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RIVERSIDE

Essays on State Legislative Staffers

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Political Science

by

Michelangelo Landgrave

June 2021

Dissertation Committee:
Dr. Nicholas Weller, Chairperson
Dr. Jennifer Merolla
Dr. Shaun Bowler

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The Dissertation of Michelangelo Landgrave is approved:

Committee Chairperson

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Dedicated to my sister, Angely Landgrave.

ABSTRACT OF THE DISSERTATION

Essays in State Legislative Staffers

by

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University of California, Riverside, June 2021
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Legislative staffers are present in nearly every aspect of the legislative process. Legislative staffers research public policy, schedule meetings with interest groups, conduct constituency and much more. In this dissertation I utilize original data from Arizona, California, Indiana, and New Mexico to better understand the role that legislative staffers play in state legislatures. In chapter 1, I find that contrary to extant literature on Congressional staffers, state legislative staffer networks do not influence roll-call voting. In chapter 2, I find that state legislatures that utilize staffers in constituency service are less likely to discriminate against ethnic minority constituents. In chapter 3, I find that ethnic minority staffers are more likely to be placed in constituency service roles due to legislators' desire to provide descriptive and substantive representation, in addition to homophily. Together these findings advance our understanding of the role of state legislative staffers in American state legislatures.

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Introduction

In this dissertation I study the roles played by state legislative staffers in American state legislatures. Legislative staffers are commonly described as an invisible force (Fox and Hammond 1977) who provide legislators with vital assistance. In this dissertation I argue that while staffers certainly provide vital assistance to legislators, they are in no means an invisible force. Their presence can be seen in every aspect of the legislative process. Take for example Chapter 2 of this dissertation, initially written as a 1st year seminar paper, which was conceived as a paper on the provision of constituency service by state legislators. When I started data collection though it became clear that constituency service was primarily conducted by legislative staffers. In the years since I have become aware that 99.9 percent of legislative duties are conducted by legislative staff in all but the most un-professionalized legislatures. Legislative staffers are an *underappreciated* force, but they are not invisible.

This dissertation makes an original contribution to the political science literature by increasing our knowledge of American state legislative staffers. In the past few years there has been a growing number of studies dedicated to studying legislative staffers, but I am among the few who has focused on studying legislative staffers in state legislatures. Brant (2020) has a chapter on state legislative staffers, and there are a few studies on staffers in European legislatures (Moens 2021; Ringe, Victor, and Gross 2013), but otherwise most recent studies have focused on Congressional staffers. The focus on Congressional staffers is driven in part because there are several readily available datasets on Congressional staffers, but the study of state legislative staffers requires researchers to

build their own datasets. A contribution of this dissertation is the compilation and utilization of original staffer data across multiple American state legislatures. Chapter 1 of this dissertation relies on original staffer data from the Arizona, Indiana, and New Mexico House of Representatives. Chapter 2 utilizes previously collected, but unanalyzed, data from all fifty state legislatures. Chapter 3 relies on original staffer data from the California State Assembly.

This dissertation is composed of three empirical essays. Together they show that staffer utilization varies across state legislatures and this variation has substantive impact on the legislative process.

Chapter 1 tests if legislative staffer networks independently influence legislators' roll-call voting by leveraging the fact that personal staffers are shared by multiple legislators in several state legislatures. This chapter was inspired by a growing sub-literature on the effect of staffers' networks on the legislative process (Burgat 2020; McCrain 2018; Montgomery and Nyhan 2017). I find that although staffer networks may influence roll-call voting in Congress, they do not influence roll-voting voting in the lower legislative assemblies of Arizona, Indiana, and New Mexico.

Chapter 2 tests if the presence of legislative staffers influences the provision of constituency service. I re-analyze the audit correspondence data from Butler and Broockman (2011) in addition to analyzing the previously unused replies. I find that state legislatures where legislative staff are present in greater numbers are less likely to discriminate against minority constituents in the provision of constituency service. Chapter 2 was previously published in *American Politics Research* Volume: 48 issue: 5,

page(s): 571-578 (https://doi.org/10.1177%2F1532673X20923588). Permission was received by SAGE Publishing for its re-use here.

Chapter 3 tests several hypotheses on why ethnic minority legislative staffers are more likely to be placed in constituency service than policy assignments. I use original staffer employment data from the California State Assembly, arguably the most ethnically diverse American legislature. This chapter was directly inspired by the work of Ziniel (2009; 2020), a fellow UC Riverside alumni and Ritchie and You (2020), a UC Riverside professor. I theorize that ethnic minority legislative staffers may be placed in constituency service alignments either because legislators desire to provide (a) substantive representation, (b) descriptive representation or because legislators' employment patterns is (c) driven by homophily. I find consistent support for the homophily hypothesis, and mixed support for the substantive/descriptive representation hypotheses.

The research in this dissertation is part of a larger research agenda on state legislative staffers. Going forward, I hope to utilize my original data on state legislative staffers to better understand the potential for legislative staffers to provide substantive representation to traditionally underserved populations. Dittmar (2021), Rosenthal and Bell (2003) and Wilson (2013) have laid the groundwork for this line of inquiry, but at time of writing no one has incorporated *state* legislative staffers into the discussion. The variation in institutional design and presence of minority staffers promises to yield valuable insights.

Chapter 1: Do state legislative staffer networks influence roll-call voting? Evidence from shared personal staffers in Arizona, Indiana, and New Mexico

Michelangelo Landgrave

Introduction

Personal staffers are an invisible force in legislatures (Fox and Hammond 1977; Malbin 1980). Without staffers, it is doubtful that legislators would be able to accomplish much (Salisbury and Shepsle 1981b). Personal staffers assist legislators in performing almost every task from constituency service (Landgrave and Weller 2020) to policy research (Weissert and Weissert 2000). Traditionally staffers have been modeled in the literature as being legislators' agents with minimal agency loss (DeGregorio 1995), but recent empirical work finds that staffers may independently influence legislative behavior (Hertel-Fernandez, Mildenberger, and Stokes 2018; Montgomery and Nyhan 2017). In addition to other mechanisms, staffers can influence roll-call voting by using their connections in legislative networks to coordinate behavior between legislative actors (Burgat 2020; Hertel-Fernandez, Mildenberger, and Stokes 2018; McCrain 2018). It is important to better understand the role of staffer networks because they may enable staffers to influence of legislators' roll-call voting. It would be problematic for representative government if staffer networks influence roll-call voting because staffers are not subject to the same electoral pressures as elected officials.

In this article I test the association between personal staffers networks and state legislators' roll-call behavior. I identify staffer networks by leveraging the fact that personal staffers in Arizona, Indiana, and New Mexico are shared between multiple

legislators. I posit that shared personal staffer networks may serve as a coordination device between state legislators. Personal staff hold the potential to influence legislative behavior by serving as network bridges. A network bridge is a link between nodes that would otherwise have minimal or no connection (Burt 2002). A network bridge can broker information between nodes, i.e., state legislators in the context of legislative actors. Staffers benefit from serving as network bridges because of the increased opportunities they receive to cooperate with other actors (van Leeuwen et al. 2019). Furthermore, staffers that serve as network bridges are rewarded in the short term by being more likely to be assigned more important policy portfolios (Burgat 2020) and in the long term by increasing their potential salaries as future lobbyists (McCrain 2018; Shepherd and You 2020).

Staffers can develop specialized knowledge that makes them sought after by legislators (Romzek and Utter 1997) and are often considered legislators' trusted confidants (DeGregorio 1995). Specialized knowledge can mean either knowledge about a public policy domain and/or knowledge about how to best accomplish legislative goals. Armed with specialized knowledge and trusted by their legislators, staffers can facilitate the transmission of information and help coordinate behavior between legislative actors by serving as network bridges. By facilitating coordination, staffers can induce legislators to behave in congruence with others in the same staffer network. Additionally, network bridges may increase the opportunity for legislators to interact with each other and increase their willingness to coordinate with one another. Existing research finds that staffers in the United States House of Representatives (Montgomery and Nyhan 2017)

and European Parliament (Ringe, Victor, and Gross 2013) serve as network bridges, but it is unknown if this extends to staffers in American state legislators, because staffer utilization differs significantly in state legislatures.

In legislatures such as the United States House of Representatives and European Parliament, personal staffers are assigned to a single legislator. In many American state legislatures however, personal staff are shared between multiple legislators. The sharing of personal staff is driven by resource constraints (Bowen and Greene 2014; Squire 1992). This article advances the literature by testing the association between shared personal staffer networks and legislators' roll-call voting. On the one hand, staffer networks created by this arrangement may be positively associated with congruent roll-call voting, as is the case in the United States House of Representatives and European Parliament (Montgomery and Nyhan 2017; Ringe, Victor, and Gross 2013). On the other hand, shared personal staffer networks may be negatively associated with congruent roll-call voting. Legislators who share staff are by necessity competing with one another for staffers' time because staffers' time is rivalrous and valuable. At the extreme end, resource competition for staffers' time may lead to antagonism between legislators. Resource competition need not lead to overt antagonism among legislators per se – it is possible that resource competition would only lead to legislators developing rules to avoid conflicting loyalties among staffers. Nonetheless, this may in turn discourage staffers from developing the specialized knowledge that would allow them to influence policymaking. Regardless, the result would decrease the likelihood of congruent roll-call

voting by legislators connected through a shared personal staffer. Instead of serving as network bridges, shared personal staffers may create gaps between legislators.

I test for the possible association between shared personal staffer networks on state legislators' roll-call voting congruency by using original data from the Arizona, Indiana, and New Mexico House of Representatives. Given data limitations, it is not feasible to conduct empirical analysis using all state legislatures. I chose to study Arizona, Indiana, and New Mexico's House of Representatives, because they represent among the most (Arizona) and least (Indiana and New Mexico) professionalized state legislatures where shared personal staffers are present.[1] Shared personal staffers are present in about a third of American state legislatures. Professionalization is a measure of a state legislature's resources and is measured as a mix of session length, legislator compensation, and staffer resources (Squire 1992; Bowen and Greene 2014). By selecting cases that span the range of professionalism I expect that my results are more likely to generalize across other state legislature.

Original data on personal staffer networks was compiled through a combination of web scraping and freedom of information act (FOIA) requests. Commercial companies like LegiStorm provide Congressional staffer data[2] but commercial availability of state legislative staff is more limited. Some states have capitol hill directories (e.g. Massachusetts Political Almanac), but older editions of these directories are difficulty to obtain because they are only published in limited quantities for interest groups. I test the

[1] An earlier version of this paper included Wisconsin, but the state was dropped due to data quality concerns.
[2] LegiStorm started to provide data on state legislative staffers in March 2020 but does not provide historical data at time of writing.

association between shared staffer networks and roll-call behavior using this unique dataset from Arizona, Indiana, and New Mexico.

I do not find consistent evidence that legislators with shared staff are more likely to vote congruently than legislators who do not share staff. To the contrary, in some specifications I find evidence that shared personal staffers are associated with less congruence in roll-call voting than would be expected if legislators did not share staff. This is an important finding, because it shows that personal staffer networks are not necessarily positively associated with roll-call voting congruency. We know that staffer networks coordinate behavior in the United States House of Representatives (Montgomery and Nyhan 2017) and European Parliament (Ringe, Victor, and Gross 2013), but it is less clear to what extent staffer networks influence behavior in American state legislatures. My findings advance this literature by showing that staffer networks do not always promote legislative coordination and may in certain cases hinder them. More broadly, I contribute to a growing literature on the broader influence of staffers on legislative behavior at the national (Burgat 2020; Hertel-Fernandez, Mildenberger, and Stokes 2018; McCrain 2018; Montgomery and Nyhan 2017) and subnational levels (Gray and Lowery 2000; Landgrave and Weller 2020; Weissert and Weissert 2000).

Staffers as Network Bridges

Staffers can induce coordination between legislative actors by serving as network bridges (Burgat 2020; Montgomery and Nyhan 2017; Ringe, Victor, and Gross 2013). To

serve as network bridges, staffers must (a) have specialized knowledge, (b) have an extensive network, and (c) be trusted.[3,4]

Legislators face severe time constraints which require them to delegate responsibilities to staffers. This gives staffers access to a high degree of influence over the legislative enterprise and they work extensively in different aspects of the legislature (DeGregorio 1995). Staffers control access to the legislator by interest groups (Furnas et al., n.d.; Jenkins, Landgrave, and Martinez 2020; Kalla and Broockman 2016) and by constituents (Hertel-Fernandez, Mildenberger, and Stokes 2018). Staffers give advice on policymaking (Gray and Lowery 2000; Pertschuk 2017; Weissert and Weissert 2000) and play a major role in constituency service (Frantzich 1985; Landgrave and Weller 2020). In the process of carrying out work intensive duties staffers develop specialized knowledge about legislative activity that increases their value to their legislators. Specialized knowledge can either be knowledge about a public policy domain and/or knowledge about how the legislature operates. This specialized knowledge can be translated to influence. In short, staffers are used intensively (developing specialized

[3] To borrow from Lupia, McCubbins, and Arthur (1998), "trust" here means state legislators must perceive staffers to have common *interests*.

[4] In this manuscript I discuss three conditions necessary (specialized knowledge, extensive network, and trust) for staffer networks to influence state legislators roll-call voting. I must emphasize that all three conditions are highly correlated with one another and are difficult to disentangle from one another. As I discuss in greater detail below, the institutional design elements that promotes one condition, promotes the other relevant conditions as well. E.g., I do not observe a legislature where staffers have specialized knowledge and an extensive network but are not trusted by legislators. Empirically this means that I cannot attribute results to a specific condition being (not) met. This is a general problem in the state legislature institutional design literature. While attempts have been made to distinguish the constituent parts of state (Bowen and Greene 2014; LaCombe, n.d.), its component parts are highly correlated.

knowledge) and extensively (working in many areas). This enables staffers to respectively develop specialized knowledge and build an extensive network across the legislature.

Moreover, staffers must be trusted by legislators to be effective. Untrustworthy staffers, defined as staffers with a high degree of agency loss, with specialized knowledge would be problematic because they could influence legislators to act against their best interests. Rational legislators would not allow staffers to develop specialized knowledge if it could harm them. A rational legislator will only delegate duties to a staffer if they can somehow minimize agency loss. One way to minimize agency loss is through monitoring and screening (Kiewiet and McCubbins 1991). When legislators are away from their families and residing in the capital, staffers are in regular contact with staffers (Fenno 1978). This regular contact gives legislators opportunity to identify trustworthy staffers and conditionally delegate duties to them (DeGregorio 1995; Hagedorn 2015). Trust is vital in increasing the value of staffers to legislators.

The key role that staffers play in several aspects of the legislature make them potential bridges (Burt 2002) to connect otherwise disconnected nodes in legislatures. Network bridges serve to broker information between groups that would otherwise have little to no contact. Network bridges are related to, but distinct from weak ties (Granovetter 1977). Weak ties, social relationships with acquittances, are useful in that they provide information from outside our immediate social network (Kirkland 2011). Network bridges similarly provide information from outside our immediate social network but need not be “weak”. To the contrary, network bridges are most effective

when they are “strong” ties because strong ties decay less quickly (Burt 2000; 2002). Staffers can be network bridges because they have specialized information, are well connected throughout the legislature, and are trusted by legislators. These attributes mean that staffers have information to broker negotiations between legislative actors, have the connections necessary to broker negotiations, and are trusted to provide reliable information.

At the national level there is strong evidence of the influence of staffer networks on legislative behavior. Montgomery and Nyhan (2017), which the present manuscript most directly builds upon, find that members of congress who have exchanged senior and policy staffers are more similar in their voting patterns than would otherwise be predicted. Montgomery and Nyhan (2017) hypothesize that Congressional staffers can influence legislative behavior because their specialized knowledge affords them autonomy and a subsequent agency loss. Members of congress attempt to minimize agency loss by monitoring, retaining, and promoting those staffers that exhibit loyalty. Resource restraints however force MCs to delegate autonomy to staffers who may use their autonomy to pursue their own goals. The ability to develop specialized knowledge through intensive work would appear to be a prerequisite for staffers to influence legislative behavior.

Burgat (2020) finds that better connected legislative staffers are more likely to be assigned to important policy assignments because legislators believe they will be better able to leverage their networks to achieve success. McCrain (2018) tests staffers’ influence in networks by looking at their success as lobbyists and finds that former

staffers with more congressional ties are more successful as lobbyists. Burgat (2020) and McCrain (2018) are important findings because they help us understand why staffers are motivated to develop their networks. By increasing their connectedness in the legislative network, staffers not only improve the efficiency of their MCs (Fowler 2006; Battaglini, Sciabolazza, and Patacchini 2019) but also improve their own future wages as lobbyists. Staffers need to work both intensively and extensively. Intensive work allows staffers to develop specialized knowledge. Extensive work allows them to increase their connectedness in legislative networks. A staffer who is well connected but doesn't have specialized information has nothing to broker. A staffer who has specialized information but isn't well connected may have something valuable to offer, but no one to offer it to. Intensive and extensive work are both necessary for staffers to be network bridges.

Much of this extant work on staffer networks has relied on data from the United States House of Representatives, but there is evidence that staffers serve as network bridges in the comparative context as well. Ringe, Victor, and Gross (2013) have noted the influence of staffers in the European Parliament. It is however unclear if the influence of personal staffers extends to state legislatures and it is this that the present manuscript concerns itself with.

Staffers as Network Gap

Staffers do not play the same role in state legislatures as they do in national legislatures like the United States House of Representatives, and this may hinder their ability to serve as network bridges in legislative networks. It cannot be taken for granted that staffers in all legislatures are used intensively and extensively. Nor can it be taken for

granted that they are trusted by state legislators – at least not to the same extent Congressional staffers are trusted by members of Congress. American legislatures have considerable heterogeneity in design (Hamm 2019). The United States has 101 legislatures -- two national legislatures and 99 state legislatures -- with significant variation in institutional design across them (Squire and Hamm 2005). American legislatures differ on many institutional design elements, such as whether their legislators are term limited (Kousser 2005) and/or whether their members are elected from single or multimember districts (Kirkland 2012). American legislatures also vary considerably in session length, legislator compensation, and staffer resources (Squire 1992). Of key importance for the present discussion is variation in human resource management and staffer utilization.

Human Resource Management

Staffers' development of specialized knowledge is dependent on them being trusted by legislators. Rational legislators will not delegate duties to staffers in the absence of trust. Staffers in turn will not have an opportunity or incentive to develop specialized knowledge through intensive work if duties are not delegated to them. Staffers without specialized knowledge will find it difficult to influence legislative behavior.

Staffers have historically been treated as agents of a single principal, their Member of Congress, with minimal agency loss (DeGregorio 1988). This mode of thinking is so pervasive that many legislative studies purported to be studying legislators'

behavior use data on staffers' behavior interchangeably. Ringe, Victor, and Gross' (2013) study of legislators' networks uses staffers' networks as a proxy for legislators' network.

In state legislatures the principal agent model cannot be taken for granted. Staffers in many state legislatures are employed by a centralized human resource department. State legislators doubtlessly have some control over their staff, but staffers are routinely assigned to new legislators. In Arizona and New Mexico, staffer assignments change every two-year session. The new assignment rate, the percent of staffers that are assigned new legislators each session, is about 100 and 85 percent respectively. See **Table 1**. In Indiana, staffer assignments are changed every year and the new assignment rate is approximately 74 percent.

The high new assignment rate means that staffers have divided loyalties between their current legislator(s) and the human resource department that controls their long-term assignment. State legislative staffers serve at the pleasure of their current legislators, but they also serve as the pleasure of the human resources department. If staffers desire long-term employment, they must carefully balance service between their two principals.

Further complicating the principal agent model is that personal staffers in state legislatures have multiple legislator principals. Their position as legislators' trusted confidants creates a problem as it means that they are privy to multiple legislators' personal information. Access to this information could manifest itself as an opportunity for them to serve as network bridges but it could also lead to them betraying the trust of some legislators to aid their favored principal. It is vital for legislators to uphold strong norms of conduct lest order and legislative ability break down. It is possible that, in

recognition of the potentially harmful ability of staffers to transmit information, legislators have a norm against asking staffers about other legislators.

There is qualitative evidence of such a norm in state legislatures. The National Conference of State Legislature (NCSL)'s suggested code of conduct for staffers states that (NCSL 2019):

> "…many legislative staff members work for more than one legislator, including working on a single project or piece of legislation for legislators with opposing objectives, it is imperative the staff member maintain a wall of confidentiality between work for individual legislators. The expectations of leaders that they be kept informed can place staff members in difficult situations. Legislatures must clarify the staff obligation to maintain confidentiality and to whom the staff member owes a duty in order to minimize conflict between duties."

Survey evidence also suggests that legislators themselves recognize the potential dangers of violating confidentially norms. In an original survey of state legislators fielded in Spring 2020 (n= 81), I asked state legislators if they ever asked shared staff about one another's activities. Among those with shared staff, only 5.40 percent said that they had inquired about other legislators' actions.

A consequence of the principal agent model breaking down in state legislatures with shared personal staff is that staffer professionalism is significantly lowered. A rational legislator will not delegate duties to a staffer that is untrustworthy. In turn a staffer without delegated duties will neither have the ability or incentive to develop specialized knowledge.

Staffer Utilization

One of the core questions in the legislative staffer literature is whether to model staffers are utilized as "clerks" or "political professionals" (Romzek and Utter 1997). If staffers are clerks, then they are workers present to extend the capacity of legislators by conducting simple routine tasks and only matter in the sense that other capital inputs matter in determining a legislators' effectiveness. A staffer-clerk whose primary job is data entry is unlikely to influence a legislator's decision-making. If staffers are political professionals, defined as an individual with specialized knowledge (Wilensky 1956), then staffers matter not only in determining a legislators' effectiveness but also matter in so far that they influence a legislators' decision-making. A political professional with specialized knowledge will be relied upon for advice by legislators and this will provide staffers an opportunity to influence decision-making.

There is strong evidence that Congressional staffers are political professionals (Hertel-Fernandez, Mildenberger, and Stokes 2018; Montgomery and Nyhan 2017; Pertschuk 2017), but there is less certainty of how to classify state legislative staffers. There are studies on state legislative staffers' influence (Weissert and Weissert 2000), but most extant studies are insufficient to make a generalizable statement about the 99 state legislatures because they often focus on a single legislature. The study of state legislatures does not require all 99 to be analyzed (Nicholson-Crotty and Meier 2002), but the selected legislatures must be of sufficient range in institutional design to make a generalizable claim. A strength of the present study is that its three cases are respectively

among the most (Arizona) and least (Indiana and New Mexico) professionalized state legislatures with shared personal staff.

One method to measure staffer utilization, whether staffers are clerks or political professionals, is staffer turnover rates (Salisbury and Shepsle 1981a; Jensen 2011). Turnover rates signify the percentage of staffers that are new in each session. A lower turnover rate signifies that a legislature has a relatively continuous staffer force. Continuity allows staffers to gain specialized knowledge of legislative norms (Matthews 1959; Herrick and Fisher 2007) and organization-specific tasks. This specialized knowledge allows staffers to act as political professionals. High turnover on the other hand means that continuity is not guaranteed and discourages staffers from acquiring specialized knowledge through intensive work or from working extensively to become better connected in legislative networks.

Table 1 presents, among other descriptive statistics, staffer turnover rates for the United States, Arizona, Indiana, and New Mexico House of Representatives. Data on the United States House of Representatives is included here only for comparative purposes. Notably, the turnover rate is much higher in legislatures than in the private sector. The United States Bureau of Labor Statistics estimates yearly turnover rates (defined as "quit rates") in the low single digits for most private sectors. The relatively high turnover rate among legislatures is because few personal staffers intend for it to be their lifelong profession (Salisbury and Shepsle 1981a) and many staffers intend to segue into adjacent professions such as lobbying (McCrain 2018; A. Rosenthal 2000) or run for political

office themselves (Moncrief, Squire, and Jewell 2001). Despite the overall high turnover rates among legislatures there is significant variation across legislatures.

Table 1 – Institutional Features of the United States, Arizona, Indiana, and New Mexico House of Representatives

	United States House	Arizona House	Indiana House	New Mexico House
Professionalism (Squire Index, 2015)	1	0.264	0.156	0.14
Professionalism Rank	N/A	14	40	43
Average Staffers Per Legislators	20.00	0.50	0.33	0.50
Staffer Turnover	20.00%	38.04%	39.02%	75.86%
New Assignment Rate	N/A	100.00%	74.00%	85.71%
Number of Legislators	435	60	100	70
Shared Staff	No	Yes	Yes	Yes
Legislative Term Limits	No	No	No	No
Multimember Districts	No	Yes	No	No

Note: Staff Turnover for the United States House is the average for 2001-2018. Arizona and Indiana Houses are for 2015-2020. New Mexico is for 2017-2020.

The Arizona House of Representatives has a staffer turnover rate of 38.04 percent. Indiana and New Mexico respectively have turnover rates of 39.02 and 75.86 percent each. For comparison, the United States House of Representatives has a personal staff turnover rate of 20 percent (2001-2018) according to LegiStorm. These figures suggest that state legislative staffers have significantly less specialized knowledge than their Congressional counterparts because they have had little time to acquire it and/or little incentive to develop it.

These differences between national and state legislative staffers are important because shared personal staff may not play as important a role as network bridges in less professionalized legislatures with high turnover rates. High turnover rates limit staffers' ability to build specialized knowledge through intensive work or to build the connections

through extensive work that would allow them to maximize their potential as bridges in the legislative network.

Additionally, staffers in less professionalized legislatures are scarce, and this creates competition between their principals that may reduce legislators' trust that staffs share a common interest with them. In the United States House of Representatives there are 20 personal staffers per legislator. In the Arizona and New Mexico House of Representatives there are 0.5 staffers per legislator. In Indiana there are 0.33 staffers per legislator. This places a great burden on legislators to find a way to gain as much access to the limited number of staffers in the legislature. This burden creates an opportunity for staffers to not only be less effective as network bridges, but to possibly create gaps in the network.

One way to deal with the scarcity of staffers is to create clear rules on who can utilize a staffers' time in each point of the day. While conducting background research for this manuscript I interviewed shared personal staffers. Many stated that they usually divided their day around lunch time. They'd work for legislator A in the morning and then work for legislator B in the afternoon. In some instances, legislators would physically move between the offices of legislator(s) A and B. While this arrangement may prevent any antagonism between legislators by setting clear property rights to staffers' time (Coase 1960), it does not facilitate coordination. One can imagine a story where legislator A (B) is in their office in the morning (afternoon) to coincide with their

staffer and spend the remainder of their day on their day job.[5] This would mean that legislators A and B may be less likely to see each other in each day than if they did not share a staffer.

Legislators with shared staff may not have clearly defined property rights over staffers' time and this may foster antagonism due to their resource competition. In this case, legislators with shared staff may actively avoid other opportunities that would allow them to otherwise coordinate. In this worst-case scenario, shared staffers will be network gaps and may lessen the influence of other potential institutional bridges.

In summary, highly professionalized staffers are political professionals with specialized knowledge that allows them to influence legislators' activities and that have the incentive to attempt to influence legislators' activities. In state legislatures, where staffer professionalism is low, staffers may be closer to clerks and less likely to be legislators' trusted confidants. State legislative staffers' high turnover rates mean that they are unable to acquire the specialized knowledge needed to influence legislators' activities nor do they have a long-term incentive to do so.

In this manuscript I test if the staffer networks formed by shared personal staffers is associated with legislators' state legislators' roll-call voting. I hypothesize that personal staffers may promote congruent roll-call voting by serving as a network bridge between the legislators they share. Network bridges can be brokers of information between groups that otherwise have minimal to no contact with one another. Network bridges serve to coordinate behavior in this way. To serve as network bridges staffers must (a) have

[5] Except for the California legislature and other highly professionalized state legislatures, most state legislators have "day" jobs in addition to their political job.

specialized knowledge (through intensive work), (b) have an extensive network (through extensive work), and (c) be trusted. It is known that staffers in legislatures like the United States House of Representatives (Montgomery and Nyhan 2017) and the European Parliament (Ringe, Victor, and Gross 2013) influence roll-call behavior, but it is unknown if the same is true in state legislatures.

If shared personal staffers are network bridges, then legislators with shared staff should be positively associated with roll-call voting congruency. Empirically this would be seen by a positive association between a legislator dyad sharing personal staff and the likelihood of voting similarly on a given bill all else held constant. Conversely if staffers are network gaps, I should find that legislator dyads that share personal staff should be less likely to vote similarly on a given bill.

Research Design and Discussion

For empirics I rely on an original dataset of state legislative staffers serving in the Arizona (2015-2018), Indiana (2015-2018), and New Mexico (2017-2018) House of Representatives. This dataset was collected from web scrapping state legislative websites and from FOIA requests. Commercial providers exist for congressional staffer data, but historical data on state legislative staffers are rare. I have selected these three states because they represent a range of the most (Arizona) and least (Indiana and New Mexico) professionalized state legislatures as measured by both Squire (2017)'s professionalism index and staffer turnover rates. If I find or do not find that staffer networks are associated with roll-call vote congruency in all three cases, then I can be more confident in generalizing my results.

I append the original dataset of state legislative staffers with roll-call data from Open States, a non-profit that has collected roll-call data for state legislatures since approximately 2010. This combined data allows me to test the influence of shared staff on congruent voting.

Vote congruency is a binary outcome that indicates when a dyad both vote the same way, whether in in favor, against, or abstain (=1) on a given piece of legislation.[6] Vote congruency as an outcome measure can be traced back to Rice (1925)'s proposed cohesion index for the study of legislative behavior. Rice (1925)'s cohesion index has been replaced by nominate scores in most legislative studies, but comparable contemporary legislative network studies use a similar congruency measure (Ringe, Victor, and Gross 2013; Parigi and Bergemann 2016; Harmon, Fisman, and Kamenica 2019). Nominate scores may be more informative about legislators' ideology than vote congruency measures, but for my purposes I am interested if coordinated behavior, which vote congruency captures.[7]

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[6] Notably Wojcik (2018) only counts roll-call behavior congruent if a dyad pair both vote in favor of a given piece of legislation. I consider a dyad to act congruently if both parties both vote in favor, if both vote against, or if both abstain. I use a broader definition of congruent behavior because both passing or stopping a bill require coordination. Others similarly use this broader conception of vote congruency (Parigi and Bergemann 2016; Harmon, Fisman, and Kamenica 2019).

[7] In addition to providing unnecessary information in the context of a legislative network study, nominate scores for the three state legislatures are difficult to calculate because the state legislatures were under one party control during the observed years. My attempts at scaling nominate scores did not return the traditional liberal-conservative dimension. Nominate score estimates of state legislators along the liberal-conservative dimension exist, but these scores are only available for state legislators who serve in Congress or have responded to comparative surveys such as Vote Smart (Shor, Berry, and McCarty 2010; Shor and McCarty 2011).

I converted my data into dyads between all possible pairs of legislators; see **Table 2** for an example of the data frame. In some cases, missing data prevented the creation of a dyad. Note that dyads (ij) are embedded within legislative bills (l).

Table 2 – Sample Data Frame

Bill	Legislator A	Staffer A	Legislator B	Staffer B	Shared Staff
Bill A	J. Burnett	J. Doe	D. Wang	J. Doe	Yes
Bill A	J. Burnett	J. Doe	S. DeMora	R. Roe	No
Bill A	J. Burnett	J. Doe	M. Landgrave	J. Roe	No
Bill B	J. Burnett	J. Doe	D. Wang	J. Doe	Yes
Bill B	J. Burnett	J. Doe	S. DeMora	R. Roe	No
Bill B	J. Burnett	J. Doe	M. Landgrave	J. Roe	No

Determinants of Sharing Staff

Before proceeding to analyze the legislative staffer network, it is important to consider the presence of homophily in determining shared staffer assignment. When estimating the influence of social networks it is important to account for pre-existing homophily because results may otherwise be biased (Rogowski and Sinclair 2012). Staffer assignments are done by a centralized human resource department but two legislators with a pre-existing relationship may request that they be given a shared staffer. Indeed, shared staffers are only assigned to co-partisans in Arizona, Indiana, and New Mexico. Staffers may also vote similarly due to pre-existing shared characteristics, such as legislators in multimember districts who represent the same geographical constituency (Kirkland 2012). I cannot attribute congruent behavior as being caused solely by the shared staffer in the presence of shared legislator characteristics that would lead to congruent voting. Unfortunately, I cannot observe all pre-existing relationships to address this concern. I can however test some of the determinants of who shares staffers. If staffer

assignment is driven by homophily then I should find that legislators with shared characteristics are more likely to share staffers. In this section I test the association of shared partisanship, district, ethnicity, and gender on being assigned a shared personal staffer. Other shared characteristics may be relevant, but this is the available data.

In **Table 3** below I test these determinants for the Arizona, Indiana, and New Mexico House of Representatives using a modified form of the data set. I estimate the association of these characteristics on shared personal staff assignment as a linear probability model (LPM) (Angrist and Pischke 2008; Wooldridge 2015): $\text{Shared Staffer}_{ij} = B_1 + B_2\text{Shared Party ID}_{ij} + B_2\text{Both Women}_{ij} + B_3\ \text{Both Hispanic}_{ij} + B_4\ \text{Shared Multimember District}_{ij}$. The dataset has been collapsed by dyad pair for this LPM as the outcome (sharing a personal staffer) is the same across bill.

For all three legislatures I can test the association of shared political party. In all three legislatures I find that members of the same political party are more likely to share staffers (p-value < 0.001). This serves as a useful sanity test as personal staffers are only shared between co-partisans.

In Arizona and New Mexico, I can test the association of both legislators being women. I look at woman-woman dyad pairs, as opposed to pairs with shared gender (woman-woman and man-man pairs), because homophily should be strongest among traditionally underrepresented groups among legislators. Whites and men respectively have low levels of group consciousness compared to people of color and women (Croll 2007). Furthermore, women legislators are known for collaborating amongst themselves in legislative bodies (Craig et al. 2015; Holman and Mahoney 2018) which may translate

to a higher likelihood of sharing a staffer. I fail to find evidence that women-women dyad pairs are more likely to share staffers in Arizona (p-value = 0.799) or New Mexico (p-value = 0.771).

In New Mexico I can uniquely test the association between legislators' ethnicity with staffer assignment, because it is one of a few legislatures where Hispanics compose a substantial share of members. Forty percent of New Mexico legislators in the 2018-2020 session were Hispanic (Fraga, Juenke, and Shah 2019). Like the test for homophily among women, I test the influence of Hispanic-Hispanic dyad pairs, as opposed to shared ethnicity (Hispanic-Hispanic and white-white pairs), because homophily should be strongest among traditionally underrepresented groups. Hispanic legislators are more likely to collaborate with other Hispanic legislators (Craig et al. 2015) and this may translate to an increased likelihood of sharing personal staff. I find that co-Hispanic legislators are 4.11 percentage points more likely to share personal staff (p-value = 0.012).

In Arizona I can test the association of multimember districts with staffer assignment. Legislators who share a multimember district have been argued to be more likely to coordinate with one another, and if this is true this should translate to a higher likelihood of sharing personal staff (Kirkland 2012). I find that legislators from the same district are 13.05 percentage points more likely to share staffers (p-value < 0.001) than otherwise. This supports Kirkland (2012)'s hypothesis that multimember districts promoting coordination. I cannot test the association of multimember districts with staffer assignments in Indiana or New Mexico because neither have multimember districts.

In **Table 3 column 4** I pool the data for the three legislatures and account for state legislature fixed effects. Across all specifications I find that co-partisans are more likely to be assigned a shared staffer, which must be true because staffers are only assigned to co-partisans. This serves as a sanity test for our results.

Since I find evidence that legislators' shared characteristics are associated with an increased likelihood of sharing personal staff, my analysis regarding vote congruency should be biased in favor of finding a positive effect for shared personal staff on vote congruence. If I do not find evidence that shared personal staff are positively associated with an increase in congruent voting, my confidence in the null or negative results is increased.

Table 3 – Determinants of Sharing Personal Staff, LPM

	(1)	(2)	(3)	(4)
VARIABLES		DV: Share Personal Staff		
Shared Party	0.015***	0.038***	0.109***	0.047***
	(0.004)	(0.004)	(0.011)	(0.003)
Both Women	0.001		0.004	
	(0.006)		(0.015)	
Shared Multimember District	0.131***			
	(0.015)			
Both Hispanics			0.041**	
			(0.016)	
Constant	-0.001	-0.000	-0.004	-0.001
	(0.003)	(0.003)	(0.008)	(0.002)
Observations	2,250	5,660	1,770	9,680
R-squared	0.040	0.019	0.063	0.034
Time	2015-2018	2015-2018	2017-2018	Pooled
Legislature	Arizona House	Indiana House	New Mexico House	Pooled

Standard errors in parentheses. State legislature fixed effects accounted for in Column 4. *** p<0.01, ** p<0.05, * p<0.1

Roll-Call Voting Congruency

I test if shared personal staffer networks are associated with roll-call vote congruency. This is in line with prior literature on the influence of coordination devices such as staffers (Burgat 2020; Ringe, Victor, and Gross 2013), seat proximity (Harmon, Fisman, and Kamenica 2019) and shared boardinghouses (Parigi and Bergemann 2016) in national legislatures. I use roll-call votes for all legislation voted on in the Arizona (2015-2018), Indiana (2015-2018), and New Mexico (2017-2018) House of Representatives. The selected years are based on the availability of staffer network data.

As already discussed, one of the great difficulties with analyzing network data is that network formation is endogenous. If I find evidence that legislators with shared staff are more likely to have congruent roll-call voting, I may be picking up pre-existing homophily. As I showed in the prior section, there is evidence that legislators with shared characteristics (e.g., shared geographic constituency etc.) are more likely to share staffers. Ideally I would want to exploit an intervention, such as a lottery for staffer assignment (Rogowski and Sinclair 2012), for a quasi-experiment but I do not have any such interventions. Given these data limitations I refrain from making causal claims. Conversely, if I do not find that dyad pairs with shared staff are more likely to vote congruently despite the presence of homophily, I am more confident in the null result.

I cannot adopt a quasi-experimental approach, but I can however at least account for relevant covariates, such as whether a dyad pair are from the same multimember district (in the Arizona sample) or if they are co-ethnics (in the New Mexico sample). Available covariates vary across legislatures due to data availability.

In **Table 4** I present the following LPM: $\text{Congruent RollCall Vote}_{ijl} = B_0 + B_1 \text{ Shared Staffer}_{ij} + B_h \text{ H}_{ij}$ for the Arizona, Indiana, and New Mexico House of Representatives respectively. Standard errors are clustered by dyad pair – as it standard in dyadic analysis (Green, Kim, and Yoon 2001).

In **Table 4 column 1**, I fail to find a relationship between shared staff and vote congruency in the Arizona House of Representatives (p-value = 0.672). Similarly, in **Table 4 column 2** I fail to find evidence (p-value = 0.508) that shared staff in the Indiana House of Representatives is associated with vote congruency. In **Table 4 column 3,** I find that shared staffers is negatively associated with roll-call vote congruency (p-value < 0.001) in the New Mexico House of Representatives. Legislator dyads that share a personal staffer in the New Mexico House of Representatives are 4.58 percentage points less likely to vote congruently on a piece of legislation all else held equal. In **Table 4 column 4** I pool the data from the three respective legislatures and account for state legislature fixed effects. Pooled results find that shared staffers are associated with a decreased likelihood of congruent voting (p-value < 0.001).

It is worth emphasizing that in all observed legislatures, staffers are only shared among partisans. Using the pooled results from **Table 4 column 4**, This means that the baseline likelihood of vote-congruency is approximately 67.1 percentage points for legislator dyads that do not share a political party and do not share a personal staffer. The likelihood of vote congruency is approximately 83.8 percentage points when a legislator dyad shares a political party, but do not share a personal staffer. The likelihood of voting congruency is 77.2 percentage points when a legislator dyad shares a political party and

share a personal staffer. I do not observe an instance where a legislator dyad does not share a political party and does share a personal staffer.

The negative results may be evidence that staffers serve as network gaps. As discussed above, there is evidence that state legislative staffers adhere to a norm of not divulging information between their respective principal legislators. This norm exists to discourage incidents of staffers violating legislators' trust. There is evidence that groups like the NCSL encourage state legislatures to adopt policies that discourage information transmission. Furthermore, as mentioned before, interviews with staffers suggest that they organize their work schedule to work for a given legislator for a set period of the day. This may in turn encourage legislators to organize their work schedules to match staffers' and therein they avoid interacting with the legislator(s) with whom they share staff. In the presence of these policies and norms, staffers may become network gaps.

Table 4 – Association of Shared Staff with Congruent Roll-Call Voting, LPM

	(1)	(2)	(3)	(4)
VARIABLES	DV: Congruent Roll-Call Voting			
Shared Staff	-0.008	-0.017	-0.046***	-0.066***
	(0.019)	(0.026)	(0.016)	(0.013)
Shared Party	0.223***	0.089***	0.076***	0.167***
	(0.004)	(0.007)	(0.004)	(0.003)
Shared Multimember District	0.005			
	(0.018)			
Both Women	-0.020***		0.029***	
	(0.005)		(0.004)	
Both Hispanics			-0.052***	
			(0.011)	
Constant	0.616***	0.750***	0.764***	0.671***
	(0.002)	(0.005)	(0.003)	(0.002)
Observations	1,853,591	290,087	935,488	3,079,166
R-squared	0.063	0.012	0.010	0.044
Time	2015-2018	2015-2018	2017-2018	Pooled
Legislature	Arizona House	Indiana House	New Mexico House	Pooled

Standard errors are in parentheses and are clustered by dyad pair. State legislature fixed effects accounted for in Column 4. *** p<0.01, ** p<0.05, * p<0.1

There is debate in the methodological literature on how to deal with standard errors in dyadic analysis. The major issue is that the standard errors do not meet the independent and identically distributed (i.d.d.) assumption. That is to say that the voting behavior of a dyad in bill A is likely not independent of the dyad's behavior in bill B. One method of addressing the problem is to cluster the errors by dyad pair, as I have done in **Table 4**. An alternative method suggested by Erikson, Pinto, and Rader (2014) is to use randomization inference. Randomization inference does not require the i.d.d. assumption and instead produces a p-value by generating a distribution of the hypothetical coefficient of interest (Keele, McConnaughy, and White 2012). I conduct randomization inference using Heß (2017)'s package for Stata to compute 1,000

hypothetical distributions of p-values. Results are presented in **Table 5**. Covariates are suppressed for brevity.

Table 5 – Association of Shared Staff with Congruent Roll-Call Voting, LPM with Randomization Inference P-Values

	(1)	(2)	(3)	(4)
		DV: Congruent Roll-Call Voting		
Shared Staff β	-0.008	-0.017	-0.046	-0.066
P-Value	0.019	0.000	0.000	0.000
Legislature	Arizona	Indiana	New Mexico	Pooled

Note that, after using randomization inference p-values, shared staffers in all three observed state legislatures are associated with a decrease in roll-call congruency. Even with the bias in favor of finding a positive association due to staffer assignment being driven in part by homophily, shared staffer networks do not increase coordination between legislators. To the contrary they appear to decrease coordination as measured by roll-call congruency.

Falsification Tests

Another way to address endogenous network formation concerns is to conduct a falsification test. Sharing staffers in the future should not be associated with behavior in the present. If future shared ties (t+1) are associated with present behavior it is because of pre-existing ties between legislators. If I account for future shared staff and my results remain unchanged, I can be more confident in my findings. This falsification tests assume that legislators' relationships amongst themselves are time invariant in the short term.

In the Arizona and New Mexico House of Representatives future ties are defined as sharing staffers in the next session. In Indiana future ties are defined as sharing staffers in the next year. Unlike Arizona and New Mexico, Indiana's House of Representatives

re-assigns staffers yearly. In **Table 6** I estimate the following LPM:

$$\text{Congruent RollCall Vote}_{ijl} = B_0 + B_1 \text{ Shared Staffer}_{ij} + B_2 \text{ Shared Staffer}, t + 1_{ij} + B_h H_{ij}.$$

I do not find evidence that shared staffers increase vote congruency in either the Arizona or Indiana House of Representatives in **Table 6**. I find mixed evidence regarding the association of shared staffers with congruent roll-call voting in the New Mexico House of Representatives. In **Table 4** I find evidence that shared staffers are associated with lower voting congruency, but in **Table 6** I find that shared staffers are associated with a higher level of voting congruency. In Arizona (p-value = 0.013) and New Mexico (p-value < 0.001), I find evidence that future shared staffers are associated with vote congruency in the present period. Legislator dyads that will share staff in the future are less likely to vote congruently in the present period. In **Table 6 column 4**, I pool the data across legislatures, accounting for state legislature fixed effects. In **column 4** I find that shared staffers in the future are associated with a decrease in congruent voting in the present (p-value < 0.001).

Table 6 – Falsification Test, LPM

VARIABLES	(1)	(2)	(3)	(4)
	DV: Congruent Roll-Call Voting			
Shared Staff, t	0.005	-0.025	0.011*	0.001
	(0.022)	(0.042)	(0.006)	(0.020)
Shared Staff, t+1	-0.062**	-0.003	-0.032***	-0.055***
	(0.025)	(0.046)	(0.006)	(0.020)
Shared Party	0.225***	0.071***	0.066***	0.180***
	(0.005)	(0.008)	(0.007)	(0.004)
Constant	0.612***	0.769***	0.776***	0.658***
	(0.003)	(0.005)	(0.005)	(0.002)
Observations	928,203	210,549	173,745	1,312,497
R-squared	0.063	0.008	0.007	0.050
Time	2015-2018	2015-2018	2017-2018	Pooled
Legislature	Arizona House	Indiana House	New Mexico House	Pooled

Standard errors are in parentheses and are clustered by dyad pair. State legislature fixed effects accounted for in Column 4. *** p<0.01, ** p<0.05, * p<0.1

As previously noted, ordinary standard errors may not be appropriate for this analysis even if clustered at the dyad pair level. As an alternative I report p-values for the Shared Staffer (present period) coefficient using randomization inference in **Table 7**. Like the earlier randomization inference exercise the coefficient values were permutated one thousand times. Using randomization inference p-values I find that sharing staff in the Indiana House of Representatives decreases the association between shared personal staffers and congruent rollcall voting by approximately 2.1 percentage points (p-value < 0.001). In the New Mexico House of Representatives sharing staff is positively associated with roll-call vote congruency (p-value = 0.013). I do not find evidence that shared staffers are associated with roll-call congruency in the Arizona House of Representatives (p-value = 0.323), nor when I pool data (p-value = 0.717).

Table 7 – Falsification Test, LPM with Randomization Inference P-Values

	(1)	(2)	(3)	(4)
		DV: Congruent Roll-Call Voting		
Shared Staff β	0.005	-0.021	0.011	0.001
P-Value	0.323	0.000	0.013	0.717
Legislature	Arizona	Indiana	New Mexico	Pooled

Given these, at best, mixed results I am inclined to give a negative response to the titular question. Staffer networks created by sharing personals staffers do not on average increase roll-call voting congruency. It is possible that potential moderators exist but on average shared staffers do not appear to be associated with coordination. I stress that the present three legislatures encompass among the most (Arizona) and least (Indiana and New Mexico) professionalized state legislatures where shared personal staffers are present. I also stress that the lack of a positive association is surprising given the homophily present in determining which pair of legislators share a staffer. The results presented here are useful in so far that they provide us with new directions for research on legislative staffers. Shared staffers do not consistently promote coordination, but it is unknown if personal staffers are associated with coordination in legislatures like the California General Assembly, which is highly professionalized and where staffers utilization more closely resembles the United States House of Representatives.

A limitation of this study is that, although the legislatures represent among the most (Arizona) and least (Indiana and New Mexico) professionalized state legislatures, there is limited variation in institutional design to leverage to better understand the mixed empirical results. Early in the paper I propose three conditions - specialized knowledge, extensive network, and trust - that legislative staffers must possess to be network bridges.

These conditions are highly correlated with one another. I can broadly say that the institutional design of state legislatures, compared to the United States House of Representatives, is not conductive for staffer networks to influence roll-call voting. I cannot however state which specific institutional design element is chiefly responsible for this. Future studies may advance this literature by leveraging institutional design differences in outlier state legislatures, i.e., California's highly professionalized state legislature.

Shared personal staffers may not influence roll-call voting in state legislatures, but they may nonetheless influence other aspects of legislative behavior. It is possible that sharing personal staffers decrease a legislator's overall effectiveness. Future research could also explore the career trajectories of state legislative staffers. Staffers in highly professionalized legislatures tend to become lobbyists (McCrain 2018; A. Rosenthal 2000) or run for office themselves (Moncrief, Squire, and Jewell 2001). Where do staffers from less professionalized legislatures go?

Conclusion

Staffers have the potential to play a significant role in the operation of legislatures and it is therefore important to understand their role in the policymaking process. Even a legislator well-endowed with financial resources and the latest machinery is limited by time. A legislator simply cannot do everything expected of them without delegating power to staff support. Staffers with a high degree of agency loss are problematic for representative government because they are not subject to the same electoral pressures as legislators. A growing literature shows that staffers wield significant influence in the

United States House of Representatives, the European Parliament and other legislative bodies. Montgomery and Nyhan (2017) find that US House of Representatives legislators that have exchanged senior or policy staffers behave more congruently than would be expected otherwise. In the comparative context Ringe, Victor, and Gross (2013) find similar results in the European Parliament.

I advance this work by examining if prior findings about staffer networks can be generalized to state legislatures using a unique dataset of shared personal staff in the Arizona, Indiana, and New Mexico House of Representatives. These three legislatures are drawn from the most (Arizona) and least (Indiana and New Mexico) professionalized state legislatures. It is important to study the role of staffers in state legislatures because they vary considerably from other legislatures. Members of Congress operate enterprises that employ an average of twenty full-time staffers with specialized political knowledge (Salisbury and Shepsle 1981b). State legislatures on the other hand operate mom and pop shops that employ personal staff shared by two or more legislators and have high staffer turnover rates. These differences in institutional design may impair state legislative staffer networks from influencing state legislators' roll-call voting.

I do not find evidence that staffer networks created by shared personal staff are associated with roll-call voting congruency. My finding is a meaningful contribution to several literatures. It contributes to the legislative network literature by showing that personal staffer networks are not associated with roll-call voting in state legislatures. Staffers may influence coordination in the United States House of Representatives (Montgomery and Nyhan 2017), the European Parliament (Ringe, Victor, and Gross

2013). Staffers do not however facilitate coordination in those state legislatures represented by Arizona, Indiana, and New Mexico.

Chapter 2: Do more professionalized legislatures discriminate less? The role of staffers in constituency service.

Michelangelo Landgrave and Nicholas Weller

Introduction

Legislative professionalization affects a host of different outcomes involving both legislative behavior (Berry, Berkman, and Schneiderman 2000; Maestas 2000; Squire 1992) and policy output (Kousser and Phillips 2009). Despite the various effects of professionalization, scholars have not yet examined whether it might influence discrimination against constituents. Literature across a number of fields suggests that organizational professionalization could reduce discrimination (Andersen and Guul 2019; Banerjee, Reitz, and Oreopoulos 2018; Hirschman and Bosk 2019; Lipsky 1983; Mladenka 1977; Thomas 1986; Weber 1922). Several features associated with professionalism, in particular the increased role staffers play in constituent communications (Herrick 2011), could play a role in reducing discrimination against constituents. Given the plausibility that professionalization could reduce discrimination, we re-analyzed data from a prior field experiment about discrimination against hypothetical constituents, and we also coded for the first time approximately 3,000 emails received in the original study allowing us to examine who responded and some characteristics of their responses.

Our data analysis suggests that professionalization, and specifically an increase in staffer's involvement in the legislative enterprise, reduces discrimination in both the rate

of replies to hypothetical constituents and in the content of the emails that legislative offices send. This is the first evidence we are aware of suggesting that legislative professionalization can play a role in reducing discrimination against constituents. The substantive importance of these findings suggests scholars should further investigate the relationship between discrimination and legislative professionalization, including explicitly trying to understand the mechanisms that might lead to reduced discrimination. In addition, our results suggest that increases in professionalism and the increase of staffer support, increases a legislatures' capacity to better represent its constituents.

We contribute to a growing literature on the importance of staffers in the legislative enterprise (Pertschuk 2017; Montgomery and Nyhan 2017; Hertel-Fernandez, Mildenberger, and Stokes 2018; McCrain 2018) by studying staffers in state legislatures and their role in constituency service. Early research theorized the importance of staffers in increasing legislative capacity in Congress (Fox and Hammond 1977; Salisbury and Shepsle 1981b; DeGregorio 1995), but it is only recently that the field has studied the importance of staffers in state legislatures (Weissert and Weissert 2000). State legislatures present an opportunity to advance the study of staffers because of the variation in their roles and utilization across states. Likewise, prior literature has discussed the role of staffers in constituency service (Ziniel 2009), and we advance the conversation by showing that staffers have a substantive effect on constituency service by reducing discrimination.

Legislative Professionalization

Prior scholarship has not examined if legislative professionalism can reduce discrimination. Although professionalization involves multiple factors (Squire 2007), in this context we are most interested in its association with an increased likelihood that staffers respond to constituent communications. Our data and those of other scholars show that staffers are more likely to respond to constituents as professionalization increases (Herrick 2011). This is a part of what Bowen and Greene (2014) refer to as the "support-intensity" dimension of professionalism; how much legislative work is supported by staffers.

There are multiple reasons why having staffers deal with constituent communications might reduce discrimination against constituents. First, hiring staffers may lead to the implementation of routinized work procedures that can reduce discrimination by creating norms against such behavior (Pager and Shepherd 2008) and legislative actors are expected to adhere to norms if they wish to be successful (Matthews 1959). In their study of legislative staffers Romzek and Utter (1997) note that staffers are expected to protect their legislator's reputation by upholding strict norms when interacting with constituents; "constituents are always to be treated with the utmost courtesy even when they are being obnoxious…". This suggests that staffers in more professionalized legislatures are more likely to receive constituent service training. Staffers may also have fewer cognitive biases than legislators (Sheffer et al. 2018; M. Heß et al. 2018), which might also make staffers less likely to discriminate than legislators.

On the other hand, in less professionalized legislatures there are multiple reasons why we might observe more discrimination. First, such legislatures are less likely to have staffers handle constituent communications and therefore the aforementioned attributes of staffers are missing. Furthermore, legislators in these states are less likely to receive ethics training (A. Rosenthal 1996), and they have less experience with legislative norms due to term limits (Kousser 2005). Legislators in less-professionalized legislatures are also more likely to violate ethics due to their inexperience (Herrick and Fisher 2007a).

Second, scandals in the late 20th century left trust in state legislatures at a historic low, which led some states to pass stringent ethics codes regulating legislators' interactions with constituents and staffers (Squire 1993; A. Rosenthal 1996). The implementation of ethics codes reduced legislators' control over staffers in favor of non-partisan constituency service agencies, which feature more training than is otherwise common (A. Rosenthal 2008). These reforms were more common in professionalized legislatures, providing a further reason to expect professionalism to reduce discrimination (A. Rosenthal 1996).

Third, prior research suggests that constituent communications in professionalized state legislatures are conducted by a racially diverse group of staffers who might be expected to discriminate less against minority constituents. Furthermore, racial minority staffers are more likely to be assigned constituent communication work in legislatures (Jones 2017) possibly to help the legislator garner a personal vote with racial minority constituents (Ziniel 2009). This is particularly important in our case because the

legislative audit literature has found that discrimination is mitigated by non-white legislative actors (Costa 2017).

Furthermore, the substantive importance of the topic provides reason to investigate the relationship between legislative professionalization and discrimination in constituent contact. We turn now to a discussion of the research design and data we use to shed light on professionalization and discrimination.

Data and Research Design

The data we use comes from Butler and Broockman's (2011) audit study that focused on whether hypothetical black and white constituents were equally likely to receive a response to an email sent to state legislators requesting assistance with voter registration. Audit studies are field experiments in which researchers use aliases to request assistance from a service provider. These fictional aliases allow researchers to signal a characteristic of interest (i.e. race, religion, sexual orientation) without varying other factors that might affect behavior, which means that observed differences in service can be attributed to the manipulated characteristic (Gaddis 2018). In the context of race and constituent communications, prior research has focused on the average difference in response rates between a minority and white constituent. We advance this literature by showing that more professionalized legislatures are less likely to discriminate than less-professionalized legislatures, and this heterogeneity in response rates can provide evidence about factors that may mitigate discrimination (Butler and Crabtree 2017).

In October 2008, Butler and Broockman (2011) emailed state legislators for information about how to register to vote. *"Dear [Representative], My name is [Jake*

Mueller/Deshawn Jackson] and I'm trying to figure out how to register to vote…" Constituent race was signaled by varying the name of the email sender using purportedly white (Jake Mueller) or black (DeShawn Jackson) constituent names. The key outcome is whether the emails from the black and white constituents receive different response rates. The original study found that the black constituent received about 5 percentage points fewer responses than the white constituent (Butler and Broockman 2011), which suggests legislative offices discriminated against the black constituent.

We were given access to an anonymized version of the Butler and Broockman (2011) data. This means that we cannot examine if district-level (e.g. percent black in district) or individual-level (e.g. legislators' party id, age, or gender) variables are associated with reply rates, but given our interest with a state-level factor – professionalization - this is not a major concern. The original article included professionalism as a covariate in some of their analyses, but they did not examine the moderating effect of professionalization at multiple relevant values as necessary for interaction effects (Brambor, Clark, and Golder 2005). To augment the data on response rates, we also use new data culled from almost three thousand email replies received as part of the original audit study. These emails allow us to identify who responded to the emails and characteristics of the responses.

We use two different measures to capture the extent to which staffers are likely to be involved in constituent communications. One measure, the Squire index, was measured at approximately the same time as the original audit study and which was used in the original analysis of the data (Butler and Broockman 2011; Squire 2007). The

Squire index is composed of data on legislature salary and benefits, number of days in session, and staff per legislator. Each of the three components is divided by the corresponding value for Congress, and then the three values are summed together to achieve the final score. Scores for state legislatures range from a low of 0.027 for New Hampshire to 0.626 for California. In addition to the Squire index, we use the 2008 measure of "support intensity" developed by Bowen and Greene (2014).[8] This measure captures the degree to which staffers support legislative work, which is a key aspect of how we expect professionalization to affect responses to constituents. Our results are consistent whether we use the Squire index or the Bowen-Greene support intensity index. While others have studied heterogeneity in legislative discrimination, they have not examined whether professionalism and/or staff usage affects discrimination (Costa 2017).

In **Table 8** we present the regression results from multiple estimates of the relationship between professionalization and discrimination in reply rates.[9] The outcome variable is a binary indicator of whether a reply is received or not. The unit of analysis is a state legislative office, and offices were randomly-assigned to receive an email from either the Jake or DeShawn hypothetical constituent (Vuolo, Uggen, and Lageson 2018). We re-scaled the Bowen and Greene (2014) and Squire (2007) measures of professionalization into z-scores for each state (i.e. each state's standard deviation from the mean) to facilitate comparison and interpretation. The relationship between

[8] We include the Bowen-Greene support intensity index as an additional test of our proposed mechanism – staffers. While the Squire index is calculated using compensation, time in session, and staffer support, the Bowen-Green support intensity index is primarily calculated using staffer support.

[9] Unless otherwise noted our analysis focus on the data where no partisanship is signaled or "nonprimary only".

professionalization and replies to constituent emails is estimated as a linear probability model (LPM), as is the norm in legislative audit studies (Costa 2017). The moderating measure, state professionalization, is not randomly assigned. As such, we adjust for possible state-level factors that may be correlated with both our moderating measure (professionalization) and our outcome (reply rates). We account for such factors as the state's black population (% of total), median household income, total state population (in millions), percent vote for Obama in 2008, term limits and voting ID laws (Kousser 2005). Demographic covariates come from the 2008 American Community Survey, election data come from states' secretary of state records, and state legislative institutional factors (i.e. voting id and term limits) come from the National Conference of State Legislatures (NCSL).[10]

Table 8 Column 1 presents the interaction between the DeShawn treatment and the Squire (2007) professionalism index after adjusting for the aforementioned variables. **Table 8 Column 2** presents the interaction between the DeShawn treatment and the support-intensive index of Bowen and Greene (2014). Both the Squire and support-intensive indices produce near identical results. The small reduction in sample size when using the support-intensive index is because it was not calculated for some states in 2008. We stress that the statistical significance of the interaction cannot be interpreted solely from examining the coefficients in **Table 8**. The standard errors reported for interaction terms in regression tables are incorrect, and standard errors must be calculated at multiple

[10] Voting ID and term limits are binary variables that equals 1 if a state had any voting ID requirement and whether legislative term limits in 2008.

levels of the moderating term and/or the interaction should be visually presented to allow for meaningful interpretation (Brambor, Clark, and Golder 2005).

We present the estimated relationship between legislative professionalism and the difference in reply rates in Figure 1 from +/- 2 standard deviations of each measure of professionalism. If professionalism reduces discrimination, then we expect to see that as professionalism increases the difference in reply rates between Jake and DeShawn should disappear (i.e. the estimated difference should disappear, and we should fail to reject the null hypothesis of equal rates of response to DeShawn and Jake). In **Figure 1** this is precisely the pattern that appears regardless of which professionalism measure we use. In the less-professionalized legislatures, there are significantly fewer responses to the DeShawn (black) name compared to the Jake (white) name, however, as evidenced by the upward slope in **Figure 1**, increases in professionalization are associated with reduced discrimination against DeShawn. In the less-professionalized legislatures the experimental data are indicative of discrimination, but in the most professional legislatures we do not find evidence of discrimination.[11] The 95 percent confidence intervals around the point estimates indicate no significant difference in response rates (i.e., no discrimination) by about the midpoint of the distribution of the Squire index.[12] Importantly, this is not just a result of increased uncertainty as the point estimate for the difference in reply rates also moves towards no difference and eventually is even suggestive of more responses to DeShawn than Jake. Although the number of states

[11] We also conducted additional statistical tests to verify that the DeShawn marginal effect differs between the least and most professional legislatures.
[12] The vertical bars at the bottom of the figure represent the distribution of the states in terms of their value on the indicated professionalism measure.

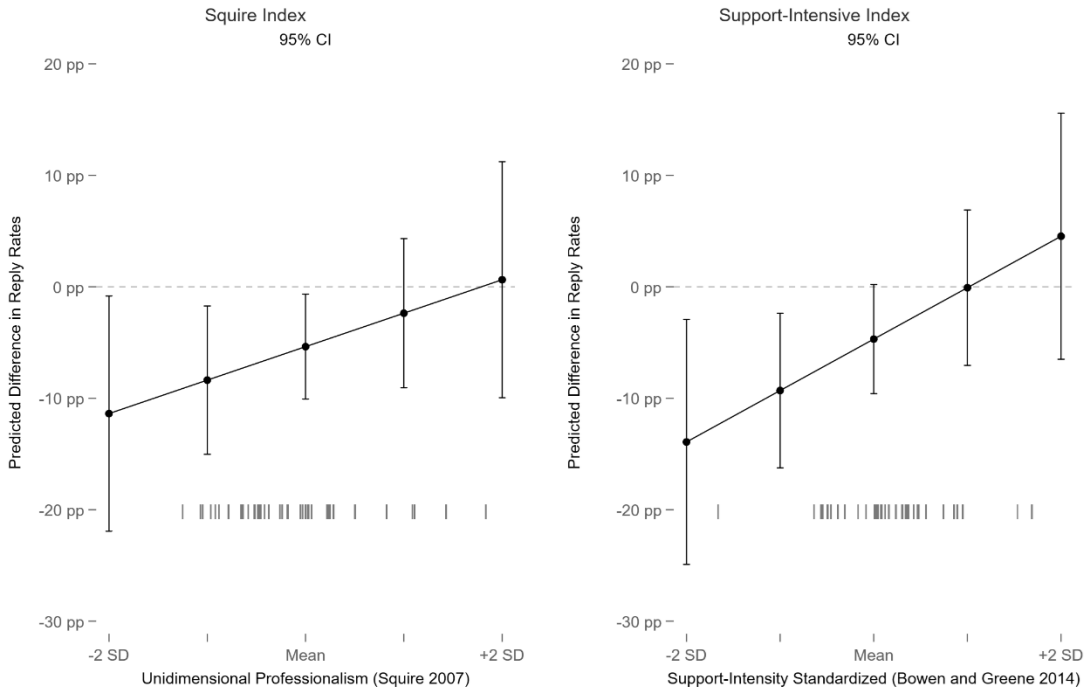
observed at the higher levels of professionalization is smaller than at the lower levels, our estimates of discrimination are still based on the behavior of hundreds of individual legislative offices in these professionalized legislatures.

Table 8 – Relationship Between Professionalism and DeShawn Treatment

VARIABLES	(1) Squire Index	(2) Support- Intensive Index
DeShawn Treatment	-0.054**	-0.047*
	(0.024)	(0.025)
Professionalism (Squire), Standardized	-0.033	
	(0.021)	
DeShawn Treatment * Professionalism (Standardized)	0.030	
	(0.024)	
Percent State Pop. Black	-0.303**	0.050
	(0.125)	(0.154)
State Population (Millions)	0.001	-0.003
	(0.003)	(0.002)
Household Income, $10,000s	0.080***	0.078***
	(0.014)	(0.015)
Voter ID	0.043	0.023
	(0.033)	(0.034)
Term Limits	0.047	0.079**
	(0.031)	(0.033)
Obama Vote Share Percent, 2008	0.255	0.222
	(0.175)	(0.174)
Support-Intensive (Bowen and Greene), Standardized		-0.012
		(0.019)
DeShawn Treatment * Support-Intensive (Standardized)		0.046*
		(0.025)
Constant	-0.070	-0.044
	(0.098)	(0.100)
Observations	1,618	1,496
R-squared	0.050	0.037

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 1 – Legislative Professionalism reduces differences in reply rate between Jake and DeShawn



Responding to Constituent Communications

In the previous section we show that more professional legislatures are less likely to discriminate against a black constituent. In this section we present results based on content analysis of emails received by the hypothetical constituents, which have not been previously used in research. Prior analyses have not identified the likely respondents of constituency communications because of data limitations, and this information can help us to understand whether observed discrimination is driven by legislators or staffers responding to constituents. Staffers are agents of their legislators but, like any actor, control over them is imperfect. In several states staffers are managed through a

nonpartisan service agency (A. Rosenthal 2008) and do not work directly for a legislator. Even if legislators and staffers have identical interests, the two may act differently because of asymmetric information about whether the legislator has a reason to discriminate against minority constituents. Staffers, especially in term limited legislatures, may also have more experience with legislative norms than legislators (Kousser 2005). Racial minority staffers are more likely to be assigned constituent communication work (Grose, Mangum, and Martin 2007a; Jones 2017; Ziniel 2009), and although the placement of racial minority staffers in these positions may limit their ability to influence policy, it may influence whether vulnerable constituents receive equitable service. These reasons suggest that legislators and staffers may behave differently, but existing studies have not investigated this possibility.

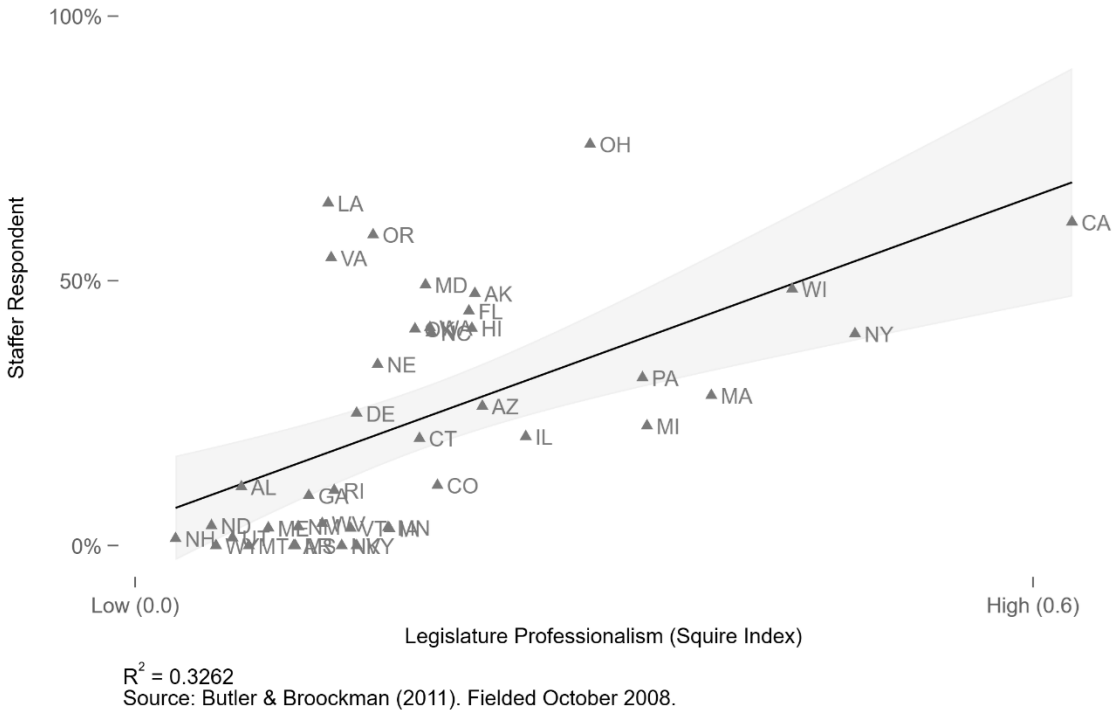
We coded emails based on whether a staffer or legislator responded.[13] As shown in **Figure 2**, we find that more professionalized legislatures, as measured by the Squire index, are more likely to have their communications handled by staffers based on the emails received as part of this audit study. The figure demonstrates that the difference is quite significant, and, in many states, there did not appear to be any (or very, very few) emails handled by staffers.

We also coded the contents of emails to determine if legislators and staffers differ in how they responded to hypothetical constituents. We coded the emails responses for

[13] It is the norm in Congress for staffers to reply and even sign legal documents on behalf of their legislators, but this does not appear to be the norm among state legislators. Otherwise we would not expect our likely respondent imputation to find that staffers are more likely to reply in professionalized legislatures.

two issues that seem related to discrimination – whether the respondent mentioned voter ID requirements or felon disqualification laws. If a respondent discriminates in their responses, then we would expect them to be more likely to bring up ID requirements or felon disqualification laws when responding to a black constituent, because these issues disproportionally affect black voters (Barreto et al. 2018; Biggers and Hanmer 2017; Cottrell et al. 2019). We cannot infer whether this form of discrimination is malicious or well-meaning. It is possible that respondents bring these issues up to suppress votes or a friendly reminder, so they are not denied voting at the poll.

Figure 2 – Percentage of staffer respondents by legislative professionalism



An important issue regarding analysis of email responses in audit studies is that they suffer from post-treatment bias. The initial emails are randomized across legislators,

but we can only analyze the content in the observed responses and who responds is not random and may be affected by the treatment (Coppock 2018). One method to address the possibility of post-treatment bias that has been used in prior studies is to assume that all non-responses do not mention the outcome of interest (Kalla, Rosenbluth, and Teele 2018; Loewen and MacKenzie 2018). We also must make an assumption about who *would* have sent the emails that were not actually sent, and we assume that the proportion of non-sent responses would have been equivalent to the division we observed among actual responses for each state. These are both strong assumptions, but they remove the possibility of post-treatment bias. In **Table 9** we present the bias-corrected results regarding how staffers and legislators respond to the two different constituents.

Table 9 – Email content by respondent and name (Jake versus DeShawn), corrected for non-response bias

	ID Mention		Felon Mention	
Respondent	Jake	DeShawn	Jake	DeShawn
All	8.30%	8.37%	0.36%	0.96%
n=4,472[14]	(0.9333)		(0.0118)	
Legislator	8.48%	8.76%	0.34%	0.86%
n=3,149	(0.7863)		(0.0547)	
Staffer	6.23%	5.41%	0.58%	0.90%
n=957	(0.5958)		(0.5638)	

P-values of two-sided t-test between Jake and DeShawn in parentheses.

We find that legislators are more likely to mention felon disqualification laws (p-value =0.05) in their responses to DeShawn compared to Jake despite assuming that all of the non-responses would have failed to mention felon disqualification laws. Staffers do not differ in mentioning felon disqualification to the two constituents (p-value =0.564).

[14] The all category includes emails whose likely respondent, staffer or legislator, is unknown.

We do not find evidence of discrimination in mentions of ID requirements by either legislators or staffers in **Table 9**. Our analyses of the emails provide suggestive evidence that legislators and staffers may differ in how they interact with constituents.

Our combined results suggest that observed discrimination by legislative offices is lower (or non-existent) in more professionalized legislatures and that one reason is that in these contexts staffers are more likely to handle constituent communications. These are the first results of their kind and demonstrate the importance of delving further into legislative discrimination to determine its source(s) and what might moderate it.

Conclusion

In this research note we examine the moderating effect of professionalization on discrimination against minority constituents, because there are multiple reasons to expect that more professional legislatures will be less likely to discriminate than less professional legislatures. In particular, prior research suggests that the larger role played by staffers in professional legislatures and the characteristics and training of staffers should make discrimination less likely where they handle constituent communication. We find that legislatures with high professionalism do not engage in racial discrimination in responses to emails from constituents. Professionalized legislatures are more likely to have staffers who respond to constituents, and our analyses of the content emails from an audit study suggests evidence of behavioral differences between legislators and staffers, which is consistent with recent literature on legislators' cognitive biases. Our results advance the representation literature by showcasing a legislative activity, constituent communications, in which an increased role for staffers increases legislators' capacity to

better represent constituents. Our results also advance the legislative literature by exploiting interstate differences in staffer utilization and by showing the importance of staffers in constituency service.

The Squire index that we use to measure professionalization includes factors other than staffing levels, and therefore we cannot make a strong claim that it is difference in staffing alone that drive the heterogeneity in discrimination across values of the Squire index. However, we have good reasons to believe that differences in the prevalence and behavior of staffers explains the reduction in discrimination as professionalization increases. The measure developed by Bowen and Greene (2014) captures the degree of staffer involvement in the legislative process and produces near identical results as the Squire index.

Our research advances knowledge about discrimination in political contexts (i.e., constituent interactions with legislators and bureaucrats), and especially about whether and how legislative professionalization may mitigate discrimination, highlighting the importance of staffers in the legislative process. Further research should continue to investigate whether the observed discrimination against constituents (and other types) is driven by legislators or others and use this knowledge to enhance our understanding of the conditions under which discrimination occurs and how it might be ameliorated. Although beyond the scope of our present data, future research should also attempt to examine the importance of racial minority staffers in the representation process.

Chapter 3: Why are minority legislative staffers more likely to be given constituency service appointments? Evidence from the California State Assembly

Michelangelo Landgrave

Introduction

Legislative staffers[15] are among legislators' most valuable resources (Salisbury and Shepsle 1981b). Staffers can be found in every aspect of the legislative process. Staffers conduct research on proposed public policies (Pertschuk 2017; Weissert and Weissert 2000; Wilson 2013), respond to constituency service requests (Landgrave and Weller 2020), control access to legislators (Jenkins, Landgrave, and Martinez 2020; Kalla and Broockman 2016) and much more. Given the key roles legislative staffers play, it is not surprising that a growing literature is focused on better understanding staffer appointment patterns (Brooks and Chatfield 2020; Burgat 2020; Grose, Mangum, and Martin 2007b; Ritchie and You 2020; Salisbury and Shepsle 1981a; Wilson and Carlos 2014; Ziniel 2009; 2020). Studying staffer appointments gives us a glimpse into a legislator's managerial style – both in the legislature and in their home district. Legislators can broadly place legislative staff in either policy or constituency service appointments. Policy staff help research policies, draft legislation, and generally help with the passage of the legislators' agenda (Pertschuk 2017). Constituency service staff meanwhile help respond to constituency correspondence, meet with local constituency groups, and generally help carry out a legislators' homestyle (Fenno 1978; 2003).

[15] This paper is focused on personal staffers - staffers assigned to work for specific legislators. Committee staffers, campaign staffers (Brooks and Chatfield 2020) and other staffers deserve study but are not the point of focus here.

Legislators' appointment of staffers is purposeful. Burgat (2020) finds that legislators appoint staffers with stronger networks to more prestigious policy assignments because staffers with stronger networks are more effective in acquiring the cooperation of other legislative actors to get legislation passed (McCrain 2018; Montgomery and Nyhan 2017). Of direct relevance to the present paper, Grose, Mangum, and Martin (2007) find that minority legislators employ more minority staffers in constituency service appointments. This is further supported by Ziniel (2009; 2020) which finds that both minority and non-minority legislators are more likely to place minority staffers in constituency service appointments. These latter findings beg a follow up question – why are minority staffers more likely to be appointed to constituency service? Three distinct hypotheses arise which this paper attempts to adjudicate between.

The *first* hypothesis is that districts with larger minority populations demand descriptive representative staffers in the hope of acquiring substantive representation. Descriptive representative staffers have lived experiences which can translate to substantive representation (Mansbridge 1999) in both policy and constituency service. There is evidence that legislative staffers attempt to provide substantive representation at the federal level (Dittmar 2021; C. S. Rosenthal and Bell 2003; Wilson 2013) but it is unclear if this is true at the state legislative level. Dittmar (2021) finds that minority staffers, especially women of color, attempt to provide their legislators with valuable constituency information that the legislator may otherwise lack. The ability for legislative staffers to serve as substantive representatives is however preconditioned on their being constituency demand (C. S. Rosenthal and Bell 2003). In the absence of a sufficiently

large minority population, a legislator is unlikely to appoint minority legislative staff who descriptively represent constituents. An empirical implication of this hypothesis is that districts with larger minority populations should be more likely to have minority staffers in both policy and constituency service constituencies. Additionally, this demand for substantive representation via legislative staffers should be higher in districts represented by a non-co-ethnic legislator, who may not otherwise be perceived by minority constituents to substantively represent them.

The *second* hypothesis is that legislators appoint minority staffers in constituency service appointments, which are more visible than their policy counterparts, in the hopes that they will serve as surrogate descriptive representatives but not necessarily as substantive representatives. Legislators have little control whether they themselves are descriptive representatives of their districts[16], but by employing minority staffers they can nonetheless attempt to secure some of the electoral advantages of descriptive representation (Casellas and Wallace 2015; Schildkraut 2013; Wallace 2014). Non-co-ethnic legislators should be particularly likely to hire descriptively representative staffers because they themselves cannot provide descriptive representation.

At first glance, hypotheses one and two might seem identical. Increases in minority staffers in both cases are driven by legislators' attempts to meet constituency demands. They differ theoretically, however, in that hypothesis 1 is ultimately about constituents demanding substantive representation. In hypothesis 1, constituents desire descriptively representatives' staffers in the hopes that staffers' lived experiences will

[16] Although rare in the US context, legislators in other democracies have been known to strategically shift their presented race/ethnicity (Janusz 2019)

translate to substantive representation in both policy and constituency service. In hypothesis 2 substantive representation may be achieved in constituency service, but not necessarily in policy because the legislator is primarily concerned about providing highly visible surrogate descriptive representatives. A key empirical distinction is that hypothesis 1 predicts a larger share of minority staffers in both policy and constituency service in districts with a large minority population. Hypothesis 2 only predicts a larger share of appointments in constituency service, and not in policy, for minority staffers in the same context. In hypothesis 2, legislators do not increase the number of minorities employed as policy staffers because policy staffers are not visible to most constituents.

The third hypothesis is that staffer appointment patterns are driven by legislators' preference for homophily. In this third model of staffer appointments the relevant mechanism is legislators' preferences for staffers that are like them (homophily). It is possible that legislators have a strategic preference for homophily to solve agency problems and/or simply due to a taste-based preference for working with others like themselves. The data do not allow us to disentangle the desire for homophily. An empirical implication of hypothesis 3 is that legislators should be more likely to employ co-ethnic staffers regardless of constituency composition. There is prior empirical work suggesting that legislators' personal preferences partly explain staffer appointment patterns in regards to gender (Brooks and Chatfield 2020; Ritchie and You 2020). Legislators may similarly prefer to employ co-ethnics.

I adjudicate between these hypotheses using administrative data from the California General Assembly from 2010 to 2019. I find mixed evidence for hypotheses 1

and 2. I find that state legislative districts with larger populations of Hispanic (Asian-American and Pacific Islander) constituents are associated with a larger share of Hispanic (AAPI) staffers appointed to both constituency service and policy service. The magnitude of the effect sizes is substantially lower in my analysis of the determinants of policy service. Hypotheses 1-2 both predict that non-co-ethnic legislators should be more likely to employ minority staffers, but I find no evidence of this moderation. I find consistent evidence of hypothesis 3 – legislators prefer to appoint co-ethnic staffers to both constituency service and policy positions.

This article makes several advances to the literature. First, I reaffirm extant findings that minority staffers are more likely to be placed in constituency service appointments (Grose, Mangum, and Martin 2007b; Ziniel 2009; 2020) and show that this phenomenon generalizes to the California State Assembly. Prior empirical evidence focused on the United States House of Representatives during the early 2000s. My data shows that this finding extends to another legislature, the California State Assembly, and that the same general results extend to the most recent decade (2010 to 2019). Second, the present data allow me to test if prior findings on Black and Hispanic staffers extend to the employment of Asian American Pacific Islander (AAPI) staffers. Past research has focused on the appointment of Black and Hispanic staffers due to data limitations – there are too few AAPI staffers employed by Congress for statistical analysis. This data limitation is overcome by studying the California State Assembly. As shown in **Table 11**, AAPI staffers are the 3rd largest pan-ethnic group in the California State Assembly.

Third, and arguably most importantly, this paper advances the literature by adjudicating between hypotheses explaining staffer appointments.

The California State Assembly

This paper differs empirically from similar studies (Grose, Mangum, and Martin 2007b; Ziniel 2009; 2020) in that it uses administrative data to account for every staffer employed in the California General Assembly, the lower chamber of the California state legislature from 2010 to 2019. Grose, Mangum, and Martin (2007) use data from 41 Congressional districts that had a Black population of at least 15 percent in the 107th Congress (2001–2002), and Ziniel (2009; 2020) relies on data from 211 representative Congressional districts in the 108th Congress (2003-2005).

The present paper's use of the California State Assembly has three primary advantages. First, the California State Assembly is most-similar among American legislatures to the United States House of Representatives in terms of institutional professionalism (Squire 2017). The California State Assembly meets year-round, its legislators are well compensated, and staffer support is readily available. The California General State Assembly's similarity to the United States House of Representatives extends beyond traditional measures of professionalism (Bowen and Greene 2014). The management of legislative staffers in the California State Assembly is similar to Congress' management style in that legislative staffers serve at the pleasure of their legislators (DeGregorio 1995; Salisbury and Shepsle 1981b). One notable distinction about the California State Assembly is that terms limits for legislators has increased the relative power of staffers (Kousser 2005), making the study of staffer appointments in the

California State Assembly especially important. To the extent that professionalized legislatures act similarly regarding appointment decisions about staffers, what we learn from the California State Assembly is therefore more likely to apply to other highly professionalized legislatures, including the United States House of Representatives.

Second, the California State Assembly is an intrinsically important legislature to study because it governs California, a state with a large and diverse economy (Nicholson-Crotty and Meier 2002). If it were an independent nation, California's economy would be the 5th largest. At time of writing, California's economy is only smaller than the remainder of the United States, China PRC, Japan, and Germany (Perry 2020). California is not only a wealthy economy, but also a diverse one. Silicon Valley houses the world's premier technology firms. The Central Valley is a major producer of agricultural products. Southern California is the capital for the entertainment industry. Given the size and diversity of the California economy, the California General Assembly regularly deals with complex legislation ordinarily reserved for national legislatures. In the past decade it has dealt with everything from climate change policy (Chapple 2016) to immigration policy (DiSarro and Hussey 2017). Several past academic studies have relied on data exclusively or primarily from the California State Assembly (Clucas 1994; Fisk 2020; Masket 2008).

Third, the richness of the data exceeds alternative data sources. Prior papers have focused on a single legislative session during the early 2000s. The present paper covers ten years of data (2010 to 2019). Prior papers have relied on a subsample of legislative districts, but this paper includes all legislative staffers employed in the California State

Assembly at the end of the calendar year. Prior papers have omitted analysis of AAPI staffer appointments, because few AAPI staffers are employed by Congress. California's large, and rapidly growing, Asian American Pacific Islander population makes it one of the few states where adequate data exists to allow for the study of AAPI staffers (Le et al. 2021).

Legislative Staffers

Legislative staffers are political professionals (Romzek and Utter 1997) who have been conditionally delegated the necessary power to aide legislators in the day to day operation of the legislative enterprise (Salisbury and Shepsle 1981b). Legislative staffers provide support in everything from constituency service (Landgrave and Weller 2020) to policy support (Pertschuk 2017; Weissert and Weissert 2000). Legislative staffers are not 9-5 office workers. Many of them work beyond a 40 hour work week and are expected to work nights, weekends, and holidays (Ritchie and You 2020). Many legislative staffers are fervently loyal to their respective legislators – this is evidence by the fact that most staffers retire alongside their legislators and move with them across chambers (Salisbury and Shepsle 1981a). Even when staffers move between offices, they tend to move to the offices of legislative allies (Hertel-Fernandez, Mildenberger, and Stokes 2018).

Staffers' intensive work patterns can be explained in part by looking at their past employment and future career aspirations. Many staffers are drawn from legislators' personal constituencies (Brooks and Chatfield 2020; Fenno 1978) – these are the individuals who helped legislators win their electoral victories. Some of them have followed legislators across multiple offices. Staffers are fiercely loyal to their legislators,

and for good reason. Many staffers in professionalized legislatures aspire to run for political office themselves (Moncrief, Squire, and Jewell 2001) or to enter government adjacent careers, such as lobbying (McCrain 2018) or the bureaucracy (Johnson and Libecap 1994). By serving their present legislators, legislative staff hope for a reciprocal reward later in their careers. In this sense, the legislator-staffer relationships closely resemble urban political machines' patronage system (Trounstine 2009).

It is because the legislator-staffer relationship is so intimate that the study of staffer appointments can reveal so much about a legislator's priorities. The network of staffers a legislator builds around themselves is non-random and provides rich information. I theorize that legislators appoint staffers in part to meet the demands of their constituents. This is supported by both observational and experimental data. Studies of legislators' homestyle have found that legislators employ staffers with strong roots in the constituency (Fenno 2003; Grose, Mangum, and Martin 2007b). By employing staffers rooted in the constituency, legislators keep a close ear to the wants and demands of their constituents. A legislator that falls out of touch with their constituency won't stay in office very long. In a field experiment of legislators' homestyle, Butler, Karpowitz, and Pope (2012) find that most legislators focus on service constituency requests at the micro-level. Similarly, Crosson et al. (2019) find that legislators are increasingly assigning staffers to constituency service assignments as legislation has become harder to produce. These findings make sense in so far that legislators' ability to produce legislation is fixed in the short term. Absent macro-level changes, a legislator is unable to produce legislation in response to a single constituent. Unable to win over individual

constituents with legislation, legislators instead focus on service constituency service in the hope of securing an individual constituents' personal vote (Cain, Ferejohn, and Fiorina 1987).

Regarding legislators' appointment patterns, the relevant question is how legislators decide where to employ staffers. Hypothesis 1 is that legislators respond to minority constituent demands for substantive representation by increasing the number of minority staffers employed both in policy and constituency service appointments in districts with a large minority population. In hypothesis 1, minority staffers are employed with the expectation that they'll provide substantive representation by using their relevant lived experiences (Dittmar 2021; Mansbridge 1999). This relationship should be present in all districts with a large minority population but should be greatest in districts represented by non-co-ethnic legislators. Non-co-ethnic legislators experience additional pressure, compared to co-ethnic legislators, to employ minority staffers to hopefully achieve substantive representation because constituents do not as readily perceive them to provide substantive representation.

H1a: More minority-staffers will be appointed to policy *and* constituency service in legislative districts with a large minority population.

H1b: More minority-staffers will be appointed to policy *and* constituency service in legislative districts with a large minority population represented by a non-co-ethnic legislator.

In contrast, in hypothesis 2 a legislator only increases the number of minority constituency service staffers – and not policy staffers - in legislative districts with a large

minority population. There are several potential mechanisms. It is possible that a legislators' policies are fixed due to macro-level phenomenon, such as party leader strength (Battista 2011) or term limits (Apollonio and Raja 2006).[17] Legislators in this scenario can modify how they provide constituency service, but are unable to change their policies. Like hypothesis 1, the pressures to employ descriptively representative staffers should be strongest among non-co-ethnic legislators who cannot provide descriptive representation themselves in the short run.[18]

H2a: More minority staffers will be appointed to constituency service, but not policy positions, in legislative districts with a large minority population.

H2b: More minority-staffers will be appointed to constituency service, but not policy positions, in legislative districts with a large minority population represented by a non-co-ethnic legislator.

Everything else equal, people surround themselves with individuals who are like them. Homophily drives network building in part because we are more trusting of individuals similar to ourselves (Axelrod 1984; Bowles and Gintis 2013), and legislators must trust their staffers before delegating power to them (Hagedorn 2015). Homophily is also driven in part by a taste-based preference to interact with those like ourselves (Schelling 1971). I therefore hypothesize that, regardless of their district's demographic characteristics, legislators will prefer to employ co-ethnic staffers. There is substantial

[17] Future studies should explore potential moderation across legislative institutional design.

[18] In the long run it may be possible for legislators to alter their presented race, but this is a rare phenomenon in the United States. Janusz (2019) finds that Brazilian legislators strategically alter their presented race to increase their electorally outcomes.

evidence of this phenomenon in prior empirical studies. Eisinger (1982) and Nye, Rainer, and Stratmann (2015) both find that the presence of Black politicians increases the employment of Black civil servants. Similarly, Ritchie and You (2020) and Wilson and Carlos (2014) both find that women legislators employ women staffers at a higher rate than men legislators. I theorize that legislators are more likely to employ co-ethnic staffers regardless of their district's demographic composition.

H3: Legislators are more likely to employ co-ethnic staffers than non-co-ethnic staffers.

Research Methods

This data relies primarily on administrative personnel data from the California State Assembly from 2010 to 2019. This administrative data was acquired through a California Legislative Open Records Act request. The data records every personal staffer employed in the California State Assembly at the last day of the calendar year. For all years, the data includes the name of legislative staffers, their annual salaries, and their positions. The data includes both personal and committee staff, but I exclude committee staff from the present analysis.

A staffer's likely race/ethnicity is imputed based on their surnames using the "wru" statistical package for R (Imai and Khanna 2016; Wais 2016). Publicly available data allows researchers to impute the likely race, gender, and other demographic characteristics of an individual based on their location and surname. This is a common technique in political science (Barth, Mittag, and Park 2019). Examples of surnames by purported race/ethnicity are presented in **Table 10**.

Table 10 – Surnames by Purported Race/Ethnicity

Non-Hispanic White	Hispanic	Black	AAPI
Wilson	Torres	Williams	Fong
Stinson	Valenzuela	Jackson	Lee
Miller	Sanchez	Ricks	Bui

Demographic information about a legislative district comes from the United States Census' American Community Survey (1-year estimates) for the corresponding year. In **Table 11** I present the number of staffers employed by the California State Assembly each year by their purported race and ethnicity. Our data observes 4,735 staffers across ten years (2010-2019). The largest group is white staffers (n=2,924), followed by Hispanic staffers (n=1,306) and AAPI staffers (n=413). Note that the likely race/ethnicity of 4 staffers cannot be estimated using their name. These staffers are treated as white staffers (the reference category in most analyses) unless otherwise stated, but results are not sensitive to their exclusion. Fifteen staffers are omitted from the analyses because their legislators cannot be identified, their placement is unrecorded, or because their data is otherwise incomplete.

Table 11 – Minority Staffers Employed in the California State Assembly by Year[19]

Race/Ethnicity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
AAPI	32	43	28	46	27	40	27	52	54	64	413
Black	9	7	2	4	8	13	12	11	11	11	88
Hispanic	98	124	98	122	108	162	93	167	157	177	1,306
Other	0	0	0	0	0	0	0	1	2	1	4
White	258	333	246	313	245	338	195	339	320	337	2,924
Total	397	507	374	485	388	553	327	570	544	590	4,735

I begin my analysis by testing if minority staffers are more likely to be appointed to constituency service in **Table 12** using a linear probability model (Gomila 2020). The purpose of this analysis is to re-affirm that minority staffers are more likely to be assigned to constituency service in the California State Assembly. The literature has previously established the minority staffers are more likely to be assigned to constituency service in the United States Congress (Grose, Mangum, and Martin 2007b; Ziniel 2009; 2020), and this serves to test if this phenomenon extends to the California State Assembly. The unit of analysis is a legislative staffer at time *y*. The outcome variable is binary; 0 if a given staffer has been appointed to a policy role and 1 if appointed to a constituency service role. The independent variables of interest are dummy variables indicating that a given legislative staffer is purportedly AAPI, Black or Hispanic. The

[19] The number of personal staffers employed in the California State Assembly increased by 48.61 percent during the observed time (2010-2019). The bulk of this growth occurred in the number of personal staffers employed in policy assignments. This trend is consistent with Crosson et al. (2019)'s finding that inter-partisan competition discourages legislators from assigning staffers to policy assignments. Conversely, a one-party state legislature like California should increase its employment of policy staffers since inter-partisan competition is minimal. During its 2009-2010 session, the Democratic Party held 64 percent of the state assembly seats. In 2019-2020 session, the Democratic Party held 76 percent of seats – an increase of 18.75 percent.

reference category is white staffers, plus the 'other' staffers. In **Table 12 Column 1** this model is run without additional controls. In **Table 12 Column 2** I re-run the model with legislative district demographic covariates. In **Table 12 Column 3** I add legislators' demographic covariates. Across specifications in **Table 12 Column 1 – 5**, I find that Hispanic staffers are approximately 10-11 percentage points more likely to be assigned to constituency service roles (p-value < 0.001) than white staffers. In **Table 12 Columns 1 – 5**, I find consistent evidence that AAPI staffers are approximately 10-12 percentage points more likely to be appointed in constituency service roles (p-value < 0.001).

Under ordinary levels of statistical significance, I do not find evidence that Black staffers are more likely than White staffers to be assigned to constituency service. These null findings may be driven by insufficient statistical power. Only 88 black staffers are observed in the data. For comparison, there are 413 AAPI staffers and 1,306 Hispanic staffers; see **Table 11** above.

As a robustness check, I re-estimate the model using clustered standard errors at the legislator-year level in **Table 12 Column 4** and findings remain substantively unchanged. As a last robustness check, I control for district-level fixed effects in **Table 12 Column 5** and find results little changed. I considered implementing a quasi-experimental research design, such as difference-in-difference where I exploit within district variation in legislators' race/ethnicity. This was not however feasible because there is minimal variation within districts in legislators' race/ethnicity in California during 2010-2019. Future researchers may be able to exploit racial tipping points (Card,

Mas, and Rothstein 2008; Schelling 1971) in other cases[20] to implement a quasi-experimental research design, but it is not possible with the present data.

Overall findings are generally consistent with prior findings (Grose, Mangum, and Martin 2007b; Ziniel 2009; 2020) that ethnic minority staffers are more likely to be assigned to constituency service assignments compared to white staffers. This finding is important, because legislative staffers are key players in the legislative process and because a diverse legislative staff could translate to substantive representation for otherwise underrepresented populations. The fact that minority staffers are less likely to be assigned to policy positions means that they may be less likely to influence legislation and provide substantive representation.

[20] One promising case study for future researchers might be northern states during the Great Migration (1940s-1970s). The Great Migration saw many racial tipping points occur, which could be feasibly utilized in quasi-experimental research designs. See Boustan (2016) and Kollmann, Marsiglio, and Suardi (2018).

Table 12 – Determinants of being appointed to constituency service, LPM

VARIABLES	(1)	(2)	(3)	(4)	(5)
	DV: Constituent Service Staffer; Binary				
AAPI Staffer	0.102***	0.122***	0.122***	0.122***	0.123***
	(0.026)	(0.027)	(0.027)	(0.027)	(0.029)
Black Staffer	-0.029	-0.034	-0.034	-0.034	-0.020
	(0.054)	(0.054)	(0.054)	(0.055)	(0.059)
Hispanic Staffer	0.101***	0.116***	0.116***	0.116***	0.120***
	(0.016)	(0.018)	(0.018)	(0.017)	(0.019)
Percent Hispanic		0.000	0.000	0.000	-0.001
		(0.001)	(0.001)	(0.000)	(0.001)
Percent AAPI		-0.001*	-0.001*	-0.001**	-0.003**
		(0.001)	(0.001)	(0.001)	(0.001)
Percent Black		-0.001	-0.001	-0.001	0.001
		(0.001)	(0.001)	(0.001)	(0.002)
District Population (10,000)		-0.004	-0.004	-0.004*	-0.001
		(0.003)	(0.003)	(0.002)	(0.002)
AAPI Legislator		-0.015	-0.015	-0.015	-0.014
		(0.031)	(0.031)	(0.020)	(0.029)
Black Legislator		0.047	0.047	0.047	0.109**
		(0.059)	(0.059)	(0.042)	(0.050)
Hispanic Legislator		-0.054**	-0.054**	-0.054***	-0.003
		(0.023)	(0.023)	(0.017)	(0.025)
Constant	0.518***	0.716***	0.716***	0.716***	0.643***
	(0.009)	(0.149)	(0.149)	(0.104)	(0.108)
Observations	4,735	4,735	4,735	4,735	4,735
R-squared	0.010	0.013	0.013	0.013	0.027
Legislator-Year Clustered SE	NO	NO	NO	YES	YES
District FE	NO	NO	NO	NO	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Now that we have reaffirmed that ethnic minority staffers, specifically Hispanic and AAPI staffers, are more likely to be assigned to constituency service positions, we turn to the titular question. *Why* are minority legislative staffers more likely to be given constituency service appointments? In the following analysis I will test three hypotheses

aimed at better understanding why minority staffers are more likely to be assigned to constituency service.

If the assignment of minority staffers to constituency service is driven by constituency demands, then both hypotheses 1 and 2 predict that more minority staffers should be assigned to constituency service in legislative districts with a large minority population. Hypothesis 1 predicts that more minority staffers should be assigned to both constituency service and policy staffer positions. I test these hypotheses beginning in **Table 13**. Unless otherwise stated, the following analyses are estimated using ordinary least squares. I have transformed the data so that the unit of the analysis is a legislative district in time *y*. The outcome variable is a continuous variable (0 to 100) indicating the percent of legislative staffers that are respectively Hispanic or AAPI. I analyze determinants of Hispanic and AAPI staffer appointments separately, since we cannot take it for granted that the underlying causes are the same.

As a reminder – the administrative data used provides us every staffer employed at the end of the calendar year. This does not necessarily provide us data for all 80 California State Assembly districts each year - although each district is observed at least once in the dataset - because legislators, especially incoming legislators, may be midway in hiring new staffers. The hiring schedule is not identical between constituency service and policy offices, and in a few rare cases we observe the constituency service staffers of a given legislator but not their policy staffers. This explains why I have 758 observations when analyzing constituency service staffer composition, but only 734 observations when analyzing policy staffer composition.

Analysis of Hispanic Staffer Appointments

In **Table 13 Columns 1-2**, the outcome variable is the Hispanic share of constituency service staffers. The independent variable of interest if the percent of the legislative district that is Hispanic (continuous variable, 0-100). Legislative districts have a mean Hispanic population of 38.30 percent (SD: 19.28 percent, range: 9.90-83.90 percent). In **Table 13 Column 1**, I find that a one percentage point increase in a legislative district's population is associated with a 0.921 percentage point increase in Hispanic constituency service staffers (p-value < 0.001). In **Table 13 Column 2** I add legislators' demographic characteristics and the legislative districts' population size (in units of 10,000s). The association between the districts' Hispanic population and the share of Hispanic constituency staffers, while still statistically significant, decreases to 0.520 (p-value (p-value < 0.001). A larger Hispanic constituency is associated with a higher share of descriptive staffers working in constituency service. Ziniel (2020) finds similar values in his analysis of Congressional Hispanic staffer appointments.

In **Table 13 Columns 3-4**, the outcome variable is the Hispanic share of policy staffers. Like constituency service appointments, I find that a larger share of Hispanics in the district is positively associated with an increase of Hispanics serving as policy staffers. This relationship is consistently significant across specifications (p-value < 0.001). The elasticity for constituency service and policy staffers are similar, but not identical, to one another. This indicates that, after controlling for legislators' demographic characteristics, a larger Hispanic constituency is associated with a larger

share of Hispanics in constituency service and policy staff positions. These findings support hypothesis 1.

Hypothesis 3 – which predicts that staffer appointments is explained by legislators' preference for homophily – is well supported by **Table 13**. I find that Hispanic legislators employ more Hispanics in both constituency service (Column 2; p-value < 0.001) and policy positions (Column 4; p-value < 0.001). While this evidence is suggestive of homophily, we cannot distinguish between the constituent parts of homophily with the available data. Legislators may have a preference for homophily due to strategic concerns (e.g., the perception that co-ethnic staffers have minimal agency loss) and/or homophily may be simply taste-based (Arrow 1973; Becker 1971).[21]

[21] One potential way for future research to disentangle the constituent parts of homophily would be to play dictator and trust games with legislators (Butler and Pereira 2018; Landgrave 2020). If legislators have a taste-based preference for co-ethnic staffers, they should be more generous with co-ethnic staffers – compared to non-co-ethnic staffers - in a setting where they receive no strategic benefit, i.e., the dictator game'. If legislators have a strategic preference for co-ethnic staffers, for example the perception that they have minimal agency loss, they should be more generous with co-ethnic staffers – compared to non-co-ethnic staffers, in a setting where they benefit where trust is vital for maximizing payoffs, i.e., the trust game.

Table 13 – Determinants of Hispanic staffer appointments, OLS

VARIABLES	(1)	(2)	(3)	(4)
	DV: % Hispanic CS Staffers		DV: % Hispanic Policy Staffers	
Percent Hispanic	0.921***	0.520***	0.542***	0.286***
	(0.054)	(0.062)	(0.057)	(0.069)
Percent AAPI	0.300***	0.381***	0.305***	0.146
	(0.096)	(0.104)	(0.102)	(0.115)
Percent Black	-0.543***	-0.085	-0.196	0.216
	(0.182)	(0.176)	(0.192)	(0.194)
Hispanic Legislator		29.981***		19.505***
		(2.745)		(3.060)
AAPI Legislator		-4.785		14.236***
		(3.814)		(4.243)
Black Legislator		4.036		22.534***
		(7.342)		(8.023)
District Population (10,000)		-0.174		-0.459
		(0.376)		(0.412)
Constant	-7.214**	6.071	-1.476	23.827
	(3.033)	(18.374)	(3.218)	(20.149)
Observations	758	758	734	734
R-squared	0.283	0.388	0.111	0.174

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

I turn next to a test of hypotheses 1 and 2's predictions that non-co-ethnic legislators should be more likely to hire Hispanic staffers in legislative districts with a large Hispanic population. Hypothesis 1 predicts that non-co-ethnic legislators should employ more minority staffers in both constituency service and policy assignments in districts with a larger minority population. Hypothesis 2 predicts that non-co-ethnic legislators should employ more minority staffers in constituency service, but not policy, assignments in districts with a larger minority population. In the present context, I count a legislator as being non-co-ethnic if they are not Hispanic, i.e., if a legislator is white, Black or AAPI. It is possible that, if a strong pan-person of color identity exists among

elites, that AAPI and Black legislators may act like Hispanic legislators, but this cannot be taken for granted so they are estimated as separate non-co-ethnic groups. I present the moderation analysis for each group separately and combined in **Table 14** below. The reference category in **Table 14** is Hispanic legislators.

I fail to find any evidence that non-co-ethnic legislators are more likely to employ Hispanics in districts with larger a Hispanic population. In **Table 14 Column 1** I find suggestive evidence that AAPI legislators are less likely to employ Hispanic constituency service staffers in Hispanic minority-majority areas (p-value = 0.122). These results fail to support either hypotheses 1 or 2. Non-co-ethnic legislators should be most likely to employ minority legislators because, being unable to descriptively represent their constituents themselves, they can at least attempt to appoint descriptively representative staffers. The null results are consistent for both constituency service and policy staffers. Substantive results of the moderation analysis are unchanged when I group AAPI, Black and white legislators together in **Table 14 Column 2** and **4**.

Table 14 – Determinants of Hispanic staffer appointments by legislator's race/ethnicity, OLS

VARIABLES	(1)	(2)	(3)	(4)
	DV: % Hispanic CS Staffers		DV: % Hispanic Policy Staffers	
Percent Hispanic	0.626***	0.624***	0.356***	0.358***
	(0.113)	(0.113)	(0.127)	(0.129)
AAPI Legislator	-18.584*		-23.384*	
	(10.899)		(12.115)	
AAPI Legislator x Percent Hispanic	-0.436		0.712**	
	(0.282)		(0.314)	
Black Legislator	-43.311**		-6.788	
	(17.603)		(19.276)	
Black Legislator x Percent Hispanic	0.875		0.514	
	(0.614)		(0.669)	
White Legislator	-22.440***		-12.435	
	(7.380)		(8.304)	
White Legislator x Percent Hispanic	-0.146		-0.168	
	(0.136)		(0.152)	
Percent AAPI	0.357***	0.297***	0.158	0.297***
	(0.105)	(0.090)	(0.115)	(0.101)
Percent Black	-0.050	-0.026	0.296	0.108
	(0.180)	(0.177)	(0.197)	(0.197)
District Population (10,000)	-0.175	-0.167	-0.260	-0.391
	(0.379)	(0.376)	(0.415)	(0.417)
Non-Hispanic Legislator		-22.173***		-13.206
		(7.343)		(8.393)
Non-Hispanic Legislator x Percent Hispanic		-0.162		-0.089
		(0.134)		(0.152)
Constant	29.956	30.219	29.277	34.866
	(19.775)	(19.570)	(21.721)	(21.818)
Observations	758	758	734	734
R-squared	0.392	0.388	0.185	0.152

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

A graphical version the results from **Table 14** are presented in **Figures 3** and **4**. As a reminder - legislative districts have a mean Hispanic population of 38.30 percent with a range: 9.9-83.9 percent. I appropriately estimate potential moderation by

legislator's race/ethnicity within the 10 – 80 percent range. The presentation of graphical results is recommended as a best practice when interpreting moderation analysis because the standard errors in tabular form are not accurate throughout the different values of the moderating variable (Brambor, Clark, and Golder 2005). Substantively the results are unchanged. I fail to find substantial evidence that non-co-ethnic legislators (i.e., AAPI, Black or White) are more likely to employ Hispanic minority staffers when they represent legislative districts with a larger Hispanic population. The exception to this is AAPI legislators who are more likely to employ Hispanic policy staffers in districts where Hispanics comprise over 70 percent of the total population (p-value = 0.038).

Figure 3 – Association of legislator's race/ethnicity on Hispanic constituency service staffers by legislative district Hispanic population

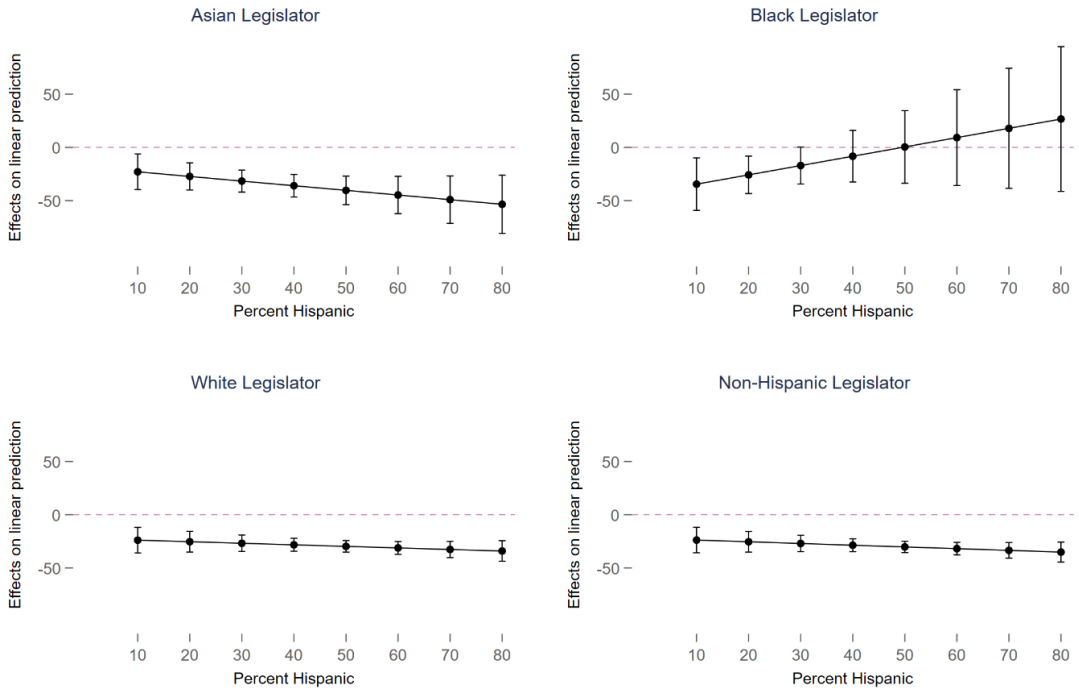
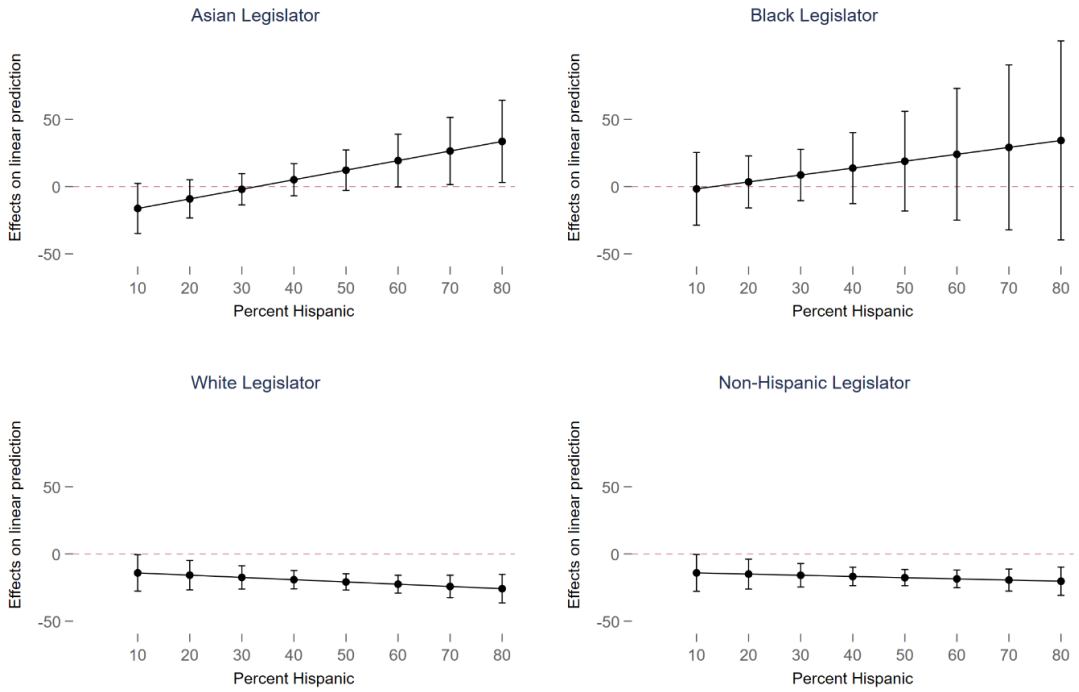


Figure 4 – Association of legislator's race/ethnicity on Hispanic policy staffers by legislative district Hispanic population



I turn next to replicating the above analysis but focusing on the appointment of Asian Pacific Islander staffers. *A priori* we cannot take for granted that the appointment patterns of Hispanic and AAPI staffers is the same. As I show in the next set of results though, results for Hispanics and AAPI staffers are like one another empirically.

Analysis of Asian American Pacific Islander Staffer Appointments

For those interested in the study of Asian American Pacific Islanders and their impact on politics, California is a key case study. About a third the total national AAPI population resides in the state of California. Only Hawaii has a higher share of AAPI residents, and California has the largest AAPI population of any US state. A significant

contribution of the present paper is that it extends the existing literature of minority staffers to include AAPI staffers.

I begin by modeling the determinants of AAPI staffer appointments to constituency service and policy roles in **Table 15**. This model is identical to **Table 13** except the outcome variable is the share of AAPI staffers in constituency service and policy assignments, respectively. The primary independent variable of interest is a legislative district's AAPI population. Legislative districts have a mean AAPI population of 13.45 percent (SD: 10.70 percent, range: 1.40-55.00 percent). I find in all models that state legislative districts with larger AAPI populations are associated with having more AAPI staffers in both constituency service and policy positions. In **Table 15 Column 1**, I find that a 1 percentage point increase in a state legislative district's Asian population is associated with a 1.011 percentage point increase in AAPI constituency service staffers (p-value < 0.001). Once additional controls are included, the coefficient goes down to 0.831 (p-value < 0.001), see **Table 15 Column 2**.

Table 15 – Determinants of AAPI staffer appointments, OLS

VARIABLES	(1)	(2)	(3)	(4)
	DV: % AAPI CS Staffers		DV: % AAPI Policy Staffers	
Percent Hispanic	0.079***	0.120***	0.122***	0.118***
	(0.031)	(0.037)	(0.035)	(0.043)
Percent AAPI	1.011***	0.831***	0.461***	0.223***
	(0.055)	(0.063)	(0.064)	(0.072)
Percent Black	-0.169	-0.174	-0.120	-0.054
	(0.104)	(0.106)	(0.120)	(0.121)
Hispanic Legislator		-3.460**		0.196
		(1.649)		(1.917)
AAPI Legislator		12.699***		17.440***
		(2.291)		(2.658)
Black Legislator		-2.041		-2.814
		(4.410)		(5.026)
District Population (10,000)		-0.008		0.363
		(0.226)		(0.258)
Constant	-6.458***	-5.445	-2.985	-18.833
	(1.728)	(11.038)	(2.005)	(12.621)
Observations	758	758	734	734
R-squared	0.324	0.358	0.070	0.127

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In **Table 15 Columns 3 - 4** I estimate the determinants of AAPI appointments to policy positions. With control variables included I find in **Table 15 Column 4** that a 1 percentage point increase in a state legislative district's Asian population is associated with a 0.223 percentage point increase in AAPI policy staffers (p-value = 0.002). This is comparable in magnitude to the effect size we find when modeling Hispanic policy staffers.

Taken together these results provide support for hypothesis 1 – legislators appear to be appointing more AAPI staffers to both constituency service and policy positions. The difference in magnitude for effect sizes when examining constituency service and

policy staffers is notable. Although state legislative districts with larger AAPI populations receive more AAPI policy staffers, the effect is about a 1/4th of the effect we see for constituency service staffers. This result is consistent with hypothesis 2 – legislators are appointing staffers to highly visible constituency service positions in the hope of achieving the benefits of descriptive representation.

The positive coefficient for Asian legislators in **Table 15 Columns 2** and **4** support hypothesis 3. Asian legislators are, after controlling for legislative district characteristics, more likely to appoint more AAPI staffers to both constituency service (p-value < 0.001) and policy positions (p-value < 0.001).

As an additional test of these hypotheses, I turn next to moderation analysis in **Table 16**. Both hypothesis 1 and 2 predict that non-co-ethnic legislators should be more likely to employ AAPI staffers. In the context of these analyses state legislative districts, non-co-ethnic legislators are legislators that are Hispanic[22], Black or white. I estimate the potential moderation for each legislator's race/ethnicity separately and combined.

Hypotheses 1and 2 both predict that non-co-ethnic legislators in districts with a large AAPI population should be more likely to employ AAPI constituency service staffers. The empirical implication is that we should see a positive interactive effect between Hispanic/Black/white legislators and state legislative districts with larger AAPI populations. In **Table 16 Columns 1-2**, I fail to find evidence that non-co-ethnic

[22] I concede that California has a few Filipino-American legislators, such as former Assemblyman Robert Andres Bonta, who could potentially serve as descriptive representatives to both AAPI and Hispanic communities. It is beyond the scope of the present study, but see Lemi (2020) for a discussion of multi-ethnic descriptive representation.

legislators are more likely to appoint APPI constituency service staffers. Surprisingly, I find a negative interactive effect for white legislators. Conditional on being served by a white state legislator, districts with a large AAPI population are less likely to employ AAPI constituency service staffers (p-value = 0.003).

Hypothesis 1, but not hypothesis 2, predicts that non-co-ethnic legislators should be more likely to appoint AAPI policy staffers. In **Table 7 Columns 2-4** I fail to find evidence of any such moderation, but like constituency service staffers, I find that white legislators are less likely to appoint AAPI policy staffers in state legislative districts with larger AAPI populations (p-value = 0.010). Moderation results from **Table 7** are presented graphically in **Figures 3-4**. As a reminder – California state legislative districts have a mean AAPI population of 13.45 percent with a range of 1.40-55.00 percent. I appropriately estimate potential moderation by legislator's race/ethnicity within the 10 – 50 percent range. Substantive effects remain unchanged from tabular results.

Table 16 – Determinants of AAPI staffer appointments by legislator's race/ethnicity, OLS

VARIABLES	(1)	(2)	(3)	(4)
	DV: % AAPI CS Staffers		DV: % AAPI Policy Staffers	
Percent AAPI	1.101***	1.097***	0.495***	0.496***
	(0.113)	(0.113)	(0.128)	(0.128)
Hispanic Legislator	-7.142		-7.958	
	(4.697)		(5.407)	
Hispanic Legislator x Percent AAPI	-0.278		-0.300	
	(0.226)		(0.259)	
Black Legislator	-4.848		-14.608	
	(19.244)		(21.945)	
Black Legislator x Percent AAPI	-0.487		0.183	
	(2.857)		(3.257)	
White Legislator	-2.512		-7.163	
	(4.165)		(4.783)	
White Legislator x Percent AAPI	-0.402***		-0.405***	
	(0.137)		(0.157)	
Percent Hispanic	0.106***	0.063**	0.104**	0.111***
	(0.038)	(0.030)	(0.044)	(0.035)
Percent Black	-0.154	-0.095	-0.034	-0.033
	(0.106)	(0.102)	(0.121)	(0.116)
District Population (10,000)	-0.003	0.000	0.368	0.351
	(0.226)	(0.225)	(0.259)	(0.256)
Non-AAPI Legislator		-3.396		-7.480
		(4.138)		(4.738)
Non-AAPI Legislator x Percent AAPI		-0.385***		-0.384**
		(0.134)		(0.153)
Constant	-1.207	-0.227	-9.922	-9.354
	(11.733)	(11.684)	(13.429)	(13.333)
Observations	758	758	734	734
R-squared	0.365	0.361	0.135	0.134

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 5 – Association of legislator's race/ethnicity on AAPI constituency service staffers by legislative district AAPI population

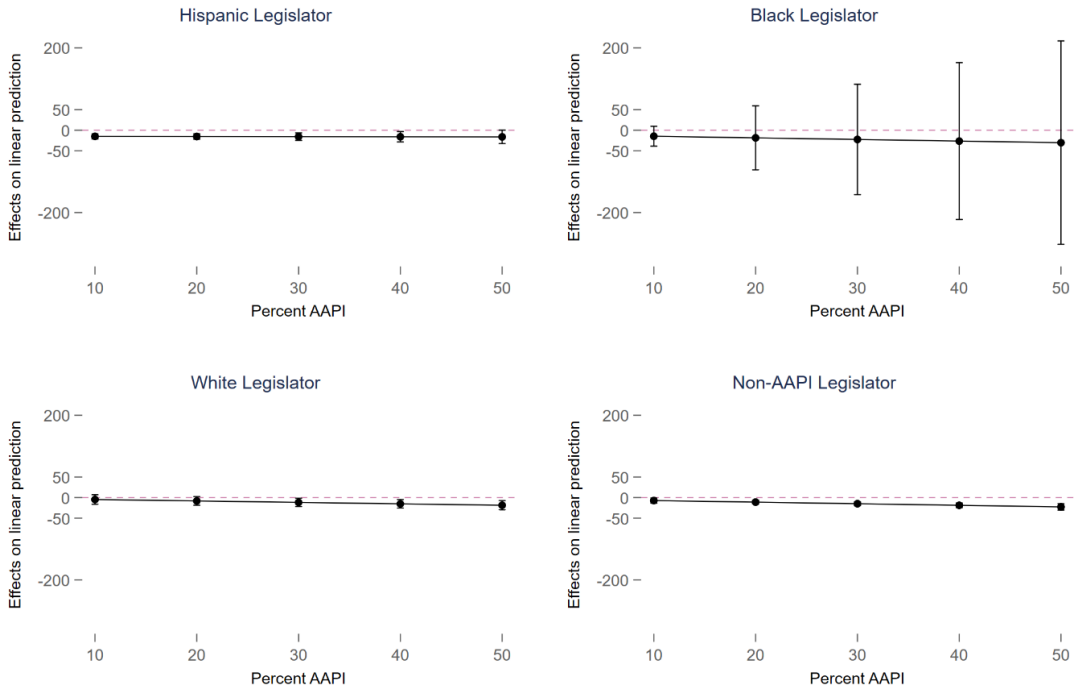
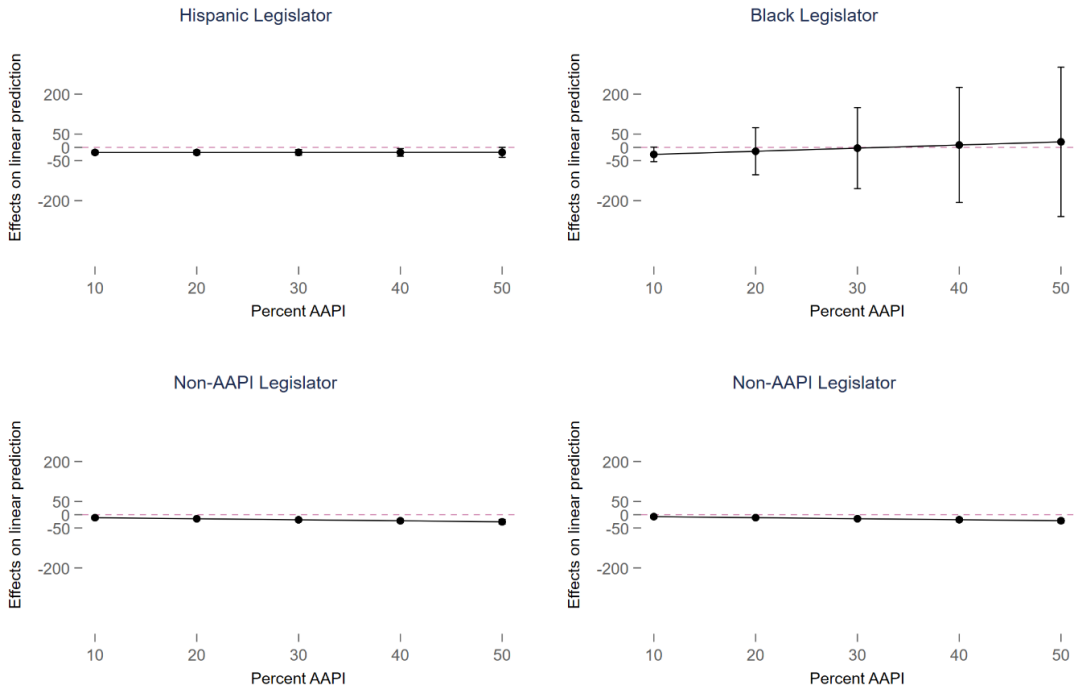


Figure 6 – Association of legislator's race/ethnicity on AAPI policy staffers by legislative district AAPI population

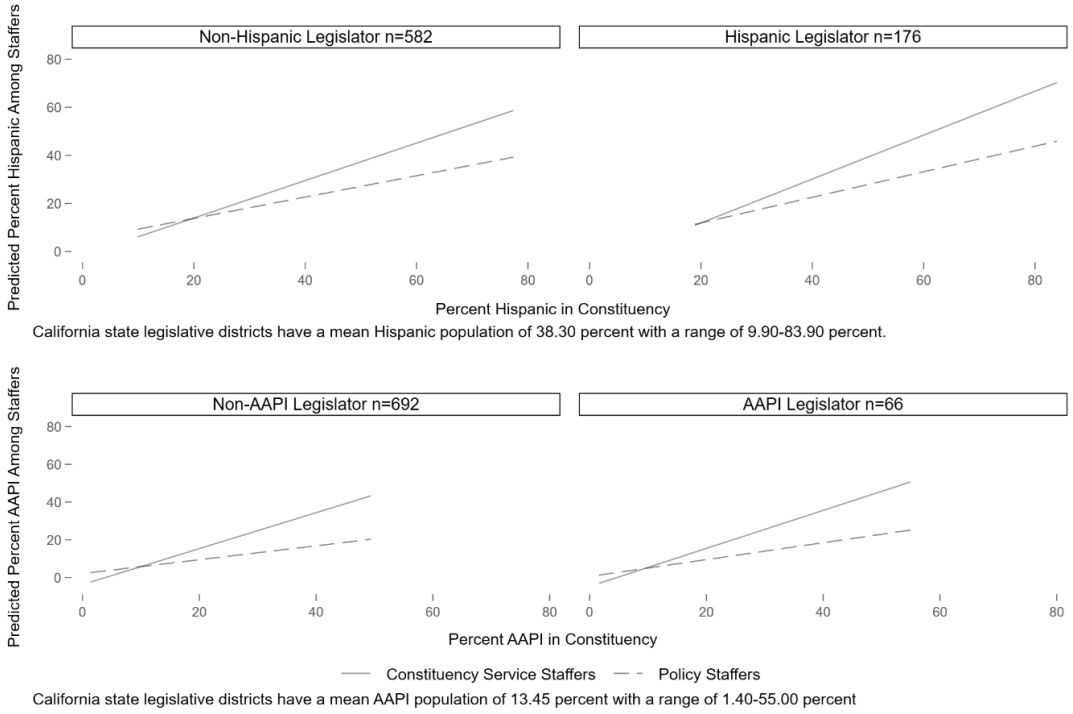


The analysis of the determinants of Hispanic and AAPI staffer appointment are surprisingly near identical. **Figure 7** below provides a summary of the analyses presented thus far. In **Figure 7** I plot the predicted percent of minority staffers by legislator co-ethnicity and legislative district composition. If hypothesis 1 is correct, I would expect to find that the predicted percent of minority constituency service *and* policy staffers should be higher in legislative districts with a larger minority constituency population. Visually this would be represented by an upward slope for both constituency service and policy staffers. If hypothesis 2 is correct, I would expect to find a larger predicted percent of minority constituency service staffers in legislative districts with a larger minority constituency population, but no change for minority policy staffers. Visually this would

be represented by an upward slope for constituency service staffers, but a flat line for policy staffers. Visually we find an upward slope for both predicted minority constituency service and policy staffers, albeit the slope is steeper for constituency service staffers. These results are overall consistent with hypothesis 1, albeit the slope for constituency service staffers is steeper than for policy staffers.

A secondary expectation of hypothesis 1 was that non-co-ethnic legislators should employ more constituency service and policy staffers, but I fail to find evidence of this. Instead, I find evidence that co-ethnic legislators are more likely to employ minority staffers. This is supportive of hypothesis 3 – that legislators have a preference for homophily.

Figure 7 – Predicted percent minority staffers by legislator co-Ethnicity and legislative district composition



Throughout my analyses above, I have found consistent evidence for hypothesis 3 – legislators prefer to hire co-ethnic staffers even when accounting for legislative district characteristics. Hispanics and Asian American Pacific Islander legislators are more likely to employ co-ethnics in both constituency service and policy staffer positions.

Conclusion

In the present paper I have attempted to better understand why minority staffers are more likely to be appointed to constituency service positions. By being placed in constituency service positions, versus policy positions, the ability of minority staffers to serve as substantive representatives is limited. It is of paramount importance therefore to understand why this phenomenon persists.

Empirically, I contribute to advancing this discussion by bringing in original data from the California State Assembly (2010-2019). Prior papers that have grappled with this question have relied almost exclusively on the United States House of Representatives. By using the California State Assembly, I show that the phenomenon extends to other American legislatures. Furthermore, focusing on the California State Assembly allows me to extend analysis to include Asian American Pacific Islanders, a growing minority population disproportionally located in California.

I find that Hispanic and AAPI staffers are more likely to be placed in constituency service positions compared to white staffers. I also find that more Hispanics and AAPI staffers are appointed to both constituency service and policy staffers in state legislative districts that are respectively populated by more Hispanic and Asian constituencies. This indicates that minority populations may achieve descriptive representation through staffer

appointments. However, I find that the magnitude of this effect is lower in the appointment of policy staffers compared to constituency staffers.

Future work in this literature should focus on supply side factors that may restrain the number of minority staffers serving in policy staffer positions. I have focused here primarily on the "demand" side of staffer appointments. It is nonetheless possible that the relatively few minority staffers in policy positions is driven by staffer career preferences.

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