EXPLORING THE SELF-PERCEIVED ROLE OF SENIOR LEGISLATIVE STAFFERS IN DECISION-MAKING ON SCIENCE POLICY IN THE U.S. CONGRESS

By

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ABSTRACT

Much has been written about the ways that policymakers access and integrate scientific information into their decisions, yet the role of legislative staffers has been largely overlooked. Congressional staffers act as critical influencers linking senators and congresspeople with knowledge, drafting legislation, and making recommendations. By conducting a research study of senior congressional legislative staff from both major political parties involved in federal science policy oversight in the United States House of Representatives and Senate, this dissertation examines 1) how scientific information is obtained and how sources are valued by staff, 2) why some communities are underrepresented in senior staff positions and 3) the changes staffers perceive that have taken place in Congress over the last half-century. It makes recommendations for 1) improving the translation of findings into evidence-based legislative policies and actions and 2) bringing the perspectives of more Americans into the decision-making process.

This dissertation is dedicated to Atlas and Apollo.
I love you more than everything that ever was and everything that ever will be.

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TABLE OF CONTENTS

CHAPTER 1 Introduction....................1
    REFERENCES....................15

CHAPTER 2 The Value of Scientific Sources to Senior Legislative Staff in the U.S. Congress....................17
    REFERENCES....................44
    APPENDIX A: QUESTIONS FOR STAFFERS AND CONSENT FORM....................49

CHAPTER 3 Left out of the Room Where it Happens: Barriers to Serving in Senior Congressional Staff Roles May Limit "Representative" Science Policymaking....................54
    REFERENCES....................70
    APPENDIX B: QUESTIONS FOR STAFFERS AND CONSENT FORM....................74

CHAPTER 4 Senior Congressional Staffers' Perceptions of How and Why Policymaking Has Changed in the United States Over 50 Years....................79
    REFERENCES....................99
    APPENDIX C: QUESTIONS FOR STAFFERS AND CONSENT FORM....................104

Chapter 5 Conclusion....................109

CHAPTER 1

Introduction

From public health to the economy, every global challenge involves science and technology. Policy engagement by scientists is critical to achieving evidence-based policies and allowing new advances to reach their full potential. The translation of scientific information is required for the successful use of science in policy (Akerlof et al., 2018) and helps to define national priorities, promote research and innovation, and influence the future of leadership.

Americans depend on legislators to make critical decisions on a wide range of issues, affecting public health, safety, well-being, and the future. Morgan and Peha (2003) contend that as a result, the public holds unrealistic expectations about the degree to which legislators should develop expertise on every key issue. Similarly, Brown (1996) describes the way that disillusionment has arisen from an agreed-upon “fiction of [American] democracy” where we pretend that elected officials are sufficiently informed to be omnicompetent.

In reality, policymakers cannot possibly have expertise on every topic and depend upon congressional staffers for vital information, as well as clear recommendations on how they should vote. Hall (1996) explains, “faced with the pressure of excessive obligations and the frequent prospect of needing to be two places at once, members have responded by relying increasingly on staff.”

There are currently over 17,000 staffers working with elected leaders in Congress (Legistorm, 2023). However, the staff directly involved in advising on policy issues are made up of a small subset of that total figure, comprised of chiefs of staff, legislative directors, and other specialty staffers such as legislative assistants (Fig. 1). These individuals make recommendations to members of Congress on a wide range of issues, including science-related policies.

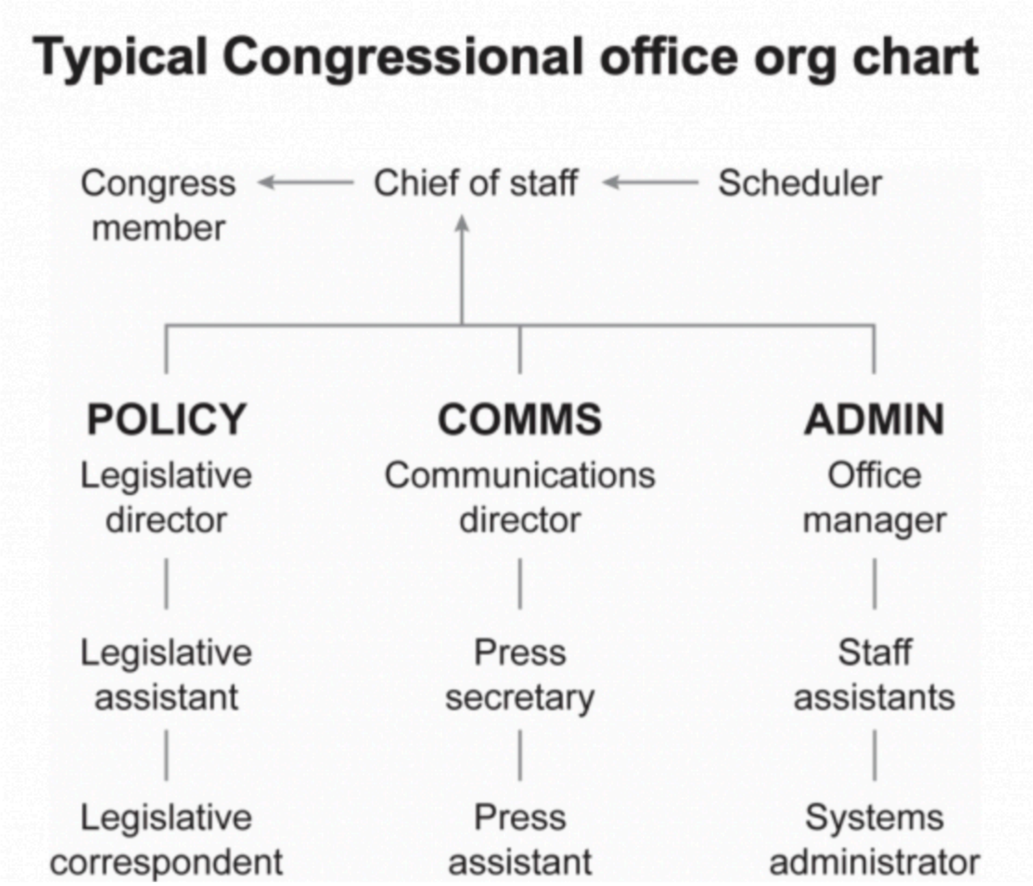

Typical Congressional office org chart
Congress member
Chief of staff
Scheduler
POLICY
Legislative director
Legislative assistant
Legislative correspondent
COMMS
Communications director
Press secretary
Press assistant
ADMIN
Office manager
Staff assistants
Systems administrator

Figure 1. Congressional office organizational chart via Politico Pro. February 7, 2019 [*https://www.politicopro.com/blog/congressional-office-org-chart/*](https://www.politicopro.com/blog/congressional-office-org-chart/) *Not all staff positions are represented in this chart.*

Romzek and Utter (1997) explain that information is the primary currency of congressional staff interactions, and they develop coalitions and networks to gather what they need. Staffers determine what information matters, moving it through Senate and House offices to members and ultimately, whether it becomes translated into legislation.

When a bill passes, popular media attributes victories to specific members of Congress and Senators and Representatives reinforce these imaginative accounts by taking credit for policy success in stump speeches and fundraising materials. Reality is a lot more complicated, and much of the public remains largely unaware of the battalion of dedicated people working long hours, often over many years, to see a bill signed into law. Congressional scholars like Malbin (1980) have described that staffers now serve as “unelected representatives,” shaping policy without electoral accountability.

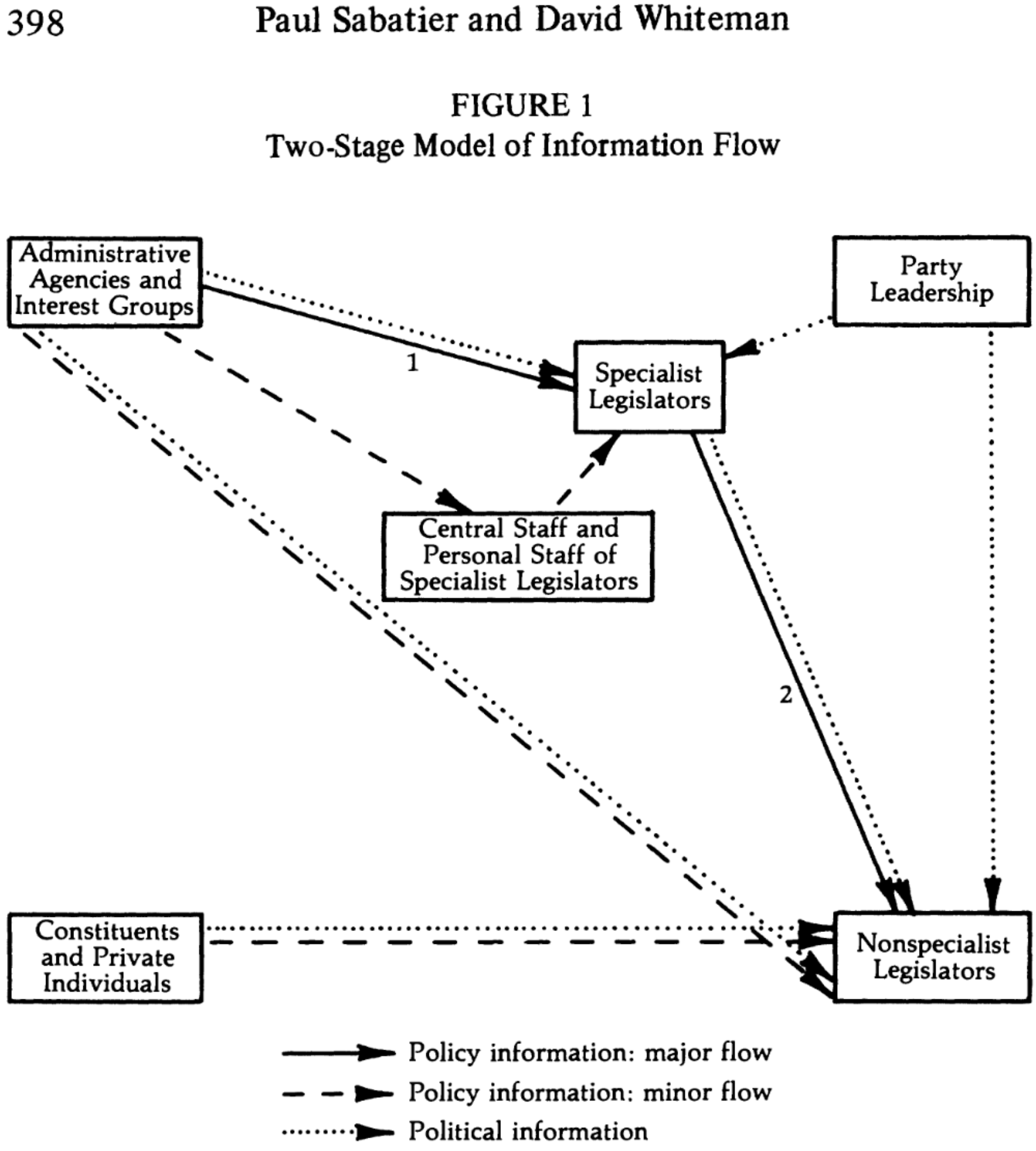
Legislative staffers are a frequently transitory community with tremendous influence on national policy. Few staffers are trained in science, yet they are bombarded with data and materials related to upcoming science-related legislation. Having worked as a legislative science fellow in the U.S. Senate, my research interests are focused on understanding how congressional staffers make science policy decisions and recommendations with limited time and incomplete information.

I arrived as a staffer with master’s degrees in policy and science, but academic training did not prepare me for the job or provide a realistic sense of how Congress functions. My learning curve was steep, but in a few months, I had familiarized myself with the acronyms, language, and culture of Capitol Hill. My role involved meeting with various individuals and groups that came through our office to make their case about how legislation should move, change, or sometimes, stay the same. I began to think of myself as one part of a much larger information pipeline connecting citizens, policymakers, and experts. It was far from perfect, and I could see it breaking down in places due to pressure, partisanship, or misinformation.

This dissertation was born out of that experience. It is focused on congressional staffers who sit where I once did, meeting with people and organizations from across the country intent to sway policy. You might think of them as the gatekeepers of congressional information with outsized power to amplify or bury certain voices in the process.

Scientists in and out of academia, along with science advocates, have spent decades working to understand the ways politicians integrate scientific information into their decisions. Yet, very little attention has been paid to the staffers in the process. Research has largely ignored the impressions they have left all over the congressional record (Hertel-Fernandez et al., 2019), so it should be no surprise that staffers, in turn, are frequently unaware of how science interacts with the various pressing issues they are confronted with daily.

To understand how information gets translated from policy staffers to legislation, Sabatier and Whiteman (1985) developed multiple models describing congressional decision-making based on findings from existing literature on information flow in Michigan from 1974 and in Congress during the 1960s and 1970s (Fig. 2).



398 Paul Sabatier and David Whiteman

FIGURE 1
Two-Stage Model of Information Flow

Administrative Agencies and Interest Groups
Party Leadership
1
Specialist Legislators
Central Staff and Personal Staff of Specialist Legislators
2
Constituents and Private Individuals
Nonspecialist Legislators
Policy information: major flow
Policy information: minor flow
Political information

Figure 2. To understand how information gets translated from policy staffers to legislation, Sabatier and Whiteman (1985) developed this two-stage model describing congressional decision-making based on findings from existing literature.

In their model of policy information flow, they describe that information first moves from the messengers, who may be constituents, policy experts, congressional research staffers, or others, to a committee staff or a member's personal staff. These staffers frame and share knowledge with specialist legislators who are considered informed about the subject matter being discussed. Next, these specialist legislators communicate that information to non-specialist legislators before a final decision is made. Petty et al. (2018) updated Sabatier and Whiteman's model to reflect additional sources of information based on interviews and surveys of congressional staffers (Fig. 3).

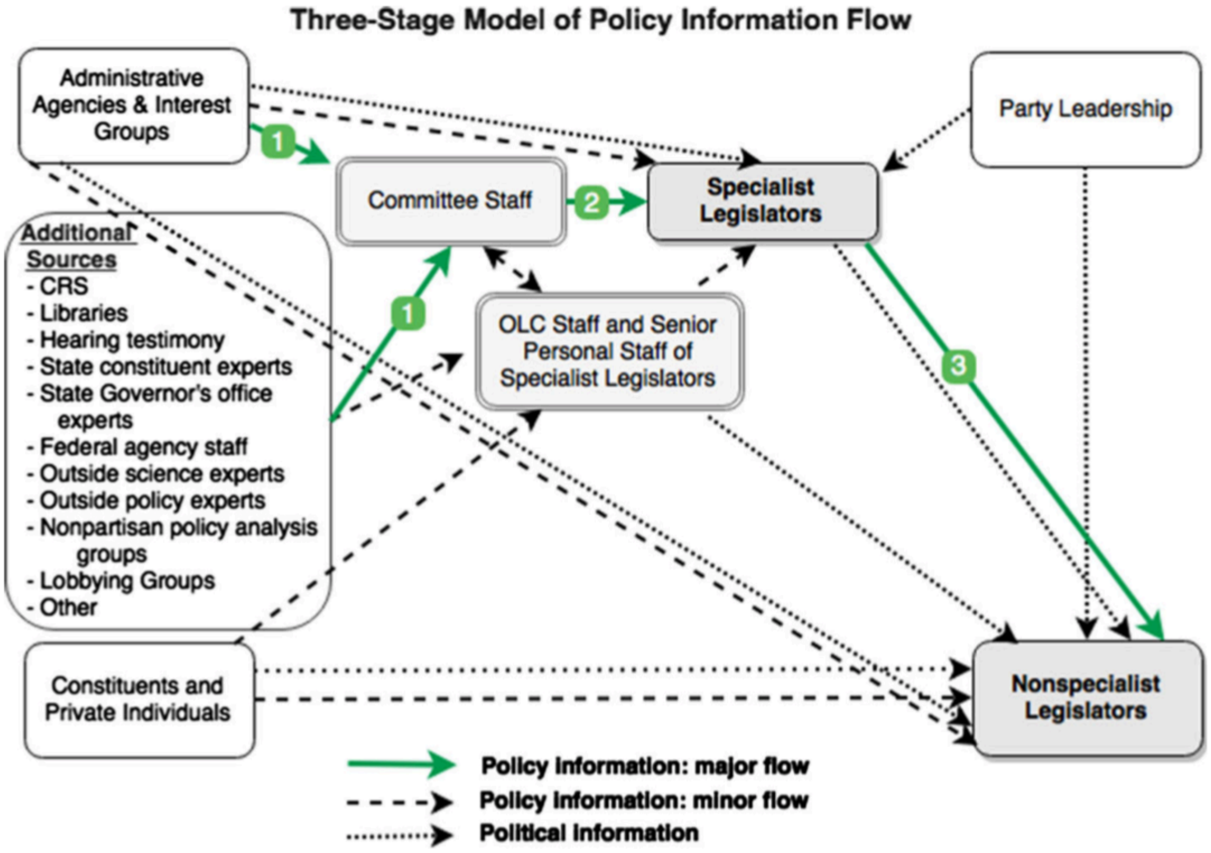

Three-Stage Model of Policy Information Flow
Administrative Agencies & Interest Groups
Party Leadership
Committee Staff
Specialist Legislators
1
2
3
1
Additional Sources
- CRS
- Libraries
- Hearing testimony
- State constituent experts
- State Governor's office experts
- Federal agency staff
- Outside science experts
- Outside policy experts
- Nonpartisan policy analysis groups
- Lobbying Groups
- Other
OLC Staff and Senior Personal Staff of Specialist Legislators
Constituents and Private Individuals
Nonspecialist Legislators
Policy Information: major flow
Policy Information: minor flow
Political Information

Figure 3. Sabatier and Whiteman's three-stage model of policy information flow (1985), with the addition of multiple congressional policy information sources by Petty et al. (2018).

This work suggests that key congressional staffers are an important source of information for specialist legislators. Notably, Sabatier and Whiteman proposed their model 35 years ago and relationships in Congressional offices have changed over time. The update by Petty et al. (2018) adding multiple congressional policy information sources, addresses some of these changes.

When translating information to legislative staff, prior research has highlighted three qualities necessary for crossing boundaries and incorporating new information into policy decisions. These include relevance, credibility, and legitimacy (Cash et al., 2002; Clark et al., 2016).

> *1) Relevance* means the degree of relatedness to a subject being considered or how significant the information is to a policymaker's choice. (Heink et al. 2015).
>
> *2) Credibility* is tied directly to the sense of believability. Information is considered credible if it is scientifically plausible and has technical merit. The information must come from a believable or trustworthy source.
>
> *3) Legitimacy* is the degree to which the information is gathered in an unbiased way that is politically and procedurally fair, as well as representative of the values, views, and concerns of involved stakeholders.

Cash et al. (2002) proposed that the most successful examples of bridging policy and science involve all three of these attributes, referred to as "RCL," where each exceeds an individual threshold of acceptability.

Petty et al. used the RCL framework to study key factors that influence congressional staff decision-making about federal water policy and oversight. The authors conducted a grounded theory study of key congressional legislative staff in Congress, with embedded quantitative analysis. Through interviews and questionnaires, they identified staffers' concerns related to the use and influence of information in developing policy and compared responses to criteria related to RCL.

Petty et al. interpreted their findings into three interrelated conceptual themes based on staffers' keywords and expressions related to interests and priorities in policymaking. Three themes emerged as the most important factors in how congressional staff receive information:

1) Developing a trusted relationship-information network (49.6%)

2) Prioritizing relevant stakeholder interests (33.8%)

3) Maximizing efforts to achieve desired results (16.6%)

Petty et al. concluded that the degree to which information to staffers influences policy decisions is largely determined by staffers perceptions of relevancy, credibility, and legitimacy, supporting the 1985 findings of Sabatier and Whiteman. They integrated the key three themes identified in their research to the RCL framework (Fig. 4).

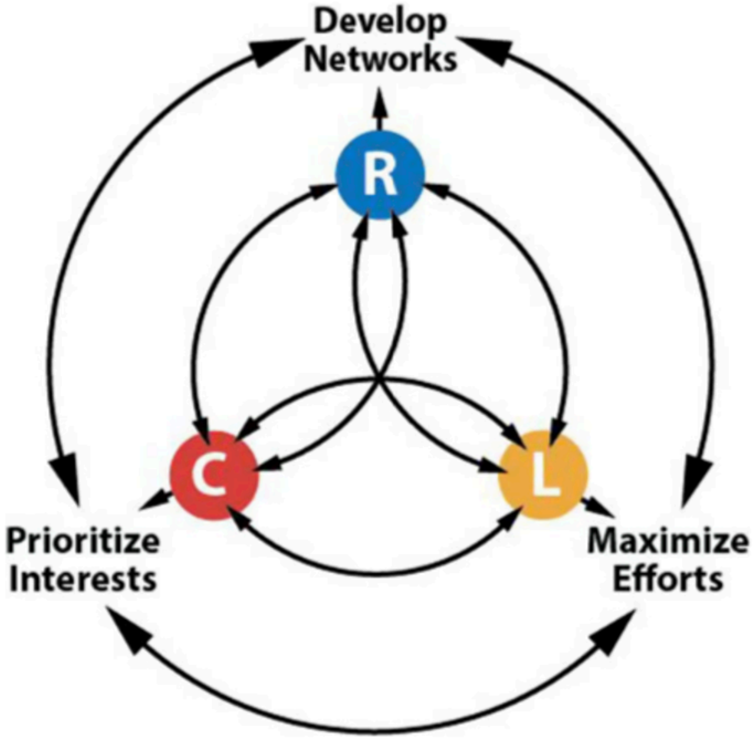


Figure 4. Petty et al. integrated the three themes they found were most significant to congressional staff into the RCL framework to illustrate the interactions between decision-making and action in each conceptual theme area.

Multiple scholars have written extensively about credibility as a crucial element in the interpretation and translation of information, but the meaning of this term has been debated and discussed for thousands of years. Akerlof et al. (2018) point out there are many inconsistencies in the definition of credibility across the literature spanning communication, rhetoric, and public policy. None of these disciplines has achieved consistent measures of credibility, and McComas and Trumbo (2001) add that an agreed-upon, generalized measure of credibility has proved elusive. However, Cash et al. (2003) add that while a single definition of credibility may not be achievable, what constitutes credibility will be situationally dependent.

Akerlof et al. (2018) compared conceptualizations of credibility and bias from the fields of rhetoric, communication, and public policy, with the goal of reducing conceptual ambiguity. They describe certain characteristics are featured in the definitions from each field, including expertise and trustworthiness. The authors also found that bias appears to play a significant role in terms of how scientific information and its source is interpreted within a congressional context.

Communicating scientific information is more than the transmission of "facts" because facts are open to interpretation and a deep partisan divide politicizes, polarizes, and twists scientific issues. On top of that, increasing populist rhetoric has promoted and normalized antagonistic attitudes by framing science and academics as out-of-touch elites.

Before beginning the research that makes up the body of this dissertation, I explored theories in psychology, political science, information processing, and communication that are related to how we interpret information and make decisions (ex. Griffen et al., 1999). That enabled me to develop this theoretical model (Fig. 5):

A Theoretical Model of How Cognitive Processes May Interact for Congressional Staffers in Legislative Decision-making

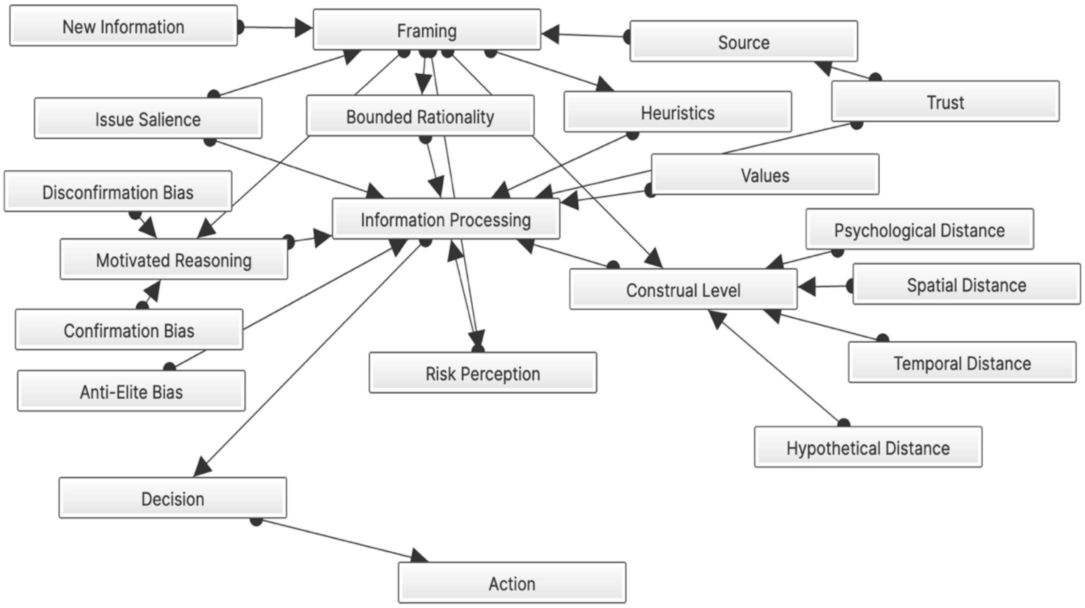

New Information
Framing
Source
Trust
Issue Salience
Bounded Rationality
Heuristics
Values
Disconfirmation Bias
Information Processing
Psychological Distance
Motivated Reasoning
Construal Level
Spatial Distance
Confirmation Bias
Temporal Distance
Anti-Elite Bias
Risk Perception
Hypothetical Distance
Decision
Action

Figure 5. A conceptual model of congressional staff decision-making on science policy. Kirshenbaum, S. Comprehensive Program Statement, Department of Community Sustainability, Michigan State University (2022). In this figure, I indicate trust, values, risk, construal, and identity theory. To learn more, access these publications (Hetherington, 1998; Eyal, et al., 2009; Slovic, 1987; Yaacov and Liberman. 2010; Pereira et al., 2023).

This exercise provided a framework with which to develop methods for my planned investigation. I revised the model over time to reflect significant theories and phenomena related to my dissertation research.

This model provided context and theory to formulate questions to staffers that could illuminate how they perceive new science policy information, as well as how that information is acquired and synthesized. Over time, this model would be further refined and organized with new information providing context about relationships.

Steiman and Suhay (2023) conducted a study of 20 authors that made up a sample collectively representing nearly all Congressional qualitative interview studies from the past several decades. By asking about their research practices in Congress, Steiman and Suhay reported that congressional staffers and members are uniquely challenging to interview because they are such an enigmatic community. Factors such as increasing polarization, negative attitudes related to academia, a changing media environment, blanket bans by offices to participate in research, an unwillingness to be on the record, a lack of availability, the perceived politicization of science issues, and too many interview and survey requests contribute to making the people who work in Congress a very difficult community to interview.

In my work, I was extremely fortunate to be able to recruit a large sample of staffers because of having worked in Congress and maintaining many relationships with staffers because of my years as Executive Director of Science Debate and an incredibly helpful network of Presidential Leadership Scholars and Marshall Memorial Fellows. These relationships opened many doors along the way.

Once interviews with current and former congressional staffers began, I recognized emerging themes related to where staffers go and who they trust for science-related information. That allowed me to create this preliminary model (Fig. 6) related to how staffers prioritize science-related information.

How Legislative Staffers View Sources of Science Policy Information

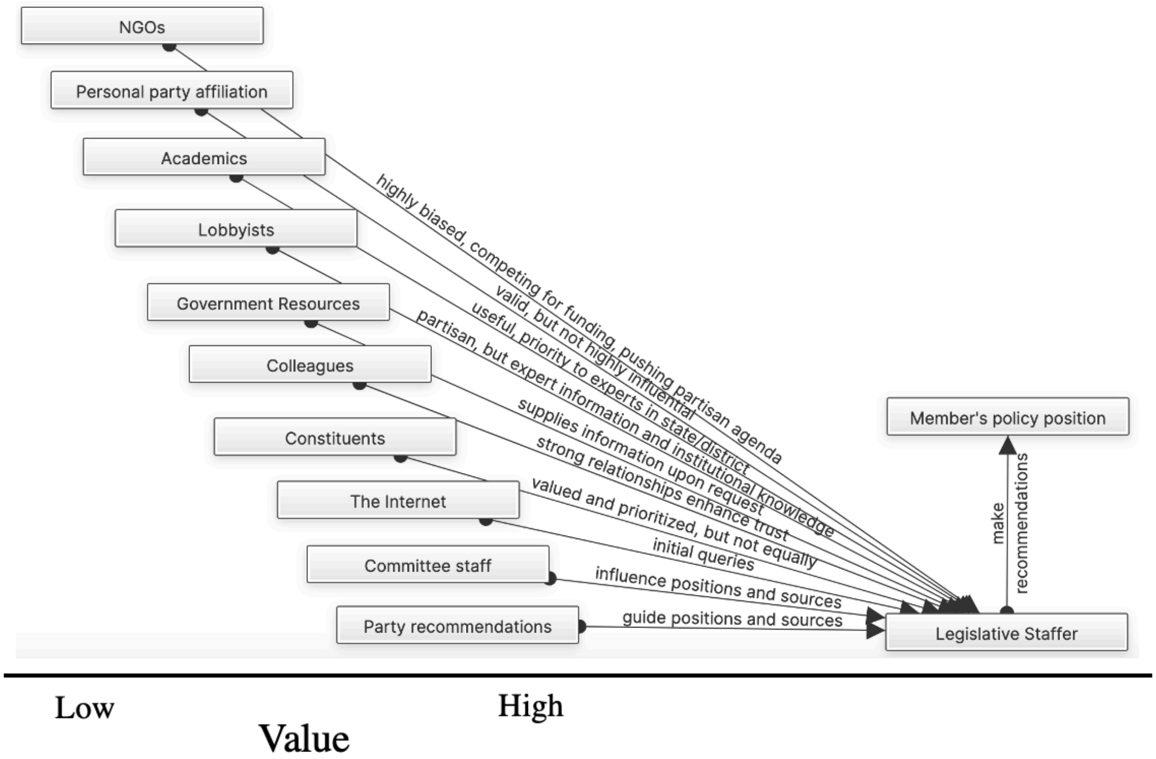

NGOs
Personal party affiliation
Academics
Lobbyists
Government Resources
Colleagues
Constituents
The Internet
Committee staff
Party recommendations
highly biased, competing for funding, pushing partisan agenda
valid, but not highly influential
useful, priority to experts in state/district
partisan, but expert information and institutional knowledge
supplies information upon request
strong relationships enhance trust
valued and prioritized, but not equally
initial queries
influence positions and sources
guide positions and sources
Member's policy position
make recommendations
Legislative Staffer
Low
High
Value

Figure 6. A model of how congressional staffers prioritize scientific sources of information in policymaking.

Throughout data collection, coding, and analysis, the model continued to change and be further refined. The result appears in Chapter 2, *The Value of Scientific Sources to Senior Legislative Staff in The U.S. Congress*. This section provides a qualitative examination of where senior congressional staffers seek out scientific information and how they value different sources. The results reveal how party leadership positions and industry lobbyists are prioritized over academic scientists and universities. Following these findings, I provide research-based recommendations for scientists working with Congress to help translate science for informed and inclusive evidence-based policies. A refined version of Figure 6. based on that analysis is provided and discussed further in the conclusion.

During detailed interviews with senior congressional staffers who served in their roles over multiple administrations, additional themes emerged. As a result, subsequent chapters explore themes related to diversity and representation in decision-making and how and why changes in Congress have taken place over time.

The body of work that follows is split into three chapters and a conclusion that ties them together. Each section is related to the others but intended to be published as a stand-alone article. Therefore, descriptions of methods and data may appear partially repetitive throughout the body of this dissertation.

Chapter 3, *Left out of the Room Where it Happens: Barriers to Serving in Senior Congressional Staff Roles May Limit “Representativ*e” *Science Policymaking*, focuses on the identities of the staffers serving in senior roles and explores challenges to obtaining those influential positions. Given that the individual life histories and experiences of congressional staffers may shape their attitudes and decisions, it is crucial to understand more about their backgrounds, their diversity, and which communities are and are not well-represented.

This chapter examines the challenges to acquiring and maintaining key positions in scientific policymaking at the federal level. The results shed light on why some individuals have an unequal advantage in obtaining senior staff roles while others struggle to stay in Congress long enough to achieve elite legislative positions. The data reveal that a lack of opportunities for already marginalized communities may lead to inadequate representation in decision-making, especially on science policy issues related to justice and equity. Ultimately, this chapter makes policy recommendations to foster greater diversity in senior staff roles and to bring the perspectives of more Americans into the science policy decision-making process.

Chapter 4, *Senior Congressional Staffers' Perceptions of How and Why Policymaking Has Changed in the United States Over 50 Years*, provides a qualitative examination of how and why senior congressional staffers – informed congressional insiders - perceive that policymaking has changed between the 1970s and 2020s. The results reveal that increasing polarization and a changing media environment have fractured relationships, eroded trust, and raised concerns about the ability to effectively govern.

The objective of this dissertation is to examine the attitudes, experiences, and perspectives of people making critical science-related policy decisions in the U.S. Congress. Their actions shape policy outcomes in ways that impact people and biodiversity around the world. I hope that this information will help to prepare, inform, and empower scientists, science advocates, and scientific organizations to meaningfully share their findings with decision-makers toward evidence-based policy outcomes.

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CHAPTER 2

The Value of Scientific Sources to Senior Legislative Staff in the U.S. Congress

2.1 Abstract

Despite increasing interest in policy within the scientific community, vast gaps in understanding persist between scientists and lawmakers. By understanding more about the dynamics of information exchange within congressional offices, scientists may be better equipped to translate their research to policymakers in ways that promote evidence-based decisions. Through semi-structured interviews with 26 current and former senior legislative staffers in the United States House of Representatives and Senate, this study provides a qualitative examination of where senior legislative staffers seek out scientific information and how they value different sources. The study reveals that party leadership positions and industry lobbyists are prioritized over academic scientists and universities. It also provides research-based recommendations for scientists working with Congress to help translate science for informed and inclusive evidence-based policies.

Keywords: science, policy, science policy, policymaking

2.2 Introduction

From public health to the economy, every global challenge involves science and technology. Policy engagement by scientists is critical to achieving evidence-based policies and allowing new advances to reach their full potential. The effective translation of scientific information is required for the successful use of science in policy (Akerlof et al., 2018) and helps to define national priorities, promote research and innovation, and influence the future of leadership.

In recent decades, there has been much discussion of how to bridge the disconnect between science and policy to make information more accessible to decision-makers and promote the role of evidence in the political landscape. Hotez (2023) urges scientists to speak out to counter misinformation. Mooney and Kirshenbaum (2009) argue that scientists should develop expertise through training in fields like communication, policy, and education.

Akerlof et al. (2018) recognize that the successful communication of science serves as a prerequisite for the successful use of science in policy. Their work considers the styles and purposes of communication, ultimately supporting a general science usability model based on earlier work by Lemos et al. (2012) that prioritizes fit, interplay, and interaction. 1) Fit relates to how users understand that information meets their needs. 2) Interplay relates to how that information relates to existing decision routines. 3) Interaction relates to how the relationships between decision-makers and scientists increase its use.

Despite increasing academic attention to the ways that policymakers access and integrate scientific information into their decisions (Akerlof, et al. 2022; Douglas, 2009), evidence-based findings are often still not prioritized in the decision-making process (Meinke et al. 2006; Lemos et al. 2012; Bauler, 2012). Sarewitz (2004) describes that while science may help clarify issues, facts are not enough because science is one of a “plurality of cultural factors that help determine how people frame a particular problem or position.”

A 2017 report by the National Academies of Sciences, Engineering, and Medicine found that evidence to date on communicating with policymakers is lacking. Vast gaps in understanding persist between scientists and decision-makers (Hetherington and Phillips, 2020). Whiteman’s (1995, 1985) studies demonstrate the importance of policy process dynamics in Congress, although they were not specific to science. Other scholarly work has focused on policy utility, directed at scientists and experts to create clearer and better-packaged information to achieve greater influence in legislative decisions (Petty et al., 2018).

Because elected leaders cannot possibly develop expertise on each issue their offices must address (Morgan and Peha, 2003), they rely on senior staffers in their offices to deal with excessive responsibilities (Hall, 1996). As a result, these individuals act as the nation's "unelected representatives," shaping policy without electoral accountability (Malbin, 1980).

Staffers make recommendations and draft legislation, but few studies have examined their crucial role in policymaking (Hertel-Fernandez et al., 2019, Montgomery and Nyhan, 2017). They prepare the positions of elected officials by gathering information and meeting with constituents, scientific experts, and other groups and are frequently provided with conflicting recommendations from different lobbyists, experts, and institutions. Therefore, a more comprehensive understanding of how scientific information informs and motivates legislative staffers in their decisions will help scientists best inform the legislative process.

Elected leaders and their staff act on information that meets an individual's thresholds for relevance, credibility, and legitimacy (Cash et al., 2002; Clark et al., 2016). Relevance relates to issue salience and the significance of information to a policy maker or stakeholder's choices (Heink et al. 2015). Credibility refers to whether the information is scientifically plausible, trustworthy, and has technical merit. Legitimacy is the degree to which information is perceived as unbiased, procedurally fair, and representative of constituents and policymakers. This "relevance, credibility, legitimacy," or RCL, quality criteria framework is considered necessary for scientific information to move into policy discussions and decisions (Meinke et al. 2006). An understanding of the multiple roles that staff play in knowledge transfer can be crucial for information to lead to policy action (Petty et al., 2018).

Hertel-Fernandez et al. (2019) found that voting members are presented with suggestions and talking points through the often-biased perceptions of staff persons. Sources of bias are assumed to be partisan (Crosson et al. 2021), but many factors can influence how reports and recommendations are interpreted and utilized. Furnas et al. (2024) described the partisan use of science by policymakers but also identified cases of bipartisan-cited scientific information despite a polarized political climate.

Strategies for accessing, constructing, and evaluating information can affect how people interpret information, and directional goals can influence decisions toward a desired outcome (Kunda, 1990). For example, motivated reasoning may lead individuals to seek out new data that fits or reinforces their already-held beliefs providing reasonable justifications for the policies they prefer (Christensen & Moynihan, 2020). Such phenomena may influence the interpretation of new data and recommendations within congressional offices, but we know little about how congressional staffers seek out and prioritize scientific information.

By conducting a research study of senior congressional staffers involved in federal science policy oversight in the United States House of Representatives and Senate, this study provides a qualitative examination of where policymakers go and who they prioritize when they seek out science-related information.

2.3 Methods

Grounded theory (GT) methodology (Corbin and Strauss, 2008) was used in this qualitative study to develop theories as testable ideas grounded in the data. Through a systematic process involving ongoing comparisons during analysis (Charmaz, 2014) significant ideas and keyword relationships were identified that account for data collected during interviews with staffers (Wolfswinkel et al. 2013).

Participants

To learn about where congressional staffers seek out science-related information in the policy process, 26 current and former senior staffers were interviewed. Their roles included chiefs of staff, legislative directors, legislative assistants, and specialist committee staffers.

Despite significant challenges to recruiting staffers for qualitative examinations of Congressional dynamics (Steiman and Suhay, 2023), the author had the unique opportunity to recruit participants to participate in this study because of her prior role as a Senate staffer. She also drew on relationships within her unique network of politically connected communities. Many staffers interviewed stated they would not have consented to participate in any other investigation. Although this limits the ability to replicate the research, the sample included high-ranking congressional staffers who do not appear as a community in prior analyses. Participants were also invited into this study through a technique called snowball sampling (Noy, 2009).

Between March 14, 2022, and September 14, 2022, staffers were interviewed for time spanning 16 minutes to over two hours. Due to the COVID-19 pandemic, all interviews were conducted via Zoom (Qumu Corp.). According to Jenner and Myers (2018,), Zoom interviews do not reduce rapport or personal disclosure when compared with in-person interviews (Johnson et al., 2021).

All subjects were asked a series of semi-structured, open-ended questions related to the role and influence of scientific knowledge on policy implementation and decision-making (See Appendix A). Questions were revised in a cyclical process as data was gathered as staffers' responses revealed patterns and themes using an inductive approach. GT was used to determine 1) where participants seek scientific information and 2) what sources of information are prioritized.

All had drafted science policy legislation in the U.S. Senate and House of Representatives. Participants were geographically and ideologically diverse and included staffers from 15 Democrat and 11 Republican offices (Table 1). Ten were female and 16 were male. Genders were distributed almost evenly between political parties. Without being asked, four participants shared that their personal party affiliation was not the same as the party of their most recent office role.

Participants had distinct educational backgrounds. Training included degrees in law, political science, history, the military, marketing, and science. Their offices represented constituents distributed across the United States, including the Northeast (4), Southeast (4), Southwest (4), Midwest (3), and West (4). Eighteen subjects were employed during previous administrations and 8 were current or recently departed senior staffers. Both current and former staff were included to consider whether those presently serving in staff roles would respond differently than those with additional time and distance from their experience. The current or last position they had took place in personal (19) and committee offices (7). Committee staff are responsible for research and gathering information on policy issues within their jurisdiction.

The last or current role participants held in Congress included legislative assistant or researcher (11), chief of staff (10), and legislative or staff director (5). Most had held multiple roles in more than one office through different administrations. All participants were involved in drafting and recommending legislation to members of Congress.

The protocol was approved by Michigan State University's Institutional Review Board and all staffers received an introduction to the study and all gave written consent to participate (See Appendix A).

Study design

Interviews involved questions related to personal information, science policy issues, and observations and attitudes. Subjects provided information about their education and training, experience, and where they would hypothetically look for information on three science policy issues. These included 1) per- and polyfluoroalkyl substances (PFAS) 2) genetically modified organisms (GMOs) and 3) climate change. Topics were chosen that reflect current policy debates where public awareness and opinion may not reflect scientific consensus (Pechar et al., 2018). Participants were given unlimited time to respond to each question.

Interviews were transcribed and data were chunked by theme according to Chi (1997). Transcripts were verified individually for accuracy against the original Zoom recording. Coded phrases and excerpts from interview transcripts were applied using the qualitative data analysis software Dedoose (SocioCultural Research Consultants, 2021). Extraneous information and personal stories were removed, bringing about a more directed coding scheme that helped to determine significant themes.

Excerpts were analyzed and combined into categories based on the study questions and related phenomenon and context (Strauss and Corbin 1990). Through selective coding - core concepts were chosen through the coding process to identify overarching themes that reflect the views of participants. A second reader went through 30% of the transcripts in detail for reliability to ensure that excerpts matched assigned codes and there were over 85% overlapping views of themes. No additional interviews were conducted after 26 interviews when theme saturation occurred.

2.4 Results

Forty-five codes were identified categorized using axial coding methods. The three science policy issues asked about during interviews did not appear to influence where participants would seek out scientific information and most did not have enough understanding of these issues to draw conclusions or recognize discernable differences in approach. Most responses were generalized to all science-related policy issues or participants provided nearly identical responses to inquiries about each of the three topics.

Six key interrelated themes emerged related to the priority of scientific sources of information to senior congressional staffers: Party recommendations, Trust and relationships, Views on academia, Time working in Congress, Institutional memory, and Constituent engagement (Table 2).

Party Positions Are Prioritized First

On every issue discussed that senior congressional staffers had personally worked on in Congress, both Republicans and Democrats describe that they most often begin a search for information by turning to party leadership.

> *"On the Hill, by and large, you work for one party or the other. You work for the Democrats, or you work for Republicans. And even on issues that are not partisan, you're still working for one side. You might be working for a really moderate member, but at the end of the day, that moderate member is accountable to the speaker or the minority leader. It's always the frame in which you have to look at everything…You don't want to give [the opposing party] wins." (P5, Democrat)*

Party politics had the most significant role in determining office positions before scientific experts and data. Staffers frequently sought out information to confirm the position that their member or party already held indicative of motivated reasoning and confirmation bias.

> *"It wasn't really like, what does the research say? It's like, what are the politics and what can get member votes? Politics drove decision making more than actual evidence." (P20, Republican)*

Even when staffers were aware that the policy decision their party favored was scientifically inaccurate, they acknowledged feeling pressure to conform with leadership.

> *"We were all at least trying to find a way to defend [the party's] talking points. That sounds so partisan, but I mean, truly, making sure that the message was consistent… there even was a lot of hyperbole on our team…trying to say a lot of things that perhaps are a little bit of a stretch and weren't accurate… We would definitely be looking for science and information and experts that would support [the party's] position." (P7, Democrat)*

Notably, this expectation led to personal frustration and feeling obligated to support a specific party policy position with little opportunity to voice alternatives.

> *"I didn't like the sense that the RNC [Republican National Committee] would just write some talking points and my job was essentially to just reframe them with, like, a little state sprinkle in there or something." (P26, Republican)*

Staffers Depend on Trust and Relationships

Strong relationships play a key role in how information is shared on Capitol Hill. Staffers expressed placing a high value on trusted individuals they felt a personal connection to within and outside of Congress as important sources for scientific information.

> *"A lot of the time, it's individuals, you know, people…I either know, or, or know them indirectly…just a friends of friends sort of situation." (P23, Democrat)*

A lack of understanding of the culture of Capitol Hill among scientists from research universities and NGOs emerged as a recurring topic during interviews. In general, they described that the science community has not been as effective as other lobbyists at building meaningful relationships with members of Congress and their staff.

> *"Some of our non-industry stakeholders [like scientists] need to invest a little bit more in lobbying, I think that would help us." (P21, Democrat)*

Attitudes About Scientists Impact the Reception of Scientifically Relevant Information

Multiple participants viewed academic scientists as unable to see the complexities of policy challenges beyond a single specific lens. Several described instances when they felt scientists did not recognize that data alone does not tell a complete story. As Sarewitz (2004) describes, facts can be arranged in all sorts of different ways to support completely different versions of a situation. Rather than provide clarity, they often inflame controversies and can widen the partisan divide.

> *"[Scientists] come in here thinking that facts are facts and data should influence people in certain ways. And it's not the case." (P12, Democrat)*

Others explained how policy decisions are complicated, and not simply about data.

> *"Just data on a piece of paper doesn't always help you understand the implications." (P19, Democrat)*

Colleges and universities were not identified as a top source for participants seeking out scientific information and were described as a lower valued source. Academic scientists were most likely to be considered or consulted when their institution resided within the state of the congressional office. Several participants viewed academic findings with a lot of skepticism.

> *“The scientific or the political science community is obsessed with statistical modeling, and it just isn't [that] predictive. And to the extent it is predictive, it is predictive for reasons that are… correlated but not causation. People just rely on the statistics, and they miss a lot of what's actually going on because they're like, my model shows that this is true. And I just find that really annoying.” (P2, Republican)*

Participants described overlapping, uncoordinated efforts by scientists and university legislative officers on single scientific issues, as well as the sense that data delivery was objective, and cherry-picked to press for the policies they preferred.

> *“I'm a big fan of evidence-based decision making and using data to drive decisions. But… it did frustrate me how research [gets used and presented].” (P20, Republican)*

Notably, academic scientists were frequently described as being disconnected from the policy world with little understanding of the process.

> *“There's a lot of folks who have a lot of technical expertise on something who have no idea what it's like to be a staffer.” (P21, Democrat)*

Some participants voiced concern that academic scientists favor reaching out to Democrats over Republicans.

> *“I think it's very important for [scientists] that want to go talk with Congress that you're able to talk with, with all sides. You can't if you're just talking to Democrats because you think they're going to vote right? That's pretty short-sighted.” (P4, Democrat)*

In turn, multiple subjects expressed that many Republican staffers openly do not trust academics.

> *"Anything that seems to be coming out of universities or the academies is going to be automatically distrusted [by the Republican party]." (P9, Democrat)*

Time in Congress Shapes Top Information Sources

The longest-serving staff members leaned most heavily on colleagues, committee staff, and industry lobbyists for information on policy issues related to science.

> *"There were people on the committee staff… I knew people who were lifers, and boy, did they know the issues. They knew where the bodies were buried in the agencies. They'd seen it all [and recognized when policy] ideas were reinvented or rediscovered." (P9, Democrat, 17 years on staff)*

The most experienced senior staffers relied most closely on the personal relationships that enabled them to quickly find information.

> *"I would consult my senior colleagues… that have been there long [and are] pretty damn smart. And I'd be like, does this sound right? Like, it's so much of the job." (P5, Democrat, 12 years)*

Government resources like the Congressional Research Service, the Government Accountability Office, government agencies, and the Internet were most likely to be unitized by staffers who served in their roles for less than three years.

> *"I would certainly Google [a scientific topic] to research what it means and what has been done. I would try to see if I could find some contact people who are involved in the actual research and see if I could talk to them." (P12, Democrat, 3 years on staff)*

The Value of Institutional Memory

Staffers frequently expressed the enormous value of institutional memory among their colleagues and lobbyists, as well as regret for what gets lost when experienced people with a long history working on science policy issues leave. After priority to in-government resources such as committee staff and government resources and agencies, industry lobbyists were often sought out for scientific information specifically because of the depth of subject knowledge and history.

> *"A good [industry] lobbyist is worth their weight in gold. I mean, somebody will tell you straight, what their people are thinking, what kind of deal they can accept." (P9, Democrat)*

Industry lobbyists were viewed as an important source of scientific information by more than half of the participants, but some expressed concerns over how it may give certain special interests an outsized influence on science policy.

> *"If you don't have the institutional memory to make an independent judgment…lobbyists can run circles around you. And then you kind of lose trust in the assessment that the office is making because you feel like, well, they're just being overly influenced by people who know so much more about it and have a stake in it." (P14, Democrat)*

Participants who had served in their legislative roles the longest expressed the most concern about the loss of institutional memory with high staff turnover in offices.

> *"I don't want to sound like the old guy who says it was better in my time, but the level of expertise and institutional knowledge has gone down. And as a result, staffers are more likely to listen to whatever outside group or media sources they're comfortable with. And they have less of a capacity to judge or evaluate those arguments than people who have been around much longer." (P9, Democrat)*

Constituents Are Sought Out for Information, But Not Equally

In every office represented in the sample, the opinions of constituents were highly valued by senior staffers as an important source of information on science issues.

> *"What are my constituents thinking about it? What do their constituents think about it, and what are the real specific issues, and how are we going to get around some of those roadblocks?" (P16, Republican)*

Participants actively sought out the perspectives of the people in their state or district when presented with a topic for consideration.

> *"There was a lot of communication with member offices to kind of get their take for more of an on-the-ground perspective. What is the issue in their district?" (P3, Democrat)*

However, multiple participants also acknowledged they do not seek out information and opinions from all constituents equally, which may lead to bias.

> *"Staffers not reaching out [to constituents without the means to contact them] ... disproportionately affects vulnerable people and poor people more than any one political party… It basically affects people that don't have the means to get their ear and that could be anybody marginalized for whatever reason." (P1, Democrat)*

Additional Factors Related to Scientific Information Sources

There was an important distinction between sources of information related to the direction of information flow. Some sources were solely described as presenting scientific information to participants, while others were actively sought out for scientific information by staffers.

Highly valued sources such as committee staff were frequently approached first for information:

> *"Committee staff would be the first place I'd go…. because of the broadness of the topic, somebody that had a sort of a holistic view on what Congress was working on or talking about or potentially going to act on in the future." (P23, Democrat)*

Trusted industry lobbyists and think tanks were also prioritized and frequently called upon as a resource:

> *"I always would call the lobbyists [and ask] 'What are you guys saying about this?... Can you get me the information quickly and in a manner that I can understand? Can you tell me how this is going to impact the constituents of the members on the science committee? Can you tell me if this is going to be consistent with the President's budget request or not?'" (P24, Republican)*

Lower priority groups such as non-profit non-governmental organizations and advocacy groups were viewed with skepticism. They were frequently described as instigating meetings to deliver information in a one-directional exchange. They were perceived as competing for limited funding and other resources and driven by board obligations and hidden incentives.

> *"I learned about how conservation NGOs work and what they owe to their boards, and what they promised to their boards. That creates incentives and a perspective on the issue that I could then understand better where they were coming from, even if I still didn't agree with it." (P1, Democrat)*

Several staffers directly expressed mistrust and suspicion of think tanks.

> *"The think tanks were…so opinionated. It wasn't straight information…There were a couple that I'd say were pretty bipartisan, but even those had an agenda, and we knew it. And so, it was you know, don't kid yourself. They all raise money. And are funded by*

> *something and have some view that they're trying to book. Otherwise, they wouldn't receive their funding." (P22, Republican)*

Nonprofit organizations were often viewed through a similar lens.

> *"Well, why are the nonprofits in it?.. They're in for the money too, but they're in it for the fundraising dollars." (P24, Republican) "*

Finally, there was a sense that organizations and scientists frame nearly every issue they bring to the office as a crisis, and a staffer's job is to figure out what deserves their time and attention.

> *"My whole day is people coming in and telling me that they have a crisis that I need to address and 95% of the time they're not telling the truth and that I have to figure out the 5% of the time that they are… It's kind of like sorting through a lot of rhetoric that can be well-intentioned, but it's not necessarily directly aligned with what the science or the facts on the ground are telling you." (P21, Democrat)*

Prioritizing sources of information

After considering data from all interviews, the most frequently mentioned sources of information were prioritized based on how frequently each was mentioned and how favorable that source was considered by participants. These 10 sources in descending order of significance include 1) Party leadership 2) Committee staff 3) The Internet 4) Constituents 5) Staff colleagues 6) Government Resources (ex. The Congressional Research Service) 7) Industry lobbyists 8) Academic scientists 9) Think tanks and 10) Non-governmental organizations (Fig. 7). Themes identified in the research are reflected in Figures 7a-7e.

2.5 Discussion

Among high-ranking congressional staffers, the value placed on scientific information appears to be dependent upon multiple interrelated factors associated with both its source – the origin of the information - and the messenger – the channel by which it's delivered (Kasperson et al. 1988). Party recommendations, relationships and trust, and views on academia came up in 25 of 26 interviews with participants. All three appear to play a very significant role in where congressional staff utilize scientific information in policymaking.

The hierarchal nature of Congress and an ongoing focus on reelections and fundraising goals require that party leadership positions play a vital role in the policy-making process. Staffers' comments prioritizing trusted relationships align closely with previous work highlighting how relationships with high levels of trust influence attitudes ascribed to information salience, credibility, and legitimacy and the RCL framework (Kirchhoff et al., 2013; Cash et al., 2002).

Academic scientists are not a high-priority channel for congressional staffers compared with many other messengers of science-related information. Some staffers view sources like universities and colleges with suspicion and mistrust, while others seek out expert opinions primarily from those who reside in their districts and states. Data also suggest anti-elite bias echoing Merkley's (2020) conclusion that people with high levels of anti-intellectualism demonstrate high levels of opposition to the acceptance of expert consensus. Some participants interviewed for this study expressed that Republican staffers would not trust information from universities and academic scientists.

A recurring theme throughout interviews with Republican and Democrat staffers centered around a lack of understanding of the social dynamics on Capitol Hill among scientists from research universities and NGOs. This may reflect a lack of coordinated leadership from the science community broadly when multiple groups approach congressional offices about the same topic without a common clear message, mission, and shared sense of responsibility.

Several participants acknowledged they do not seek out information from all constituents equally, which supports Miler's (2010) conclusion that the most active and resource-rich people are recognized by policymakers more than their peers. Similarly, Pereira (2020) added that policymakers can misperceive the values and preferences of their district or state due to unequal exposure to different sub-constituencies and a tendency to project their preferences.

Although congressional staffers place a high value on constituents as sources of information, Hertel-Fernandez et al. (2019) described that they are not always able to accurately recognize the policy preferences of the people they represent. For these reasons, personal biases and relationships with interest groups have likely driven a disconnect between what decision-makers perceive that constituents want and actual public opinion. Broockman and Skovron (2018) found that both Republican and Democrat policymakers dramatically overestimated constituents' support for conservative policies, although Republican overestimation was greater.

Traditional accounts of information flow in congressional offices have frequently portrayed a one-way relationship where groups or constituents meet with legislative staff to influence policy outcomes (Kalla and Broockman, 2016), however, Henderson et al. (2021) described lobbying as a "two-way street" when it comes to constituents, where staff acquire information by reaching out to key constituencies. The data collected for this study focused specifically on science policy information and supports a model that is context-dependent based on the source and channel and may or may not involve two-way information flow between congressional staff and individuals, groups, and organizations.

The data suggest that staffers most often turn to individuals and groups where they have built trusted relationships over time that satisfy the RCL framework (Cash et al., 2002; Clark et al., 2016). Party leadership, committee staff, and lobbyists are favored over specialized scientific experts and other sources.

In this way, an overreliance on trusted familiar sources could result in bias. For example, staffers may favor scientific evidence that supports their existing beliefs due to confirmation bias (Nickerson, 1998). Motivated reasoning can encourage them to support policies that align with their prior attitudes rather than those that counter their worldview. In turn, the priorities and motivations of their party can have an outsized influence on how staffers gather and interpret new information, leading to policy outcomes based on their party's overarching preferences and motivations.

Research-based Recommendations

Going forward, scientists and institutions focused on research with policy implications will be more effective if they consider how their interactions with congressional offices can influence legislative priorities and actions. What follows are research-based recommendations for scientists working with Congress to help translate science for policy.

i. *Build relationships.* The longest-serving members of legislative staff lean most heavily on their relationships with colleagues and lobbyists, giving those sources of information priority over visiting scientists and academic contacts outside of government. Additional efforts and resources that promote repeated science policy engagement by individual scientists over time may improve efforts toward science-informed decisions (Oliver and Cairney, 2019).

ii. *Promote congressional literacy.* A lack of understanding of the social dynamics on Capitol Hill among scientists has been a common theme during interviews. While colleges and universities have increased attention to science communication in recent decades, the U.S. Congress represents a unique audience operating with hierarchal dynamics and distinct motivations. Providing on-campus training by those with first-hand congressional policy experience might help scientists interested in policy engagement to be more effective lobbyists for greater impact on decision-making.

iii. *Break boundaries and build community.* Large research universities often have limited legislative offices and staff around Washington, D.C. Rather than approach scientific issues individually, broader collaboration among multiple institutions that incorporate a better understanding of Capitol Hill dynamics would boost the likelihood of influence in legislative discourse. A more unified approach would also diminish the perception that groups and institutions are competing for resources. Efforts would benefit through coordinated messaging, an agreed-upon mission, and a shared sense of responsibility.

iv. *Define leadership and followership lobbying roles.* The peer-reviewed literature that explores the translation of scientific information within Congressional offices has barely scratched the surface of relationship dynamics within the science community. Research in military psychology and medicine describes how team members with a common goal benefit when they commit to a shared mission and a shared sense of responsibility to achieve that mission (Barry et al., 2021). However, such efforts can be hampered by traditional hierarchies (Gordon et al., 2015) which persist in academic institutions. Defining clear leader and follower roles before visiting congressional offices might enable scientists and science advocates to be more successful as a team because all members would understand and agree on responsibilities and expectations beforehand. In this way, they would best coordinate all efforts in ways that could boost collaboration and communication and may improve policy outcomes.

v. *Present inclusive research.* The underrepresentation of marginalized groups in senior policymaking roles poses a significant challenge to representative decision-making. As a result, the perspectives and priorities of some Americans are largely absent from the legislative staff community and not likely well recognized in policy considerations and decisions (Kirshenbaum, 2024). Presenting research committed to diversity, equity, and inclusion will make marginalized communities more visible to decision-makers in the policy process.

2.6 Conclusion

This paper provides insight into how different scientific messengers are valued and prioritized by high-ranking legislative staff in congressional offices of the U.S. House and Senate. Scientists may use these findings to inform their communication strategies to legislative staff. Beyond reporting on research and data itself or the packaging of ideas, the results suggest that identifying the right messenger, building trust, and developing long-term relationships with staffers will continue to be crucial to promoting evidence-based policies.

2.7 Limitations

This study has several significant limitations that must be considered. As the sole researcher in this project, I also recruited all participants, conducted interviews, and developed and refined questions, and thematic analyses. Data gathering, interpretation, and analysis during qualitative research are never free from preconceptions. I acknowledge the risk of influence by positionality and prior experiences in research and policymaking, as well as unconscious bias.

Additionally, participants may have responded to questions in ways that cast themselves, their offices, members, or their political parties in a favorable manner. The methodology aimed to reduce the chance of such bias by maintaining confidentiality. Given the research was limited to twenty-six participants, the results do not represent all senior legislative perspectives in the U.S. House and Senate related to science-related decision-making.

2.8 Acknowledgments

The author would like to thank all participants who participated in interviews for this research, as well as her colleagues who discussed the study design, research, and findings in detail.

Tables

Participant	Sex	Geographic region	Political Party	Years
1	F	NE	D	<5
2	M	MW	R	5-10
3	M	Committee	D	<5
4	F	Committee	D	15-20
5	M	Committee	D	11-15
6	F	Committee	D	<5
7	M	MW	D	5-10
8	F	Committee	R	<5
9	M	SE	D	15-20
10	M	SW	D	35-40
11	M	SW	R	5-10
12	M	W	D	<5
13	M	SW & W	R	10-15
14	M	NE	D	15-20
15	F	SW	D	5-10
16	M	Committee	R	5-10
17	M	SE	R	<5
18	M	SE	D	15-20
19	F	NE	D	5-10
20	F	SE	R	5-10
21	M	W	D	<5
22	F	Committee	R	5-10
23	M	W	D	<5
24	F	NE	R	15-20
25	M	W	R	25-30
26	F	MW	R	<5

Table 1. Table describing participants.

F = Female; M = Male; D = Most recently in a Democratic office; R = Most recently in a Republican office; NE = Northeast; MW = Midwest; SE = Southeast; SW = Southwest; W = West; Committees may be made up of members from different geographic regions. Adapted from Kirshenbaum, 2024.

Theme	**Frequency**	**Relative Frequency**
Party recommendations	25	.96
Trust and relationships	25	.96
Views on academia	25	.96
Time working in congress	24	.92
Institutional memory	18	.69
Constituent engagement	16	.62

Table 2. Theme frequency. Theme frequency accounts for the number of times this theme occurred out of 26 interviews.

Figures

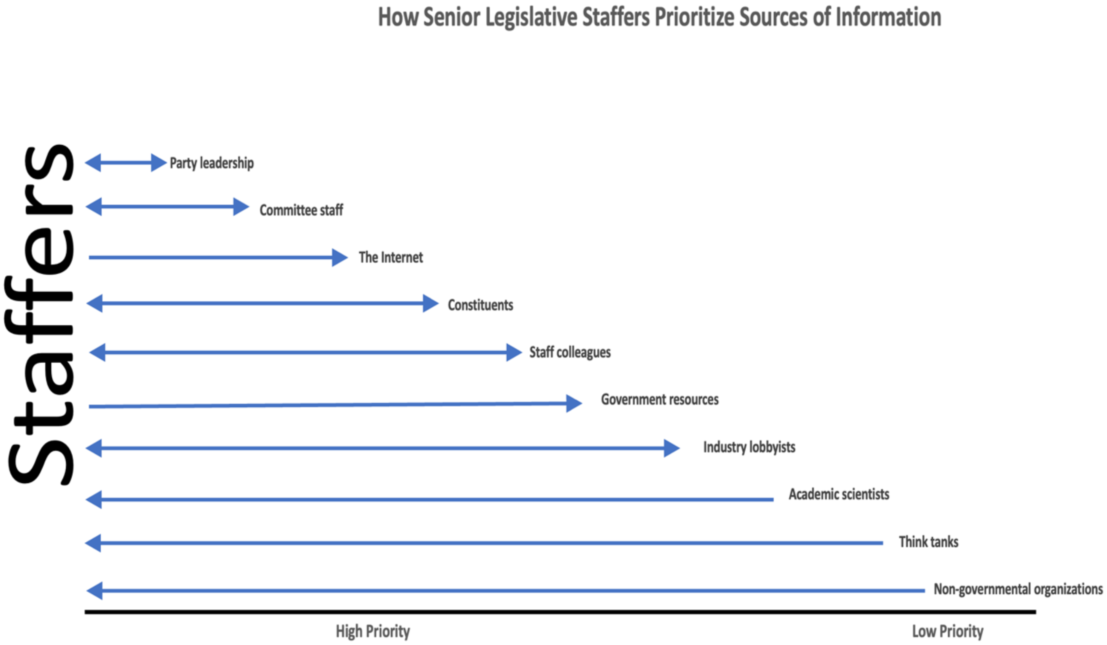
How Senior Legislative Staffers Prioritize Sources of Information
Staffers
Party leadership
Committee staff
The Internet
Constituents
Staff colleagues
Government resources
Industry lobbyists
Academic scientists
Think tanks
Non-governmental organizations
High Priority
Low Priority

Figure 7. Model of information source priority from aggregate interview data. Arrows indicate one vs. two-way information flow based on which group is commonly described as initiating and receiving information related to science policy.

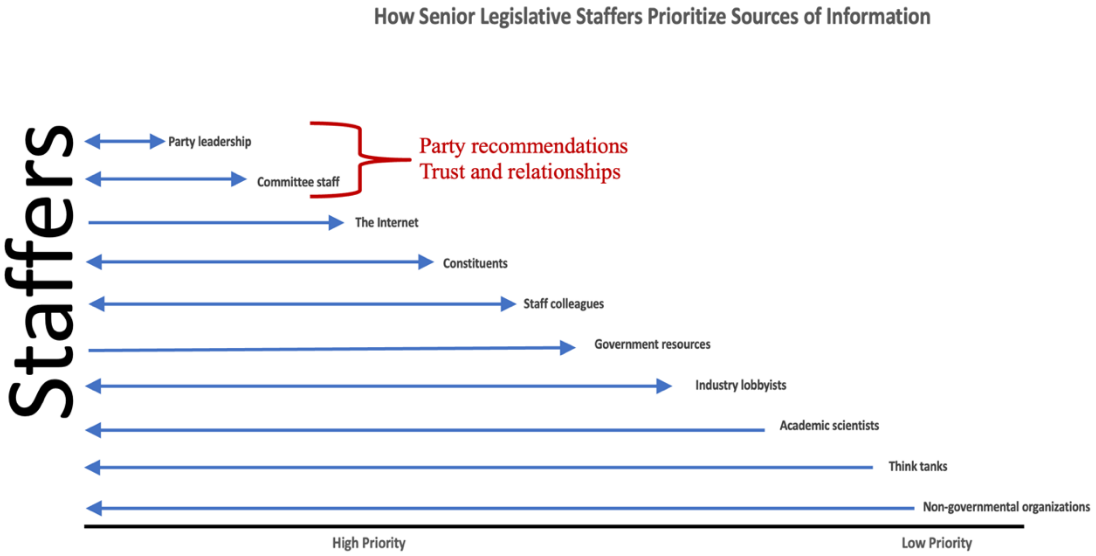
How Senior Legislative Staffers Prioritize Sources of Information
Staffers
Party leadership
Committee staff
Party recommendations
Trust and relationships
The Internet
Constituents
Staff colleagues
Government resources
Industry lobbyists
Academic scientists
Think tanks
Non-governmental organizations
High Priority
Low Priority

Figure 7a. Party recommendations and trust and relationships influence why party leadership and committee staff are highly prioritized as sources of information by congressional staffers.

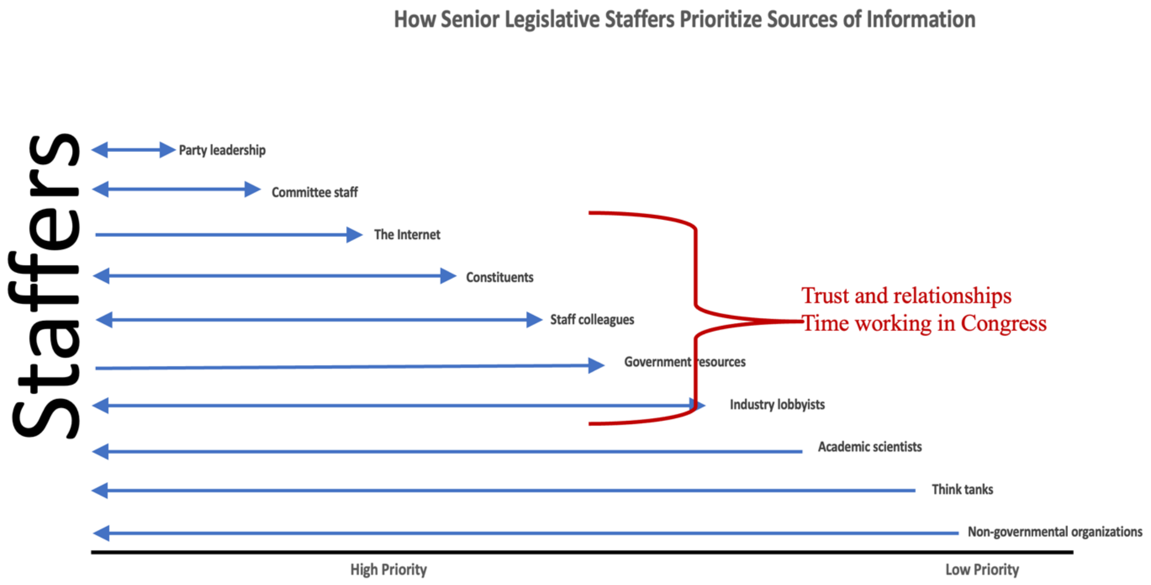
How Senior Legislative Staffers Prioritize Sources of Information
Staffers
Party leadership
Committee staff
The Internet
Constituents
Staff colleagues
Government resources
Industry lobbyists
Academic scientists
Think tanks
Non-governmental organizations
Trust and relationships
Time working in Congress
High Priority
Low Priority

Figure 7b. Trust and relationships and time working in Congress shape how staffers value information from the Internet, staff colleagues, government resources, and industry lobbyists.

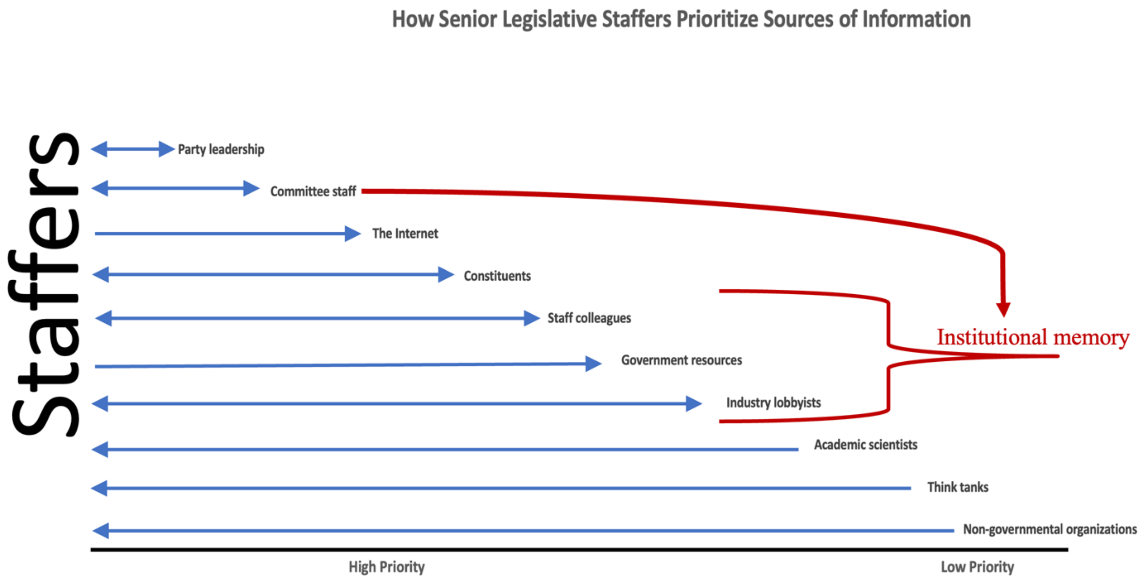
How Senior Legislative Staffers Prioritize Sources of Information
Staffers
Party leadership
Committee staff
The Internet
Constituents
Staff colleagues
Government resources
Industry lobbyists
Academic scientists
Think tanks
Non-governmental organizations
Institutional memory
High Priority
Low Priority

Figure 7c. Institutional memory influences how staffers value information from committee staff, staff colleagues, government resources, and industry lobbyists.

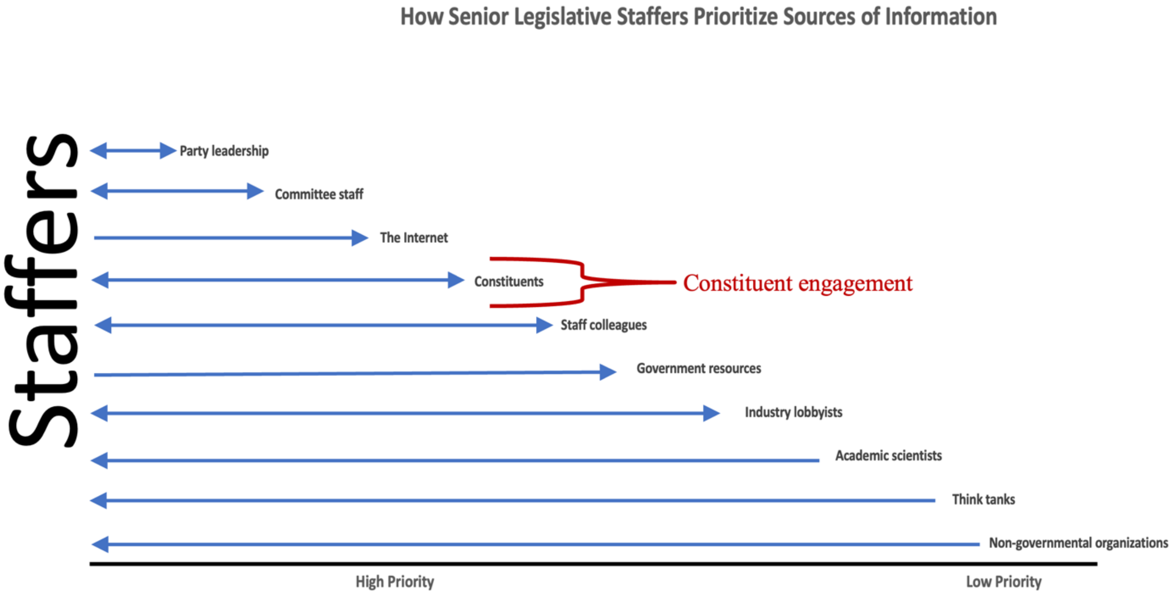
How Senior Legislative Staffers Prioritize Sources of Information
Staffers
Party leadership
Committee staff
The Internet
Constituents
Constituent engagement
Staff colleagues
Government resources
Industry lobbyists
Academic scientists
Think tanks
Non-governmental organizations
High Priority
Low Priority

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Figure 7d. Information from constituents is highly valued by congressional staffers.

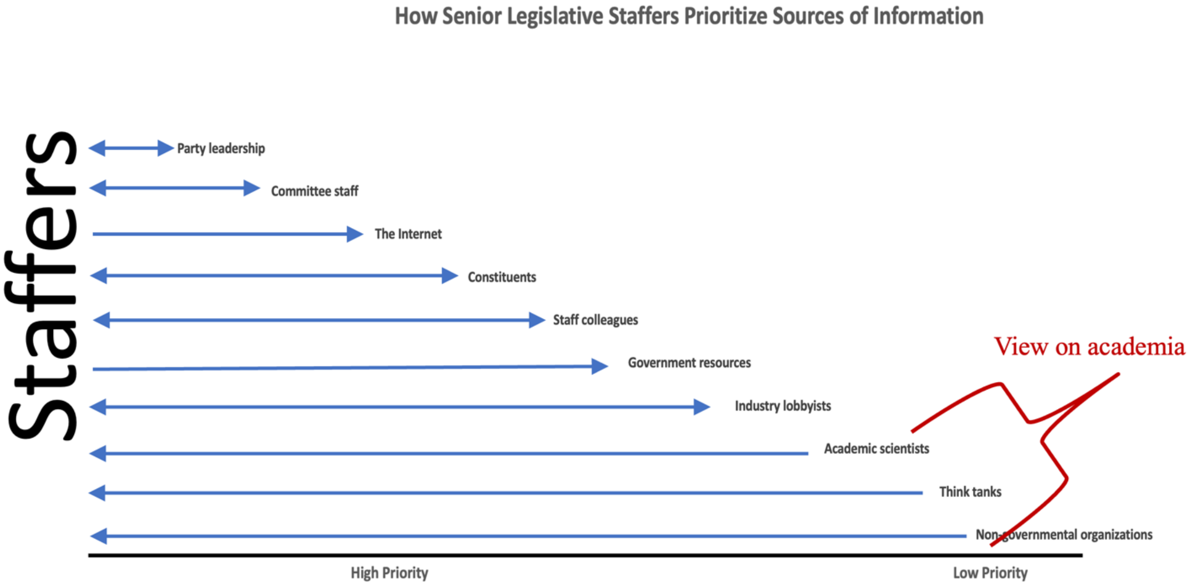
How Senior Legislative Staffers Prioritize Sources of Information
Staffers
Party leadership
Committee staff
The Internet
Constituents
Staff colleagues
View on academia
Government resources
Industry lobbyists
Academic scientists
Think tanks
Non-governmental organizations
High Priority
Low Priority

Figure 7e. Attitudes related to academia influence why academic scientists, think tanks, and non-governmental organizations are of low priority as sources of information by congressional staffers.

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APPENDIX A: QUESTIONS FOR STAFFERS AND CONSENT FORM

Questions for staffers

Anticipated time: Approx. 15-30 minutes

1) How long have you worked as a staffer?
2) Have you had any science training?
    a. If yes, tell me about that.
    b. If no, what did you study
3) Do science policy issues interest you personally?
4) In your work, do you deal with science policy issues?
    a. If yes, when it comes to science policies, what are your resources?
    b. If no, move on
5) Who do you trust most for accurate information related to science policies?
6) Are you familiar with the term PFAS?
    a. If yes, your boss needed more information related to PFAS exposure risk, where would you look for information?
    b. If no, where would you look first to learn more?
7) Are you familiar with the term GMOs?
    a. If yes, your boss needed more information related to GMOs, where would you look for information?
    b. If no, where would you look first to learn more?
8) Are you familiar with climate change?
    a. If yes, your boss needed more information related to climate change, where would you look for information?

   b. If no, where would you look first to learn more?

9) Do you feel party affiliation influences the way you seek out information about specific issues?

10) Do you feel party affiliation influences the way other staffers seek out information about specific issues?

Research Participant Information and Consent Form

Study Title: Exploring the Role of Legislative Staffers in Decision Making on Science Policy.

Researcher and Title: Sheril Kirshenbaum, Academic Specialist and Rebecca Jordan, Professor

Department and Institution: Community Sustainability, Michigan State University

Contact Information: Sheril Kirshenbaum (sheril@msu.edu) Rebecca Jordan (jordanre@msu.edu)

BRIEF SUMMARY (This is a general informed consent requirement)

You are being asked to participate in a research study. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation including why you might or might not want to participate, and to empower you to make an informed decision. You should feel free to discuss and ask the researchers any questions you may have.

You are being asked to participate in a research study of how legislative staffers make decisions on science policy issues. Your participation in this study will take approximately 30 minutes. You will be answering questions in an interview. To participate in this research, you will only need to consent to allow researchers to record your responses. Your name will not be attached to these interviews in anyway. If you decide not to take part in this research study, you should know that there will be no penalty to you.

There are no foreseeable risks to your participation in this study.

You will not directly benefit from your participation in this study. However, your participation in this study may contribute to the general understanding of how scientific information informs and moves within legislative offices. Participation is voluntary, you may choose not to participate at

all, or you may refuse to participate in certain procedures or answer certain questions or discontinue your participation at any time without consequence.

PURPOSE OF RESEARCH

The purpose of this research study is to learn how legislative staffers make decisions on science policy issues.

WHAT YOU WILL BE ASKED TO DO

You will be asked to answer interview questions about your background and role is decision making on science policy issues. Researchers will look at this information.

POTENTIAL BENEFITS

You will receive no direct benefit.

POTENTIAL RISKS

There are no foreseeable risks to your participation in this study.

PRIVACY AND CONFIDENTIALITY

Data and consent forms will be kept for a period of five years on a password protected hard drive and then all information will be deleted.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

You have the right to say no to participate in the research. You can stop at any time after it has already started.

There will be no consequences if you stop, and you will not be criticized or penalized.

CONTACT INFORMATION

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researcher (Sheril Kirshenbaum, 446 W. Circle

Drive, Justin S. Morrill Hall of Agriculture, East Lansing, MI 48842, sheril@msu.edu and 517-355-0123).

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, us anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

DOCUMENTATION OF INFORMED CONSENT.

Checking the box below means that you voluntarily agree to participate in this research study.

check box ___ Date

You can have a copy of this form to keep. If you wish, please contact sheril@msu.edu.

CHAPTER 3

Left out of the Room Where it Happens: Barriers to Serving in Senior Congressional Staff Roles May Limit "Representative" Science Policymaking

3.1 Abstract

Policymakers are expected to represent the constituents of their districts and states. Given that the individual life histories and experiences of congressional staffers may influence their attitudes and decisions, it is crucial to understand more about the people serving in these roles, their diversity, and which communities are and are not well-represented. By conducting interviews with 26 current and former senior legislative staffers in the United States House of Representatives and Senate involved in drafting science policy, this study examines challenges to acquiring and maintaining key positions in scientific policymaking at the federal level. The results shed light on why some individuals have an unequal advantage to obtain senior staff roles while others struggle to stay in Congress long enough to achieve elite legislative positions. The results suggest that a lack of opportunities for already marginalized communities may lead to inadequate representation in decision-making, especially on science policy issues related to justice and equity. Ultimately, this article makes policy recommendations to foster greater diversity in senior staff roles and to bring the perspectives of more Americans into the science policy decision-making process.

3.2 Introduction

While elected leaders garner public attention in policy decisions, they rely on their staff to develop robust policies (Montgomery and Nyhan, 2017). Malbin (1980) describes these individuals as the nation's "unelected representatives" because they shape policy without electoral accountability. This largely unseen community gathers key information, meets with lobbyists and constituents, and drafts legislative language. Congressional staffers are tasked with making decisions that represent the attitudes and preferences of the people in each state or district but are often undervalued as critical influencers in policymaking (Hertel-Fernandez et al., 2019).

In her seminal work, Pitkin (1976) described that political representation should act in the interest of constituents. While decades of research have provided evidence that policy positions shift in response to public attitudes (Stimson, MacKuen, and Erikson 1995; Caughey and Warshaw 2018), not all constituencies have had the same ability to influence legislative outcomes equally (Bartels, 2008; Grossmann et al, 2021). Henderson et al. (2021) found that the most well-resourced and organized groups have the greatest impact on staffers and ultimately policy outcomes in ways that can reinforce existing biases and limit representative policymaking.

When making policy decisions, staffers can be influenced by their emotions, values, beliefs, unique identities, and experiences (Dunham, 2018; Steenbergen and Colombo, 2018). Membership in specific social groups may also lead to in-group-out-group bias (Tajfel & Turner, 1979). For these reasons, it is important to examine the people serving in congressional staff roles and consider how their experiences and identities may shape and have shaped science policy.

The career choices that lead individuals into these elite staff roles have been influenced and constrained by societal stereotypes, visible role models and mentors, socialization, discrimination, access to guidance and assessment, isolation from networks, education, imposter syndrome, and other sources of stress (Kerka, 2003; Blau and Kahn, 2016; Galsanjigmed and Sekiguchi, 2023). Such factors not only define who works in Congress but might influence their decisions.

Multiple analyses indicate a lack of racial diversity among staffers in the U.S. House of Representatives and Senate, particularly in senior roles (Ratliff et al., 2022; Brenson, 2022). On science issues that touch on public health, the environment, and technology — especially those related to justice and equity — it is possible that the communities most impacted lack a voice in the policy process.

Given congressional staffers play a key role in determining member and party positions, guiding appropriations, and establishing legislative priorities, this study of current and former senior legislative staffers in the United States House of Representatives and Senate aims to assess challenges to acquiring and maintaining staff roles in the context of science policy choices at the national level.

3.3 Methods

This qualitative study used grounded theory (GT) methodology (Corbin and Strauss, 2008) to develop theories as testable ideas grounded in the data. GT follows a systematic process that uses logic and constant comparisons during analysis (Charmaz, 2014) to identify important ideas and keyword relationships that explain the outcomes of interviews (Wolfswinkel et al. 2013).

GT was initially used to: (1) identify where participants seek scientific information and (2) what sources of information they trust. Twenty-six current and former senior congressional policy staffers were interviewed by asking a series of open-ended questions to learn about their experiences (See Appendix B). Questions were refined as new information came to light in a cyclical process through an inductive approach. Patterns in the data determined significant themes based on staffers' unique lived experiences and insights.

Although the initial research design was set up to understand where high-ranking legislative staffers seek out scientific information, challenges to work and participate in the science policy process as a staffer emerged as an important theme during the study.

Staffers were recruited through snowball sampling (Noy, 2009), a technique in which existing study subjects recruit future subjects from among their acquaintances. The study protocol was approved by Michigan State University's Institutional Review Board and participants received a written and oral introduction to the study and gave written consent to participate before each interview occurred (See Appendix B).

As a previous congressional staffer in the U.S. Senate 16 years before this research, I had unique access to recruit participants, including those in offices who stated they would not otherwise speak with scientists or participate in interviews. While this limits replicability, it provides a unique opportunity to examine a community that does not appear in prior research.

Due to the COVID-19 pandemic, all interviews were conducted via Zoom (Qumu Corp.). They were conducted between March 14, 2022, and September 14, 2022, and varied from 16 minutes to more than two hours. Multiple recent studies comparing video interviews with in-person interviews have reported no reduction in rapport or personal disclosure, interview duration, or substantive coding (Jenner & Myers, 2018, Johnson et al., 2021). All subjects consented to be recorded and were assured confidentiality.

Participants

The sample of 26 current and former staffers was thought to be ideologically and geographically diverse, including those who last worked in 11 Republican and 15 Democrat offices, of whom 16 were male and 10 were female (Table 3). Genders were distributed similarly between political parties. Two participants were people of color. Four individuals disclosed that their personal party affiliation did not match the party of the most recent office where they worked, although this was not a question asked. This is notable because the personal party affiliation of staffers may influence their decisions. All staffers included in the sample held top-level positions in the U.S. Senate and House for periods up to 40 years in Washington D.C. Those with less than five years of experience on Capitol Hill arrived with significant leadership experience elsewhere in and out of government.

Participants' most recent roles included chief of staff (10), legislative assistant or researcher (11), and legislative or staff director (5). Although many had held multiple roles in more than one office over different administrations, the current or last position they held took place in personal (19) and committee offices (7).

Current and former staffers were included to compare the responses of those presently in staff roles with others who had distance from Congress and additional time to reflect on the experience. Eight individuals were current or recently departed legislative staffers and 18 worked during previous administrations. The 19 member offices represented constituents geographically distributed across the United States, including the Southwest (4), Northeast (4), Midwest (3), West (4), and Southeast (4). They had diverse educational backgrounds including history, law, political science, the military, marketing, science, and history. All held a bachelor's degree and half (13) had an advanced degree. Two subjects earned PhDs, and both were in science-related fields. All participants were involved in drafting and recommending science-related legislation to members of Congress and gave written consent to participate in the research. Extraneous information and personal stories were removed, leading to a more directed coding scheme that enabled the identification of major themes.

Excerpts were aggregated, analyzed, and grouped into categories associated with the study questions and related phenomenon and context (Strauss and Corbin 1990). Selective coding determined connections between phrases that reflected the views of participants. For reliability, a second reader went through 30% of the transcripts in detail to ensure greater than 85% overlapping views of themes and to ensure that excerpts matched assigned codes. After 26 interviews, theme saturation occurred, and no additional interviews were sought.

3.4 Results

While questions were designed to explore legislative decision-making on science policy, challenges to work and to participate in the policy process as a staffer came up in 85% of interviews without prompt (22 of 26, Table 4). Among participants that addressed this topic, four interrelated sub-themes emerged: 1) financial constraints, 2) missed opportunities, 3) high turnover, and 4) lifestyle differences.

Financial constraints

Insufficient income to live in Washington, DC, especially as early-career staffers, limits access to securing and maintaining congressional staff roles. More than half of the 22 interviewees who described challenges to maintaining staff positions discussed the financial constraints of working on Capitol Hill. There was a shared sense that current salaries do not match increased living expenses and inflation in the U.S. capital. Despite the outside prestige of holding these coveted staff roles, many found that working as a staffer required independent wealth or outside support.

> *"[Staffers] are on food stamps, you know. [When I was there, they] were making way under $30,000 and trying to live in DC on that, even with roommates… DC has become just a much more gentrified, expensive place." (P9)*

Staffers also described tremendous economic disparities among different populations living in Washington, D.C. where wealthy lobbyists live and work alongside staffers and others with vastly different incomes.

> *"The K Street crowd is raking [money] in and then you have this sort of generalized system where certain people are going to make a reasonably comfortable salary and hold a standard of living. And, like all these people interact, but they live very, very different lifestyles. And then there's just everyone else who lives [in DC], who also has to live in this incredibly expensive town. It's crazy." (P7)*

Missed opportunities

The financial constraints described above limit early-career staff opportunities in ways that define who can afford to stay long enough to work their way up into elite policy making roles in the U.S. government. Some participants expressed concern that a lack of staffers from some marginalized groups within congressional offices limits which constituencies are visible in decision making. In turn, people from underrepresented groups with fewer resources to visit Congress may go unseen by staffers who do not relate to or interact with them.

> *"Staffers not reaching out [to constituents without the means to contact them] disproportionately affects vulnerable people and poor people more than any one political party… It basically affects people that don't have the means to get their ear and that could be anybody marginalized for whatever reason." (P1)*

High staff turnover

Several staffers described the appeal of leaving their positions on Capitol Hill because they felt they were not fairly compensated financially for their work given their level of training. They understood they could earn more money in other professions once they had accrued congressional experience that they could leverage into higher-paying jobs. Some expressed concern that the high rate of staff turnover on Capitol Hill largely due to low salaries leads to the loss of institutional memory which is critical for informed science policies.

> *"One of the sad things [related to high turnover] on the Hill to the extent that happens, is that you lose that institutional memory and that's the greatest asset in that place. Knowing what happened before and who to talk to get you where you want to go." (P12)*

L*ifestyle differences*

Staffers recognized clear economic and lifestyle differences among their colleagues. Many resented that independent wealth and family support allowed some staff to live comfortably while others without the same means had to struggle with month-to-month expenses. A second job outside of Congress allowed some participants to afford to stay in early-career staff roles. Positions with added benefits could help support other needs.

> *"I was a 21-year-old staffer making $18,000 a year [... I had student loans, but it was what I wanted to do]. And so, I worked full-time in the Senate office, and then I worked 25 hours a week in a clothing store at the Pentagon City Mall. So, I worked two to three nights a week and most often both weekend days. And not only did that get me enough money to afford my loans and my rent and food, but I also got a discount [on] my work wardrobe." (P24)*

3.5 Discussion

The results of this study reveal that financial constraints serve to define and reinforce the people who serve as senior congressional staffers, leading to a policy-making community distinct from the American public. Staffers able to afford to participate in early career roles can remain long enough to work their way up the congressional staff hierarchy to elite positions. As participants identified, insufficient pay likely heightens the challenge of recruiting and retaining staff from diverse backgrounds, which contributes to a congressional workforce that looks very different from the general U.S. population.

Pereira (2020) described that decision-makers view their constituencies in ways significantly influenced by inequalities in political voice and personal biases. Misperceptions and blind spots among senior staffers may occur, in part, because their lived experiences primarily reflect those from communities with the resources required to maintain influential staff roles.

Where staffers are not representative of the public at large, science policy recommendations and outcomes may be primarily designed to best serve constituents who share the identities and experiences of those present. For example, many Indigenous communities view the relationships between the environment and the people inhabiting it in complex ways that differ from western science (Schneider, 2023). On issues related to resource extraction and the use of modern technology, tribal values have been largely ignored or unseen in crafting management institutions.

In another context, the Flint water crisis demonstrates a case of environmental injustice caused in part by political disenfranchisement in ways that disproportionately affected urban people of color and the poor (Highsmith, 2018). Both of these cases demonstrate instances when marginalized communities lacked a voice in science-related decision-making. Communities were not adequately represented or understood by people who did not share their experiences and identities yet held legislative power. These examples represent extreme outcomes, but the backgrounds and experiences of congressional staff may affect policies on a wide spectrum of scientific issues related to public health, the environment, and technology.

Phenomena such as confirmation bias may lead staffers to seek or interpret evidence in ways that are partial to their existing beliefs and expectations (Nickerson, 1998). They may judge evidence that aligns with prior attitudes as more significant than arguments that counter their beliefs (Pereira, et al., 2023). When new information challenges a staffer's worldview, motivated reasoning may drive them to construct justifications for acting in ways that lead to desired outcomes (Kunda, 1990; Maio and Olson, 1998; Christensen & Moynihan, 2020). They may interpret data in ways that fit or reinforce their already-held beliefs based on their own lived experiences that do not reflect broader public preferences and attitudes (Boholm, 1996). These kinds of biases, even subconsciously, might lead to conclusions influenced by characteristics like class and race.

Participants in this study described that most entry-level staff positions require financial dependence on family members or a second income. Although junior roles are poorly compensated, they are necessary for gaining the experience that sets early-career professionals on track to climb the congressional staff hierarchy. While staffers interviewed in this study held high-ranking positions, many emphasized that early-career financial hardships significantly define the identities of the senior staff community on Capitol Hill.

A 2022 report by Issue One found that 13% of all congressional staffers make less than a living wage in Washington, D.C., or less than $42,610 for an adult with no children (Ratliff et al., 2022). Looking more granularly at the numbers, financial hardship is greatest for entry-level positions. Over two-thirds (70%) of staff assistants - an early-career position - earn salaries below living wage figures, making a median average of $38,730 (Ratcliff et al., 2022).

While it is not possible to determine the exact percentages of congressional staffers serving in senior legislative roles by race or socioeconomic status (Legistorm, 2023, Brenson, 2022), data indicate that some underrepresented groups feel constrained by socioeconomic factors. The House Office of Diversity and Inclusion (2021) reported that just 34% of congressional staffers in offices of members of Congress feel satisfied with their financial compensation and nearly half (45%) reported they had "seriously considered looking for employment elsewhere."

The Joint Center for Political and Economic Studies described a trend of Black staff members leaving Congress due to a limited career pipeline, low pay, and cultural hardships (Brenson, 2020). These challenges may contribute to why people of color currently account for over 41% of the population (U.S. Census Bureau, 2022), yet hold less than one-quarter of all staff positions in the 118th Congress (LegiStorm, 2023).

A senior staff community that is largely white and wealthy would be unlikely to have equal exposure to different sub-constituencies that they govern. This may lead to a mismatch of staff perceptions and collective preferences (Hertel-Fernandez et al., 2019; Pereira, 2020). It is also possible that staffers may favor information coming from people in their racial or ethnic group over others (Aronson et al., 2010). Without firsthand experience or contact with some constituencies, especially on issues related to justice and equity, science policies may fall short of representative decision-making.

Policy recommendations

The recommendations that follow offer a blueprint for better representation and recognition of traditionally underrepresented groups in Congress:

Provide early career staffers with adequate financial compensation.

A push by congressional staff to unionize began in 2022 citing insufficient compensation and benefits as the top reason they are organizing (Congressional Workers Union, 2023). The U.S. House of Representatives and Senate could raise the minimum wage for entry level congressional staffers so they can live and work in Washington D.C. without requiring private wealth or additional income from outside sources. This would enable a more diverse and representative body of early-career staffers to stay in the congressional staff pipeline long enough to develop the expertise they need to acquire senior roles.

Actively solicit the opinions of traditionally underrepresented communities on science policy issues.

Research has demonstrated that the most active and resource-rich people tend to be most visible to policymakers because of systemic bias and the influence of money in Congress (Miler, 2010; Kalla & Broockman, 2016; Broockman & Skovron, 2018). Rather than wait to respond to calls and emails from constituents, senior staffers can directly reach out to underrepresented groups to request their opinions on proposed legislation through efforts such as provoked petitioning. Henderson et al. (2021) also suggested a stronger array of intermediary organizations to ensure that all Americans are able to voice their views to their Senators and Representatives.

Improve staff training to recognize diverse constituent priorities.

Conscious and unconscious biases may reinforce misperceptions of constituent attitudes and opinions (Kunda, 1990; Boholm, 1996; Nickerson, 1998; Maio and Olson, 1998; Christensen

& Moynihan, 2020; Pereira, et al., 2023). As the examples cited earlier outlined, a staffer without first-hand experience in marginalized communities may not be adequately equipped to take informed and equitable action on science policy issues related to resource management, public health, and more. Training congressional staff at all levels to be aware of these challenges may encourage them to seek out less visible communities when making decisions.

Convene community leaders for listening sessions with senior staff.

By establishing regularly scheduled opportunities for DC-based senior staffers to build relationships with diverse groups of community leaders, they will develop a better understanding of the unique challenges, attitudes, and policy preferences of their constituents. Convening repeatedly over time would serve to foster trust and encourage staff and policymakers to work together to design effective and inclusive science-related policies.

Together these recommendations would enable congressional offices to better see and serve all constituents. If successful, they may help dismantle structural inequalities and promote justice and equity by bringing the perspectives and talents of a more representative group of Americans into the science policy process (Brenson, 2022).

3.6 Conclusion

This qualitative study revealed that financial constraints may limit who achieves senior legislative staff positions in the U.S. Congress. As a result, conscious and unconscious bias can lead to science policy outcomes that do not adequately reflect the true interests of the American public.

Nearly 60 years ago, Pitkin (1967) argued that we are challenged to construct institutions and train individuals in ways that promote a genuine representation of the public. These findings suggest that while this challenge persists in the U.S. Congress, we can implement policies that will foster a more diverse senior staff community and improve representative science policymaking in ways that recognize the attitudes and preferences of historically marginalized communities.

Tables

Participant	Sex	Geographic region	Political Party	Years
1	F	NE	D	<5
2	M	MW	R	5-10
3	M	Committee	D	<5
4	F	Committee	D	15-20
5	M	Committee	D	11-15
6	F	Committee	D	<5
7	M	MW	D	5-10
8	F	Committee	R	<5
9	M	SE	D	15-20
10	M	SW	D	35-40
11	M	SW	R	5-10
12	M	W	D	<5
13	M	SW & W	R	10-15
14	M	NE	D	15-20
15	F	SW	D	5-10
16	M	Committee	R	5-10
17	M	SE	R	<5
18	M	SE	D	15-20
19	F	NE	D	5-10
20	F	SE	R	5-10
21	M	W	D	<5
22	F	Committee	R	5-10
23	M	W	D	<5
24	F	NE	R	15-20
25	M	W	R	25-30
26	F	MW	R	<5

Table 3. Table describing participants.

F = Female; M = Male; D = Most recently in a Democratic office; R = Most recently in a Republican office; NE = Northeast; MW = Midwest; SE = Southeast; SW = Southwest; W = West; Committees may be made up of members from different geographic regions. Adapted from Kirshenbaum, 2024.

Theme	**Frequency**	**Relative Frequency**
Challenges to working as a staffer	22/26	.85
Sub-theme	**Frequency**	**Relative Frequency**
Financial constraints	16/22	.73
High turnover	16/22	.73
Missed opportunities	14/22	.64
Lifestyle differences	8/22	.36

Table 4. Theme and Sub-theme frequency.

Theme frequency accounts for the number of times this theme occurred out of 26 interviews. Sub-theme frequency accounts for the number of interviews in which each sub-theme occurred out of the 22 that discussed the theme identified as limits to representation.

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APPENDIX B: QUESTIONS FOR STAFFERS AND CONSENT FORM

Questions for staffers

Anticipated time: Approx. 15-30 minutes

1) How long have you worked as a staffer?

2) Have you had any science training?

   a. If yes, tell me about that.

   b. If no, what did you study

3) Do science policy issues interest you personally?

4) In your work, do you deal with science policy issues?

   a. If yes, when it comes to science policies, what are your resources?

   b. If no, move on

5) Who do you trust most for accurate information related to science policies?

6) Are you familiar with the term PFAS?

   a. If yes, your boss needed more information related to PFAS exposure risk, where would you look for information?

   b. If no, where would you look first to learn more?

7) Are you familiar with the term GMOs?

   a. If yes, your boss needed more information related to GMOs, where would you look for information?

   b. If no, where would you look first to learn more?

8) Are you familiar with climate change?

   a. If yes, your boss needed more information related to climate change, where would you look for information?

    b. If no, where would you look first to learn more?

9) Do you feel party affiliation influences the way you seek out information about specific issues?

10) Do you feel party affiliation influences the way other staffers seek out information about specific issues?

Research Participant Information and Consent Form

Study Title: Exploring the Role of Legislative Staffers in Decision Making on Science Policy.

Researcher and Title: Sheril Kirshenbaum, Academic Specialist and Rebecca Jordan, Professor

Department and Institution: Community Sustainability, Michigan State University

Contact Information: Sheril Kirshenbaum (sheril@msu.edu) Rebecca Jordan (jordanre@msu.edu)

BRIEF SUMMARY (This is a general informed consent requirement)

You are being asked to participate in a research study. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation including why you might or might not want to participate, and to empower you to make an informed decision. You should feel free to discuss and ask the researchers any questions you may have.

You are being asked to participate in a research study of how legislative staffers make decisions on science policy issues. Your participation in this study will take approximately 30 minutes. You will be answering questions in an interview. To participate in this research, you will only need to consent to allow researchers to record your responses. Your name will not be attached to these interviews in any way. If you decide not to take part in this research study, you should know that there will be no penalty to you.

There are no foreseeable risks to your participation in this study.

You will not directly benefit from your participation in this study. However, your participation in this study may contribute to the general understanding of how scientific information informs and moves within legislative offices. Participation is voluntary, you may choose not to participate at

all, or you may refuse to participate in certain procedures or answer certain questions or discontinue your participation at any time without consequence.

PURPOSE OF RESEARCH

The purpose of this research study is to learn how legislative staffers make decisions on science policy issues.

WHAT YOU WILL BE ASKED TO DO

You will be asked to answer interview questions about your background and role is decision making on science policy issues. Researchers will look at this information.

POTENTIAL BENEFITS

You will receive no direct benefit.

POTENTIAL RISKS

There are no foreseeable risks to your participation in this study.

PRIVACY AND CONFIDENTIALITY

Data and consent forms will be kept for a period of five years on a password protected hard drive and then all information will be deleted.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

You have the right to say no to participate in the research. You can stop at any time after it has already started.

There will be no consequences if you stop, and you will not be criticized or penalized.

CONTACT INFORMATION

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researcher (Sheril Kirshenbaum, 446 W. Circle

Drive, Justin S. Morrill Hall of Agriculture, East Lansing, MI 48842, sheril@msu.edu and 517-355-0123).

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, us anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

DOCUMENTATION OF INFORMED CONSENT.

Checking the box below means that you voluntarily agree to participate in this research study.

check box ___ Date

You can have a copy of this form to keep. If you wish, please contact sheril@msu.edu.

CHAPTER 4

Senior Congressional Staffers' Perceptions of How and Why Policymaking Has Changed in the United States Over 50 Years

4.1 Abstract

Through semi-structured interviews with a geographically and ideologically diverse sample of current and former senior legislative staffers in the U.S. House of Representatives and Senate, this grounded theory study provides a qualitative examination of how and why congressional insiders perceive that policymaking has changed between the 1970s and 2020s. The results reveal that increasing polarization and a changing media environment have fractured relationships, eroded social trust, and raised concerns about the ability to effectively govern. Observed changes appear to have been driven by both intentional design and are a consequence of shifting technologies, political norms, and social mores. One-third of participants identified Newt Gingrich as playing a prominent role in the significant changes that have occurred.

4.2 Introduction

In the United States, shifts in society and the economy over the last fifty years, along with partisan polarization, have fundamentally changed American politics (McCarty et al., 2016, Klein, 2020). Much has been written in the academic and popular literature about the evolving dynamics of leadership and governance (Sinclair, 1995, Davidson et al., 2008) and there have been extensive analyses demonstrating the great extent to which both the U.S. Senate and House of Representatives have become significantly polarized (Brady et al. 2007; Theriault 2008). Hare and Poole (2014) warned that the building partisanship of recent decades has “grown sharper, unrelenting, and more ideological.”

Most astute observations about changes in Congress present a bird's eye view of the systems, processes, and people involved in and affected by the U.S. government. Scholars have debated whether Congress reflects, leads to, or enhances widespread trends in public polarization (Hetherington, 2001; Abramowitz, 2010; Fiorina et al., 2010; Westfall, 2015). Sinclair (2006) argued that social and economic factors and partisan polarization contribute to the challenges we experience in contemporary politics. Theriault (2013) described how a group of conservative Republican "Gingrich Senators" radically transformed U.S. politics by actively obstructing the legislative process to achieve a highly partisan Senate body.

Beyond changes by politically motivated strategies, Rehm (2010) highlighted how wealth disparities have led to a sorting of the American electorate since the 1970s that created an increasingly partisan citizenry. This income gap has also reinforced a system of "White Collar Government" where upper-class individuals enjoy disproportionate numerical representation in U.S. political institutions (Carnes, 2015).

Glaser and Berry (2018) examined why some elected leaders do not seek compromise. Jacobson (2012) connected growing polarization with political elites and the public viewing increasing numbers of issues along a single liberal-conservative continuum that has become aligned with partisan identification. Rehm (2010) suggested a sorting of the American electorate has taken place since the 1970s as individuals have become increasingly partisan due to socio-economic factors and perceived risk exposure. More recently, Klein (2020) detailed both psychological and structural forces that brought about political and social division within Congress and across the nation.

Mason (2015) attributes growing partisan polarization to individual Americans increasingly identifying their party affiliation as part of their social identity. McCarty et al.

(2016) demonstrated a strong correlation between polarization and economic inequality in the United States over time, but scholars continue to debate the direction and influence of this relationship (McCarty, 2019).

Several social scientists have considered the role of legislative leaders in heightening Congressional polarization (Sinclair, 2006; Aldrich and Rohde, 2000; Theriault, 2013). While most conclude these individuals are not the cause of increasing polarization, their rise to leadership can be a result of it and their actions may serve to enhance political division (McCarty, 2019).

The Conditional Party Government (CPG) theory assumes that elected leaders in Congress aim to design governmental institutions to promote their electoral and policy goals (Rohde and Aldrich, 2010). Consolidated party leadership power can be determined by both the intraparty homogeneity of preferences and interparty divergence. A party with homogeneous views that are distinct from the opposing party has an incentive to allow their leaders to have greater authority because they likely experience higher levels of trust among members. Meanwhile, a party with more heterogeneous views will be more reluctant to delegate (Rohde, 2013). Therefore, increasing polarization may lead to strong leadership power within parties where members often agree on policy priorities and preferences.

Most Americans value a legislative process that fosters deliberation, is open to public scrutiny, considers the interests and demands of all segments of society, and can make decisions expeditiously (Sinclair, 2006). Although public opinion strongly favors political compromise (Newport, 2016), both Republicans and Democrats appear to be more averse to compromise than ever (Mann and Ornstein, 2012). Congress is now widely viewed as “a dysfunctional body, beset by partisanship, incivility, and a lack of productivity” (Glaser and Berry, 2018).

Perceived polarization can erode social trust - the belief that members of society share similar values and norms (Offe, 1999; Lee 2022). Social trust is fundamental to democracy by promoting cooperation, civic engagement, social harmony, and supporting democratic systems (Fukuyama, 1995; Putnam, 2000; Lee, 2022). In politics, social trust will continue to be vital to meet looming global challenges such as those related to public health, climate change, and emerging technologies like Artificial Intelligence (AI).

Broadly, trust may be defined as a willingness to accept vulnerability to the actions of others (Rousseau et al., 1998; Hamm et al., 2019). High levels of trust benefit both elected leaders and political institutions by promoting goodwill and support toward leadership regardless of governing performance.

Citizens' confidence in political institutions broadly defined as political trust appears to be declining in Western democracies (Turper and Aarts, 2017; Dalton 2005; Klingemann, 1999). Hetherington (1998) argues that scholars have underestimated the significance of political trust in American politics, which can rise due to the economy, perceived effective governance, and higher levels of congressional approval.

Lee (2022) looked specifically at public perceptions of polarization in the U.S. finding it has increased substantially in recent decades. This is likely a contributing factor to why 63% of Americans currently express low or no confidence at all in the future of the U.S. political system (Pew Research, 2023).

This study considers the perspectives of senior congressional staffers who have played a central role in policymaking (Hertel-Fernandez et al., 2019; Montgomery and Nyhan, 2017) by drafting legislation and meeting with lobbyists and constituents, thereby shaping policy without electoral accountability. Despite decades of academic attention to congressional dynamics, the sources of political division, and related public attitudes, few scholars have examined the people who have experienced such shifting political dynamics firsthand. While staffers have largely been overlooked in research, they play an enormous role in government, serving as what Malbin (1980) described as the nation's "unelected representatives."

Senior congressional staffers possess a unique insider's view of the people and norms in the U.S. Congress. This study builds on previous research by examining why current and former senior legislative staffers in the House of Representatives and Senate perceive that policymaking has changed between the 1970s and 2020s.

4.3 Methods

In this investigation, Grounded Theory (GT) methodology (Corbin & Strauss, 2008) was used to (1) explore how and why senior congressional staffers perceive that the dynamics of Congress have changed over the past 50 years.

Semi-structured interviews with 26 current and former senior congressional policy staffers were conducted to learn about their experiences related to work and success in the U.S. Congress (See Appendix C). Current and former staffers were included to compare the observations and perspectives of staffers serving in the 118th Congress with those who had distance from their time in the Senate and House.

Questions were refined through an inductive approach with new information as patterns in the data provided context with which to identify important themes. Although the study was initially set up to explore the sources of scientific information prioritized by staff, nearly ¾ of participants (19 out of 26) described shifting norms and procedures in the U.S. Congress.

Qualitative examinations of Congressional dynamics are extremely challenging (Steiman and Suhay, 2023) however, I had excellent access to recruit participants for this study due to previous work as a Senate staffer and ongoing relationships with politically connected communities. Additionally, subjects invited their acquaintances to participate through a snowball sampling technique (Noy, 2009). While this limits replicability, it provided a unique window into an influential community that does not appear in prior analyses.

Michigan State University's Institutional Review Board approved the study protocol, and all participants gave consented to participate before beginning their interviews (See Appendix C).

Interviews ranged in length from 16 minutes to more than two hours and took place between March 14, 2022, and September 14, 2022. The COVID-19 pandemic made in person meetings impossible, so subjects were interviewed via Zoom (Qumu Corp.) with a second audio-only recording concurrently for comparison and back-up. Data on the quality of video interviews has reported no reduction in interview duration, substance coding, rapport, or personal disclosure when compared with in person interviews (Jenner & Myers, 2018, Johnson et al., 2021).

Participants

Within the sample of 26 geographically and ideologically diverse current and former senior congressional staffers, 16 subjects were male and 10 were female. Genders were distributed nearly evenly between parties (Table 5). Eleven participants currently or most recently worked in Republican offices and 15 were the staff of Democrats. Just two participants were people of color, but this is likely representative of the low percentage of senior staffers of color working in Congress (Kirshenbaum, 2024).

Every staffer asked to participate in the study agreed to participate. They had diverse educational backgrounds including law, history, political science, marketing, science, and the military. The offices where they worked were geographically distributed across the United

States, including the Midwest, Northeast, Southeast, Southwest, and West. While I did not ask about participants' party affiliation, four subjects mentioned that their personal affiliation did not match the party of their most recent office. All staffers held senior congressional staff roles for up to 40 years in the U.S. Congress and had roles drafting and recommending legislation to Senators and House members.

Most participants held different roles in multiple offices during the time they worked on Capitol Hill. Their most recent positions were legislative assistant or researcher (11), chief of staff (10), and legislative or staff director (5). I asked them to answer interview questions based on the current or last position they held, representing 19 member and 7 committee offices. Eight subjects were current or recently departed legislative staffers and 18 held positions during previous administrations.

Study design

Semi-structured interviews provided data with which to identify ideas and keyword relationships to explain outcomes (Charmaz, 2014, Glaser et al., 1968). Subjects were given unlimited time to respond to questions and conversations were recorded on Zoom (Qumu Corp.).

The qualitative data analysis software Dedoose (SocioCultural Research Consultants, 2021) enabled me to assign coded phrases and excerpts from recordings and transcripts to determine codes. Once extraneous information and personal stories were removed, the data were analyzed using Chi's (1997) approach.

Excerpts were aggregated, analyzed, and categorized according to questions, related phenomena, and context (Strauss and Corbin 1990). Core concepts were identified to determine overarching themes from interviews through selective coding. Thirty percent of transcripts were reviewed by a second reader in detail for reliability coding to ensure that over 85% of the views of themes and that excerpts matched assigned codes. Theme saturation occurred after 26 interviews.

4.4 Results

Although questions had originally been composed to explore where participants sought out scientific information, 19 of 26 staffers described changes they observed in Congress over time without prompt, accounting for a relative frequency of 0.73 (Table 6). Sources of scientific information are described in another article, but because changes in Congress emerged as a prominent theme, it became the central focus of this study with the following five subthemes: 1) Polarization, 2) Relationships, 3) Changing media, 4) New Gingrich, and 5) Concerns.

Polarization

Current and former staffers reported that partisanship and extreme polarization have made it difficult to function in their roles effectively and safely. They view the January 6th attack on the U.S. Capitol as an extension of these phenomena.

> *[Politicians and their staff are] even more in their silos than they were… Some have a legitimate reason for this, especially after January 6 when the other party kind of tried to kill you. [We] are seeing each other based on political affiliation as enemies. And that's really scary when you can't just disagree, but actually see your political opponent as an enemy who is detrimental to the country because the only answer to that is eliminate them. That's where that road leads…Partisanship is like a toxicity that gets into everything…we've gone way too far down the road. [It] makes every single issue toxic. (P1)*

Several participants who worked in congressional offices prior to the 2016 election felt that moderate politicians and staffers have been abandoned by their parties.

> *"The thing that frustrates me is the extremes run the parties now. You have to run so far to the right and so far to the left, and, you know, I was always a centrist. So I don't have a party. You know, people in the middle are like on an island. We were deserted." (P11)*

One former Republican staffer described a seismic, unrecognizable shift within the party.

> *"I worked for Republicans for five years, but I was a registered Independent while I was doing that, you know, And frankly, I have voted for more Democrats than Republicans in my life, and I'm now a registered Democrat because the Republican Party is batshit crazy. And I think my former bosses would say the same. At least one of them." (P16)*

Relationships

Nearly half of the participants who addressed changes in Congress described that increasing polarization has limited the ability to develop meaningful relationships and build trust with staffers from the opposing party.

> *"[Congress is now] a different place. [When I was there] I was close to my Democratic colleagues. Best friends today. We disagreed philosophically on certain issues, I mean, we just did, but we never let that any way impact our relationship or willingness to find some common ground and get things done… Today, you can be the smartest whip in town, but if you don't have good relationships with people, you're not going to…get things done." (P13)*

The changes in relationships participants described are not limited to staffers, with similar observations about members of Congress.

> *"I'm a big believer in the personal being political…These days, the members don't interact as much as they used to outside of the official channels. A lot of them want to make sure they're not seen as a creature of Washington, so they don't want to stay in DC,*

> *don't want to send their kids to school in D.C. They don't want [others to perceive] that they've lost touch with the people back home. That's fatal politically. So opportunities for interaction are limited. And as a result, there's not as much opportunity to build trust, I think, as there used to be." (P14)*

Changing media

Over one-third of interviewees expressed frustration that a changing media environment has indelibly altered politics. The presence of cameras dramatically shifted the way members interact with each other, determine their policy positions, and present information.

> *"It all went downhill when they put cameras in Congress… Instead of people talking to each other, they talk to the camera...the trust and the actual engagement slowly eroded from that point forward. Look at voting on the floor of the Senate. [None of] those speeches are for colleagues. [They are] for whoever's particular poll tested their constituency." (P7)*

Staffers recognized that attention-seeking, divisive actions by members of Congress attract the most news coverage, which can encourage controversy and enhance polarization.

> *"The grand standards get the airtime. They get the sound bites. And it's gotten worse, of course." (P17)*

As a result, several staffers interviewed believe that the news outlets covering politics benefit by enflaming controversies and promoting polarization.

> *"There's a value [for news outlets] in sowing this dissent and a value in undermining [facts]. (P7)*

Newt Gingrich

Former House Speaker Newt Gingrich was named repeatedly by staffers without any prompt as driving many of the changes they observed in Congress over the last half-century.

> *[I've] seen all sorts of changes. Good things and Newt Gingrich. (P9)*

Staffers who had worked in Congress during the 1980s and 1990s described that Newt Gingrich fundamentally changed politics. For example, by shortening the official congressional work week to three days, members and their staffers had fewer opportunities to interact with other offices from both major parties outside of formal procedural interactions.

> *"Newt changed things. If you think about it, he did that right? He changed the house schedules. [Policymakers] no longer had the kids going to the same school." (P10)*

Beyond these structural changes in the functioning of government, participants felt Gingrich shifted the way Americans talk about politics.

> *I think [Newt Gingrich] really changed the way that we talk about politics, the way the politicians speak. (P7)*

Notably, not all staffers viewed Gingrich and his influence negatively.

> *"[Newt Gingrich is] fascinating and super smart…he's not at all one dimensional." (P24)*

Concerns

As a result of increasing polarization, staffers in both parties shared growing concerns about working with anyone from the opposing party.

> *The moment [your boss works with the other party], somebody primaries them because they're seen as compromising with the devil, and God we can't be doing that. [They're accused of being] a fake Republican or fake Democrat. (P23)*

They also worried that high turnover among staffers limits their ability to develop a deep understanding of policy issues, making them overly reliant on lobbyists and media personalities for guidance on positions.

> *"[Due to high turnover] staffers [now] are more likely to listen to whatever outside group or media source they're comfortable with. And have less of a capacity to judge or evaluate those arguments than people who had been around much longer." (P9)*

Multiple staffers described concern that their current and former roles are no longer as sought after and valued as they used to be because of souring public attitudes about the government.

> *"[We are] losing some of the brightest [people] since government service is no longer seen [as a] steppingstone to something bigger or as valued…It used to be interns were from [top universities and] it was sort of this great melting pot that everyone wanted to come work for their congressman or their senator. I don't know that that exists today." (P22)*

4.5 Discussion

The results of this study reveal that senior congressional staffers perceive that increasing polarization and a changing media environment have fractured relationships among them, eroded trust, and raised concerns about the ability of Congress to effectively govern. Changes over time came up in 19 of 26 interviews unprompted, despite that questions were not initially composed to explore this theme.

Several observations by participants in this study about polarization echo earlier work by Poole and Rosenthal (2007) who argued that extreme polarization in U.S. politics is the result of the disappearance of moderate leaders who had previously been able to reach across party lines and work together.

Just as perceived polarization erodes social trust broadly among members of the American public (Offe, 1999; Lee 2022), the data highlights that the same phenomenon appears to have occurred within the congressional staff community. Nine participants described a lack of trust and the inability to build relationships with colleagues from the other party, limiting their ability to work together, find compromise, and optimally function in their roles.

Five of the six staffers who mentioned Newt Gingrich by name worked in Congress during or shortly after his tenure. Those with experience in previous administrations described that radical procedural changes instituted decades ago by the former Speaker of the House intentionally divided the staff community.

In his June 1978 speech, Gingrich called for a new generation of Republican leaders "willing to take risks, willing to stand up in a slugfest and match it out with their opponent." By 1990, his campaign organization, GOPAC, encouraged Republicans to describe their political opponents using terms like "traitors," "shallow" and "sick" (Green and Crouch, 2022) to sway voters. He co-wrote 1994's "Contract for America," which set the stage for a wide range of conservative legislative initiatives. After Republicans won the House later that year, both parties began to embrace Gingrich's divisive campaign tactics that had proven successful.

The staffers interviewed in this study suggest that by overturning social and procedural norms on Capitol Hill, Newt Gingrich fundamentally shifted the dynamics on Capitol Hill. The former House Speaker was mentioned repeatedly without prompt by six of the nineteen staffers who addressed changes in Congress as being among the most significant reasons for enhanced division in politics, especially among the staff community.

Despite that one-third of participants singled out Speaker Gingrich for having instigated seismic shifts in Congress, earlier work suggests that it would be too simplistic to credit him as a direct cause of congressional polarization (Theriault, 2013; McCarty, Poole, and Rosenthal, 2016). Rather, Gingrich's rise to leadership and ultimately, his actions in that role, likely widened existing divisions (McCarty, 2019).

Skocpol and Hertel-Fernandez (2016) noted that outside actors have also shifted political norms and fostered polarization. They described how a network of conservative megadonors effectively limited the Republican National Committee's influence over time by funding organizations that support specific Republican candidates and endorse extremely conservative views. This extends beyond the scope of responses by participants that credit a single polarizing individual actor within Congress for the significant changes that have occurred. It is possible that the overemphasis of New Gingrich as a singular cause of increasing polarization may be the result of participants' limited vantage point by working within Congress during his tenure.

Another major driver of change in Congress described by participants relates to how modern media outlets produce and distribute media. A competitive news environment emerged in recent decades that benefits by promoting the voices and positions of members of Congress who hold extreme viewpoints over moderates.

Looking beyond Newt Gingrich, media commentators like Rush Limbaugh, Sean Hannity, and Tucker Carlson have changed the way we talk about politics in the U.S. Berry and Sobieraj (2014) described that news organizations have become an "outrage industry" built around the incessant vilification of those on the other side of the political divide. This model encourages name-calling, mockery, and shocking rhetoric in pursuit of profits, ratings, and popularity.

Glaser and Berry (2018) describe conservative opinion media as uniquely discouraging a mindset necessary to accept compromise. Multiple staffers interviewed explained that politicians now recognize how easily they may be replaced if they are perceived as too willing to find common ground with the other party specifically because media outlets can orchestrate their removal. For example, in 2015, President Trump's White House aide Stephen Bannon instructed his Breitbart staff to force former Speaker of the House Paul Ryan out (Swan, 2016). Bannon had notified his media team that their goal was for Ryan to be "gone" by the Spring.

The extent to which media has polarized Congress and public opinion remains unclear. Although ideological segregation occurs online (Gentzkow and Shapiro, 2011), research suggests that most Americans do not seek out partisan news sources (McCarty, 2019). It is also possible that the effects of social media may be depolarizing because heterogeneous social media networks lead users to encounter viewpoints that do not align with their prior beliefs (Barberá, 2014). Still, participants noted that the presence of cameras seems to influence the behavior of members of Congress and their staff. They expressed an acute awareness that clips and images could be shared across social media platforms in politically polarizing, glorifying, or damaging ways.

The changes in Congress that participants in this study described have been driven by both intentional design and are a consequence of shifting technologies, political norms, and social mores. Each of the factors they describe may contribute to what Hetherington and Rudolph (2015) term a "crisis of trust" in which the people whose party is not in power lack trust in a government run by the other party. In turn, diminished political trust can influence public opinion and ultimately, the policies drafted and passed by Congress.

While the perspectives of the participants reflect a subset of attitudes of the people working on federal policy issues, the data reveal a polarized government environment where it has become increasingly difficult to find common ground with members of the other party.

Staffers described trusted relationships with colleagues from across the aisle have become difficult to develop and maintain. In turn, increasingly polarized congressional staffers may be less equipped to work together and find compromise than they were during previous administrations. The erosion of social trust within their community also raises concerns about the future of U.S. leadership and Congress's ability to meet national and global challenges.

Scholars have described that preserving American democracy will require us to overcome the polarization that plagues Congress and society (McCarty, 2019). The observations of the senior congressional staffers interviewed in this research suggest this will continue to pose a tremendous challenge to maintaining effective governance institutions.

Building Trust

The perceptions of the senior congressional staffers included in this research provide insight into the deep divisions that persist within the halls of the United States Congress. The future of American democracy will hinge on identifying and implementing mechanisms that rebuild relationships and trust across party lines.

While there are multiple models of trust, many scholars argue that a behavioral manifestation is necessary to establish real trust (Dietz, 2011; Schoorman et al., 2007). Mayer et al. (1995) describe that by taking a risk with someone, we convey trustworthiness, and in turn, assess the other party's trustworthiness through a feedback loop that builds from that experience.

The growing body of work on trust suggests a way forward toward building trust within Congress. Trust-building activities can be established that bring legislators and staff together in ways that promote openness to cooperate and establish new relationships (Stern and Baird 2015). Although team sports and social hours already occur around Capitol Hill, new initiatives could strategically recruit and incentivize congressional participants that span ideologically and geographically diverse offices into shared spaces and experiences. Organized activities that require both collaboration and value exploration would provide unique opportunities for meaningful social interaction (Hamm, 2017).

Organized trust-building activities for policymakers would enable them to assess the abilities, benevolence, and integrity (Mayer et al., 1995) of colleagues they may not regularly interact with. These kinds of judgments play a prominent role in building trust (Hamm et al., 2019) and fostering mutual understanding.

When Newt Gingrich changed congressional norms and procedures, his calculated actions restricted opportunities for members of Congress and staffers to interact in socially significant ways outside of the political realm. The changing media environment amplified differences and further limited contact across party lines, creating an increasingly polarized environment where policymakers became increasingly confined to party boundaries.

If trust-building activities are implemented successfully, they may result in a less polarized and more functional Congress better equipped to compromise and lead.

4.6 Limitations

Data gathering, interpretation, and analysis during qualitative research is never free from preconceptions and I acknowledge the risk of influence by my positionality and personal experiences in research, policy-making, and due to unconscious bias. As the sole researcher in this project, I also recruited all participants, conducted interviews, and developed and refined questions, and thematic analyses. It is additionally possible that I could have been influenced by my time working in the U.S. Senate as a congressional science fellow.

There are currently over 17,000 staffers in Congress (Legistorm, 2023). However, only a small fraction of these individuals is directly involved in advising on policy issues. Chiefs of staff, legislative directors, and other specialty staffers such as legislative assistants make recommendations to members of Congress on a wide range of issues, including science-related policies. This research included twenty-six such senior-level participants, so the results are not representative of all perspectives of staffers working in the U.S. House and Senate.

Finally, I acknowledge that subjects may have, intentionally or unconsciously, responded to questions in ways that cast themselves, their offices, members, or their political parties in a positive manner. The methods aimed to reduce the chance of such bias by maintaining confidentiality.

Tables

Participant	Sex	Geographic region	Political Party	Years
1	F	NE	D	<5
2	M	MW	R	5-10
3	M	Committee	D	<5
4	F	Committee	D	15-20
5	M	Committee	D	11-15
6	F	Committee	D	<5
7	M	MW	D	5-10
8	F	Committee	R	<5
9	M	SE	D	15-20
10	M	SW	D	35-40
11	M	SW	R	5-10
12	M	W	D	<5
13	M	SW & W	R	10-15
14	M	NE	D	15-20
15	F	SW	D	5-10
16	M	Committee	R	5-10
17	M	SE	R	<5
18	M	SE	D	15-20
19	F	NE	D	5-10
20	F	SE	R	5-10
21	M	W	D	<5
22	F	Committee	R	5-10
23	M	W	D	<5
24	F	NE	R	15-20
25	M	W	R	25-30
26	F	MW	R	<5

Table 5. Table describing participants.

F = Female; M = Male; D = Most recently in a Democratic office; R = Most recently in a Republican office; NE = Northeast; MW = Midwest; SE = Southeast; SW = Southwest; W = West; Committees may be made up of members from different geographic regions. Adapted from Kirshenbaum, 2024.

Theme	Frequency	Relative Frequency
Changes in Congress	19/26	.73
Sub-theme	**Frequency**	**Relative Frequency**
Polarization	9/19	.47
Relationships	9/19	.47
Concerns	9/19	.47
Changing media	7/19	.37
Newt Gingrich	6/19	.32

Table 6. Theme and Sub-theme frequency.

Theme frequency accounts for the number of times this theme occurred out of 26 interviews. Sub-theme frequency accounts for the number of interviews in which each sub-theme occurred out of the 19 that discussed the theme identified as limits to representation.

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APPENDIX C: QUESTIONS FOR STAFFERS AND CONSENT FORM

Questions for staffers

Anticipated time: Approx. 15-30 minutes

1) How long have you worked as a staffer?

2) Have you had any science training?

   a. If yes, tell me about that.

   b. If no, what did you study

3) Do science policy issues interest you personally?

1) In your work, do you deal with science policy issues?

   a. If yes, when it comes to science policies, what are your resources?

   b. If no, move on

2) Who do you trust most for accurate information related to science policies?

3) Are you familiar with the term PFAS?

   a. If yes, your boss needed more information related to PFAS exposure risk, where would you look for information?

   b. If no, where would you look first to learn more?

4) Are you familiar with the term GMOs?

   a. If yes, your boss needed more information related to GMOs, where would you look for information?

   b. If no, where would you look first to learn more?

5) Are you familiar with climate change?

   a. If yes, your boss needed more information related to climate change, where would you look for information?

    b. If no, where would you look first to learn more?

9) Do you feel party affiliation influences the way you seek out information about specific issues?

10) Do you feel party affiliation influences the way other staffers seek out information about specific issues?

Research Participant Information and Consent Form

Study Title: Exploring the Role of Legislative Staffers in Decision Making on Science Policy.

Researcher and Title: Sheril Kirshenbaum, Academic Specialist and Rebecca Jordan, Professor

Department and Institution: Community Sustainability, Michigan State University

Contact Information: Sheril Kirshenbaum (sheril@msu.edu) Rebecca Jordan (jordanre@msu.edu)

BRIEF SUMMARY (This is a general informed consent requirement)

You are being asked to participate in a research study. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation including why you might or might not want to participate, and to empower you to make an informed decision. You should feel free to discuss and ask the researchers any questions you may have.

You are being asked to participate in a research study of how legislative staffers make decisions on science policy issues. Your participation in this study will take approximately 30 minutes. You will be answering questions in an interview. To participate in this research, you will only need to consent to allow researchers to record your responses. Your name will not be attached to these interviews in anyway. If you decide not to take part in this research study, you should know that there will be no penalty to you.

There are no foreseeable risks to your participation in this study.

You will not directly benefit from your participation in this study. However, your participation in this study may contribute to the general understanding of how scientific information informs and moves within legislative offices. Participation is voluntary, you may choose not to participate at

all, or you may refuse to participate in certain procedures or answer certain questions or discontinue your participation at any time without consequence.

PURPOSE OF RESEARCH

The purpose of this research study is to learn how legislative staffers make decisions on science policy issues.

WHAT YOU WILL BE ASKED TO DO

You will be asked to answer interview questions about your background and role is decision making on science policy issues. Researchers will look at this information.

POTENTIAL BENEFITS

You will receive no direct benefit.

POTENTIAL RISKS

There are no foreseeable risks to your participation in this study.

PRIVACY AND CONFIDENTIALITY

Data and consent forms will be kept for a period of five years on a password protected hard drive and then all information will be deleted.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

You have the right to say no to participate in the research. You can stop at any time after it has already started.

There will be no consequences if you stop, and you will not be criticized or penalized.

CONTACT INFORMATION

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researcher (Sheril Kirshenbaum, 446 W. Circle

Drive, Justin S. Morrill Hall of Agriculture, East Lansing, MI 48842, sheril@msu.edu and 517-355-0123).

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, us anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

DOCUMENTATION OF INFORMED CONSENT.

Checking the box below means that you voluntarily agree to participate in this research study.

check box ___ Date

You can have a copy of this form to keep. If you wish, please contact sheril@msu.edu.

CHAPTER 5

Conclusion

This dissertation took an interdisciplinary approach to exploring the people and dynamics of scientific decision-making in the U.S. Congress. It began by weaving together prior work from the academic literature in political science, communication, public health, leadership, decision science, resource management, and more to explore questions related to scientific policymaking, staff identities, and representation, and the changing institutional and social dynamics in the U.S. House of Representatives and Senate.

My comprehensive exam informed my original mental model of the literature (Fig. 5). in the Introduction). As I conducted this investigation, I refined the original theoretical model to reflect how congressional staffers interpret science-related information and make decisions. By returning to that model throughout the research, I incorporated the strength and direction of relationships more granularly. Over time, I determined which phenomena and topics my dissertation research covered as well as where more data collection would be necessary. The revised mental model emerged:

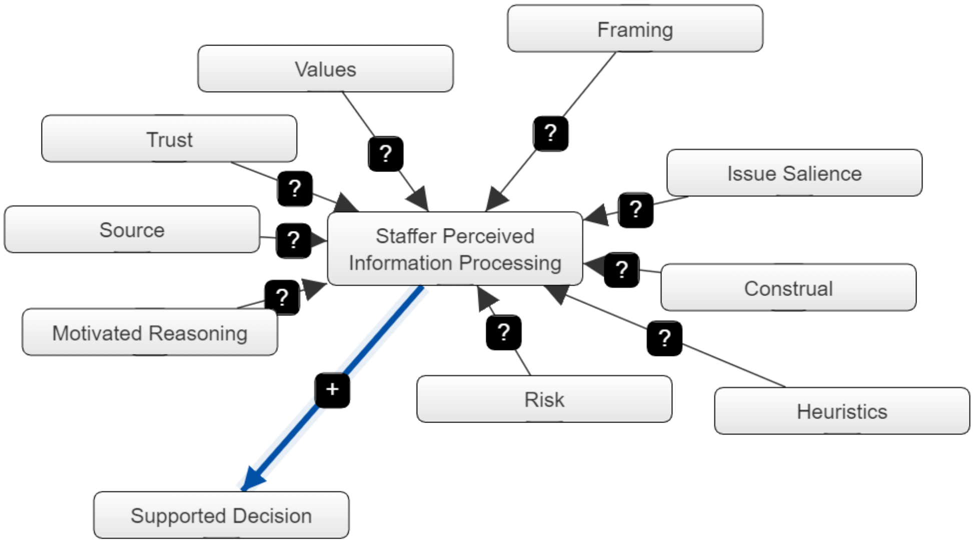
Framing
Values
Trust
Issue Salience
Source
Staffer Perceived Information Processing
Construal
Motivated Reasoning
Risk
Heuristics
Supported Decision
?
+

Figure 8. A revised conceptual model of congressional staff decision-making on science policy based on the findings from my research.

My research centered broadly on motivated reasoning, trust, bounded rationality, and, most significantly, sources of information. Multiple key areas of the original model relate to each other, and I organized them by color, adding inputs and outputs as well with the help of my advisor, Dr. Rebecca Jordan.

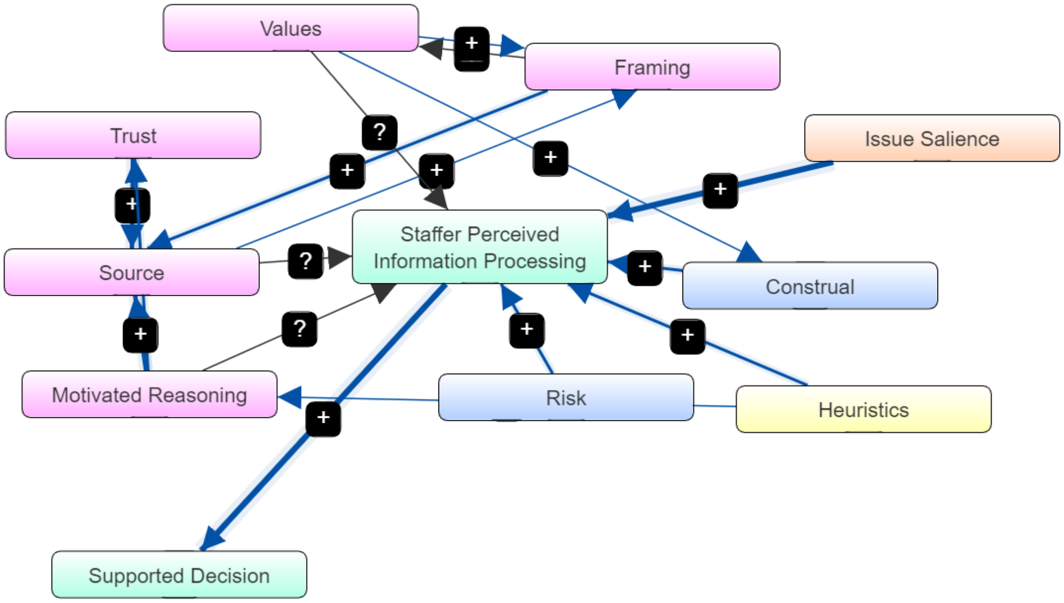
Values
Framing
Trust
Issue Salience
Staffer Perceived Information Processing
Source
Construal
Motivated Reasoning
Risk
Heuristics
Supported Decision
+
?

Figure 9. A revised conceptual model of congressional staff decision-making on science policy based on the findings from my research. Key areas identified by color.

The pink boxes (trust, sources, motivated reasoning, values, and framing) were the primary focus of the research conducted during my dissertation. Staffers interviewed described the significance of where science-related information came from as having a large impact on how it would be interpreted and prioritized. These are interrelated factors that influence and inform each other in the model. While each box represents an important force acting on staff decisions, the source of information appears to matter most in scientific decision-making.

Observations related to issue salience support the RCL framework (Meinke et al. 2006, Kirchhoff et al., 2013; Heink et al. 2015, Cash et al., 2002). High levels of trust also influence attitudes ascribed to information salience, credibility, and legitimacy. I did not explore theories related to risk and construal level in this work, so more data would be necessary to expand upon how these topics relate to scientific decision-making by senior staffers in Congress. Heuristics, or cognitive shortcuts, help staffers make decisions and may lead to motivated reasoning and cognitive bias, but it was also not a central theme explored during this study.

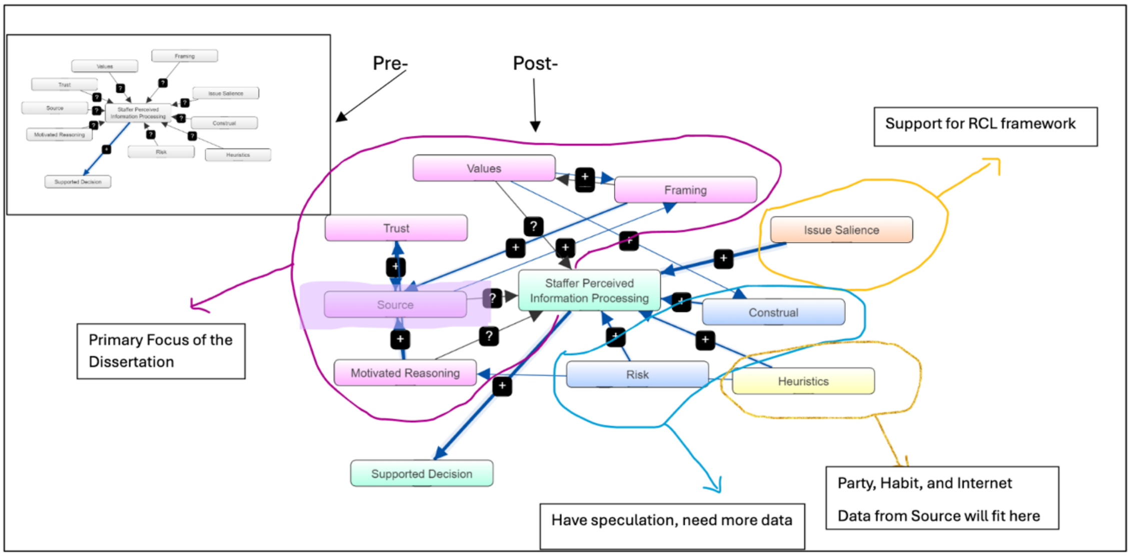
Pre-
Post-
Support for RCL framework
Values
+
Framing
?
Trust
+
+
Issue Salience
+
+
Source
?
Staffer Perceived Information Processing
Construal
+
Primary Focus of the Dissertation
+
?
+
Motivated Reasoning
Risk
Heuristics
+
Supported Decision
Have speculation, need more data
Party, Habit, and Internet
Data from Source will fit here

Figure 10. A comparison of my original and updated models of congressional staff decision-making on science policy based on the findings from my research, key areas identified by color.

Chapter 2 illuminated why information from scientists and research institutions is often of lower priority to senior congressional staffers than industry lobbyists and party leadership.

As we learn about how and why staffers value and seek out different sources, the science community may be better equipped to improve their approach toward informing policy outcomes. With more emphasis placed on building relationships, repeated engagement with staffers, and general congressional literacy, scientists may yet be more effective at translating their research to decision-makers. Coordinated strategic efforts by scientific experts with a shared mission and clear roles can further improve policy outcomes.

Throughout this initial investigation, the preliminary model illustrated in the Introduction depicting how staffers prioritize science-related information model (Fig. 6) was updated to represent the data collected during interviews (Fig. 7)

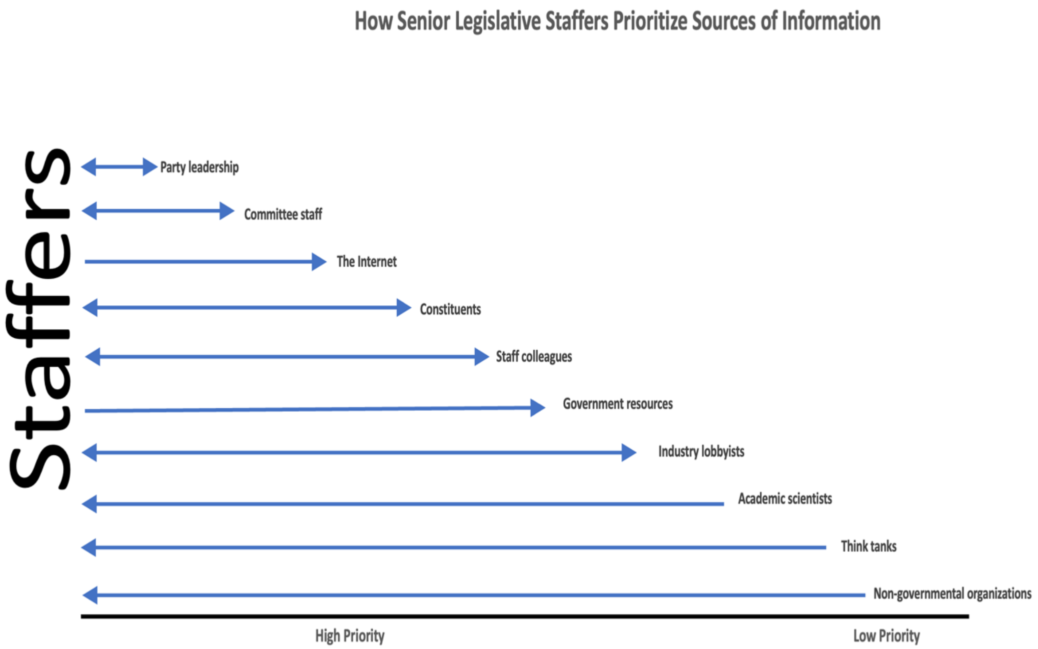
How Senior Legislative Staffers Prioritize Sources of Information
Staffers
Party leadership
Committee staff
The Internet
Constituents
Staff colleagues
Government resources
Industry lobbyists
Academic scientists
Think tanks
Non-governmental organizations
High Priority
Low Priority

Figure 11. Model of information source priority from aggregate interview data. Arrows indicate one vs. two-way information flow based on which group is commonly described as initiating and receiving information related to science policy.

While the relative positions of most science-related information sources did not change, “Think tanks” were added as a category because staffers referred to them as being a distinct group from “Lobbyists,” which are more valued for information. The “Lobbyist” category was modified to “Industry lobbyists” to make this distinction.

A more significant change to the original model was the addition of arrows to represent the most common direction of information flow between staffers and sources. As the new model now demonstrates, low-priority and high-priority sources are not sought out equally for information. Academic scientists, think tanks, and non-governmental organizations more frequently deliver information unsolicited by congressional offices, while staffers often reach out directly to party leadership and committee colleagues for recommendations on science-related policy issues. This reveals an unlevel playing field for academic scientists eager to inform policy but also highlights the significance of understanding congressional dynamics for those who want to participate in the process.

This model builds on earlier work by Sabatier and Whiteman (1985) and Petty et al. (2018) that describes the flow of policy information. While these authors had described major and minor flow between actors within and outside of legislative offices, the new findings tease apart the sources of information considered, finding they are not all equally prioritized and sought out. This contribution builds on knowledge related to the policy process by recognizing that different actors and institutions have varied value to staffers. By understanding why some voices and opinions have greater influence, scientists may develop strategies to have greater impact in policy discussions.

Chapter 3 considered how the individual life histories, identities, and experiences of the people in senior staff positions may influence their attitudes and decisions. Financial challenges can limit opportunities for many individuals to acquire and maintain senior positions in scientific policymaking at the federal level. Because of these constraints, already marginalized communities are underrepresented in senior staff roles. In turn, constituents who do not share identities and experiences with decision-makers may be misunderstood or go unseen due to conscious and unconscious biases. This is especially concerning where science policies intersect with justice and equity issues.

As with Chapter 2, these findings reveal opportunities to improve congressional staff diversity and promote inclusive decision-making. Policies that enhance financial compensation for early-career staffers would foster a more diverse pipeline into senior roles. Actively seeking out the opinions of traditionally marginalized groups of constituents would provide them greater visibility in policy decisions. Training staffers to be aware of these challenges and organizing conversations between underrepresented community leaders and staff could also enable policymakers to see and serve a wider and more representative group of constituents.

Notably, while pursuing this work, I recognized there is a lack of reliable data related to the race and identities of senior congressional staffers available. Given the significance that these factors might play in their actions and policy recommendations, it would be useful to begin to collect those details over time.

By recognizing the structural inequities that exist in policymaking, scientists can also address these challenges by working to present inclusive and representative research when they participate in policy conversations. Scientists committed to diversity, equity, and inclusion can make marginalized communities more visible to Congress.

Chapter 4 emerged during this research because the majority of staffers interviewed in this work described how and why they perceive that policymaking has changed over the last 50 years without prompt. The perceptions of staffers echo observations by scholars on how increasing polarization and a changing media environment have fractured relationships and eroded trust. These congressional insiders expressed concerns about the continued ability of Congress to continue functioning as an effective governing body.

The perspectives shared by senior congressional staffers in this work serve as a warning that deep divisions continue to persist and widen within the halls of the United States Congress. By understanding more about why they exist, we may yet have the chance to implement strategies to heal relationships and rebuild trust across party lines.

The research described throughout this dissertation asks significant questions about the nature of decision-making in Congress. It examines the experiences and identities of the people serving in staff roles and considers how those factors may influence their choices and behavior.

It also explores how those acting as our "unelected representatives" perceive shifting dynamics in government.

Ultimately, from public health to the economy, every global challenge involves science and technology. Policy engagement by scientists is critical to achieving evidence-based policies and allowing new advances to reach their full potential. The translation of scientific information is required for the successful use of science in policy (Akerlof et al., 2018) and helps to define national priorities, promote research and innovation, and influence the future of leadership.

The findings of my research not only provide new insights about the translation of scientific findings in Congress, but they also highlight where gaps in our understanding exist, and ultimately lead to even more questions worthy of pursuit related to these topics in the future.

For example, it would be interesting to train a group of scientists interested in lobbying efforts using the recommendations from Chapter 1 and follow their activities and relationships with congressional offices over time compared to a group that did not have the same training. Additionally, survey questions could be distributed to a large sample of junior congressional staffers asking about how they seek out and prioritize science-related information to compare with the results of this qualitative work focused on senior staffers. Alternatively, the data shared here could be a baseline for a longitudinal study where the same staffers are interviewed repeatedly to observe how priorities, attitudes, and observations may shift over time.

These follow-up possibilities barely scratch the surface of research projects that can build on this early study of senior congressional staffers. Regardless of what comes next, the results of the research conducted for this dissertation highlight why scientists should be paying closer scholarly attention to the often-hidden world of congressional staffers.