}$ recovers our baseline instrument.

Using each placebo pool, we re-estimate the first-stage regression in Equation (10), replacing the actual hiring pool with the offset measure and retaining our full set of

fixed effects. The coefficient of interest, $\gamma^{(k)}$, captures the extent to which exposure to a counterfactual, time-shifted network of available expertise predicts the realized staffer expertise employed by a congress member.

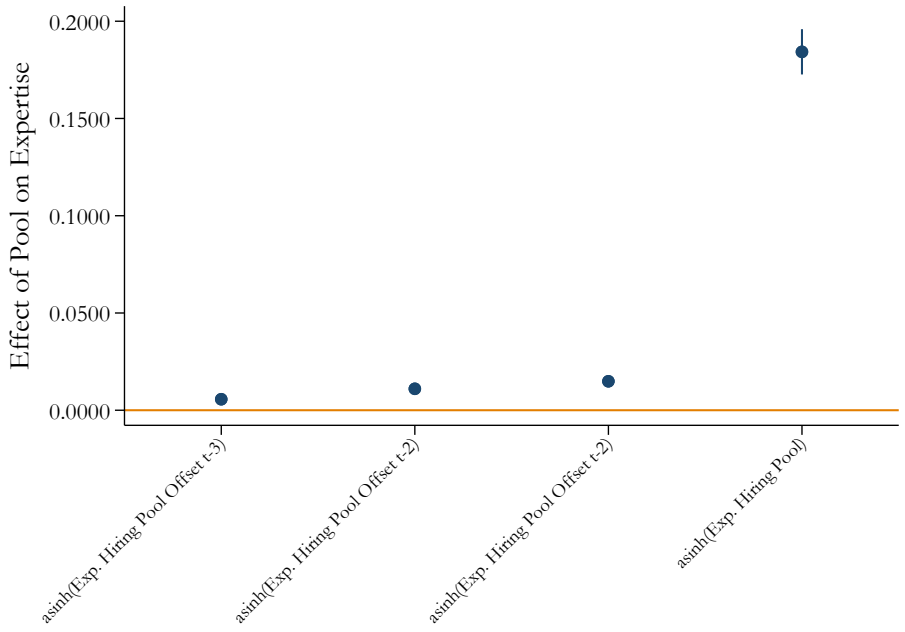
Figure 8 reports the estimated first-stage coefficients for each placebo instrument alongside the coefficient on our actual hiring pool. The contrast is stark. The instrument constructed from the contemporaneous educational network is a strong and precisely estimated predictor of realized staffer expertise. The offset-connection instruments, by contrast, are economically negligible: each is roughly an order of magnitude smaller and clusters near zero, with none approaching the magnitude of the genuine instrument. This pattern indicates that the relevance of our instrument is driven by the specific, time-aligned matching between newly available staffers and a member's existing staff team, rather than by mechanical correlations in the supply of expertise or by persistent, time-invariant features of the educational network.

Taken together with the placebo pool reported in **??**, this exercise reinforces the interpretation of our identification strategy. **??** shows that shifting the *timing of staffer availability* backward removes predictive power once restrictive fixed effects are included; Figure 8 shows that shifting the *connection network* used to route that availability backward does the same. In both cases, it is the contemporaneous, network-mediated exposure to available expertise—and neither the pool of staffers nor the educational connections in isolation—that generates the variation we exploit in the second stage.

## 6.4 Robustness IV Estimates

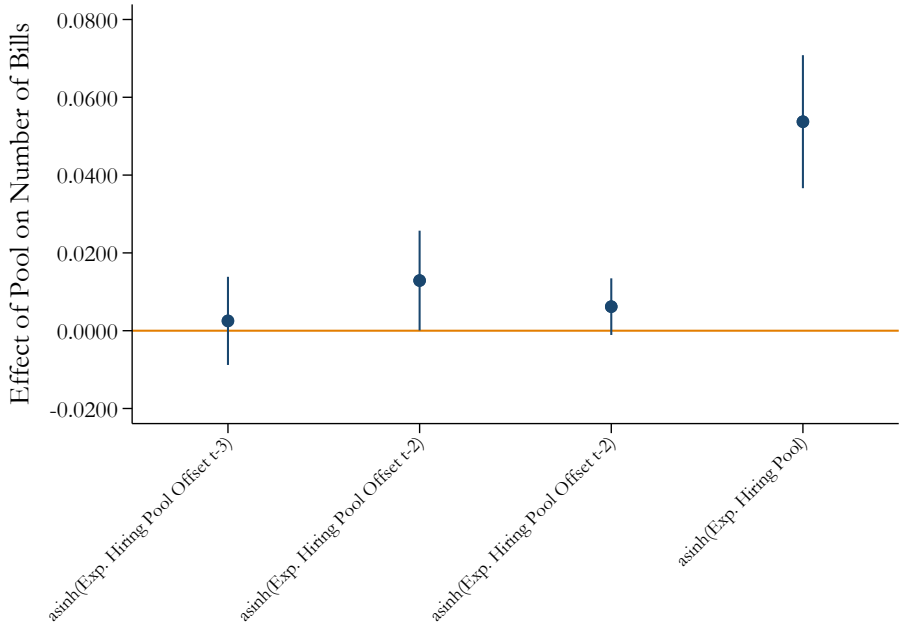
We also assess the robustness of the second-stage estimates linking staffer expertise to legislative production. Appendix Tables XXX–XXX report a series of sensitivity analyses that demonstrate the stability of the estimated effects across a wide range of alternative specifications. These include models with more restrictive fixed effects, alternative definitions of the educational network used to construct the instrument, and different measures of staffer expertise. We further consider alternative transformations of the key variables, trim potential outliers, restrict the analysis to a stable panel of politicians, and implement leave-one-politician-out exercises. Across all of these checks, the estimated effect of staffer expertise on the number of bills introduced remains positive and statistically significant, reinforcing the conclusion that staffer expertise has a robust causal impact on legislative production.

**Figure 8: First Stage with Placebo Connection Instruments**



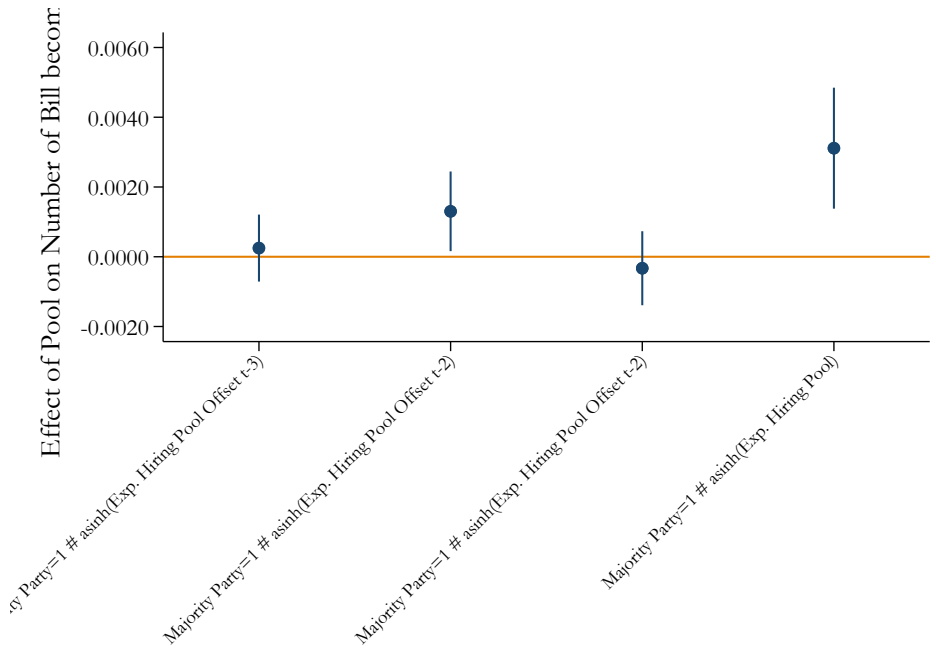

*Notes:* The figure plots first-stage coefficients, with 95% confidence intervals, from estimating Equation (10) with alternative iring-pool instruments. The rightmost estimate, `asinh(Exp. Hiring Pool)`, uses our baseline instrument, constructed from the contemporaneous educational network as defined in **??**. The remaining estimates use placebo instruments constructed as in Equation (13), which reconstruct the hiring pool from the educational connections that would have linked the same available staffers to offices one, two, or three congresses earlier (offsets $k = 1, 2, 3$), holding the set of available staffers and their expertise fixed. All specifications include congress-member, policy-area, policy-area–by–congress, and congress-member–by–congress fixed effects. The horizontal line marks zero. Robust standard errors are clustered by congress member.

**Figure 9: Reduced Form Number of Bills with Placebo Connection Instruments**



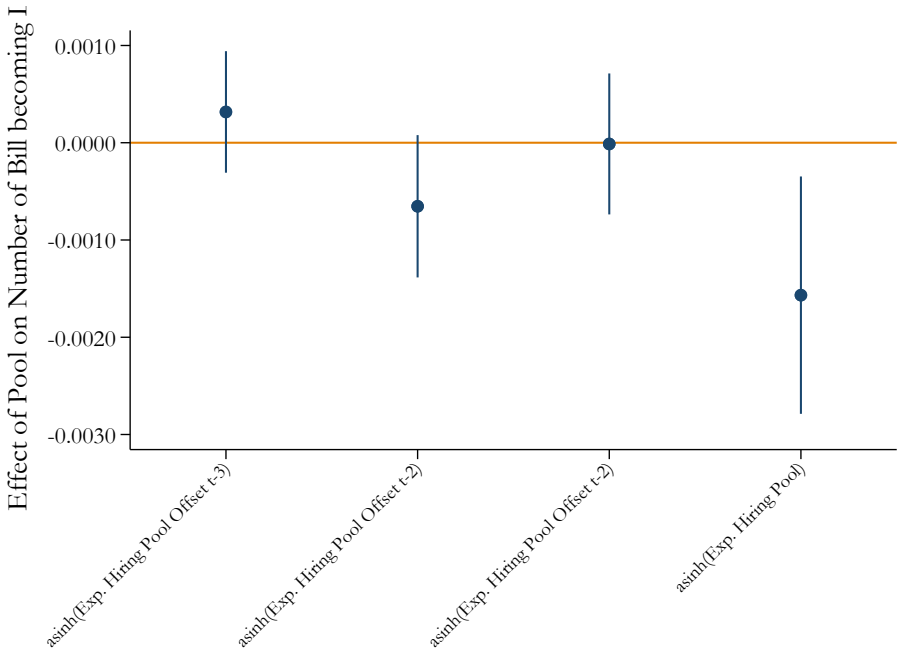

*Notes:* The figure plots first-stage coefficients, with 95% confidence intervals, from estimating Equation (10) with alternative iring-pool instruments. The rightmost estimate, `asinh(Exp. Hiring Pool)`, uses our baseline instrument, constructed from the contemporaneous educational network as defined in **??**. The remaining estimates use placebo instruments constructed as in Equation (13), which reconstruct the hiring pool from the educational connections that would have linked the same available staffers to offices one, two, or three congresses earlier (offsets $k = 1, 2, 3$), holding the set of available staffers and their expertise fixed. All specifications include congress-member, policy-area, policy-area–by–congress, and congress-member–by–congress fixed effects. The horizontal line marks zero. Robust standard errors are clustered by congress member.

**Figure 10: Reduced Form Number of Bills Become Law with Placebo Connection Instruments Majority**




*Notes:* The figure plots first-stage coefficients, with 95% confidence intervals, from estimating Equation (10) with alternative iring-pool instruments. The rightmost estimate, `asinh(Exp. Hiring Pool)`, uses our baseline instrument, constructed from the contemporaneous educational network as defined in **??**. The remaining estimates use placebo instruments constructed as in Equation (13), which reconstruct the hiring pool from the educational connections that would have linked the same available staffers to offices one, two, or three congresses earlier (offsets $k = 1, 2, 3$), holding the set of available staffers and their expertise fixed. All specifications include congress-member, policy-area, policy-area–by–congress, and congress-member–by–congress fixed effects. The horizontal line marks zero. Robust standard errors are clustered by congress member.

**Figure 11: Reduced Form Number of Bills Become Law with Placebo Connection Instruments Minority**




*Notes:* The figure plots first-stage coefficients, with 95% confidence intervals, from estimating Equation (10) with alternative iring-pool instruments. The rightmost estimate, `asinh(Exp. Hiring Pool)`, uses our baseline instrument, constructed from the contemporaneous educational network as defined in **??**. The remaining estimates use placebo instruments constructed as in Equation (13), which reconstruct the hiring pool from the educational connections that would have linked the same available staffers to offices one, two, or three congresses earlier (offsets $k = 1, 2, 3$), holding the set of available staffers and their expertise fixed. All specifications include congress-member, policy-area, policy-area–by–congress, and congress-member–by–congress fixed effects. The horizontal line marks zero. Robust standard errors are clustered by congress member.

## 6.5 Effect Heterogeneity

Possible heterogeneities we could test.

1. Experience of Politician
2. Types of Staffers
3. Majority Minority Party

# 7 The Effect of Staffer on Quality of Bills

We next examine whether staffer expertise affects not only the quantity of legislation produced, but also its quality and legislative success. In this section, we use the same instrumental variables strategy to estimate the causal effect of staffer expertise on measures of bill progression, focusing on whether bills pass either chamber of Congress and whether they ultimately become law. These outcomes capture the extent to which staffer expertise translates legislative effort into effective policy-making, moving beyond production to assess success within the legislative process.

## 7.1 IV Estimates

### Passing Chamber

Table 8 reports instrumental variables estimates of the effect of staffer expertise on the number of bills that pass at least one chamber of Congress. The table allows the effect of staffer expertise to differ by majority-party status. Across all specifications, staffer expertise has no statistically significant effect on bill passage for members of the minority party. In contrast, the interaction between staffer expertise and majority-party status is positive and precisely estimated, indicating that staffer expertise increases the likelihood that bills advance through the legislative process when legislators belong to the majority party.

Quantitatively, the estimates imply that increases in policy-area–specific staffer expertise lead to a higher number of bills passing a chamber for majority-party members, relative to a mean of 0.10 bills per congress–policy-area cell. The magnitude and significance of the interaction term are stable across specifications that include increasingly restrictive sets of fixed effects, including policy-area–by–congress and congress-member–by–congress fixed effects. The reported first-stage F-statistics indicate a strong instrument in all specifications.

**Table 8: IV Effect of Staffer Expertise on Number of Bills Passing Chamber**

| | *Dep. var.: Number of Bills passing Chamber* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Staffer Exp.) | -0.010 | -0.015 | -0.025 | -0.031 | -0.031 |
| | (0.014) | (0.013) | (0.022) | (0.024) | (0.024) |
| asinh(Staffer Exp.) × Majority Party | 0.029*** | 0.036*** | 0.036*** | 0.043*** | 0.043*** |
| | (0.005) | (0.005) | (0.005) | (0.005) | (0.005) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Robust F-stat. | 486.60 | 510.42 | 181.17 | 169.64 | 169.42 |
| Congress Member | Yes | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes | Yes |
| Congress FE | Yes | Yes | | | |
| Connecting University FE | | Yes | Yes | Yes | Yes |
| Pol. Area × Congress FE | | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | | Yes | Yes |
| Congress Member × Congress FE | | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

In Appendix Table E.1 and Table E.2, we show that this result also holds if we look at bills in the individual chambers separately.

### Becoming Law

Table 9 reports instrumental variables estimates of the effect of staffer expertise on the number of bills that ultimately become law. As in the previous table, the specification allows the effect of staffer expertise to differ by majority-party status. Across all specifications, staffer expertise has no statistically significant effect on the probability that bills become law for members of the minority party. In contrast, the interaction between staffer expertise and majority-party status is positive and precisely estimated, indicating that staffer expertise significantly increases the likelihood that bills sponsored by majority-party members are enacted.

Although the mean number of bills becoming law is low, the estimated magnitudes imply economically meaningful effects for majority-party legislators. The interaction coefficient is stable across specifications that include increasingly restrictive sets of fixed effects, including policy-area–by–congress and congress-member–by–congress fixed effects. As in the previous results, the reported first-stage F-statistics indicate a strong instrument throughout.

**Table 9: IV Effect of Staffer Expertise on Number of Bills becoming Law**

| | *Dep. var.: Number of Bills becoming Law* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Staffer Exp.) | -0.003 | -0.003 | -0.002 | -0.003 | -0.003 |
| | (0.004) | (0.003) | (0.005) | (0.005) | (0.005) |
| asinh(Staffer Exp.) × Majority Party | 0.005*** | 0.006*** | 0.005*** | 0.006*** | 0.006*** |
| | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Robust F-stat. | 486.60 | 510.42 | 181.17 | 169.64 | 169.42 |
| Congress Member | Yes | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes | Yes |
| Congress FE | Yes | Yes | | | |
| Connecting University FE | | Yes | Yes | Yes | Yes |
| Pol. Area × Congress FE | | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | | Yes | Yes |
| Congress Member × Congress FE | | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Taken together, these findings suggest that staffer expertise not only facilitates legislative production but also improves the likelihood that proposed legislation is successfully enacted—conditional on legislators operating in an institutional environment that allows them to advance bills through the legislative process.

# 8 Conclusion

This paper provides causal evidence that congressional staffers play a central role in the policy-making process. Using a new comprehensive dataset linking U.S. congressional staffers to legislators' activities, and exploiting quasi-exogenous variation in the availability of staffer expertise generated by congressional turnover and educational networks, we show that staffer expertise substantially affects both the quantity and the success of legislation.

Our findings point to three main conclusions. First, staffer expertise causally increases legislative production. Legislators who gain access to more policy-specific staffer expertise introduce significantly more bills in those policy areas. Second, staffer expertise also improves legislative outcomes, but only when institutional conditions allow legislators to effectively advance their proposals. For members of the majority party, higher staffer expertise increases the likelihood that bills pass at least one chamber and ultimately become law, while no such effects are observed for minority-party members.

Third, the results highlight the importance of the congressional staff labor market: variation in staffer expertise arises not only from legislators' choices but also from external shocks to staffer availability and from network-mediated matching frictions.

Taken together, these findings recast policy-making as a team production process in which staffers are a key input rather than passive background actors. While much of the political economy literature emphasizes politicians' preferences, incentives, and constraints, our results show that the expertise embedded in their staff meaningfully shapes legislative outputs. In this sense, differences in staff composition help explain why legislators with similar observable characteristics may differ substantially in their policy-making effectiveness.

Beyond their implications for the study of U.S. Congress, our results speak to broader questions about expertise, organization, and capacity in political institutions. They suggest that policies affecting staff recruitment, retention, and professionalization can have first-order effects on legislative performance. More generally, the findings highlight how internal human capital and labor-market frictions within political institutions shape policy outcomes.

The analysis also opens several avenues for future research. One natural extension is to study how staffer expertise affects other political outcomes, such as legislators' electoral performance or advancement within Congress. Another promising direction is to examine the role of staffer networks in facilitating cooperation and coordination across legislators, an issue we begin to explore in ongoing work. Finally, the data infrastructure developed in this paper can be used to study the interaction between staffers, interest groups, and external expertise, shedding further light on how policy is produced in complex institutional environments.

Overall, this paper shows that understanding politics requires looking beyond elected officials alone. The staff that makes politics matters—for what legislators do, for which policies advance, and for how effectively democratic institutions function.

# References

Bartik, T. J. (1991). Boon or Boondoggle? The Debate Over State and Local Economic Development Policies.

# Online Appendix: The Staff that makes Politics

This Online Appendix consists of three parts.

1. Appendix A provides additional details on the data sources.
2. Appendix B provides additional descriptives for the staffer market.
3. Appendix C presents additional results for the identification strategy.
4. Appendix D presents additional results for the quantity of bills.
5. Appendix E presents additional results for the quality of bills.

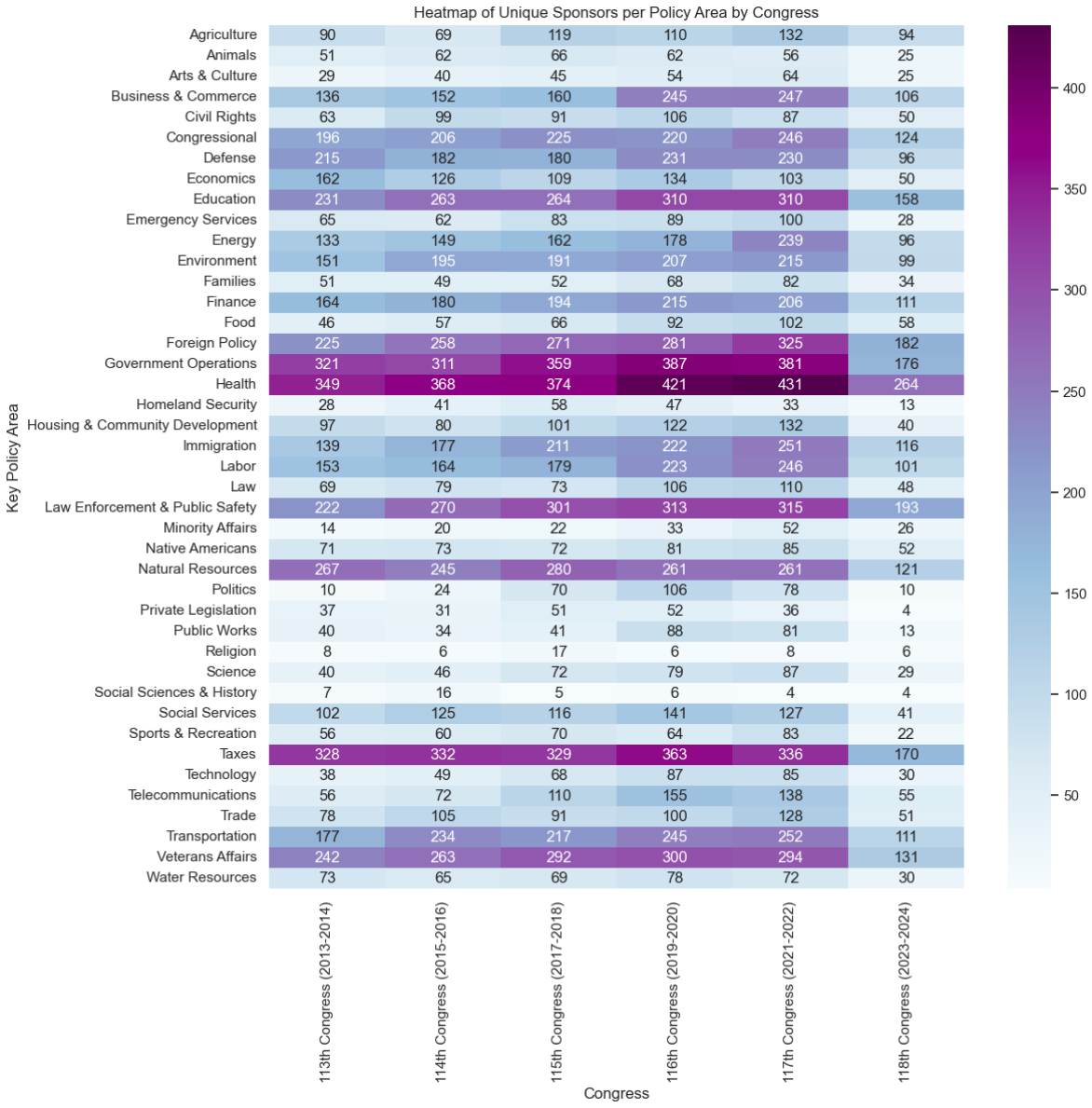
# A Additional Details on the Data

## A.1. Additional Details on Congress Members

## A.2. Additional Details on Congressional Bills

## A.3. Additional Details on Congressional Staffers

## Figure A.1: Number of Bills by Policy Areas



# B Additional Details on the Staffer Market

### B.0.1 Additional Details on Staffer Titles

Congressional staffers are not homogeneous in terms of their roles. They handle a wide range of responsibilities, including policy research, constituent services, communications, and administrative support. While Leadership Connect does not provide an explicit classification of staffer roles, it does report each staffer's official job title (e.g., "Chief of Staff," "Legislative Director," "Policy Advisor"). We use these titles to classify staffers into four categories: *senior staff*, *policy staff*, *constituency service staff*, and *administrative staff*.

To perform this classification, we use OpenAI's GPT-4o model with the following prompt:

**Prompt to GPT-4o**

You are a classification assistant labeling job titles of U.S. Congress staffers into four categories:
1: Senior Staff
2: Policy Staff
3: Constituency Service Staff
4: Administrative Staff
Rules:
- Senior Staff (1): Titles indicating leadership or seniority (e.g., "Chief of Staff", "Director", "Administrative Assistant", as well as variations like "Deputy Director" or "Assistant Chief of Staff").
- Policy Staff (2): Titles with policy-specific terms (e.g., "Legislative Assistant", "Policy Advisor", "Counsel") or domain-specific roles (e.g., "Climate Policy Fellow", "Defense Legislative Director").
- Constituency Service Staff (3): Titles indicating constituent-facing roles (e.g., "Caseworker", "District Outreach Coordinator", "Constituent Services Director").
- Administrative Staff (4): Titles focused on logistical support (e.g., "Scheduler", "Office Manager", "Staff Assistant").
Notes:
- In cases of hybrid titles, prioritize Senior and Policy categories over Administrative and Constituency.

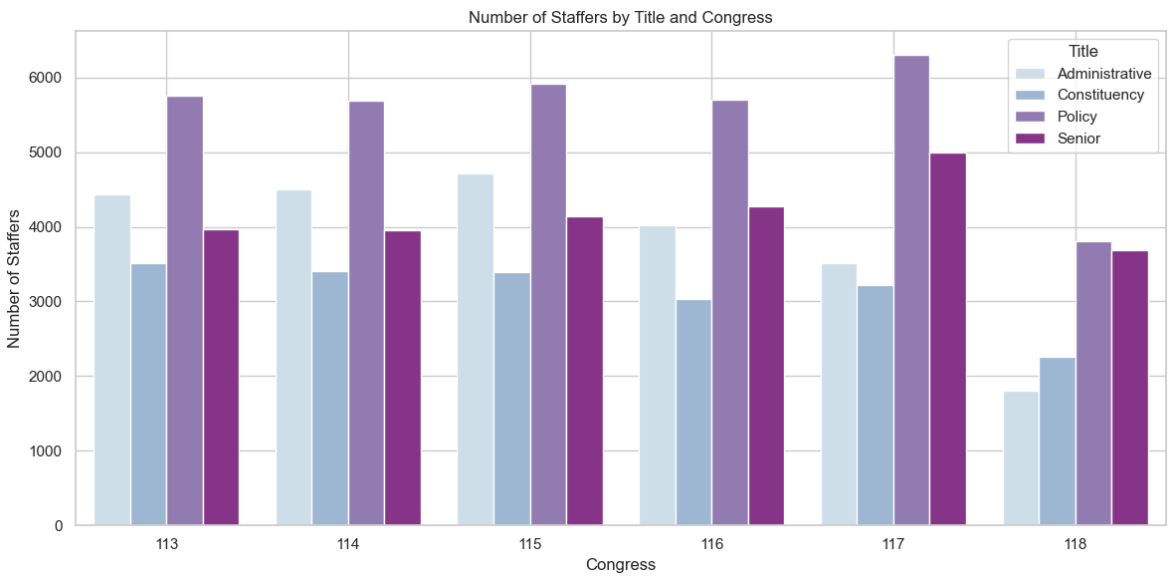



**Figure B.1: Number of Staffers by Title and Congress**

As a robustness check, we randomly sampled 100 staffers with job titles and reviewed GPT's classifications manually.[3] We also experimented with slight changes to the prompt and observed highly consistent labeling results.

As expected, the total number of staffers by category remains relatively stable across congresses in our dataset, with the exception of the 118$^{\text{th}}$ Congress where data availability is incomplete (see Figure B.1).

One caveat of our staffer panel dataset is that a small fraction of staffers may switch offices within the same Congress. As a result, these staffers appear multiple times for the same congressional session. While this duplication is not problematic for the member-level analysis, it may introduce some noise in the dyadic panel setting: such staffers could artificially create a connection between two offices even though they never worked in both simultaneously. Given the sparsity of connections in the dyadic matrix, this may have a negligible but non-zero effect. However, when we drop such staffers from the data, the results remain robust.

As part of constructing the panel dataset, we generate several additional variables capturing staffers' congressional experience. In particular, we extract the start and end dates of congressional employment to compute the total number of years each staffer worked in Congress. We account for temporary exits from congressional employment

[3]One research assistant manually verified the labels using the classification rules. Out of 100 cases, 98 were correctly classified. One ambiguous case was assigned a label following the prioritization rules, and one case showed minor hallucination in the GPT output. Such rare hallucinations (less than 1% of the total) were excluded from the final dataset.

(e.g., periods spent outside of government) by excluding such gaps from the experience measure.

We also compute a variable capturing how many years each staffer worked with a specific member of Congress, thereby distinguishing general congressional experience from relationship-specific experience.

Using available educational records, we extract the highest level of education attained by each staffer and assign corresponding dummy variables: *bachelor*, *master*, *Ph.D.*, and *non-classified* (the latter includes cases where the education level could not be identified).

Lastly, we calculate a measure of staffer connectivity based on shared educational institutions and graduation years, detailed further in the next subsection.

The final panel contains 92,110 staffer-member-Congress observations across the 113th–118th Congresses. The distribution is fairly uniform (approximately 16,100 observations per Congress), with the exception of the 118th Congress, which includes around 10,300 observations due to incomplete scraping coverage at the time of data collection – the issue mentioned above.

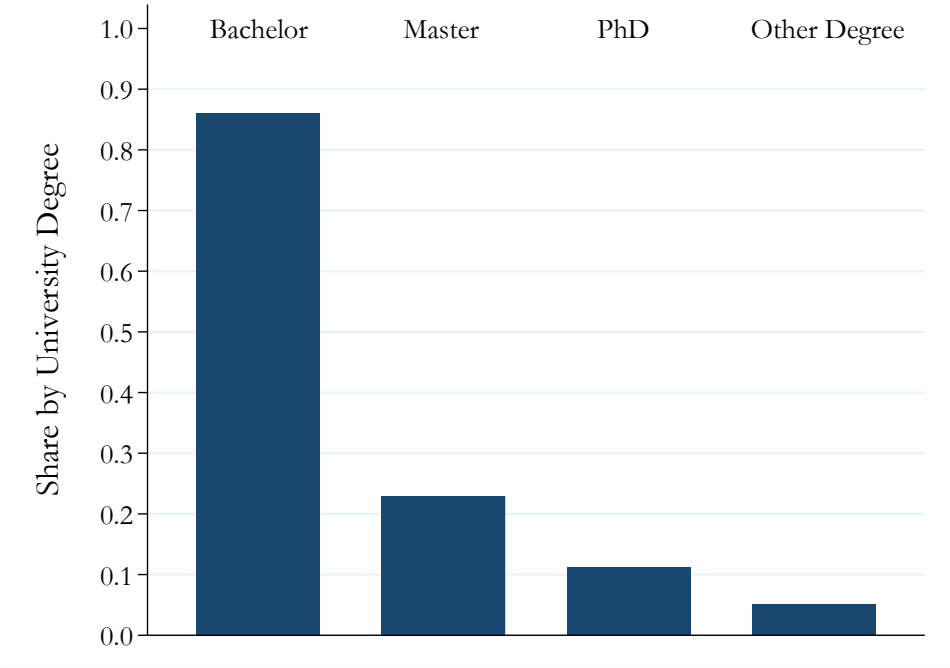
The empirical analysis in the project will proceed in three steps. Given that we will generate some of the first comprehensive evidence on congressional staffers, the first part of the paper will provide descriptives on the characteristics of staffers. Among others, we will provide statistics on the educational background, average experience in congress, and common career steps of staffers. This will, for example, tell us how many staffers work for more than one congress member and across party lines. These statistics will provide us with insights into the average turnover of staffers from one session of congress to another. Further, we will analyze the composition of the staff teams of congress members. We are specifically interested in how many staffers congress members hire and in which ways they combine experienced and inexperienced staffers. We are also interested in the division of tasks between staffers (i.e., how many staffers have legislative compared to administrative responsibilities), which we will analyze based on the job titles of staffers.

**Table B.1: List Most Frequent Staff Titles**

| Title Staff | Count |
|---|---|
| Staff Assistant | 18009 |
| Legislative Assistant | 17057 |
| Legislative Correspondent | 9447 |
| Chief of Staff | 8347 |
| Legislative Director | 7133 |
| Communications Director | 5553 |
| Field Representative | 5122 |
| Constituent Services Representative | 4298 |
| Scheduler | 4087 |
| Press Secretary | 4061 |
| District Director | 3894 |
| Caseworker | 3470 |
| Intern | 3036 |
| Legislative Aide | 2552 |
| Senior Legislative Assistant | 2412 |
| District Representative | 2146 |
| Deputy Chief of Staff | 1453 |
| Special Assistant | 1387 |
| Regional Director | 1253 |
| Senior Policy Advisor | 1202 |
| Legislative Counsel | 1194 |
| Press Assistant | 1080 |
| Legislative Intern | 1044 |
| Legislative Fellow | 1023 |
| Executive Assistant | 1014 |
| State Director | 1012 |
| Deputy Press Secretary | 986 |
| Office Manager | 985 |
| Congressional Aide | 958 |
| Constituent Liaison | 928 |
| Deputy District Director | 847 |
| Constituent Advocate | 825 |
| Military Legislative Assistant | 754 |
| Congressional Intern | 719 |
| Director of Constituent Services | 669 |
| Senior Advisor | 625 |
| Community Liaison | 591 |
| District Scheduler | 590 |
| Regional Representative | 590 |
| Counsel | 574 |
| Administrative Assistant | 566 |
| Policy Advisor | 565 |
| Systems Administrator | 564 |
| Executive Assistant/Scheduler | 537 |
| Deputy Chief of Staff/Legislative Director | 466 |
| Defense Fellow | 458 |
| Administrative Director | 453 |
| Outreach Coordinator | 450 |
| Director of Operations | 426 |

### B.0.2 Additional Details on Staffer Education

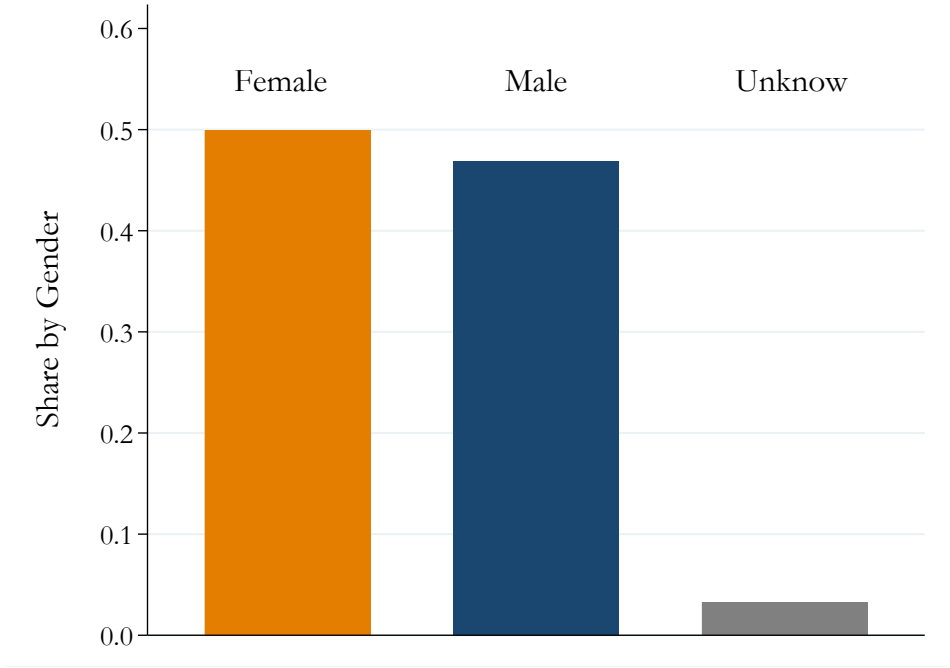
**Figure B.2: Information Staffer Education**




*Notes:* The figure shows

### B.0.3 Additional Details on Staffer Gender

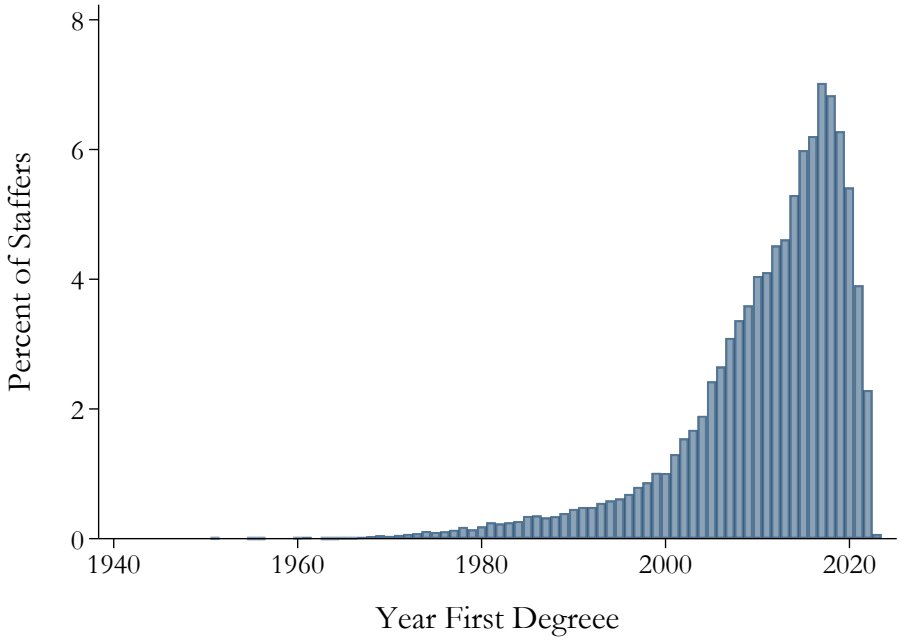
**Figure B.3: Share of Female Staffers**




*Notes:* The figure shows

### B.0.4 Additional Details on Staffer Age

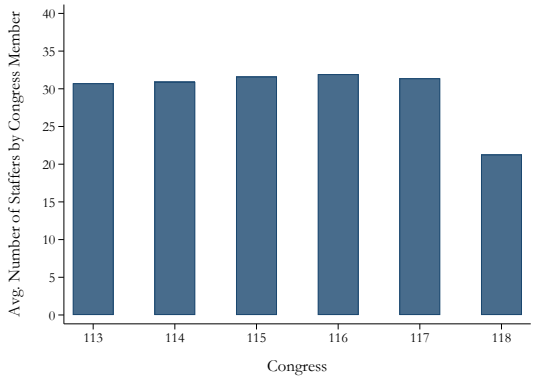
**Figure B.4: Year of First Degree**



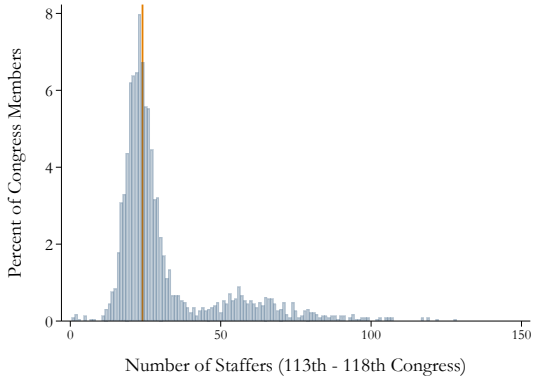

*Notes:* The figure shows

## Figure B.5: Descriptives Staffers

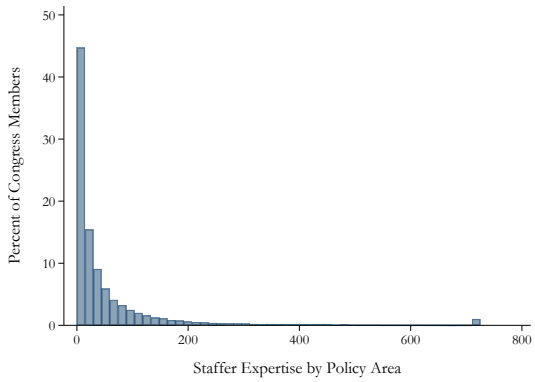
### (a) Average Number of Staffers by Congress



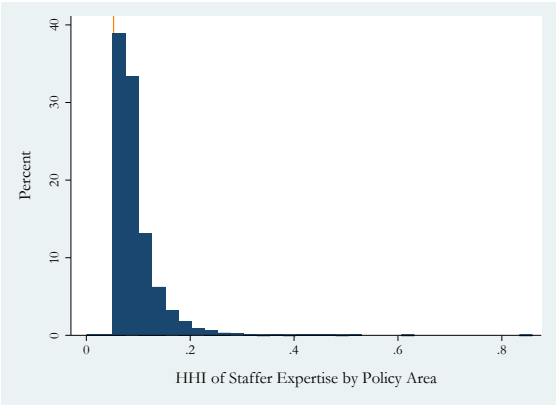

### (b) Number of Staffers per Congress Member




### (c) Expertise of Staffers by Policy Area



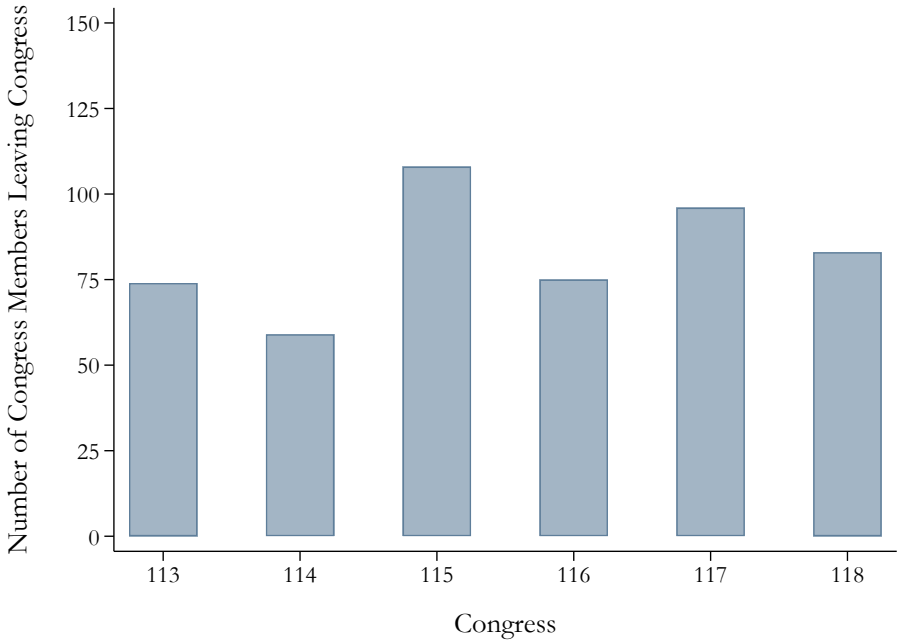

### (d) HHI of Staffer Expertise by Policy Area



# C Additional Results: Identification Strategy

## C.1. Additional Descriptives for Identification Stragety

**Figure C.1: Number of Congress Member Leaving each Congress**




*Notes:* The figure shows

## Table C.1: Reasons for Leaving

| Reason Leaving | Count |
|---|---|
| Lost election | 123 |
| Retired to seek another position | 75 |
| Retired due to family reasons | 59 |
| Lost primary | 57 |
| Old age | 43 |
| Resigned to take another position | 37 |
| Died in Office | 20 |
| Retired after redistricting | 16 |
| Retired due to personal term limits | 13 |
| Old age; Retired due to family reasons | 13 |
| Resigned to seek another position | 12 |
| Resigned after sexual scandal | 11 |
| Served as interim appointee | 10 |
| Resigned due to family reasons | 6 |
| Retired due to hyperpartisanship | 6 |
| Retired due to health issues | 5 |
| Resigned due to political scandal | 5 |
| Retired due to term limits | 5 |
| Retired to focus on policy, rather than campaign | 4 |
| Retired to take another position | 4 |
| Resigned after federal corruption conviction | 3 |
| Old age; Retired after redistricting | 3 |
| Resigned due to health issues | 3 |
| Resigned after criminal conviction | 3 |
| Retired after sexual scandal | 3 |
| Old age; Retired due to health issues | 3 |
| Retired due to difficult elections; Retired due to hyperpartisanship | 2 |
| Retired to pursue other opportunities | 2 |
| Retired due to displeasure of his role | 2 |
| Retired after redistricting; Retired due to family reasons | 2 |
| Old age; Retired to seek another position | 2 |
| Retired due to difficult elections; Retired to seek another position | 2 |
| Resigned due to internal party conflict | 2 |
| Retired due to family reasons; Retired due to internal party conflict | 2 |
| Retired due to difficult elections; Retired due to redistricting | 1 |
| Expelled after ethics violations | 1 |
| Retired due to difficult elections; Retired due to term limits | 1 |
| Retired due to family reasons; Retired due to political scandal | 1 |
| Resigned due to internal party conflict; Resigned after loss of leadership position | 1 |
| Retired due to political scandal | 1 |
| Resigned due to safety concerns; Resigned due to family reasons | 1 |
| Retired due to internal party conflict | 1 |
| Resigned amid allegations of inappropriate relationships with staff | 1 |
| Resigned due to internal party conflict; Resigned due to hyperpartisanship | 1 |
| Old age; Retired due to hyperpartisanship | 1 |
| Not nominated for election | 1 |
| Retired due to family reasons; Retired due to hyperpartisanship | 1 |
| Resigned after assassination attempt | 1 |
| Retired to focus on policy, rather than campaign; Retired due to hyperpartisanship | 1 |
| Retired due to family reasons; Retired due to term limits | 1 |
| Served as interim appointee; Lost election | 1 |
| Resigned due to insider-trading scandal | 1 |
| Lost primary; Lost election | 1 |
| Retired due to safety concerns | 1 |
| Old age; Retired to take another position | 1 |
| Retired due to hyperpartisanship; Retired due to safety concerns | 1 |
| Retired due to family reasons; Retired to take another position | 1 |
| Retired due to family reasons; Retired due to difficult elections | 1 |
| Retired due to safety concerns; Retired due to family reasons | 1 |
| Resigned citing mental and physical health problems | 1 |
| Retired due to personal term limits; Retired due to political scandal | 1 |
| Resigned to seek another position; Resigned due to family reasons | 1 |
| Retired due to family reasons; Retired due to committee term limits | 1 |
| Retired after redistricting; Retired due to internal party conflict | 1 |
| Retired due to personal term limits; Retired to pursue other opportunities | 1 |
| Retired due to family reasons; Retired due to personal term limits | 1 |
| Retired due to difficult elections; Retired due to personal term limits | 1 |
| Did not seek reelection | 1 |

**Figure C.2: Expertise of Staffers of Leavers by Policy Area**




*Notes:* The figure shows

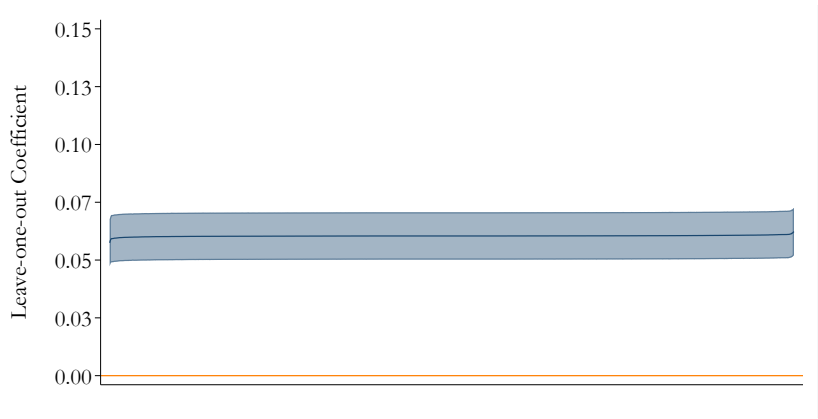
## C.2. Robustness for First Stage

**Table C.2: First Stage Robustness: Stable Panel**

| | *Dep. var.: Staffer Expertise* | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Congress Member | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes |
| Congress FE | Yes | | | |
| Pol. Area × Congress FE | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | Yes | Yes |
| Congress Member × Congress FE | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

**Figure C.3: First Stage: Leave-one-politician-out Estimates**



## Table C.3: First Stage Robustness: Stable Panel

| | *Dep. var.: Staffer Expertise* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Exp. Hiring Pool) | 0.121*** | 0.202*** | 0.148*** | 0.141*** | 0.141*** |
| | (0.007) | (0.012) | (0.014) | (0.014) | (0.014) |
| Observations | 31,482 | 31,482 | 31,482 | 31,482 | 31,482 |
| Mean of DV | 3.63 | 3.63 | 3.63 | 3.63 | 3.63 |
| $R^2$ | 0.65 | 0.67 | 0.67 | 0.68 | 0.68 |
| Congress Member | Yes | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes | Yes |
| Congress FE | Yes | Yes | | | |
| Connecting University FE | | Yes | Yes | Yes | Yes |
| Pol. Area × Congress FE | | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | | Yes | Yes |
| Congress Member × Congress FE | | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

## Table C.4: First Stage Robustness: Clustering

| | *Dep. var.: Staffer Expertise* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Cong. Member x Pol. Area | | Cong. Member | | Cong. Member x Congress | | Pol. Area x Congress | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| asinh(Exp. Hiring Pool) | 0.138*** | 0.132*** | 0.138*** | 0.132*** | 0.138*** | 0.132*** | 0.138*** | 0.132*** |
| | (0.007) | (0.007) | (0.009) | (0.009) | (0.008) | (0.008) | (0.014) | (0.014) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 3.43 | 3.43 | 3.43 | 3.43 | 3.43 | 3.43 | 3.43 | 3.43 |
| $R^2$ | 0.67 | 0.68 | 0.67 | 0.68 | 0.67 | 0.68 | 0.67 | 0.68 |
| Congress Member | Yes | | Yes | | Yes | | Yes | |
| Pol. Area FE | Yes | | Yes | | Yes | | Yes | |
| Congress Member × Pol. Area FE | | Yes | | Yes | | Yes | | Yes |
| Pol. Area × Congress FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Congress Member × Congress FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

# D Additional Results: Effect of Staffers on Production of Bills

**Table D.1: IV Robustness: Alternative Definitions of Expertise**

| | *Dep. var.: Number of Bills* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Congress Member | Yes | Yes | Yes | Yes | |
| Pol. Area FE | Yes | Yes | Yes | Yes | |
| Congress FE | Yes | | | | |
| Pol. Area × Congress FE | | Yes | | | |
| Pol. Area × Chamber × Cong. FE | | | Yes | Yes | |
| Congress Member × Congress FE | | | | Yes | |

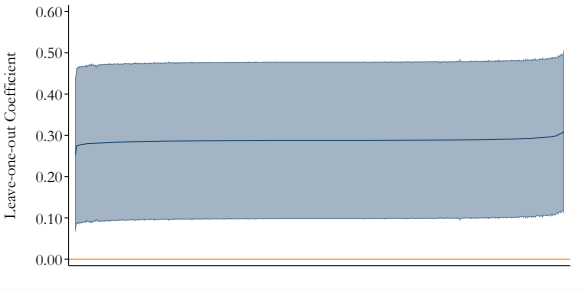
*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

**Table D.2: IV Robustness: Functional Form**

| | *Dep. var.: Number of Bills* | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Congress Member | Yes | Yes | Yes | Yes |
| Pol. Area FE | Yes | Yes | Yes | Yes |
| Congress FE | Yes | | | |
| Pol. Area × Congress FE | | Yes | | |
| Pol. Area × Chamber × Cong. FE | | | Yes | Yes |
| Congress Member × Congress FE | | | | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

## Figure D.1: First Stage: Leave-one-politician-out Estimates




## Table D.3: IV Robustness: Stable Panel

| | *Dep. var.: Number of Bills* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Staffer Exp.) | -0.030 | 0.218*** | 0.112 | 0.132 | 0.132 |
| | (0.090) | (0.079) | (0.117) | (0.117) | (0.117) |
| asinh(Placebo Exp. Hiring Pool) | 0.036*** | 0.011 | -0.009 | 0.009 | 0.009 |
| | (0.014) | (0.017) | (0.017) | (0.017) | (0.017) |
| Observations | 31,482 | 31,482 | 31,482 | 31,482 | 31,482 |
| Mean of DV | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Robust F-stat. | 233.28 | 224.46 | 107.25 | 99.85 | 99.82 |
| Congress Member | Yes | Yes | Yes | Yes | |
| Pol. Area FE | Yes | Yes | Yes | Yes | |
| Congress FE | Yes | | | | |
| Pol. Area × Congress FE | | Yes | | | |
| Pol. Area × Chamber × Cong. FE | | | Yes | Yes | |
| Congress Member × Congress FE | | | | Yes | |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

## Table D.4: IV Robustness: Outliers

| | *Dep. var.: Staffer Expertise* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Baseline | | Drop > 99pct | | Drop > 97pct | | Drop > 95pct | | Drop > 90pct | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| asinh(Staffer Exp.) | 0.290*** | 0.305*** | 0.290*** | 0.256*** | 0.188*** | | | | | |
| | (0.059) | (0.054) | (0.050) | (0.046) | (0.041) | | | | | |
| asinh(Placebo Exp. Hiring Pool) | -0.010 | 0.003 | 0.003 | 0.004 | 0.008 | | | | | |
| | (0.009) | (0.008) | (0.008) | (0.007) | (0.006) | | | | | |
| Observations | 89,826 | 88,272 | 85,371 | 82,571 | 75,932 | | | | | |
| Mean of DV | 0.87 | 0.76 | 0.66 | 0.58 | 0.46 | | | | | |
| Robust F-stat. | | | | | | | | | | |
| Congress Member | Yes | | Yes | | Yes | | Yes | | Yes | |
| Pol. Area FE | Yes | | Yes | | Yes | | Yes | | Yes | |
| Congress Member × Pol. Area FE | | Yes | | Yes | | Yes | | Yes | | |
| Pol. Area × Congress FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Congress Member × Congress FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

## Table D.5: IV Robustness: Clustering

| | *Dep. var.: Number of Bills* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Cong. Member x Pol. Area | | Cong. Member | | Cong. Member x Congress | | Pol. Area x Congress | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| asinh(Staffer Exp.) | 0.290*** | 0.288*** | 0.290*** | 0.288*** | 0.290*** | 0.288*** | 0.290*** | 0.288*** |
| | (0.059) | (0.060) | (0.068) | (0.068) | (0.059) | (0.061) | (0.076) | (0.079) |
| asinh(Placebo Exp. Hiring Pool) | -0.010 | 0.003 | -0.010 | 0.003 | -0.010 | 0.003 | -0.010 | 0.003 |
| | (0.009) | (0.009) | (0.009) | (0.009) | (0.009) | (0.009) | (0.011) | (0.010) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Robust F-stat. | | | | | | | | |
| Congress Member | Yes | | Yes | | Yes | | Yes | |
| Pol. Area FE | Yes | | Yes | | Yes | | Yes | |
| Congress Member × Pol. Area FE | | Yes | | Yes | | Yes | | Yes |
| Pol. Area × Congress FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Congress Member × Congress FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

# E Additional Results: Effect of Staffers on Quality of Bills

**Table E.1: IV Effect of Staffer Expertise on Number of Bills Passing Senate**

| | *Dep. var.: Number of Bills passing Senate* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Staffer Exp.) | -0.002 | -0.008 | -0.014 | -0.023 | -0.023 |
| | (0.008) | (0.008) | (0.013) | (0.015) | (0.015) |
| asinh(Staffer Exp.) × Majority Party | 0.004 | 0.004 | 0.004 | 0.012*** | 0.012*** |
| | (0.003) | (0.003) | (0.003) | (0.003) | (0.003) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |
| Robust F-stat. | 486.60 | 510.42 | 181.17 | 169.64 | 169.42 |
| Congress Member | Yes | Yes | Yes | Yes | |
| Pol. Area FE | Yes | Yes | Yes | Yes | |
| Congress FE | Yes | | | | |
| Pol. Area × Congress FE | | Yes | | | |
| Pol. Area × Chamber × Cong. FE | | | Yes | Yes | |
| Congress Member × Congress FE | | | | Yes | |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

**Table E.2: IV Effect of Staffer Expertise on Number of Bills Passing House**

| | *Dep. var.: Number of Bills passing House* | | | | |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| asinh(Staffer Exp.) | -0.012 | -0.012 | -0.017 | -0.015 | -0.015 |
| | (0.013) | (0.010) | (0.019) | (0.020) | (0.020) |
| asinh(Staffer Exp.) × Majority Party | 0.031*** | 0.038*** | 0.037*** | 0.038*** | 0.038*** |
| | (0.003) | (0.004) | (0.003) | (0.003) | (0.003) |
| Observations | 89,826 | 89,826 | 89,826 | 89,826 | 89,826 |
| Mean of DV | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |
| Robust F-stat. | 486.60 | 510.42 | 181.17 | 169.64 | 169.42 |
| Congress Member | Yes | Yes | Yes | Yes | |
| Pol. Area FE | Yes | Yes | Yes | Yes | |
| Congress FE | Yes | | | | |
| Pol. Area × Congress FE | | Yes | | | |
| Pol. Area × Chamber × Cong. FE | | | Yes | Yes | |
| Congress Member × Congress FE | | | | Yes | |

*Notes:* This table presents Robust standard errors in parentheses are clustered by congress member. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.