



Centralized Management in Democratic Governance—Essays on Organizing a System of Executive Branch Bureaucracies

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Organizing a System of Executive Branch Bureaucracies**

Presented by **Elliot Stoller**

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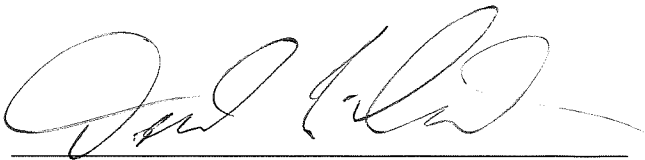
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Date: May 8, 2023

Centralized Management in Democratic Governance—Essays on
Organizing a System of Executive Branch Bureaucracies

A dissertation presented by
Elliot Stoller

to

Julie Battilana
Bart Bonikowski
and
Daniel Carpenter

in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of

Organizational Behavior

Harvard University
Cambridge, Massachusetts
May 8, 2023

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**Centralized Management in Democratic Governance—Essays on
Organizing a System of Executive Branch Bureaucracies**

ABSTRACT

This dissertation contributes to our understanding of how non-elected government actors can manage and lead a system of executive branch government bureaucracies to better advance both administrative capacity and democratic governance. I use complementary theoretical concepts from sociology, organizational theory, and public management to identify and study dynamics in how systems of executive branch agencies in the United States behave—both at the state and federal levels—and how they can be changed.

Building on an in-depth inductive study on Missouri state government during the COVID-19 pandemic, Chapter 1 introduces the concept of bureaucratic backstopping—defined as the process of identifying and internally moving around government employees, responsibilities, and resources across bureaucratic boundaries in order to fill in gaps in a state’s own capabilities. Chapter 1 further demonstrates that this process in Missouri state government was an integral aspect of the state’s ability to overcome baseline administrative challenges during the COVID-19 pandemic and improve the quality of its administrative response. Leveraging both qualitative and quantitative research methods, Chapter 2 assesses how transferring divisions from one government department to another influences public servants’ experiences of authority and informal bureaucratic control mechanisms in the respective departments after such a reform. Chapter 3, based on an original dataset with information on nearly all regulatory impact assessments for major regulatory proposals across the federal

government during a twenty-year period, identifies previously undocumented patterns in how federal agencies formally assess and monetize the value of regulatory policy impacts.

Ultimately, the three chapters provide original insights into patterns across systems of government bureaucracies and how non-elected leaders, managers, and organizations responsible for overseeing an entire executive branch of government can use formal and informal tools at their disposal to help better align an executive branch of government with democratically sanctioned values, goals, and outcomes.

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NOTE:

This dissertation consists of three chapters. Each chapter is a standalone article that is under review or in preparation for submission to academic journals. Interested readers should refer to published versions of the articles, which contain more data and detail.

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even if that meant calling right before flying off on a vacation with his family to walk me through the logistics of the academic job market. He also read a truly extensive number of drafts during the article revision processes for an academic journal and helped me think through every single issue and comment I was wrestling with from the editors. Bart deeply contributed to helping me theorize my data and results beyond the specific contexts—which was a difficult leap for me to take. I wish there were more political sociologists in the world like Bart. We would have a much better understanding of political systems, and how to potentially make them better, if there were.

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INTRODUCTION

Government bureaucracies are organizations with profound power to shape the quality of citizens' lives and to manifest democratic ideals about accountable and capable self-governance. Yet tensions between bureaucratic state administration and democratic governance continue to challenge scholars and practitioners seeking to help create more accountable, responsive, and capable government institutions (Weber 1978, Blau 1956, Dahl 1956, Espeland 2000, Peters 2010, Etzioni-Halevy 2013, Moynihan 2022). Exercises of bureaucratic capacity and effectiveness are often intertwined with organizational autonomy, expertise, and the cultivation of independent constituencies that help politically protect these government bureaucracies (Carpenter 2001, 2010). These characteristics may undermine the ability of elected government officials to control and hold bureaucratic actors accountable (Gruber 1987, Etzioni-Halevy 2013) as well as predispose government bureaucracies to prioritize the concerns of parochial stakeholders and interest groups (Carpenter and Moss 2013). Nevertheless, democratic governance relies on bureaucratic organizations to help develop, administer, and adjudicate policies. The effective bureaucratic provision of public services increases citizens' trust in, and support of, democratic institutions (Rothstein 2009, Dahlberg and Holmberg 2014, Moynihan 2022) while impartial state administration is often described as a bulwark against arbitrary and capricious government power (Peters 2010). The history of government administrative reform processes in the United States suggests tradeoffs between, and oscillating focus on, these respective concerns (Brodkin 2007, Olsen 2008).

The vast and rich scholarship on these interdependencies and tensions between bureaucracy and democratic governance provides extensive insights into dynamics in bureaucratic politics. However, this scholarship tends to focus on relationships between

bureaucratic government organizations on one hand—such as departments, agencies, or bureaus—and elected government officials, citizens, or stakeholders on the other. As a result, such approaches tend to overlook a pronounced phenomenon in governance in which elected officials formally delegate a set of operational and policy oversight responsibilities for nearly the entire executive branch of government to non-elected individuals and organizations. These central management positions can be organizations themselves, such as the Office of Information and Regulatory Affairs (OIRA), which has oversight responsibilities for federal regulatory agencies, or individuals such as chief operating officers (COOs) or county managers at the state and local levels who are responsible for leading a portfolio of government organizations. These positions support the chief executive in addressing operational challenges coordinating across agencies, improving the development and implementation of programs and regulations, and controlling the bureaucratic state (Moe 1985).

This dissertation explores how the power and responsibilities of these structural positions entail significant opportunities and risks for addressing tensions between democratic governance and bureaucratic organizing. Under certain circumstances, centralization of administrative and operational authority may support civil service reforms, processes improvements, and coordination across multiple bureaucracies that increase the quality of government outputs and interactions between citizens and the bureaucratic state (Witesman and Wise 2009, Altamimi et al. 2022). These government outcomes are heavily associated with political legitimacy and citizens' support of democratic institutions (Rothstein 2009, Dahlberg and Holmberg 2014, Moynihan 2022). The stakes are high, however, because such centralized management and oversight positions have immense power and discretion—especially when legislatures and chief executives focus on electoral concerns that are often far removed from improving administrative

governance (Achen and Bartels 2017, Lewis 2019). Moreover, business interest groups tend to have greater influence over these centralized oversight actors than do public interest groups or individual citizens on the federal level (Haeder and Yackee 2015). Nevertheless, limited scholarship directly addresses the role of centralized management positions in democratic governance—separate from questions about macro-level structural design of government institutions—or provides guidance to practitioners in these roles about the formal and informal tools at their disposal for changing behavior across a hierarchical system of executive branch agencies.

In order to contribute to this extensive research agenda and build upon existing scholarship addressing aspects of these issues, this dissertation brings together complementary approaches and theoretical concepts from sociology, organizational theory, and public management. This interdisciplinary approach provides multiple advantages. First, it provides both a methodological and conceptual toolkit to study executive branches of government as a single system of organizations. For example, the concept of an institutional field from neo-institutional theory supports analyzing how federal agencies persistently value regulatory proposals as legitimacy-seeking practices to multiple audiences that observe their behavior (Chapter 3) rather than as strict manifestations of regulatory science or solely ex post facto justifications for policy decisions. This conceptual foundation, combined with quantitative permutation tests, contributes to inferences in Chapter 3 about when patterns in federal agencies' regulatory impact assessments are associated with policy domains in addition to organizational boundaries.

Second, this combination of academic disciplines further supports studying the meso-level of interaction between individuals, organizations, and institutional contexts. Chapter 1

demonstrates a process for improving the administrative capacity of the executive branch of government during a crisis partially based on the network positionality of a COO and other leaders in the state vis-à-vis public servants across multiple state-level departments. This research builds upon, and contributes to, scholarship on the agency of individuals to help change institutions that simultaneously structure their own behavior and impose resource and legitimacy constraints.

Third, this dissertation helps identify and study informal processes, and their interactions with formal structures, in a way that is both actionable for practitioners confronting management challenges and generative for scholars interested in these questions. Chapter 2 directly assesses how formally transferring organizationally nested divisions from one parent-level department to another is associated with public servants' experiences of informal aspects of bureaucracy. This dissertation therefore helps address calls from organizational sociology (Monteiro and Adler 2022) and political science (Carpenter and Krause 2015) to pursue research on the informal aspects of bureaucratic organizing.

The dissertation consists of three chapters. Chapter 1, "Collaborative Crisis Management in the Face of Limited Administrative Capacity—How Bureaucratic Backstopping Supported Missouri's COVID-19 Response," analyzes how the state of Missouri built a strong collaborative crisis management system during the COVID-19 pandemic despite significant baseline administrative capacity challenges and limited processes, skillsets, and norms identified in previous scholarship as supporting organizational learning and collaboration (Moynihan 2009, Moynihan and Landuyt 2009, Emerson et al. 2012). This study is based on an abductive methodology and triangulated analyses of semi-structured interviews, rare observational access to state government crisis management meetings, and extensive archival documents. The results

demonstrate that an integral aspect of the state's COVID-19 response capacity is a concept I develop and introduce called bureaucratic backstopping. I define bureaucratic backstopping as the process of internally moving around people, responsibilities, and resources across bureaucratic boundaries to fill gaps in the state's own capabilities. Bureaucratic backstopping in Missouri worked well because pre-existing relationships between the COVID response leadership, chief among them the state COO, and middle management across the state enabled the COVID response leadership team to identify and apply critical skills and resources already available within the state government. Operational templates and coaching from a consulting firm as well as multi-directional visibility into ongoing tasks and decisions during the crisis response further supported bureaucratic backstopping in Missouri. These results demonstrate how government organizations can learn to collaborate during a crisis when they do not already have collaborative norms and spaces that have been previously demonstrated as key aspects of effective organizational learning—a pronounced and previously unaddressed catch-22 in the collaborative crisis management literature (Nohrstedt et al. 2018, Bynander and Nohrstedt 2019, Parker and Sundelius 2019). Moreover, the research suggests several downsides of bureaucratic backstopping that warrant further scholarship, such as public servant burnout and private consultants with a form of power over state administrative processes.

Chapter 2, “Felt Authority and How Secession and Absorption of Government Divisions Influence Public Servants’ Experiences of Bureaucratic Control,” asks, what are the effects of transferring divisions from one government department to another on public servants’ experiences of authority and informal control mechanisms within bureaucracy? A prominent thesis in scholarship on organizational reforms in government is that these reform processes help confer legitimacy on organizational actors but rarely achieve their desired results (March and

Olsen 1983, Brunsson and Olsen 1993). This chapter advances an orthogonal finding that a particular type of reform in which nested government subunits are transferred from one parent-level department to another—a relatively common but understudied process (Rolland and Roness 2011, Carroll et al. 2022)—can engender improvements in how public servants experience authority within the “giving” department. The results moreover suggest that increasing the bandwidth of department leadership was an enabling condition for using formal authority to change informal processes and expand public servants’ voice rights across the organization. While the paper identifies associations in the given research context rather than causal relationships, the findings contribute to scholarly understanding of possible effects of the secession and absorption of government subunits across executive branch bureaucracies.

The third chapter is titled, “Procedural Burden and Patterns in the Monetization of Regulatory Benefits Across the Federal Regulatory State.” This paper asks, when do federal agencies provide monetized and non-monetized estimates of regulatory benefits during the regulatory development and review process? Based on an original data set with information on nearly all major regulatory impact assessments (RIAs) produced by federal government agencies between 1996–2016 ($n = 713$), I find that there are distinct evaluative approaches for regulatory policies depending on the policy issue area and the socioeconomic groups affected by a given rule. This paper introduces the concept of procedural burden—which I define as the extent of the barriers facing interest groups and citizens in wielding power over regulatory policy formation. The empirical findings combined with this theoretical concept suggest that the patterns in the monetization of regulatory benefits—as a type of procedural burden—can be a form of procedural inequality that weakens pluralist democracy in regulatory rulemaking. Moreover, this research contributes to scholarship on informal control mechanisms in bureaucratic politics by

providing a methodology for operationalizing and making rigorous statistical inferences about federal agencies' organizational norms using Monte Carlo permutation tests. The creation and public availability of this original data further provides a resource to other scholars studying the federal rulemaking process.

For both scholars and practitioners, the findings in this dissertation advance our understandings of patterns in how systems of executive branch bureaucratic organizations behave. The dissertation also contributes rigorous insights into, and pressing questions about, how central bureaucratic actors can use their hierarchical structural position as well as formal and informal tools to advance administrative capacity within, and in support of, democratic governance.

CHAPTER 1

COLLABORATIVE CRISIS MANAGEMENT IN THE FACE OF LIMITED ADMINISTRATIVE CAPACITY – HOW BUREAUCRATIC BACKSTOPPING SUPPORTED MISSOURI’S COVID-19 RESPONSE

Abstract: How can sub-national governments engage in collaborative crisis management during a transboundary crisis when baseline administrative capacity is low? This paper introduces the concept of bureaucratic backstopping—defined as the process of identifying and internally moving around government employees, responsibilities, and resources across bureaucratic boundaries in order to fill in gaps in a state’s own capabilities—as an under-theorized and understudied aspect of collaborative governance and crisis management. In Missouri, bureaucratic backstopping contributed to better alignment between individuals and COVID-19 related tasks, helped create surge capacity, and placed public servants in key visible roles during the initial phases of the pandemic where they could help model collaborative and reflective information-sharing processes supporting organizational learning. The study’s results are based on an abductive case study of Missouri state government during the COVID-19 pandemic including observational access to over 60 crisis management meetings, 67 semi-structured interviews, and over 200 archival documents. The findings both provide practical concepts for public managers in crisis management situations and help address a pronounced catch-22 confronting intra-crisis organizational learning suggested by the collaborative crisis management literature. Moreover, the results call attention to interdependencies between supporting collaborative crisis management in administratively weak sub-national governments, circumventing untrusted government employees, and transferring power over state administrative processes to private consultants outside of the state—critical issues which need to be further explored.

INTRODUCTION

The COVID-19 pandemic forced government institutions with varying, and sometimes low, levels of administrative capacity in collaborative governance (Ansell and Gash 2008, Emerson et al. 2012) and organizational learning (Moynihan 2009, Gerlak and Heikkila 2011) to respond to a prolonged and novel crisis. However, crises often necessitate that systems of government organizations learn and adopt new collaborative practices and norms (Moynihan 2009b, Parker and Sundelius 2020). Scholarship, meanwhile, suggests that effective organizational learning in government administration heavily depends on pre-existing collaborative spaces and experiences openly sharing and reflecting on information (Moynihan and Landuyt 2009). These previous findings, combined with the exigencies of the COVID-19

pandemic, suggest that government organizations with limited baseline administrative capacity in organizational collaboration and learning processes faced a pronounced obstacle to collaborative crisis management. These government organizations needed to learn to collaborate during a crisis without already having the collaborative spaces and norms that support organizational learning.

Nevertheless, scholarship has not thoroughly addressed pathways and mechanisms supporting the adoption and maintenance of collaborative crisis management (Nohrstedt et al. 2018, Nohrstedt and Bynander 2019, Parker et al. 2020) during a crisis when government organizations have low levels of these prerequisite administrative capabilities and resources. Previous scholarship tends to provide orthogonal insights into what ideal government crisis responses might look like (Ansell et al. 2010, Nowell et al. 2018), as well as antecedents for better collaborative public management (Gupta et al. 1994, Ansell and Gash 2008, Boardman 2011). This omission in scholarship not only limits the applicability of academic research for government managers and leaders confronting real-world situations but also partially neglects the agency of public servants to navigate and change their institutional environment (Battilana et al. 2009, Quick and Feldman 2014).

This article asks what processes, configurations, and tools support building administrative capacity for transboundary collaborative crisis management when government organizations have significant baseline capacity constraints. This research question and the study's results emerged abductively (Locke 2011, Tavory and Timmermans 2014) during an extreme case study (Pratt et al. 2006, Mills et al. 2009, Mele and Belardinelli 2018) of Missouri state government. The study, which initially addressed the organizational transformation of a Missouri state agency, is based on observational data of over 60 crisis management meetings in Missouri state

government, 67 research interviews, over 200 archival documents, and an internal longitudinal survey of nearly the entire executive branch of government with more than 20,000 respondents per wave. The executive branch of Missouri state government is well-positioned to address this research question because of a pronounced tension in the data between low levels of organizational learning, collaborative norms and structures, leadership, role clarity, trust, and investment in the government workforce in Missouri prior to the pandemic, on one hand, and Missouri's highly collaborative and relatively competent administrative COVID-19 response on multiple dimensions, on the other.

The results of the study demonstrate the integral role of a process and concept I call bureaucratic backstopping in supporting collaborative crisis management for government organizations facing significant baseline administrative capacity challenges. Bureaucratic backstopping is the process of internally moving around people, responsibilities, and resources across bureaucratic boundaries to fill gaps in the state's own capabilities. In Missouri, bureaucratic backstopping contributed to the ability of the state's crisis management leadership team to make the most of public servants' existing skillsets, thereby unleashing a form of surge capacity. In addition, through bureaucratic backstopping, Missouri identified and placed public servants in key visible positions who could model for other government employees the desired practices and norms during the initial stages of the crisis response, thereby nurturing a learning forum.

The results suggest that effective bureaucratic backstopping emerged in Missouri because of a combination of pre-existing relationships between the crisis management leadership team and middle management across the state government, operational templates and coaching from an outside consulting firm, and technology-enabled multi-directional visibility into ongoing tasks

and decisions. The paper develops a historically grounded explanation and theoretical model for how these mechanisms mutually supported each other and contributed to enhanced collaborative crisis management during the COVID-19 pandemic. Nevertheless, bureaucratic backstopping was one factor among many contributing to the strength of Missouri's administrative response to COVID-19.

The model and findings make three primary contributions to scholarship on collaborative crisis management (Nohrstedt et al. 2018, Nohrstedt and Bynander 2019, Parker et al. 2020). First, the results extend our understanding of organizational learning processes by identifying a pathway to promote learning forums when prerequisite skills and prior experiences with open information sharing and principled engagement, as identified in previous scholarship (Moynihan and Landuyt 2009, Emerson et al. 2012), are limited in public organizations. Second, the study demonstrates how surge capacity can emerge in a resource-constrained system of government organizations during a transboundary crisis based on bureaucratic backstopping and a leadership team's ability to identify, connect, and assign additional responsibilities to trusted, willing, and able public servants across a state. Lastly, these findings provide transferable and practical concepts for supporting and maintaining collaborative crisis management when a system of government organizations has low baseline administrative capacity and limited pre-existing collaborative governance structures and norms.

However, the results also suggest that improving collaborative crisis management capacity in Missouri in this case was associated with transferring a degree of power over state administration to private consultants outside the state, circumventing the formal authority of untrusted actors within the executive branch of government, and exacerbating burnout among public servants. The inter-dependencies between supporting collaborative crisis management in

administratively weak state governments and these phenomena highlight tensions between different conceptions of the democratic legitimacy of government power during a crisis as well as the consequences of ad hoc institutional arrangements during a crisis on public servants' wellbeing. These critical issues need to be further explored.

TRANSBOUNDARY CRISES AND THE CHALLENGE OF LEARNING TO COLLABORATE DURING A CRISIS WITHOUT PRE-EXISTING COLLABORATIVE SPACES

Crises are “periods of upheaval and collective stress, disturbing everyday patterns and threatening core values and structures of a social system in unexpected, often unconceivable, ways” (Rosenthal et al. 2001). As such, crises force government bureaucracies to deviate from their routines and manage both existing programs and new services in the face of uncertainty (Farazmand 2017). While the literature provides multiple typologies for studying the evolving nature of crises (Boin et al. 2016, Bundy et al., 2016), Ansell and colleagues (2010) introduced the term transboundary crises to describe crises that transcend multiple governmental jurisdictions, functional policy areas, and fixed time horizons—such as climate change or pandemics. They further suggest several specific administrative competencies for mitigating the impact of transboundary crises: distributed sensemaking, in which the ability to collect, analyze, and act upon information is located across multiple loci in a system; networked coordination facilitating synchronization and alignment between multiple actors; surge capacity for adapting and allocating additional resources to areas of critical need; and formal boundary-spanning structures that provide task clarity and mitigate bureaucratic infighting.

This framework, among others in the crisis management space (Bundy et al. 2016), makes crisis management literature prime territory for fruitful overlap with scholarship on collaborative governance (Ansell and Gash 2008) and organizational learning processes in the

public sector (Moynihan and Landuyt 2009). The subsequent field of collaborative crisis management integrates insights and findings from these respective literatures in order to help address the distinctive challenges of collaborating during a crisis (Nohrstedt et al. 2018).

Collaborative crisis management is defined as “the collective efforts of multiple autonomous actors working across organizational boundaries, levels of authority, and sectors to prepare for, respond to, and learn from risks and extreme events that disrupt our modern society” (Parker et al. 2020).

While scholarship demonstrates immense obstacles to effective collaborative crisis management for government organizations (Nohrstedt et al. 2018, Nohrstedt and Bynander 2020, and Parker and Sundelius 2020), previous studies suggest and theorize key supportive antecedents. These findings include, but are not limited to, a pre-history of cooperation between the respective actors (Ansell and Gash 2008), principled engagement in which participants share and deliberate about information (Emerson et al. 2012, Yang and Maxwell 2011), and pre-existing distributed information management systems (Steelman et al. 2014). In addition, several studies emphasize the role of administrative flexibility in which public servants have the resources, skills, and imagination to move away from routinized structures and tasks (Zhang et al. 2018, Eckhard et al 2021, Lenz and Eckhard 2022). The collaborative crisis management literature also views relational trust as a foundational pillar (Moynihan 2009a, Boin and Bynander 2015, Parker et al. 2020)

Nevertheless, the respective literatures contributing to scholarship on collaborative crisis management suggest a pronounced catch-22 for government agencies seeking to learn collaborative practices during a crisis. To collaborate effectively, government organizations without highly developed collaborative systems need to learn new information-sharing norms

and procedures (Moynihan 2009b, Parker and Sundelius 2020). Meanwhile, effective organizational learning is heavily based on already having collaborative spaces as well as experiences openly sharing and reflecting on information (Moynihan and Landuyt 2009). Therefore, learning to collaborate within and across government organizations heavily relies on already having the skillsets and norms that these organizations are trying to learn. Previous scholarship provides limited insights into how government organizations can address this dilemma. To elaborate, Moynihan and Landuyt (2009) stress the importance of learning forums—spaces supporting open dialogue about the meaning and implications of information—in organizational learning processes, as well as the role of adequate resources, empowered workers, mission orientation, and information systems. Drolc and Keiser (2021) demonstrate that responding to evidence of poor performance in executive branch organizations requires both agency-level capacity and capable oversight systems. However, these prerequisites for organizational learning are also key characteristics supporting collaborative governance—such as principled engagement in which participants share and deliberate about information (Emerson et al. 2012, Yang and Maxwell 2011), distributed capacity and resources (Ansell and Gash 2008, Emerson et al. 2012), and facilitative leadership (Ansell and Gash 2008). In effect, these combined findings suggest that effectively learning collaborative practices and responding to evidence of poor performance rely on already having the structures, routines, and norms supporting collaborative processes that a government organization is trying to create.

Crises further and acutely compound these traditional challenges associated with organizational learning. The limited scholarship on intra-crisis organizational learning—the processes of learning during a crisis—argues that crises are environments that may heighten the consequences from mistakes, dissuade sharing unpopular information and evidence of errors, and

increase aversions to providing and receiving constructive feedback – especially across levels within an organizational hierarchy (Moynihan 2009b, Parker et al. 2020).

Moreover, as intertwined but separate issues, transboundary crises present specific challenges to identifying and accessing additional resources for crisis management—including human capital—especially for government systems with limited slack in personnel and resources. Although a broad literature establishes the relationship between human resources in administrative agencies and organizational performance broadly defined (Potter and Shipan 2019, Hansen 2011, Carpenter et al. 2012), the crisis management literature specifically recognizes the challenges of identifying, accessing, and integrating additional personnel and resources during a crisis management response under chaotic conditions. As Ansell and co-authors (2010) argue, access to “surge capacity” during a crisis “raise[s] a problem of cross-jurisdictional dependence in that the ability to plan for resources from elsewhere in a larger network of public health actors is eroded by the transboundary nature of the crisis” (p. 198). Previous scholarship provides limited insights into identifying and accessing surge capacity in already resource-constrained environments during a transboundary crisis.

Scholarship across political science, sociology of bureaucracy, and public management addresses aspects of these organizational learning and administrative capacity challenges that confront collaborative crisis management in administratively weak environments. Yet previous literature does not provide sufficient explanations of how government organizations can overcome these dilemmas. For example, in the international development context, McDonnell (2020) addresses how bureaucratic pockets of effectiveness can emerge in neo-patrimonial institutional environments with a limited history of high-performing public organizations. The theory also helps explicate strategies for responding to interorganizational dependencies that

hinder the high performance of an individual team or government agency. However, McDonnell's work pertains to pockets of bureaucratic effectiveness in conventional state administration rather than distributed and collaborative administrative capacity during a crisis. Moreover, while government outsourcing and public-private partnerships are at times advanced as solutions to administrative capacity challenges under particular circumstances (Andrews and Entwistle 2010, Krasner and Risse 2014), comparative analyses from Lazzarini and colleagues (2020) find that outsourcing and external collaborations cannot fully make up for limited organizational capacity *within* government bureaucracies. Similarly, Prado and Trebilcock (2018)'s scholarship on institutional bypasses articulates how institutional reformers can create "alternative institutional regimes that provide citizens with a choice of service provider" (p. xi), but this research hardly describes crisis situations in which government actors seek to improve a crisis management response system rather than create choices between competing systems. Furthermore, Ansell and Gash (2018)'s work on collaborative platforms as a governance strategy provides suggestive insights for promoting synergetic connections and positive feedback cycles. However, the concept does not fully align with more hierarchical and coercive structures common in the crisis management space.

This paper therefore addresses a puzzle suggested but not thoroughly addressed in previous scholarship: How can a system of government organizations with limited experiences, skills, and processes supporting collaborative crisis management learn during a crisis to collaborate more effectively? The proceeding sections of this paper subsequently describe the research setting in which this question was developed and studied, delve into the data and methods, present the findings, and finally discuss the theoretical and practical implications for enhancing collaborative crisis management.

EMPIRICAL CASE—MISSOURI STATE GOVERNMENT AND THE COVID-19 PANDEMIC

This case study of Missouri state government focuses on the administrative response to the COVID-19 pandemic. However, analyses and a brief history of the executive branch of government prior to the pandemic are necessary to contextualize the research. In Missouri, internal survey data across the executive branch of government demonstrates that the factors theorized and empirically shown to support collaborative governance, such as previous and mutually beneficial collaboration (Ansell and Gash 2007); crisis management, such as role clarity (Curnin and O’Hara 2019); and organizational learning, such as learning forums (Moynihan and Landuyt 2009) were limited in the state government prior to the COVID-19 pandemic. The survey data, summarized in Table 1, for example, shows that only 44% of state government employees believed that, “Leaders in the organization (including my supervisor) respond to employee feedback” while only 54% of employees in the state responded that they often or almost always “receive the training and development they need to be effective in their jobs.” Missouri public servants’ responses to a similar but separate survey suggest that the state ranked in the bottom 25% of all organizations surveyed by McKinsey & Co. on measures of organizational health (Schmitt 2018).

Research interviews with Missouri state government employees align with and further substantiate this description of operational challenges and administrative weaknesses in Missouri state government. For example, the interview data strongly suggests solidified organizational silos and lack of collaboration within and across agencies before the pandemic. To note, Missouri state government employees are also among the lowest-paid of any state in the United

States (Compensation & Benefits Study Report 2016). Additional information about these multiple sources of data is presented in the Data and Methodology section.

Table 1.1. Overview of Missouri State Government Employee Survey Responses

Survey Question	Percentage of respondents who selected “often” or “almost always”	Collaborative Crisis Management & Organizational Learning Concepts	Citations
Managers encourage honesty, transparency, and candid, open dialogue	59.6%*	learning forums, trust, principled engagement	Moynihan and Landuyt 2009, Klijn et al. 2010, Moynihan 2009, Ansell and Gash 2008, Emerson et al. 2012
Leaders in the organization (including my supervisor) proactively share important information with employees	55.0%*	learning forums, common understanding, principled engagement	Moynihan and Landuyt 2009, Okhuysen and Bechky 2009, Emerson et al. 2012
I understand how I contribute to my organization’s vision	69.4%*	mission orientation, role clarity	Moynihan and Landuyt 2009, Curnin and O’Hara 2019
The organization effectively responds to the changing needs of citizens, clients, business partners, and other stakeholders	47.3%+	administrative flexibility, adaption, prehistory of cooperation or conflict	Eckhard et al. 2021, Zhang et al. 2018, Ansell and Gash 2008
Leaders in the organization (including my supervisor) respond to employee feedback	44.2%*	flexible leadership, administrative flexibility, adaptation	Waugh and Streib 2006, Eckhard et al. 2021, Zhang et al. 2018
Managers actively solicit employee involvement in setting the organization’s direction	40.7%^	shared authority	Moynihan 2009
The organization solicits feedback from its stakeholders to improve its ability to meet their needs	37.2%-	administrative flexibility, capable oversight systems, adaptation	Eckhard et al. 2021, Drolc and Keiser 2021, Zhang et al. 2018
Leaders in the organization (including my supervisor) make high quality decisions	56.9%*	management skills	Nohrstedt et al. 2018

Survey Question	Percentage of respondents who selected “often” or “almost always”	Collaborative Crisis Management & Organizational Learning Concepts	Citations
Employees receive the training and development they need to be effective in their jobs	55.5%*	adequate resources, empowered workers	Moynihan and Landuyt 2009
Employees are held accountable for the results they are expected to deliver	58.7%+	accountability	Okhuysen and Bechky 2009
Employees clearly understand what is expected of them	72.0%+	role clarity	Curnin and O’Hara 2019
Leaders in the organization (including my supervisor) create a sense of teamwork and mutual support throughout the organization	53.3%*	trust, management skills	Klijn et al. 2010, Moynihan 2009, Nohrstedt et al. 2018
Leaders in the organization (including my supervisor) give employees the autonomy to make their own decisions	53.3%*	trust, shared authority	Klijn et al. 2010, Moynihan 2009
Leaders in the organization (including my supervisor) role model the values of the organization	55.4%*	leadership, management skills	Nohrstedt et al. 2018
Managers consult with employees on issues that affect them	50.1%*	trust, shared authority	Klijn et al. 2010, Moynihan 2009
Managers in the organization provide praise, thanks, or other forms of recognition	45.9%+	management skills	Nohrstedt et al. 2018
The organization’s organizational structure helps create clear accountability	45.6%-	accountability	Okhuysen and Bechky 2009
The organization’s employees are highly motivated	38.4%+	employee motivation, mission orientation	Moynihan and Landuyt 2009

Survey Waves Prior to the COVID-19 Pandemic. All survey waves had over 20,000 responses, were administered to over 40,000 Missouri state government employees, and had response rates over 50%.

+ March 2019

* June 2019

- September 2019

^ December 2019

Missouri’s Chief Operating Officer and Organizational Reform Efforts

In June 2018, then-Lieutenant Governor Mike Parson, a Republican, became governor of Missouri in the wake of Governor Eric Greitens’s resignation during a political scandal.

Governor Parson was elected to a full term in November 2020. During the Greitens

administration and for almost three years of Governor Parson's tenure, Missouri state government had a Chief Operating Officer (COO), a relatively rare position in state governments in the United States (Barrett and Greene 2017). This position was originally created by Governor Greitens, who appointed Drew Erdmann to the role. Erdmann, a partner at the consulting firm McKinsey and Co. immediately prior to the appointment, had previously served on the National Security Council during the George W. Bush administration and holds a PhD in history.

Guided by the results from the quarterly survey of Missouri state government employees, which COO Erdmann had introduced, the COO initiated and led several reform efforts across the state government. During the Greitens administration, Missouri initiated a new performance review system that discontinued numeric performance scores and instead required monthly meetings between employees and their supervisors. Starting in 2018 under Governor Parson, COO Erdmann designed and implemented two new leadership and management training programs for government employees: the Missouri Leadership Academy, which focused on identifying and training leaders from the 16 agencies in the state; and the Missouri Way, a general management training program. The state also purchased access to LinkedIn Learning, a repository of online courses for professional development, for all state government employees. In addition, prior to the pandemic, the COO oversaw the re-organization of several state agencies in which several divisions from the Department of Economic Development were transferred to other agencies.

COVID-19 Pandemic

On March 13, 2020 Governor Parson formally declared a state of emergency in Missouri due to COVID-19. On March 18, 2020, the first COVID-19 death in Missouri was announced. The state workforce began transitioning to working from home during that same week.

Missourians were officially ordered to shelter in place and social distance by Governor Parson on April 3. The COVID-19 pandemic was an unheralded public health and economic crisis for the state—with the closest historical parallel being the 1918 Spanish flu. As of this paper’s drafting, COVID-19 directly caused the deaths of over 20,000 people in Missouri (New York Times 2023). The COVID-19 pandemic epitomized a transboundary crisis (Ansell et al. 2010)—it affected all aspects of society, was not contained within a single geographic or political domain, and had uncertain time horizons.

As a state, Missouri further faced significant underlying public health challenges. Missouri ranks lowest in the United States for per capita spending on public health (Acosta et al. 2021) and poorly on several other measures of public health, such as eighth-highest influenza (flu) death rate (CDC 2018) and tenth-lowest for life expectancy (Arias et al. 2018).

DATA AND METHODOLOGY

This study is based on over 140 hours of exposure to Missouri state government through research interviews and non-participant observation of crisis management meetings, as well as survey data of all agencies within the executive branch of government. The study pursued an abductive methodology (Locke 2011, Tavory and Timmermans 2014, Mele and Belardinelli 2018) that further integrated archival data and news sources to triangulate the findings (Small 2011). The data and analyses cover the time-period from July 2017 to June 2021 but focuses on the state’s COVID-19 response starting in January 2020.

Data Collection

Semi-structured interviews. I conducted 67 semi-structured interviews with 60 Missouri state government employees and consultants involved in Missouri’s Covid-19 response over an

eighteen-month time period from October 2020 to May 2022. Initially, participants were selected based on the recommendations of key informants and a volunteer form that was distributed to the entire department (DED) or a specific team (Division of Energy within DNR). The participant sampling protocol evolved from an open sign-up in participating agencies to theoretical sampling seeking key individuals involved in the state's COVID-19 response and based on emerging findings from the data (Warren 2001). All interviews were conducted over a secure online video platform and lasted between 50 and 100 minutes.¹ The interviews were distributed as following: Department of Economic Development (DED), 39; Department of Natural Resources (DNR), 13; McChrystal Group Consultants, 5; COO and Governor's Office, 5; Fusion Cell Coordinating Team, 3; HealthNet, 1; Office of Administration, 1.

Non-participant observations. I observed 68 COVID response meetings within Missouri state government lasting a total of roughly 60 hours. The non-participant observational research occurred between February and June 2021. I sought to observe as many COVID-19 related Missouri government meetings as possible—a form of sampling for range (Weiss 1994). Given that the vast majority of Missouri state government employees were working from home during this stage of the pandemic, all of the non-participant observation was virtual and took place through the state's video conferencing platform.

Survey Data. The Missouri Office of Administration administers a longitudinal organizational and management survey to government employees working in the 16 agencies in the state. This survey data—referred to as the Quarterly Pulse Survey (QPS)—has 11 waves

¹ All interviewees were guaranteed non-identifying attribution if quoted in a research publication or if the results were shared with the leaders of their agency. For informants uniquely identifiable by their position or organizational affiliation—such as the Director of DED or McChrystal Group Consultants—I granted the right to review direct quotations before the publication of the research. This condition was often necessary for their participation but did not ultimately change the substance of the findings or the manuscript.

between December 2018 and July 2022. Each wave has between 14,000 and 20,000 respondents and the participation rates range from 42% to 57%. The data is anonymized on the individual level. I gained access to this data through a data use agreement with the Missouri Office of Administration. I primarily used this data to analyze the baseline administrative capacity in Missouri prior to the pandemic. A sample of questions from the survey instrument that overlap with the theoretical concepts of interest in this paper are presented in Table 1.

Archival materials. The researcher also had access to over 200 archival documents containing 8,787 pages from the Missouri executive branch of government. This data was used to triangulate the interview and observational data and to help reconstruct the full history of the state's COVID-19 response.

News reporting. Lastly, I relied on ongoing news coverage in Missouri to further triangulate between the interview, observational, and archival research. News reporting was particularly useful for documenting and checking the timeline of events.

Analytical Approach

The research study initially addressed the organizational transformation efforts at the Missouri Department of Economic Development (DED). However, during the initial wave of interviews, I noticed a surprising puzzle emerging from the data. Interviewees from DED described a profound level of information sharing, erosion of bureaucratic silos, and high levels of organizational responsiveness during the COVID-19 response—which they stated was significantly different from how the state normally operated. Interviewees also commonly identified a low level of COVID-related deaths in nursing homes as a source of pride in their state's COVID response. I became curious about these unexpected patterns in the data because both existing theory about government capacity and my data collected on the state of affairs in

Missouri could not explain how these collaborative crisis management practices were seemingly emerging in the state.

I subsequently began exploring additional sources of data to assess the purportedly high quality of Missouri's COVID-19 administrative coordination and flexibility. In the context of nursing homes, there was an unfortunate semi-natural experiment in the state further suggesting—but not proving—that executive branch agencies were contributing to lower-than-expected death rates. The Missouri Veterans Homes—which are under the independent authority of the Missouri Veterans Commission and did not participate in the state's centralized COVID-19 response system—experienced a tragic level of COVID related deaths. Meanwhile, nursing homes more directly under the purview of the Missouri Department of Health and Senior Services (DHSS), and thus, the state's centralized response, had a significantly lower death rate during the same period (Kaveney 2020). This intra-state comparison does not prove causal attribution for public health outcomes. It does, however, provide a counterfactual within Missouri for how nursing homes systems not participating or not directly under the authority of the state's primary COVID-19 government administrative system fared.

A nascent picture began to emerge. The executive branch of Missouri state government was conducting a better-than-expected job of organizationally responding to the COVID-19 pandemic. This assessment does not address policy levels decisions—such as mask mandates, social distancing, or school re-openings. Rather, the limited counterfactual analyses suggest that given the level of state administrative capacity in Missouri prior to the pandemic, the state's administrative response could have been significantly worse. How was this happening and what was going on? Based on this surprising finding and curiosity, I pivoted to observational,

interview, and archival research to further study Missouri's COVID-19 response and crisis management capabilities.

This research approach was aligned with an abductive methodology (Locke 2011, Tavory and Timmermans 2014) in which researchers, motivated by surprising findings that existing theory cannot explain, iteratively move between the data and existing scholarship (Ketokivi and Mantere 2010, Gonsalves 2020). Literature on research design for extreme cases also guided this study's methodology and theory development given that extreme cases provide an opportunity to study dynamics that are often not as visible under normal circumstances (Pratt et al. 2006, Mills et al. 2009). Moreover, given that the research goal is to develop theory from a case study, this study makes no claim about the generalizability of the findings. Rather, it seeks to generate transferable concepts and patterns (Gioia et al. 2013) for studying *how* government organizations can overcome limited organizational resources when facing a transboundary crisis. The nascent state of theory for this particular research question further suggests the methodological fit with multiple forms of data and abductive analyses (Edmondson and McManus 2007, Nowell and Albrecht 2018).

Data Analyses

I sequenced the data collection and analyses to separate and iteratively go between developing concepts and validating the emerging patterns (Mele and Belardinelli 2018). The data collection efforts were also partially predicated on the timing of gaining research access to various parts of Missouri state government and the availability of different archival materials. I first conducted open coding (Strauss and Corbin 1998) of the interviews from informants at Missouri DED and DNR. I also sought and obtained observational research access to internal Missouri government coordination meetings and interview access to the team of Missouri

government employees operationally supporting these meetings. After open coding these additional transcripts and field notes, I began conducting second-order analyses (Gioia et al. 2013) grouping together these first-order codes into high-level concepts—such as “non-hierarchical participation” and “siloe agencies.” Figures A, B, and C in Appendix I provide a sample of the data, first-order codes, and second order concepts that emerged from the data analyses. I relied on Nvivo to store and analyze these qualitative data.

Using the concepts that emerged from this data analysis step, I began constructing a flow diagram capturing and theorizing the multiple levels of interaction underlying Missouri’s COVID-19 response (Smets et al. 2012). This analytical approach led to the identification of the mechanisms and processes supporting crisis management competencies in a low administrative capacity environment. Specific archival documents—such as decision trackers used to catalogue action items the associated decision-makers—provided rich micro-level data that helped further triangulate the findings.

This methodology does not seek to assess relationships between administrative capacity in Missouri state government and public health outcomes. The data and research design do not support such causal attribution. Instead, the paper follows Winter (2003) in assessing government implementation capacity based on intermediate operational outputs—such as information flows, analytical capacity, and responsiveness. The combination of data sources and research access in this study—although incomplete given the phenomena of interest—is still valuable and nearly unprecedented in recent public management research on state-level governments in the United States.

FINDINGS

Missouri relied on bureaucratic backstopping—which I define as the process of moving responsibilities, individuals, and resources across bureaucratic boundaries—to fill gaps in existing competencies. This bureaucratic backstopping was endogenous to the creation of a new institutional layer in state government comprised of a centralized extra-departmental leadership team and technology-enabled virtual meeting spaces. The crisis management leadership team combined pre-existing relationships with middle management across state government, centralized operational authority, and internal trust. Meanwhile, the adoption of new technologies and routines for virtual meeting spaces during remote work supported non-hierarchical information flows and co-location of relevant expertise. This administrative configuration combining bureaucratic backstopping, a leadership team with extra-organizational authority, and virtual spaces for information sharing enabled Missouri state government to work around existing organizational weaknesses, enhance its internal analytic and coordination capacity, support intra-crisis organizational learning despite limited previous experiences and skillsets supporting collaboration, and improve the quality of its COVID-19 administrative response. In addition, bureaucratic backstopping in this case was associated with exacerbated public servant burnout, the circumvention of untrusted individuals in agency hierarchies, and private consultants with a form of power over state administrative processes. The next section describes Missouri’s initial COVID-19 response and administrative adaptation before elaborating the main findings.

Initial Response and Adaptation

National guidelines from the U.S. Department for Homeland Security (DHS) direct state and local governments to create and rely on Incident Command Systems (ICS) for crisis

management response (Moynihan 2009a). In Missouri, when the pandemic first emerged, Dr. Randall Williams, the Director of the Department for Health and Senior Services (DHSS), initiated the ICS in January of 2020. However, the Governor’s Office and several members of the senior state leadership assessed that this initial crisis management structure and leadership were not operationally or personally capable of leading the state’s COVID-19 response. As recounted by several senior leaders, the pre-existing plan and processes had been developed for previous crises the state had addressed, such as tornados rather than a novel pandemic.

Subsequently, the COO and other members of the Governor’s Office began to develop and iterate a new government structure for the COVID-19 response. During this period, members of the Governor’s Office also decided to seek outside consulting support for help managing the state’s COVID-19 response. The state hired the McChrystal Group² using funding from the Missouri Foundation for Health, an NGO, rather than the state budget.³ The consulting firm’s primary service was providing structural templates and operational support for managing distributed teams during a crisis. The consultants arrived in Missouri during the first week of April 2020 and began working before the formal contract was signed.

Through this process, Missouri created a new institutional layer in state government for managing and coordinating the executive branch’s response to the pandemic. Neither the Department of Health and Senior Services (DHSS) nor the State Emergency Management Agency (SEMA) oversaw the state’s COVID-19 response. Instead, while the structure evolved over the course of the pandemic, the Governor’s Office vested administrative authority for the

² A consulting firm founded by retired General Stanley McChrystal who served as Commander of Joint Special Operations Command in Iraq and Afghanistan. The firm packaged and sold a “Team of Teams” approach, which was the title of the book co-authored by General McChrystal.

³ Missouri transitioned to paying the consulting firm directly after several months when funding from the CARES Act became available.

state’s COVID’s response in a leadership team comprised of COO Drew Erdmann, the Director of the Department of Economic Development Rob Dixon, and the Medicaid Director Todd Richardson. This team was referred to as the Fusion Cell Leadership Team and reported to the Governor. In addition, the state created three additional virtual organizational bodies for COVID-19: Covid Fusion Cell (CFC), a large information gathering and sharing meeting with roughly 100 to 300 participants from across Missouri state government; Micro Cells, cross-agency work groups focused on specific issue areas; and COVID Response Forum (CRF), an agency director and deputy director-level COVID meeting. This organizational structure and the main roles and responsibilities are detailed in Table 2.

Table 1.2. Overview of Missouri COVID-19 Response Structure

Actor	Membership	Operating Procedures*	Authority and Responsibilities
Governor Parson—Governor’s Office	Governor Parson Aaron Willard, Chief of Staff Robert Knodell, Deputy Chief of Staff Kayla Hahn, Policy Director	<i>Uncertain due to limitations in data access</i>	Chief executive with emergency powers during formally declared state of emergency
Fusion Cell Leadership Team	Drew Erdmann, COO Todd Richardson, Director of HealthNet (Medicaid) Rob Dixon, Director of Department of Economic Development	Weekly briefing meetings with Governor Parson Often met daily in person in “war room” in Jefferson City State Office building during Fusion Cell calls	“Tactical Decision Making” Operational authority over Missouri’s COVID-19 response Leadership staffing decisions for Micro Cells
COVID Fusion Cell	150–300 state government employees, also included members of	Each call lasted roughly 90 minutes	Virtual meeting space for:

Actor	Membership	Operating Procedures*	Authority and Responsibilities
	Missouri National Guard and Missouri Hospital Association	Two times a day Monday through Friday (Saturday as needed) during initial phases Transitioned to one time a day Transitioned to three times a week	Collecting and sharing information across Missouri state government Flagging issues requiring additional resources or formal decisions Providing feedback on ongoing efforts
COVID Response Forum (CRF)	Fusion Cell Leadership Team Fusion Cell Coordinating Team Members of the Governor’s Office Agency directors and deputy directors from across the state government	Three times a week during the initial phases of the pandemic Transitioned to once a week	Sat on top of the Fusion Cell Reviewed pending decisions and issues in the Fusion Cell Disseminated information to agency directors
Fusion Cell Coordinating Team	McChrystal Group Consultants Replaced by Missouri government employees (3- to 4-person team)	Full-time job supporting Fusion Cell operations Briefed CRF once a week Constant engagement with Fusion Cell Leadership Team	Prepared materials for Fusion Cell including action item tracker and spotlight presentations Sat in on Micro Cells and connected participants with additional resources and people
Micro Cells			

Actor	Membership	Operating Procedures*	Authority and Responsibilities
<ul style="list-style-type: none"> • COVID Data/Dashboards/Models • Economic Recovery • EpiTrax implementation (testing and contact tracing) • Higher Ed Response • Infrastructure • K–12 COVID Response • Long-Term Care Facilities • Personal Protective Equipment (PPE) • Resiliency for MO Citizens • State Workforce Vaccination • Strategic Communications/Public Info • Testing • Testing of State employees • Vaccine Data • Wastewater testing 			

*All operating procedures evolved over the course of the pandemic.

Characteristics and Consequences of the Leadership Team

The data suggest three primary characteristics of Missouri’s COVID response Fusion Cell Leadership team that supported—in concert with bureaucratic backstopping and virtual meeting spaces—enhanced collaborative crisis management and organizational learning: pre-existing relationships with middle management across the state government; centralized operational authority; and internal trust. These concepts emerged as second-order codes and were triangulated with archival and observational data. Table A in the Data Appendix provides an overview of data and coding schemes supporting these findings.

First, the Fusion Cell Leadership Team relied on their respective previous engagement with state government employees to access information directly during the initial stages of the pandemic and later to make staffing decisions for crisis management leadership roles in the task-

oriented ad hoc Micro Cells. Director Richardson and Director Dixon primarily identified public servants with whom they had personally worked and whom they deemed highly capable in the departments that they respectively led. In contrast, COO Erdmann heavily relied on his experience leading the management training programs across the state to identify individuals he deemed talented and capable in support of the state's COVID response. This relational work from the cumulative leadership team primarily translated into decisions about staffing leadership roles for the various Micro Cells. As one interviewee explained, "Drew invested pretty heavily his time and effort in picking out the leaders of Micro Cells, like, I know this person from my leadership academy." Another interviewee stated, "A lot of that was facilitated through Drew and the Office of Administration because he knows the people at that deputy level...And so he was able to go to those people and say, hey, who's the right person for the job?" COO Erdmann, in recollecting the events during the initial stages of the state's COVID response, highlighted how his experience running the Leadership Academy enabled him to access operational information regarding the state's call center that DHSS leadership was not privy to:

I was trying to figure out how to give [the call center] the resources and what else needed to be done. With colleagues at the Office of Administration, we started to work with the people that they had running their call center, who happened to be a former graduate of the Leadership Academy first class. But the call center is disconnected from the top of its own organization, as far as I could tell. If you ask the senior leaders [of DHSS] what the status was of their call center in its first weeks, they didn't know, but I did.

Second, the Fusion Cell Leadership team had centralized operational authority over allocating responsibilities for COVID-19 related tasks and evolving the crisis management system's procedures and norms. A member of the Fusion Cell Team, who was support staff for its Leadership Team, emphasized the leadership's team authority over, "creating a new line of effort or a new place to gather data." While decision making authority over policy-level or spending decisions still resided within the relevant agencies or the Governor's Office, the

centralized operational authority was partially based on the COVID Response Leadership Team at times usurping the formal responsibilities of positions located with the existing agency hierarchies. For example, the Missouri Medicaid Director Todd Richardson was the Healthcare System Lead and Fusion Cell Chair during the state’s COVID response rather than the Acting Director of the Department of Social Services (DSS) Jennifer Tidball—whom Director Richardson technically reported to within DSS. Similarly, multiple interviewees described how Todd Richardson was functionally in charge of public health in the state in the place of the Director of DHSS Dr. Randall Williams. An archival document referred to as the Decision Log, which tracked ongoing COVID-19 action items and decisions, conveys that Todd Richardson had the largest portfolio of responsibilities over administrative decisions ranging from “Choose type(s) of contracting processes into which the state should enter to support various testing lines of effort (esp. Community Sampling)” to “Whether to submit draft legislation to develop and implement crisis standards of care.”

The centralized authority of this COVID-19 response leadership team—Todd Richardson, Rob Dixon, and Drew Erdmann—appeared to contribute to role clarity, help mitigate jurisdictional uncertainty and disputes, and expedite access to resources across the state government. Role clarity was a common theme from interviewees describing the benefits of participating in the Fusion Cell while observational data suggest that ownership over specific tasks was reinforced through “spotlights” and “end of week imperatives” in which public servants responsible for lines of efforts presented updates on their teams’ work to the Fusion Cell leadership and hundreds of other participants present on a Fusion Cell call. When individuals faced pushback over assuming new responsibilities and authority, such as leading a Micro Cell, an interviewee recounted how the Fusion Leadership team convened an in-person meeting—

while state government employees were primarily working remotely—to communicate and reinforce that the Director of the HIV and Hepatitis C Division within DHSS was in charge of an ad hoc Contact Tracing Micro Cell. The interviewee felt that the authority emanating from the Fusion Cell Leadership Team helped solidify the leader of the Micro Cell’s new authority.

The data also suggests that the centralized authority helped remove obstacles impeding task progress—both in terms of the availability of personnel and access to data and resources. The slide deck from the first Fusion Cell meeting on April 7, 2020 describing requirements for participation, stated:

If you find that you do not have what you need from your organization in terms of time, resources, or access to your leadership, please notify Todd, and he will work with you and your leaders to resolve any resourcing issues.

A consultant from the McChrystal Group elaborated on how the consultants worked with the Fusion Cell Leadership team to ensure that leaders of the various Micro Cells received the needed staffing support from multiple agencies. He emphasized that when support for the leader of a Micro Cell was not forthcoming from other agencies, even after follow-ups from the consultants:

When I couldn’t get the ball to move, then I would go to Drew or Todd, depending on the agency, because they both had different types of relationships with the agency heads and the deputies. Once I identified the bottleneck to them, they would quickly reach out to the individual or agency to resolve any blockages.

This dynamic was intertwined with the ability of public servants across the state to communicate directly with the Fusion Cell leadership team regarding resource and data requests. Decision request slides presented during the Fusion Cells ranged from “Support in getting federal data from CDC and HHS” to “Support from [Governor’s Office] legal counsel on crisis standards options”—and subsequently helped flows of information avoid the traditional agency hierarchy.

Third, the Fusion Cell Leadership team in Missouri was comprised of three individuals with pre-existing rapport and internal trust. The data do not fully capture the internal dynamics of this team, but it does support cautious descriptions about their history and how they functioned. According to interview data with these three individuals, they highly respected each other and there was a lack of significant interpersonal conflict, while interviewees who worked alongside the leadership team emphasized their complementary skillsets and personalities. A colloquial term emerged for this team, “the three amigos.” Their relationships and interactions also began before the COVID-19 pandemic. Prior to the pandemic, Todd Richardson had served as the Speaker of the Missouri House of Representatives during which he had engaged in policy and budget discussions with COO Erdmann as a member of the Governor’s Office. Meanwhile, COO Erdmann had been part of the decision to hire Rob Dixon as the Director of DED and subsequently worked with him extensively during the organizational restructuring process of his agency. The data do not explain why Missouri adopted a team leadership structure for responding to the COVID-19 pandemic rather than placing a single public servant in charge of the state’s COVID-19 response. Nevertheless, leadership of Missouri state government’s administrative response to the COVID-19 pandemic seemingly resided within a high-trust team.

Ultimately, this crisis management team structure in Missouri provided relational connections with more public servants across the executive branch of government than an individual leader would have at his or her disposal. Meanwhile, the authority existed to jettison standard operating procedures for crisis management and assign responsibilities for COVID-related tasks. The next sections demonstrate why these dynamics were integral to developing collaborative crisis management and organizational learning processes across the executive branch of Missouri state government.

Technology-Enabled Virtual Spaces, Non-Hierarchical Information Flows, and Co-Location of Expertise

In response to the COVID-19 pandemic, the executive branch of Missouri state government acquired video-conferencing technologies in order to support remote work for the executive branch employees. The virtual meeting spaces supported non-hierarchical information flows in a nearly unprecedented manner in Missouri state administration, as well as co-location of expertise across Missouri state government, both of which were intertwined with and contributed to bureaucratic backstopping.

The adoptions of new video-conferencing technologies and virtual meeting spaces in Missouri state government were a radical departure from administrative practices prior to the pandemic. Interviewees extensively described how organizationally siloed their experience of public service had been in Missouri, as well as how the physical layout of teams within Missouri state government office buildings inhibited communication and collaboration across teams and agencies. Although the State Emergency Management Agency (SEMA) had the technological capacity for video conferencing, Missouri lacked the technological infrastructure for integrating public servants and agencies across the rest of the state government into a collaborative crisis management system prior to the pandemic.

Nevertheless, the adoption of video-conferencing technologies—which were the material backbone of the Fusion and Micro Cells—supported non-hierarchical information during Missouri’s COVID-19 crisis management response. The Fusion Cell enabled the Leadership Team to access information directly from individuals closest to the issue and make rapid decisions when the Leadership Team had the necessary authority. As previously described, the normal structure of the Fusion Cell contained “spotlights” and “end of week imperatives” in

which participants in the Fusion Cell presented updates about the progress of their teams' tasks to the Fusion Cell leadership and hundreds of other participants on a Fusion Cell call. In addition, interview and observational data convey, as Todd Richardson explicitly described, a formal decision-making process in which "if a team lead needed a decision made, they would bring forward a decision item...depending on the decision, the decision could be made at that Fusion Cell or it could have to be kicked to somebody else in the event that it needed somebody else needed to give the final go ahead on it." Meanwhile, the COO recounted how Micro Cells provided him direct awareness about the progress of important tasks. "I joined some of those Micro Cell meetings myself because it was so important, for example meetings about school openings to make sure that they have the support they needed. And I didn't lead, I let it play out. Sometimes, Todd would do the same thing in case there was a need or just to assess, is it on track?"

Similarly, the Fusion and Micro Cells supported the direct dissemination of information to public servants across the state government from distributed nodes in the crisis response network. These information flows seemingly bypassed filtering through the agencies' respective hierarchies and quickly provided state government employees on the calls real-time information from across the state's COVID-19 response system. A member of the Marketing and Branding team at DED described how:

Anybody who was involved with things related to COVID—mitigation techniques, PPE, marketing, etc.—would get on these calls daily and share information. You could be on the fusion cell and be at my level, or you could be the CFO of the state. So that was guaranteeing that information was quickly going through all the levels and not relying on a structure of cabinet says to this department, which then has to deliver the message to division, which has to deliver its staff who deliver it to the front-line supervisors, etc. It was all done in one big sweep through the fusion cell.

This distributed awareness also supported opportunities to provide feedback on pending COVID response decisions and request needed resources for ongoing tasks. A member of the Fusion Cell team recounted that they saw the primary strength of the Fusion Cell as providing an opportunity for public servants from across state government to observe and weigh in on pending decisions—the Fusion Cell itself was not a decision-making body:

The whole point of bringing it to the Fusion Cell is because it's a decision that needs more input. And we want to make sure that no one is going to look at this decision later and say, I didn't have a chance to bring up all these problems or whatever. If the decision is about funding, it's usually at the Governor's office level or with the Office of Administration...the normal decision-maker wouldn't change from other times in the state's operational history. But what does change is this venue for multiple state agencies and multiple layers of multiple state agencies to have eyes on an operational or funding change before it's implemented. To raise issues and concerns or add on or whatever the case is.

While the observational data provide limited instances of individuals raising significant challenges to pending decisions raised during Fusion Cell meetings that I had access to, multiple interviewees described this dynamic which provides suggestive evidence that it at times occurred. The archival and observational data, however, extensively document resource requests during the Fusion Cells. Such requests ranged from needing insurance coverage for PPE stockpiles to the banal, such as, “Need ipad11 Pro cases—purchased and due to arrive June 1. Any agencies have some to borrow until then?”

These virtual meeting spaces co-constructed a new institutional layer in Missouri state government. As long documented by organizational scholars, control over and access to information underpins power in organizational settings (Pettigrew 1972, Marsden 1983). In Missouri, the new technologies and meeting spaces specifically enabled the centralized leadership team to bypass information filtering through the traditional agency hierarchy—thus underpinning their own ability to observe and make adjustments to the allocation of

responsibilities for ongoing tasks. Meanwhile, the non-hierarchical information flows enabled nodes across the network to make resource requests and identify needs both to the centralized leadership team and to other participants across the state government. As such, this structure constituted an institutional layer in Missouri because it combined formal authority, control over information flows, and procedural norms in a self-reinforcing regularity of behavior (Greif 2006) on top of the existing government bureaucracies (van der Heijden 2011).

In addition, these virtual tools and meeting spaces in Missouri supported co-location of expertise during the state's crisis management response. Rather than simply promote collaboration between respective government agencies during the crisis through a governance platform, the centralized operational authority also instantiated new ad hoc work groups called Micro Cells that brought together government employees with relevant expertise in a COVID-19 related issue. These Micro Cells primarily existed in virtual spaces and helped address a particular administrative challenge in Missouri state government—the dispersion of relevant skills and expertise for COVID-19 related responsibilities. A DED employee at the manager level described how Micro Cells helped bring together talent from across state government:

Telework has made a lot of us more connected, and some of that goes to Micro Cells, which is a way that we were all splitting up and working as teams, very ad hoc teams. The Micro Cell idea was something that, if someone needed you, they could call on you. You might come and go from a Micro Cell or you might join the team and stay with the Micro Cell until it dissolved because it's met its goal. But it was a way of bringing the talent that you need together, regardless of division and department layout.

A consultant from the McChrystal Group provided the specific example of identifying and virtually co-locating state employees with experience and expertise in contact tracing despite physical and organizational barriers between them prior to the transition to remote work:

There are people who know how to do contact tracing, they just weren't co-located in any way to respond to something like this. And so it was getting all of those people onto a team and figuring out who's going to be in charge of the team.

This co-location of expertise appeared to enhance coordination and analytical capacity both in the formal Micro Cells and for ad hoc action items. Although enhanced analytical capacity is hard to demonstrate, observational data from the Micro Cells shows how the meetings produced conversations about data analysis methodologies and insights that would likely not have occurred in the Micro Cells' absence—such as the following internal chat discussion about vaccine hotspots from the Vaccine Data Micro Cell:

From WC to Everyone:

I'd be interested to hear what folks working in this area think. Does this line up with what you're seeing out in the communities? Or do we need to take another look at this analysis?

From JM to Everyone:

The Ripley County Health Center is located in Doniphan. When you get into very rural communities like in Regions G and E, you will find the majority of the population are centered in the same communities the local health departments are located in. Would this most likely explain the hotspots?

From WC to Everyone:

That's great insight. I bet we could easily do an overlay of the LPHA locations to double check. I have a hunch you are correct.

From JM to Everyone:

Thanks, WC. If there is a population overlay, that might also show why these census tracks have higher rates. What do you think?

From GW to Everyone:

You may want to include the hospitals and FQHCs in your overlay with LPHAs, as these will contribute to higher vaccination rates as well.

From WC to Everyone:

Good point, GW.

From JH to Everyone:

And will continue to be important components in an ongoing vaccine strategy.

from GW to Everyone:

The hospitals/schools are often the largest employer in small rural areas and may increase vaccination rates

from AM to Everyone:
HI GW: we do include the LPHAs, RHCs and FQHCs in the vaccine desert analysis.

From MD to Everyone:
Love this idea.

These data suggest that the co-location of state government employees with insights into, and analytical capabilities for, analyzing vaccine data apparently contributed to more robust internal conversations and data analysis methodologies. Virtual co-location of expertise was a mechanism for addressing the dispersion of relevant skills and expertise in support of collective problem solving and implementation during the COVID-19 pandemic.

Bureaucratic Backstopping

In Missouri, however, these processes were necessary but insufficient in enabling the state government to address its own administrative capacity challenges during the pandemic and to develop a strong collaborative crisis management system. The pandemic both drastically expanded the workload for existing processes clearly housed within government departments and created new responsibilities and tasks that overlapped with but were not exclusively the domain of a single state agency. Moreover, COVID-19 generated an imperative for the state administration to recognize and address evidence of its own poor performance. As previously argued, these dynamics engender operational tensions during a transboundary crisis such as accessing surge potential in a system that becomes severely resource-constrained and cultivating both open sharing of, and internal reflection about, information and performance when the consequences of mistakes are high. These challenges are compounded and particularly daunting in systems of government organizations that have limited prior experience in successful collaborative governance (Ansell and Gash 2008), few structures and norms supporting learning

forums (Moynihan and Landuyt 2009), and low levels of trust between actors at different levels of the agency hierarchies.

For example, the Missouri Department of Labor and Industrial Relations (DLIR) went from receiving 2,700 unemployment claims during the last week of February 2020 to 104,000 claims the week of March 22 (O'Donoghue 2020). Both interviewees and news reporting during the time described how Missouri both subsequently transferred state workers from other agencies and hired outside service firms to help address this surge in demand for tradition DLIR services. Processing unemployment claims in Missouri was a particular task located within DLIR, which due the pandemic required significant additional resources to perform. Meanwhile, COVID-19 also engendered government administrative tasks that did not clearly align within any single agency's or department's jurisdiction. As a consultant from the McChrystal Group explained:

A clear example is the Tableau [data] dashboards. There are individuals that are well-suited to that, but those dashboards or the website that was stood up to overlook COVID, technically, none of those have a purview. It's who's the most competent person that can help with their skill set inside of the state government run these systems. You could be disingenuous and say everything should fall under DHSS because this is COVID. I don't think that's a fair characterization... There are certain things that might feel like they fall within the purview of DHSS. But if there is not additional capacity, then you either need to supplement them or you need to take away their former tasks and allow them to focus on new ones.

In this context, the data suggest a main finding from the research: the concept of *bureaucratic backstopping*. Missouri relied on bureaucratic backstopping—the process of moving around people, responsibilities, and resources across bureaucratic boundaries to fill gaps in the state's own capabilities. Bureaucratic backstopping emerged initially as a first-order code from the research interviews and as a second-order concept for grouping and theorizing the data. It was iteratively validated with observational research and archival analyses.

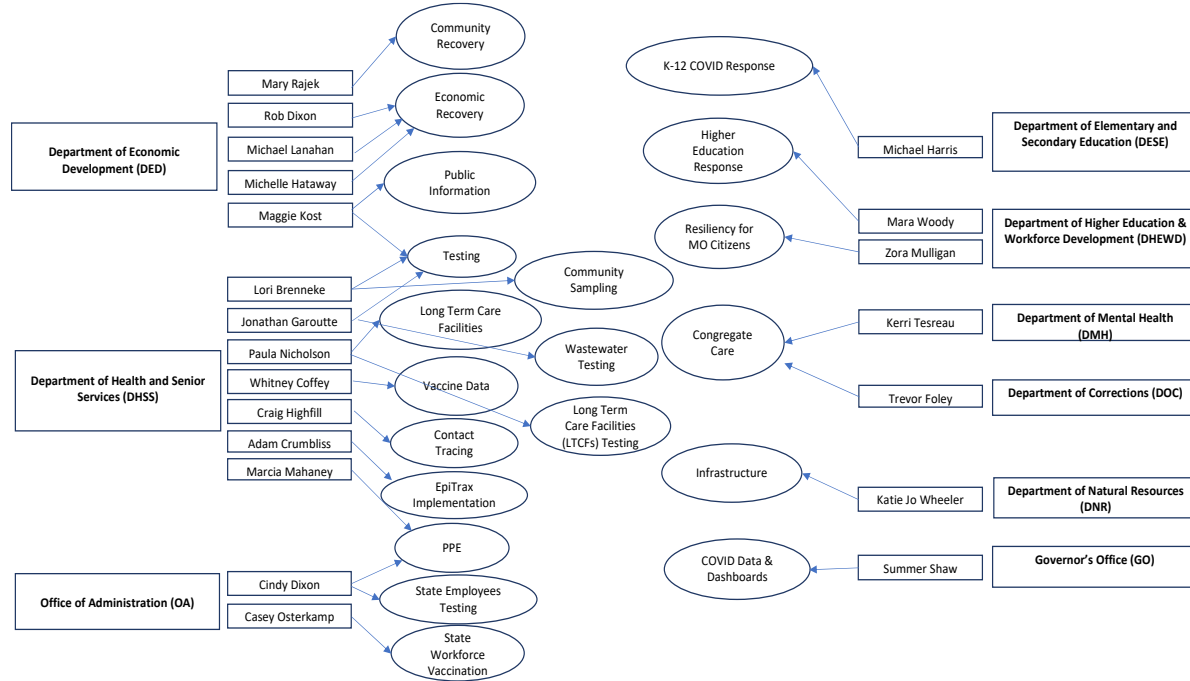
For example, Maggie Kost, who was the Director of the Division of Strategy and Performance in DED at the time, was put in a leadership role for developing the state's COVID-19 testing strategy. Director of DED Rob Dixon explained:

So for a while Maggie Kost, who's a division director, she led—I mean just by virtue of being a really star performer and just capable person—she was asked to do whole kinds of different things that go far beyond kind of her traditional role. So, she was involved in helping draft the initial statewide COVID testing strategy.

Maggie Kost and other individuals leading Micro Cells not only assumed tasks and responsibilities outside their own traditional responsibilities but also took on leadership roles outside their own agency's official domain—which at times involved usurping the formal responsibilities of positions located with the existing agency hierarchies.

The archival data substantiate bureaucratic backstopping as a phenomenon across the state government. Based on multiple archival documents including a task tracker and crisis management meeting presentation slides, Figure 1.1 provides a partially reconstructed overview of individuals filling Micro Cell leadership roles.

Figure 1.1. Missouri Agency Staffing of Micro Cells



Bureaucratic backstopping helped Missouri establish and maintain collaborative crisis management—in the face of baseline administrative weaknesses—through three processes. First, it helped create better alignment between individuals and tasks, which was intertwined with circumventing untrusted individuals in Missouri state government. Second, the data suggest that by putting specific individuals in key roles during the initial stages of the pandemic who could model collaborative behaviors during the Fusion Cells—such as open information and reflection about challenges and mistakes—other state employees were better equipped to learn and adopt these behaviors and contribute to a learning forum. Third, bureaucratic backstopping engendered a type of surge capacity in which additional human resources became available through moving a select group of public servants across agency boundaries but at the cost to the agencies that were disproportionately providing these personnel.

The data suggests that in multiple instances these overall staffing decisions made through bureaucratic backstopping, such as who was assigned to lead Micro Cells including PPE or

COVID Testing, appeared to better align the skills and leadership capabilities of Missouri public servants with the tasks and responsibilities created by the COVID-19 pandemic. For example, Paula Nickelson from DHSS—described by multiple informants as an unheralded public servant and operator within the public health universe—was put in charge of long-term care facilities. Meanwhile, Dr. Randall Williams decided to define an “outbreak” within nursing homes as a single positive COVID-19 case rather than wait for second positive test to initiate a lockdown and testing for all individuals within the facility. While the counter-factual world in which Paula Nickelson was not put in charge of long-term care facilities, or Dr. Williams did not make this strategic decision, is unobservable, many individuals within Missouri attributed this combination to saving a vast number of lives. Paula Nickelson was later named Acting Director of DHSS in May 2022.

Missouri also struggled with its data analysis capabilities throughout the pandemic, as suggested both by news reporting (Johnston 2021) and interviewees’ accounts. Nevertheless, identifying, moving around, and connecting individuals with greater relevant data analysis skills appeared to enhance the state’s distributed analytic capacity beyond the skills of the individuals initially most proximate to the data analysis tasks. A senior data analyst from the Division of Workers Compensation within the Missouri Department of Labor and Industrial Relations, who served on the Fusion Cell Team filling the role of McChrystal Group consultants, described how his filling in on a team developing the state’s COVID-19 surveillance network contributed to new data capabilities that the state had struggled to create before:

I think Drew or leadership want this surveillance network since last summer. But my understanding is that they hadn’t been able to get anybody to get any type of product put out there. Within about the month that Aaron and I have been working with the gentleman over at DHSS, we’ve at least got like a minimal viable product. It’s a dashboard. It’s got four or five data sources pulled in. It’s not the finished product but it’s

further progress towards the ultimate end goal of a single map that gives us the hotspots that we want than it seems like anybody else has been able to get up to this point.

Missouri's COVID-19 response system never developed exemplary data analysis capabilities.

Still, the data suggest that bureaucratic backstopping can help strengthen distributed analytical capacity during a crisis when it is not a characteristic of the pre-existing government system.

These dynamics, however, at times entail circumventing the formal responsibilities of state government employees in the existing agency hierarchies. While interviewees rarely openly attributed these staffing decisions to a lack of trust in specific government personnel, the data hints at an implicit dynamic. For example, within DED, a Deputy Division Director claimed credit for building the state's PPE marketplace:

I built the marketplace for the state of Missouri, which is the first one in the country, and Vice President [Pence] talked about it. Because PPE was scarce, we had to figure out a mechanism for us to keep the PPE in the state of Missouri. We were competing against other states. I only allowed people who had worked within the state or whatever you could be, schools, hospitals, businesses. It was really going up to the people who are not used to procuring PPE. So that was a huge accomplishment. I did it literally in two weeks from idea to implementation.

The administrative process leading to the creation of Missouri's PPE marketplace is notable because responsibility for PPE—a standard element of crisis response—seemingly resided in a position within the Department of Public Safety (DPS). However, this person did not lead Missouri's PPE marketplace efforts during the COVID-19 pandemic. At the same time, the speed and quality of the state's PPE marketplace launch, which news reporting did validate as one of the first to launch in the country, are operationally surprising in a state in which only 47% of government employees agreed that “The organization effectively responds to the changing needs of citizens, clients, business partners, and other stakeholders” (Table 1.1. QPS Survey Results).

Bureaucratic backstopping, in conjunction with and endogenous to virtual collaboration technologies and the leadership team with centralized operational authority, further contributed organizational learning processes in Missouri by supporting the active modeling of new norms and routines. Specifically, during the initial start-up of the Fusion Cell, the Fusion Cell Leadership team deliberately sought to include, elevate, and coach public servants in the Fusion Cell who they felt could model new, open information-sharing practices and critical reflection about their and others' work. A member of the Fusion Cell Leadership Team recounted:

One of the things we stressed early in the Fusion Cell was if you have information or you need to know something, raise your hand and we will address it. This was hard early on [because it seemed] if a senior official was talking, people did not feel free to jump in. So we would have offline conversations with some people that we knew. And we would encourage them to ask a question and model some of the behavior we were trying to create. I think this helped people get the hang of it. Frontline staff at the Department of Agriculture are now asking questions of the DHSS Director in the Fusion Cell. Things like that would never have happened before.

An archival document, a presentation slide from one of the first Fusion Cells, described personnel criteria for initial Fusion Cell membership as, "The [Fusion Cell] must be staffed by experienced, expert personnel...[who] commit to sharing complete information with each other (e.g., 'bad news doesn't get better with age')." A consultant recounted that to aid these efforts, "We had a set of qualities that we were looking for. We needed people with a bias to action...We also needed them to be able to brief succinctly and get to why does this matter quickly. This often involved a lot of coaching from us behind the scenes."

The data suggest that these processes supported peer-to-peer observation and learning. A deputy division director who participated in the Fusion Cell reflected that "just seeing some operational excellence and best practices" helped him understand how to participate well in the Fusion Cell. The researcher was not present during the initial phase of the Fusion Cell and did

not directly observe these organizational learning processes. Nevertheless, the archival and interview data strongly suggest this dynamic process unfolded in Missouri's Fusion Cell.

Lastly, bureaucratic backstopping critically helped Missouri address the tension of accessing surge potential during a transboundary crisis that strained the availability of additional resources across the entire system. It relied on pockets of bureaucratic effectiveness (McDonnell 2020) and talented and committed public servants within Missouri state government to take on additional responsibilities during the COVID-19 pandemic as a strategy to deal with extreme strains on the state's own capacity. As Figure 1.1 conveys, of the 20 Micro Cells created in Missouri, seven were led by individuals from DED and from OA—despite these agencies being two of the smallest by number of personnel in the state. When I asked a consultant from the McChrystal Group under what circumstances they asked individuals from DED and OA to help fill COVID-19 related roles, she highlighted that DED had recently gone through an organizational transformation and had a capable team of individuals who were not committed to standard operating procedures, while in comparison, DHSS's organizational structure prevented easy identification of government employees who could contribute to COVID tasks. She elaborated:

As we got to know DHSS more, it was a much larger agency, but also an ignored one, right? While they had a lot of dedicated professionals, they were organizationally dysfunctional because no one had ever thought about their org design. It was like we got a grant from the CDC. We have a bureau now. And so, the talent in that agency was so balkanized that it took just a lot longer to figure out where these people were, and we just didn't have the benefit of time. So we had this group of highly engaged, motivated like really smart people working under Rob who were there and accessible. And we had a group of those people really spread out at DHSS. And so, in the beginning, it was just trying to get people at OA and DED, you know, like relying on people like Cindy or Maggie Kost just had to do with their willingness and ability and proximity.

However, reliance on bureaucratic backstopping to fill in resource and human capital needs during the pandemic in Missouri entailed several downsides for government

administration in the state. First, the public servants within these agencies suffered high levels of burnout during the pandemic. Multiple interviewees highlighted the consequences of additional responsibilities during the COVID-19 pandemic, in conjunction with other sources of uncertainty and stress, on their own and colleagues' mental overload and burnout. According to one, "People were pushed over the brink." Moreover, bureaucratic backstopping may have contributed to alienating and demotivating displaced individuals in government administration—which is something several informants alluded to—and induced long-term uncertainty about management responsibilities and staffing for the new roles created during the COVID-19 response. But given the limitations of the data collection, this later potential downside was not directly observed.

Dissolution of Fusion and Micro Cells

Overtime, Missouri's Fusion and Micro Cells became less productive in supporting the state's COVID-19 response. A deputy division director within DED described how from her perspective:

I thought they were really productive at the beginning of the pandemic. Now we're just like listening to numbers. And it's just in my mind is a total waste of time. If you add up how many people are on that call, I mean, it's the good thing that we had multi-department understanding of what was going on because everybody was siloed in the beginning and there was duplication of effort. But right now, I don't think they're nearly as effective as what they were in the beginning. It's informative, but I think the group is way too large. There are too many resources being thrown at it. I think it just needs to get smaller.

Aspects of Missouri's COVID-19 response began to be phased out in March 2021. The McChrystal Group's contract with and formal support of the State of Missouri ended on March 31, 2021. On April 20, 2021, both the COO Drew Erdmann and Director of DHSS Randall Williams formally resigned after being asked to step down by Governor Parson. Two weeks later on May 5, the governor unexpectedly ordered all state government employees back to their

physical offices within two weeks—an end to bureaucracy-from-home in Missouri. The last Fusion Cell was held on May 24, 2021. DHSS adopted an internal Vaccine Operations call modeled on the Fusion Cell model, while other Missouri agencies seemingly adopted processes and structures also inspired by Micro and Fusion Cells. Nevertheless, the diffusion and long-term effect of Missouri’s COVID-19 are beyond the scope of this research study.

DISCUSSION

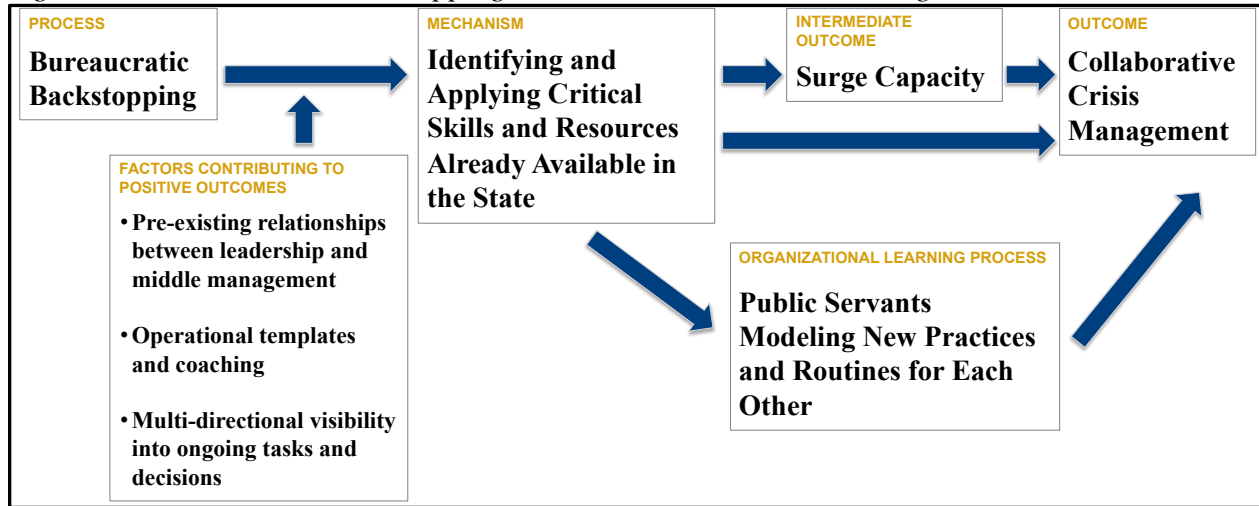
In Missouri, bureaucratic backstopping was an integral process supporting collaborative crisis management and organizational learning during a transboundary crisis response despite baseline administrative capacity challenges and limited previous experiences and skillsets with organizational collaboration. This case study of Missouri state government suggests transferable concepts and mechanisms for *how* a state government can support collaborative crisis management when the antecedents previously identified in the literature supporting these processes—such as organizational learning (Moynihan and Landuyt 2009, Emerson et al. 2012), collaborative norms and structures (Ansell et al. 2010, Emerson et al. 2012), leadership (Ansell and Gash 2008), role clarity (Curnin and O’Hara 2019), trust (Klijn et al. 2010, Moynihan 2009a, Nohrstedt et al. 2018), and empowered workers (Ansell and Gash 2008, Moynihan and Landuyt 2009)—are weakly present or lacking in a government system prior to a transboundary crisis.

Figure 1.2 conveys the key findings of the enabling conditions and consequences of bureaucratic backstopping in Missouri. An effective bureaucratic backstopping system emerged in the state because the crisis management leadership team, chief among them the state’s COO, had pre-existing relationships with middle management across the state government. The crisis management leadership team could therefore identify public servants with critical skillsets across the 16 departments and move these capable and willing individuals into ad hoc, task-oriented,

and technology-enabled virtual work teams in order to help fill gaps in existing capabilities. In addition, a private consulting firm provided operational templates for, and specialized in, management of distributed teams during a crisis. In conjunction, the adoption of new video conferencing technologies enabled multi-directional visibility into ongoing tasks and decisions as well as virtual co-location of relevant expertise. The collaborative crisis management system emerged in Missouri despite low baseline administrative capacity in organizational learning, collaborative processes, distributed leadership, role clarity, and trust—as measured by extensive survey data prior to the pandemic and then substantiated with interview and archival research. It was fundamentally a response to low levels of, and previous experience with, collaborative governance as well as initial failures of the state’s Incident Command System to respond to the crisis.

The data suggest that bureaucratic backstopping contributed to better alignment between individuals and COVID-19 related tasks, partially through circumventing untrusted actors in the state government. Second, bureaucratic backstopping helped place public servants in key roles during the initial phases of the pandemic who could model collaborative and reflective information processes and norms for other government employees, thereby helping create a learning forum within the state’s COVID response system. Third, this administrative configuration in Missouri state government helped create surge capacity of human and physical resources for COVID-19 related tasks through the identification and redistribution of existing capacity in the system—but it also subsequently contributed to burnout among state government employees. This administrative configuration relying on bureaucratic backstopping became less effective and necessary over time and ultimately dissolved.

Figure 1.2. Bureaucratic Backstopping and Collaborative Crisis Management



Contributions

This model and findings help address several unresolved tensions and limitations in the literature regarding collaborative crisis management in administratively weak environments. First, the literature on organizational learning processes in public organizations (Moynihan and Landuyt 2009) and collaborative governance (Ansell and Gash 2008, Emerson et al. 2012) suggest a pronounced tension facing public organizations seeking to learn collaborative practices and norms: effective organizational learning seemingly relies on already having the learning forums with collaborative spaces and norms that public organizations are seeking to create. The findings from this study of Missouri’s COVID-19 crisis management system extend our understanding of organizational learning processes by suggesting a pathway around this catch-22. As multiple scholars contend, organizations do not and arguably cannot simply adopt best practices from other similar organizations in their institutional environment (Langley and Tsoukas 2010, Gibbons and Henderson 2011). However, bureaucratic backstopping can contribute to organizational learning processes by identifying and placing public servants in key roles who can model the open and reflective information-sharing norms that the public organizations are trying to adopt—thereby supporting learning forums in government systems

previously lacking these collaborative spaces. This finding builds on the work of Valentine (2018) and Riche et al. (2021) in showing how hierarchical authority can contribute to organizational learning processes. However, this result emerged from semi-structured interview data without triangulation from observational findings. Future research is needed to better understand this proposed dynamic supporting organizational learning processes.

Second, this paper helps address a tension, identified by Ansell et al. (2010), confronting transboundary crisis management. Transboundary crises create a need for surge capacity or additional resources and support, yet the cross-jurisdictional nature and uncertain time horizons of these crises fundamentally strain the availability of existing resources and potential reserves. In Missouri, bureaucratic backstopping, a crisis management leadership team, and new communication technologies together helped identify and create surge capacity in the system by relying on pockets of bureaucratic effectiveness to take on additional tasks and responsibilities. Bureaucratic backstopping also expanded capacity by contributing to better alignment between actors and tasks in the crisis management network—a finding expanding upon Bodin and Nohrstedt (2016)'s conclusion that the fit between actors and tasks in collaborative networks influence the effectiveness of collaborations. In addition, non-hierarchical and matrix information flows helped Missouri public servants participating in the Fusion Cell to communicate and respond to requests for additional resources.

Bureaucratic backstopping as a theoretical concept also differs from previously documented phenomena in the literature on crisis management, collaborative governance, and administrative capacity. Bureaucratic backstopping describes a process in which existing government personnel are relocated into additional roles, new responsibilities are transferred to these individuals, and supporting resources are similarly moved across bureaucratic boundaries.

In contrast, institutional bypasses pertain to the creation of multiple institutional arrangements that provide choices to citizens (Prado and Trebilcock 2018). Bureaucratic backstopping may also be seen as a form of institutional layering in which new elements and rules are added to existing institutional structures (Streeck and Thelen 2005). However, bureaucratic backstopping can manifest as a more temporary process that does not necessarily entail long-term changes in institutional structure. In addition, institutional layering is a broad concept with multiple definitions (van der Heijden 2011) while bureaucratic backstopping provides analytical precision about a discrete phenomenon.

Limitations and Future Research Directions

Methodologically, this study has several additional limitations. First, despite extensive research access to Missouri state government, the researcher neither observed the initial phases of the state's COVID-19 response nor gained interview access to any government employees from DHSS. The findings, while triangulated through multiple sources of data, therefore at best provide a partial account of the dynamics during the state's COVID-19 response. In addition, the research does not address political dynamics within Missouri state government due to the difficulty of collecting data on these often-hidden processes. As a result, the study neglects a primary challenge confronting administrative capacity building—enhancing legitimacy and political support for government administration. Participant and non-participant observational research, and ethnography more broadly, of public administration are promising methodologies for future research on the role of politics in the organization and administration of the state. Moreover, this study does not address the role of external collaborations in administrative capacity building and Missouri's COVID-19 response—even though Missouri relied on coordination efforts with non-government partners, such as the Missouri Hospital Association

(MHA), and created a council of expert public health advisors who met with the governor every Saturday. An integrated model addressing internal organizational dynamics, political relationships within and between the different branches of government, and coordination with outside parties is beyond the scope of this paper but should be pursued in future research.

The findings suggest several additional promising avenues for future research. Further research is critically needed on the role of consultants in hindering and supporting the administrative capacity and democratic accountability of government bureaucracies (Heinrich et al. 2013). In Missouri, the administrative weakness of DHSS—whose director initially led the state’s COVID-19 response—as well as the lack of collaborative governance capacity across the state made operational templates and support for managing distributed teams from the McChrystal Group integral to the state’s eventual collaborative crisis management. Nevertheless, Missouri’s reliance on the consultants transferred a form of power over state administration to actors officially outside the state. The consultants, in conjunction with the Missouri COVID Response leadership team, helped create an additional ad hoc institutional layer in state government as well as processes and operational support for circumventing public servants within the existing agency hierarchies whom the leadership team either did not trust or were simply not forthcoming in providing resources and support to the state’s COVID-19 response. These inter-dependencies in the data between supporting collaborative crisis management in an administratively weak state government, circumventing untrusted state employees, and the role of consultants highlight a tension between input, output, and throughput conceptions of democratic legitimacy (Schmidt 2013, Christensen et al. 2016). The results demonstrate the need for public management scholars, political theorists, and political activists to more fully articulate and implement mechanisms supporting both organizational adaptation and experimentation in

government on one hand and democratic accountability on the other—especially in circumstances when private actors are integrated into public administration.

Second, this paper calls for expanded research addressing the mechanisms connecting state-level government administrative capacity and public health outcomes in the United States. During the pandemic, Missouri state government was a critical structural intermediary between the federal and local governments. In addition, Missouri’s public health outcomes during the COVID-19 pandemic provide cautious evidence about the importance of state-level government administration during a pandemic. Missouri ranked in the bottom ten of U.S. states on several measures of public health prior to the pandemic yet has to date the 15th lowest nursing home resident death rate during the pandemic (Public Policy Institute 2022), an average COVID death rate (Hernandez 2022),⁴ and 27th lowest death rate among incarcerated individuals (Marshall Project 2021). This paper does not address causal attribution for public health outcomes in any way, shape, or form. Nevertheless, the results suggest that the broad organization of state-level executive branches of government—in addition to the capacity public health government organizations—should be further researched and explored.

The results also point towards a research agenda focusing on bureaucratic backstopping as a more general phenomenon in state administration. Identifying, connecting, and assigning additional responsibilities to a group of public servants deemed capable and trustworthy by agency or political leadership are exigencies likely not limited to crisis management situations. Bureaucratic backstopping could also emerge as a tool when bureaucratic organizations do not have sufficient resources and personnel to carry out their conventional administrative tasks. A form of bureaucratic backstopping may also occur in administrative contexts when politically

⁴ State-level COVID-19 death rates vary significantly over time and are highly correlated with internal socioeconomic characteristics.

appointed leadership distrusts state administrators to faithfully implement their policies and preferences and subsequently relies on a small cadre of trusted government employees to carry out a broad set of administrative tasks. While this study demonstrates the benefits of bureaucratic backstopping in a particular context, it also hints at significant negative consequences on the well-being of government employees, stratification within the ranks of public servants, and circumventing the formal and more overtly democratically sanctioned hierarchy within a government agency. Future research could expand our understanding of bureaucratic backstopping and its consequences on crisis management, the administrative capacity of a government system, and democratic control of the bureaucratic state.

CONCLUSION

This paper demonstrates that the process of bureaucratic backstopping played an integral role in supporting collaborative crisis management across Missouri state government during the COVID-19 pandemic despite limited baseline administrative experiences and skills in organizational learning and collaboration. The findings suggest a pathway *during* a transboundary crisis for improving the quality of government administration. In addition, the results show contextual benefits and risks of centralized operational authority over, and relational connections across, an entire executive branch of government.

Ultimately, however, this paper's results provide insight into, at best, a second-best approach to collaborative crisis management and administrative capacity building in U.S. states. The challenge is not to simply build collaborative crisis management structures, processes, and norms during a crisis but, rather, to legitimize and invest in government capacity *before* a transboundary crisis wreaks devastating consequences on society. Missouri state government has incredible and committed public servants who were contributing to the social welfare of

Missouri citizens in unenumerable and profound ways—despite low pay, limited professional development opportunities, and at times dysfunctional organizations. Yet they received low levels of political and institutional support prior to the COVID-19 pandemic.

Future research addressing contemporary challenges to building administrative capacity under resource and legitimacy constraints is desperately needed to expand scholarship and provide practical guidance. Such research should pivot away from focusing on what ideal-type organizations look like to focusing on how to move towards conceptions of capable and democratically responsive and subordinate government administration. Public servants are limited by, and have agency to change, the available tools and resources in organizations' institutional environments (Battilana et al. 2009, Quick and Feldman 2014). Moreover, scholars in public management, organizational behavior, and the sociology of bureaucracy should make more of a concerted effort to research the organizational and administrative building blocks of democratic institutions (Moynihan 2022)—such as addressing the tensions between bureaucratic capacity and autonomy versus democratic subordination and responsiveness. These issues transcend simple management or organizational research questions and instead require a normative commitment to understanding and strengthening the role of government bureaucracies in democratic systems.

CHAPTER 2

FELT AUTHORITY AND HOW SECESSION AND ABSORPTION OF GOVERNMENT DIVISIONS INFLUENCE PUBLIC SERVANTS' EXPERIENCES OF BUREAUCRATIC CONTROL

Abstract: This paper analyzes how government reform processes in which organizationally nested divisions are formally transferred from one parent-level department to another influence public servants' experiences of bureaucratic control. While previous literature demonstrates that changes in formal administrative structures are at times decoupled from informal internal processes, this paper develops theory about how the secession and absorption of government subunits may alter exercises of, and public servants' experiences with, bureaucratic authority and informal control mechanisms. Based on an abductive methodology and mixed methods analyses of interview and survey data from Missouri state government, this paper finds that transferring divisions out of a department was associated with increases in the extent to which public servants who remained in their original department directly experienced the authority of the department leadership. The paper labels such direct awareness of and experience with managers and leaders exercising their authority within a bureaucratic hierarchy as *felt authority*. Paradoxically, however, increases in felt authority were intertwined with expanded voice rights within the department after the reorganization. Meanwhile, public servants who were part of the divisions that were transferred to other departments experienced limited changes in bureaucratic control after the reform. This paper further finds that increasing the internal bandwidth of a leadership team is an enabling condition for using formal authority to expand upward voice within a government department.

INTRODUCTION

Reforming government bureaucracies is a perennial process and tool through which reformers seek improvements in administrative services and policies, institutional legitimacy, and the expansion of their own power. Recent research on this phenomenon suggests that structural reforms at the subunit level of government bureaucracies—e.g., units that are nested within larger departments, ministries, or agencies—are relatively common yet are often overlooked by scholars due to the appearance of macro-level stability in bureaucratic structure (Carroll et al. 2022). Organizational reforms may formally transfer subunits from one parent-level department to another without changing the organizational identity of the respective parent-level departments: processes labeled *secession* and *absorption*, in contrast to mergers, splits, and

agency terminations (Rolland and Roness 2011, Carroll et al. 2022). These findings provide an opportunity to revisit and interrogate theory about the effects of government reform initiatives on bureaucratic control. We know from past research that efforts at reforming government bureaucracies are often pursued for institutional legitimacy and political reasons despite rarely achieving their desired results—such as increasing the ability of appointed leaders to control government bureaucracies and direct state administration towards desired outcomes (March and Olsen 1983, Brunsson and Olsen 1993). However, these insights are based on macro-level comprehensive reform efforts, such as the Hoover Commissions in the United States, that assess and initially seek to fundamentally change the whole of government in the executive branch. The consequences of heterogeneous types of reform processes at the subunit level of government are less well-understood.

In addition, scholarship in bureaucratic politics increasingly recognizes the interplay of formal aspects of bureaucracy—such as hierarchical structure and written rules—with informal negotiations between principals and agents in shaping bureaucratic control and authority (Simon 1957, 1997, Carpenter and Krause 2015). Carpenter and Krause (2015) label this theoretical perspective transactional authority. Authority is “a person’s right to exercise power based on the belief that his or her actions are legitimate and in alignment with accepted standards of appropriate conduct” (Long 2010, p. 365). Meanwhile, “control corresponds to mechanisms that managers use to direct attention, motivate, and encourage individuals to act in ways that support the organization’s objectives” (Cardinal et al. 2017, p. 559). Nevertheless, public servants’ experience of such bureaucratic authority and control that is based on informal negotiations and relational dynamics—rather than solely formally written rules and impersonal employment contacts—tend to be overlooked both in studies on the effects of government reforms (Kuipers et

al. 2014, De Vries et al. 2016) and in public administration scholarship on bureaucratic control (DeHart-Davis and Pandey 2005, DeHart-Davis 2009).

The recent findings on the relative prevalence of government reforms at the subunit level combined with theory on transactional authority in bureaucratic politics thereby provide an opportunity to interrogate previous scholarship on government reform processes (March and Olsen 1983, Brunsson and Olsen 1993) from an alternative perspective as well as contribute to public administration scholarship on bureaucratic control. Specifically, this paper asks, what are the effects of transferring divisions from one government department to another on public servants' experiences of authority and informal control mechanisms within bureaucracy? By foregrounding public servants' experiences of bureaucratic control mechanisms, the research question interrogates a purported mechanism inhibiting the efficacy of reorganizations in government—the persistence of informal norms and processes despite changes in the formal organizational structure. Addressing this question can also help scholars and practitioners better understand and balance legitimate concerns about exercising hierarchical control in bureaucracies with supporting an enabling distribution of power among government employees.

To address this research question, this paper first analyzes 52 semi-structured interviews with public servants in Missouri state government. These public servants either experienced the secession of government subunits as members of a “giving” department that transferred several of its divisions to other departments in the state or experienced the absorption process as members of one of the transferred divisions that was absorbed by another department. In analyzing these data, I rely on an abductive approach (Tavory and Timmermans 2014) that allows me to develop theoretical concepts and propositions about public servants' perceptions and experience of bureaucratic authority and control and about the effects of secession and

absorption on these dynamics. The paper then triangulates (Small 2011, Mele and Belardinelli 2019) these propositions with difference-in-differences models of longitudinal survey data across the entire executive branch of Missouri state government—including the divisions from which the qualitative data were collected—before and after the organizational reform process.

The paper's central insights are as follows. First, iteratively moving between scholarship and the data reveals the role of *felt authority*, which I define as the extent to which individuals in an organization directly experience leaders or managers above them in a bureaucratic hierarchy exercising their respective authority. This concept captures the insight that the process of holding formal authority may be distinct from the process of exercising it—and as a corollary, public servants' experiences of authority within an organization may vary based on their respective relational dynamics with individuals above them in the organizational hierarchy. The data and existing theory also suggest that exercising voice towards one's superiors—a process known as upward voice in existing literature (Morrison 2014)—and the extent to which public servants have clarity about and internalize an organization's espoused purpose—a concept called purpose clarity by Gartenberg and colleagues (2019)—are integral aspects of public servants' experience of bureaucratic authority.

Second, the qualitative findings suggest that the secession of government divisions was associated with increases in felt authority, upward voice, and purpose clarity for public servants who remained in the giving department after the reorganization process. The results suggest, that in this research context, leadership in the giving department had an increased ability to exercise authority after the secession of divisions and, paradoxically, that they used their increased authority to expand, and at times force, upward voice among public servants in the department. The paper provides further suggestive evidence that increasing the *bandwidth* of internal

principals within government bureaucracies is an enabling condition that supports this use of formal authority to expand upward voice. Meanwhile, a limited number of interviews conducted with public servants in a single transferred division suggest a heterogeneity of experiences but overall limited changes in how these government employees experienced informal bureaucratic authority after the reorganization. Ultimately, the quantitative results triangulate the direction of these proposed effects. The reorganization process was associated with increased experiences of felt authority, upward voice, and purpose clarity in the giving department and had limited associations with public servants' experiences of informal authority in the transferred divisions.

The findings make three main contributions to public administration scholarship on bureaucratic control and the effects of reorganization processes in government. First, the results suggest the need to expand the predominant conceptualization of bureaucratic control in public administration literature on red tape (DeHart-Davis and Pandey 2005, DeHart-Davis 2009) to also include informal aspects and processes. The paper introduces the concept of felt authority to contribute to this research agenda. Second, the findings expand scholarship's understanding about the effects of the secession and absorption of government subunits on the experiences of public servants (Rolland and Roness 2011, Carroll et al. 2022, Wynen et al. 2019, Wynen et al. 2020). Lastly, the paper provides an orthogonal take on Olsen and colleagues' theoretical claim about the limited effects of reform processes in government administration. Organizational reforms at the subunit level of government that also increase the bandwidth of leaders to directly interact with their subordinates may meaningfully alter how bureaucratic authority and informal control are exercised and experienced.

For practitioners, the results also provide empirical evidence about mid-level reform processes that structurally change the comprising elements of multiple departments. The findings

convey the complexity of, and tools available for, enhancing public servants’ experiences of democratically sanctioned authority within the bureaucratic state.

LITERATURE REVIEW

Categorizing Horizontal Transferers of Government Subunits

This study focuses on the formal process of transferring subunits of government departments from one department to another.⁵ Scholarship on the organizational life-cycles of government agencies increasingly calls for researchers to move past the birth and termination dichotomy (Kaufman 1976, Carpenter and Lewis 2004) and instead address the spectrum of organizational reforms in which some part of an organizational identity is maintained (Kuipers et al. 2018, Carroll et al. 2022, Libgober 2020). Still, the specific type of organization reform in which subunits of a government bureaucracy are legally transferred—either through legislation or executive authority—from one parent agency or department to another has received scant scholarly attention.

This paper consequently relies on a classification schema for structural reform processes in government developed by Rolland and Roness (2011) and expanded by Carroll and colleagues (2020) that has yet to be applied to studying government reforms in the United States. The authors distinguish between reform efforts that fundamentally change the organizational identity of a parent organization—such as mergers or splits—from structural reforms that address nested lower-level entities. Within the latter context, *absorption* describes when a parent government organization absorbs a new subunit, whereas *secession* is the inverse process in which a subunit transfers out of its parent organization and the giving parent organization is “maintained in a

⁵ For consistent terminology, this paper uses the term “department” to describe a cabinet-level government bureaucracy. However, in the United States at the federal level, the term agency often includes government departments—which is explicitly the case on the federal level (18 U.S. Code § 6).

somewhat smaller scale” (Rolland and Roness 2011, p. 16).⁶ Using this categorization schema to assess changes in the administrative structure of central state bureaucracies in France, Germany, and the Netherlands between 1980 and 2013, Carroll and colleagues conclude, “Events in which existing organizational units experience change(s) in their constituting variables while keeping their organizational identity are the most frequent types of change” (Carroll et al. 2022, p. 953).

Nevertheless, existing scholarship provides limited empirical analyses of the effects of these relatively common types of reform—partially because secession and absorption do not clearly fit into common constructs in the public administration literature. For example, scholarship addresses a related but distinct phenomenon of *agencification* in government, defined as “the creation of semi-autonomous agencies: organizations charged with public tasks like policy implementation, regulation, and public service delivery, operating at arm’s length of the government” (Verhoest et al. 2021, p. 1). Research on the effects of agencification tend to find mixed results on agency performance (Andrews 2011, Overman and van Thiel 2016) and levels of public servants’ motivation and satisfaction (Bilodeau et al. 2007, Overman 2016). However, creating semi-autonomous agencies does not require secession or absorption, nor does transferring government subunits necessarily increase the autonomy of the parent agency (Carroll et al. 2022).

Organizational Reform Processes and Bureaucratic Control

At the same time, a prominent theory in scholarship on organizational reform in government is that comprehensive reform processes rarely produce the desired outcomes (March

⁶ To note, this study explicitly adopts Carroll et al. (2020)’s revised definitions of absorption and secession that do not define these processes as requiring the termination of either the giving or receiving departments, e.g., absorption of a subunit does not necessarily mean that the parent department or agency from which the subunit came was terminated after or during the process. In contrast, Rolland and Roness (2011) explicitly define these concepts as involving agency termination.

and Olsen 1983, Brunsson and Olsen 1993). A primary part of these scholars' arguments is that reformers have limited power to change and control bureaucratic organizations due to the persistence of informal norms and processes. Similarly, changing an organization's formal bureaucratic structures does not necessarily alter or improve the ability of leaders to control and instrumentally direct personnel, processes, or values. To a large degree, Olsen and colleagues treat the "very idea that it is possible to control and reform organizations" as a "culturally conditioned" belief and an institutional myth (p. 202). While this theory has a broad and pessimistic appeal, it was notably developed based on case studies of reform processes targeted at the entire executive branch of government or what they call "comprehensive reforms"—such as reforms under Prime Minister Margaret Thatcher in the United Kingdom. The applicability of their theory to more targeted reforms at the subunit level of government, such as reforms that focus on the secession and absorption of government divisions, is less well-understood.

In addition, a key aspect of Olsen and colleagues' theory pertains to the limited ability of internal principals to exert control based on their formal position within a bureaucratic hierarchy.⁷ However, this paper applies a transactional authority approach to bureaucratic politics that recognizes the fundamental role of dynamic interaction between formal authority and informal mechanisms in engendering sanctioned compliance and control (Carpenter and Krause 2015). The primary insight from this long tradition of scholarship is that the legitimacy of bureaucratic authority and the ability of administrative principals to exert control and invoke compliance are based on negotiations in which both principals and agents influence the terms of their informal and formal arrangements. This scholarship provides a more complex account of

⁷ Internal principals occupy the formal position(s) at the top of a bureaucratic hierarchy, such as a department director or commission member, while external principals are actors, such as chief executives or legislators that seek to control a bureaucracy from afar (Krause 1994, Carpenter and Krause 2015). Both internal and external principals authorize and empower other actors—often called agents—to act on their behalf.

bureaucratic authority and control than does theory primarily based in a myth and ceremony perspective (Meyer and Rowan 1977, Brunsson and Olsen 1993). Internal principals can use informal relational bases of authority—including reputations for expertise and personal rapport with subordinates—to invoke compliance (Simon 1957, 1997). However, both Carpenter and Krause’s (2015) and Monteiro and Adler’s (2022) recent reviews of the literature on bureaucratic organizing suggest that these informal dynamics, and their interaction with the formal side of bureaucracy, have been insufficiently addressed in scholarship on bureaucracy.

This transactional authority approach also differs from a predominant conceptualization of bureaucratic control in public administration scholarship that tends to conceptualize the phenomena primarily based on formal organizational characteristics. These include, but are not limited to, organizational structure and employment contracts, the extent of written rules and procedures, and the legally specified location of decision-making rights (Pugh et al. 1968, DeHart-Davis and Pandey 2005). For example, DeHart-Davis and Pandey’s (2005) study of public servants’ experiences of red tape and organizational control operationalizes organizational control using the degrees of centralization, formalization, and technology routineness. Similarly, related research on green tape, or when government employees experience rules as effective, explicitly exclude informal group norms from their definition of rules—preferring to conceptualize norms as forms of social rather than bureaucratic control (DeHart-Davis 2009). Notably, however, Feeney and DeHart-Davis’s (2009) follow-up study on the effects of bureaucratic control finds that the effects differ depending on whether the bureaucratic control is based on formally written documents or on the discretion of an individual holding a hierarchical position—which may problematize their own definition.

As a result, these multiple literatures demonstrate the need for research on how changes in formal bureaucratic structure interact with informal dynamics to shape exercises and experiences of bureaucratic control. This previous scholarship across organizational sociology, political science, and public management also suggests that secession and absorption of government divisions are a promising context in which to enrich our understanding of government reform processes and how public servants experience bureaucratic control.

RESEARCH CONTEXT: MISSOURI STATE GOVERNMENT

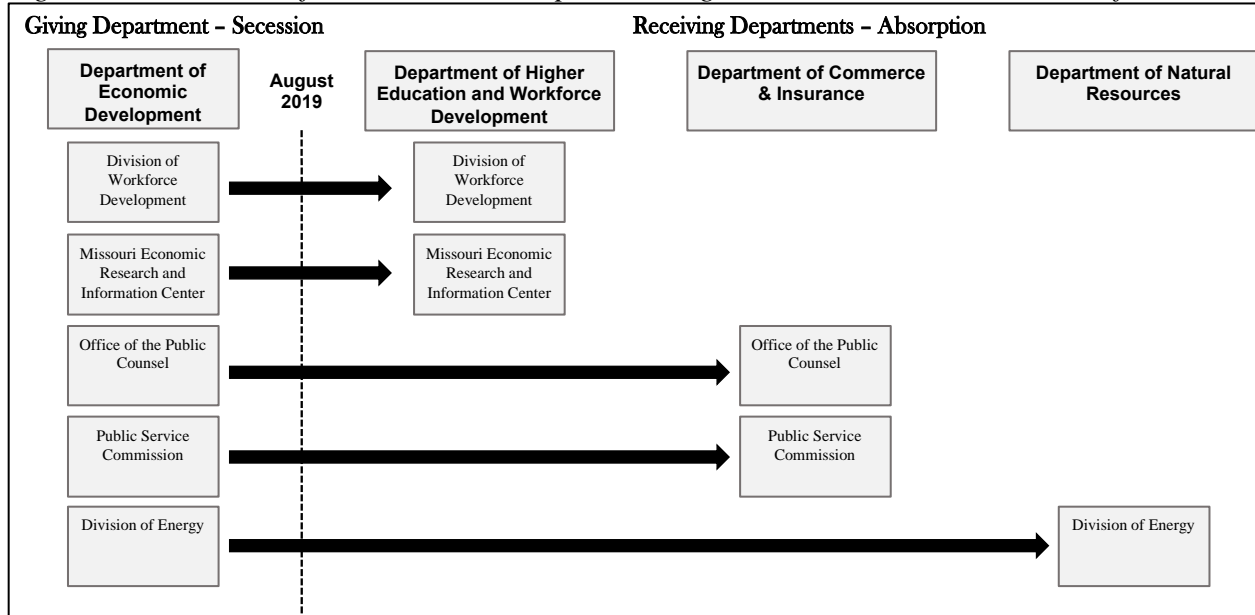
This paper relies on the research context of an organizational reform process in Missouri state government to develop propositions about the effects of secession and absorption of government subunits on public servants' experience of informal bureaucratic control. This section describes the research context before subsequent sections detail the data, methods, and results.

Missouri state government is comprised of 16 executive branch departments. In 2019, the state government implemented organizational reforms that formally transferred five sub-department divisions from one “giving” department to three “receiving” departments—an explicit process of secession and absorption. Specifically, in January 2019, Missouri Governor Mike Parson signed Executive Order 19-03 reorganizing the Missouri Department of Economic Development (DED). The EO formally transferred two of DED's divisions to other departments in the state; subsequent legislative changes and executive actions transferred an additional three divisions out of DED. These reforms reduced the size of the giving department, DED, from nearly 800 personnel to fewer than 200 without any major associated layoffs.⁸ In August 2019,

⁸ Interview data suggest a single instance associated with the reform process in which an employee was terminated. Similarly, local news reporting describe the reorganization of DED as not being associated with any major employee

the changes formally transferring five divisions from DED to other departments in the state took effect. Figure 2.1 provides an overview of the secession and absorption process.

Figure 2.1. Overview of Session and Absorption during Missouri State Government Reforms



This reorganization process was informed by a comparative analysis of peer economic development agencies across the United States which suggested that the Missouri DED was significantly larger than many of its peers yet had fewer resources focused on business attraction and retention. Stakeholder outreach in which Missouri DED solicited feedback from businesses and economic development agencies across the state also informed the details of the redesign. The leadership team of the Missouri DED then worked with members of the Governor’s Office and leadership of the departments that would be receiving and integrating the divisions to develop a plan restructuring the department and formally transferring five of its divisions to other departments in the state.

layoffs. However, the interview sampling methodology does not support a general assessment about the total number of employees who were fired because of the organizational restructuring.

DATA AND METHODS

This study relies on an abductive methodology (Tavory and Timmermans 2014) and semi-structured interview data to analyze and develop theory about how public servants experience informal aspects of bureaucratic control. It then uses these data and emergent concepts to develop propositions about associations between the secession and absorption of government divisions, on one hand, and public servants' experiences of these aspects of bureaucratic control, on the other. Lastly, after presenting the qualitative findings, the paper presents longitudinal survey data from across Missouri state government as well as difference-in-differences models that operationalize these emergent concepts. The quantitative analyses help triangulate the qualitatively driven propositions (Small 2011, Mele and Belardinelli 2019).

QUALITATIVE DATA AND METHODS

The author conducted a total of 52 semi-structured interviews with 41 public servants in Missouri state government over an eighteen-month time period from October 2020 to May 2022. The data contain 39 interviews with employees at DED who remained within the department after the secession process, and 13 interviews with public servants who were part of a single one of the five transferred divisions—the Division of Energy (DOE), which was transferred from DED to the Department of Natural Resources (DNR). All interviews lasted between 50–100 minutes and were conducted virtually over Zoom. The interview sampling protocol initially involved an open sign-up form distributed to the entire staff at DED as well as the entire DOE—a form of sampling for range (Weiss 1994). It evolved to include theoretical sampling targeted at individuals who played key roles in the reorganization process (Warren 2001).

The qualitative analyses of the interview data relied on both existing theory and participants' own understandings of their subjective reality to produce insights about how they

experienced changes in informal bureaucratic authority. This abductive theory approach (Tavory and Timmermans 2014) entailed iteratively and creatively moving between analyses of the interview data, my own theoretical priors, and previous scholarship to identify useful and higher-level abstractions about processes associated with the research question. In particular, I relied on the software program NVivo to first produce first-order codes that closely aligned with the participants' own words about how they experienced bureaucratic authority within their government departments. I then sought to group together these first-order codes in theoretically meaningful ways, while informed by actively expanding my understanding of relevant scholarship. However, for the purposes of clarity, the paper presents the emergent concepts of interest—felt authority, upward voice, and purpose clarity—primarily based in existing scholarship. The following section then shows these concepts in the data and presents qualitatively derived propositions about how they evolved after the secession and absorption of government divisions. This analytical structure departs from a purest approach to interpretive research but nevertheless partially aligns with a growing convention in abductive studies (Suddaby 2006).

EMERGING CONCEPTS FOR UNDERSTANDING INFORMAL BUREAUCRATIC CONTROL

This section integrates concepts from organizational theory and organizational sociology to identify aspects of informal authority and control within bureaucratic organizations. The relevance and validity of these concepts also emerged in conversation with the interview data, which are only selectively presented in this section. This section conceptualizes how public servants experience bureaucratic control beyond formal organizational characteristics.

Felt Authority

Individuals at the top of a bureaucratic hierarchy do not always fully activate the formal authority of their position when engaging with employees in the organization (Brass and Burkhardt 1993, Battilana and Casciaro 2021). These leaders may activate their formal decision-making authority in certain circumstances while delegating voice, decision, or membership rights to hierarchically subordinate individuals in other contexts (Brass and Burkhardt 1993, Baker et al. 1999, Zuckerman 2010). This view of bureaucratic leadership aligns with the repertoire perspective of leadership in public administration scholarship—that leaders tend to combine or move between multiple behavioral approaches depending on the context (van der Hoek et al. 2021). In addition, employees within bureaucratic organizations may experience a lack or void of authoritative leadership in which leaders neither invoke the authority of their own position to make decisions nor use their authority to empower subordinate individuals. In effect, individuals’ experience of authority within bureaucracy does not solely depend on the formal organizational structure. Public servants’ experiences may vary based on the individuals holding these formal positions, as well as the micro-processes through which individuals perform and enact authority (Bourgoin et al. 2020). Similar to the distinction between potential power and power use (Brass and Burkhardt 1993), holding authority may be distinct from the process of exercising it.

These exercises of authoritative leadership⁹—or the lack thereof—may mediate employees’ experience of informal control and authority within bureaucratic organizations. Non-formal authority deriving from the perceived competence or charisma and social skills of an individual may enhance the bureaucracy’s ability to instrumentally achieve its goals. These “soft” aspects of bureaucracies can also be viewed as aspects of how hierarchal control is

⁹ Eglene et al. 2007 use the term “perceived authority.”

maintained (Courpasson 2000). Nevertheless, the extent to which employees feel subject to influence and control based on the perceived or explicitly invoked authority of their superiors' hierarchical positions varies within organizations (Brass and Burkhardt 1993).

The interview data revealed multiple instances in which public servants felt that “nothing had to really be approved by the director. We were just kind of out there on our own,” or the department leadership “just left us alone.” Inversely, leaders within the organization described constrained exercises of their own authority, such as when a senior leader within DED described declining to make a decision about a department program that “wasn't a decision that I felt that I should make.”

Therefore, this paper introduces the concept of felt authority, defined as the extent to which individuals in an organization directly experience, or are aware of, exercises of authority by leaders or managers above them in the bureaucratic hierarchy. Said differently, it is the extent to which leaders and managers within an organization make their authority felt. This concept builds on a similar phenomenological perspective as Overman and colleagues' (2021) recent work on felt accountability in the public sector, which foregrounds individuals' experiences of control and legitimating mechanisms within bureaucracy. The concept of felt authority also addresses the meso-level of interaction between individuals and their respective organizations (Jilke et al. 2019).

Upward Voice

Another mechanism contributing to the experience of informal control within bureaucratic organizations is the exercise of voice towards one's superiors within an organization. Morrison (2014) defines upward voice as “When employees voluntarily communicate suggestions, concerns, information about problems, or work-related opinions to

someone in a higher organizational position” (Morrison 2014, p. 173).¹⁰ Scholarship demonstrates that the effects of employee voice are contingent on factors such as how the message is expressed (Whiting et al. 2012) and the characteristics of the recipient (Grant et al. 2011)—yet moderate levels of employee voice tend to be associated with improved organizational performance and less employee turnover (Morrison 2014).

Organizational sociology views employee participation and voice both as evidence of enabling bureaucracy in which workers are empowered (Adler and Borys 1996) and as a tool for instrumental control. For example, Turco (2016) suggests that spaces and technologies supporting open communication within a firm also contribute to hierarchical control over who can participate in decision-making processes. Meanwhile, Zuckerman (2010) argues that controlling and selectively delegating the right to speak publicly within an organization is integral to an organization’s ability to “converge on common routines for coordination” (Zuckerman 2010, p. 291). Courpasson and Clegg (2012) explicitly contend that bureaucratic organizations have predominantly evolved into a “polyarchic” form in which “members have a de facto informal right to contest organization leaders’ decisions as long as, in doing so, they do not damage the structural fundamentals of power arranged as a system of hierarchical authority” (Courpasson and Clegg 2012, p. 58). Orthogonally, Battilana and colleagues (2018) argue that exercising voice in spaces of negotiation can play a key role in organizational democracy.

These perspectives are compatible with a transactional authority approach to bureaucratic politics, which views upward voice—without explicitly using this concept—as a mechanism for

¹⁰ “Participation can be understood as how far down an authority hierarchy (or across its subunits) decision-makers need to go in consulting others before they can legitimately arrive at a decision” (Monteiro and Adler 2022, p. 449).

principals and agents to negotiate and reach agreement on informal contracts, or roles and expectations, in repeated interactions between themselves over time. This paper therefore conceptualizes upward voice as a constitutive element of how individuals experience informal control within bureaucratic hierarchies. Voice can be a tool of exercising, resisting, and reaching sanctioned acceptance about organizational control.

Purpose Clarity

Scholars have long recognized that formal rules within themselves are fundamentally inadequate to induce desired organizational outcomes (Selznick 1984, Simon 1995). Formal contracts and incentives can neither specify, a priori, all possible scenarios (Gibbons and Henderson 2012) nor provide intrinsic motivation for consummate performance (Williamson 1975). Instead, instrumental control within bureaucratic organizations also requires infusing tasks with meaning and connecting the organization's goals to broader ideals (Weber 1978, Barnard 1968, Selznick 1952). The role of leadership, therefore, is partially to support meaning-making processes that both contribute to organizational performance and connect tasks to valued outcomes beyond technical efficiency (Podolny et al. 2005, Carton 2017).

In this context, Barker (1993) conceives of shared values as shaping conceptions of appropriate behavior—and thus operating as a form of “concertive” control. Ouchi (1979) defines bureaucratic control as a mechanism explicitly relying on “socialized acceptance of common objectives” (Ouchi 1979, p. 833). Nevertheless, the extent to which employees are aware of their organization's espoused values or purpose, and experience these values as personally meaningful, vary across organizational settings (Gartenberg et al. 2019). And as Barker (1993) contends, in order for values to influence employees' experience of organizational

control, an organization's values must be made apparent to the employees and become meaningful on the individual level.

This study therefore adopts the concept of *purpose clarity* from Gartenberg and colleagues (2019) in order to capture this combination of internalized values and clarity about an organization's purpose—as an aspect of how public servants experience informal organizational control. The authors define purpose clarity as when “employees hold strong beliefs on the meaning and impact of their work...[and] where management provides significant clarity around direction, job responsibilities, and tools that can be used to achieve the desired outcomes” (Gartenberg et al. 2019, p. 5, 8). Clarity from management and leadership about an organization's goals, purpose, and available tools does not imply, by itself, that individuals within the organization experience these articulations of organizational purpose as personally meaningful (Podolny et al. 2005). Meanwhile, forms of social control may derive from congeniality between, and shared conceptions of appropriate behavior among, non-management-level colleagues—who may at times overtly resist the formal bureaucratic control of leaders in the bureaucratic hierarchy (Roy 1952) However, the alignment of public servants' internalized conceptions of value with an organization's articulated goals and purpose may engender forms of “concertive” bureaucratic control.

PROPOSITIONS ABOUT SECESSION AND ABSORPTION

In Missouri, the interview data suggest that the reorganization and secession of divisions out of the Department of Economic Development produced a smaller department with more specialized functions, clearer conceptions of organizational identity, and more bandwidth among the leadership team to focus on core economic development tasks. Public servants who remained within DED subsequently experienced a change in how leaders exercised authority towards a

more participatory, value-imbued, and paradoxically more authoritative process. This section presents propositions about how the secession and absorption of government divisions in Missouri influenced public servants' experience of bureaucratic control in the giving department and transferred divisions, respectively. Although this section presents these results linearly, the data suggest that these dynamics were endogenous and mutually supportive of each other.

More Bandwidth for Leadership in the Giving Department

First, the interview data suggest that the secession of divisions out of the Missouri DED entailed increased bandwidth for the senior leadership team at the department. A deputy director in DED succinctly described a main challenge, prior to the reorganization, this way: "The director was so busy doing stuff that there was no time for economic development." A human resource specialist in the department elaborated on the leadership challenges pulling the department director in multiple directions before the reorganization: "Our director, he could be trying to help broker a deal for a company to expand and bring jobs. And then all of a sudden, he has to shift his attention to a disciplinary issue in the Division of Energy. I think it just pulled his focus in too many directions. We had all these missions trying to co-exist under the umbrella of economic development."

Although the interview data were not collected pre- and post-reorganization, one of the interviewees had previously served as the department director in the 1990s. From his current role within DED as Missouri's Military Advocate, he noted from a longitudinal perspective that transferring divisions with regulatory responsibilities out of DED during the reorganization seemed to significantly free up the current director's time. "When I was the director, I spent a quarter of my time dealing with regulatory issues. Fast-forward to today, I don't think that's the case anymore [for the current director]. I think the new construct has been really successful." A

deputy division director further explained, “this structure frees up not only the director’s time but also our leadership’s time to focus solely on that frontline activity and managing the divisions.” The DED director validated this account, noting that after the reorganization he had more time to “coach the six division directors and help ensure that their actions are consistent with our statewide objectives and strategy.”

In addition to augmenting DED’s leadership’s available time, transferring divisions out of the department also decreased the number of sources of authority within the organization. In particular, three of the five specific divisions that were transferred out of DED both reported to the department director and were responsible to their own oversight commissions. For example, the Public Service Commission and its respective staff had authority over public utility regulation in the state independent of their subordinate position to the DED director. Interviewees alluded to this dual authority structure prior to the reorganization as diminishing the extent to which they experienced the department director’s authority. In contrast, after the reorganization, only one division within DED, the Division of Tourism, reported to both the department director and an oversight commission.

These processes within DED suggest that transferring divisions out of DED expanded the time, bandwidth, and relative authority of the department’s leadership team to directly manage the public servants who remained in the department after the reorganization process. These processes are theorized as enabling conditions for changes in public servants’ experiences of bureaucratic control presented in the following sections.

Exercised and Felt Authority Supporting Upward Voice

Paradoxically, the data suggest that the department leadership used their increased ability to project their authority within the organization to help expand the voice rights of public

servants within the department. The Director of DED described his process for using the authority of his position to “force” members of the department to make recommendations. “I try to force them to make a recommendation. It’s not always easy for folks who don’t want to kind of put their neck out there and say, here’s what I think, director. But I have found that that is something that connects our team to the strategy in a way that we haven’t had previously. So I spend a lot of my time asking those kinds of subordinate team leaders and their subordinates to bring forward recommendations.”

Public servants within DED described, post-reorganization, increases in their voice rights within the department after the reorganization process. A member of the communications team recounted:

There’s been a shift in the culture of DED. When we first started the transition, it was very hard for me to feel like I had any impact on what we were doing as a whole. And I think it’s because I looked up the chain of command and I had three or four people to go through before I would ever talk to the department director. A lot of times, I felt like my ideas weren’t heard just because maybe I didn’t have the authority to have an opinion, if that even makes sense. But after the transition the DED made, I feel like it’s been more encouraged for everybody to speak up.

This expansion of “authority to have an opinion” was experienced at the level of organizational norms rather than formal organizational rules. These data suggest that public servants who remained in the department more directly engaged with and experienced the authority of the department’s leadership team.

Scholars have long observed in organizational settings that forms of hierarchical authority can contribute both to task clarity and employee engagement on one hand (Adler and Borys 1996, Magee and Galinsky 2008, Adler 2012) and alienation and de-motivation on the other (Rothschild 2000, Freeland and Zuckerman Sivan 2018). In government bureaucracies, this challenge can be particularly pronounced because hierarchical authority is statutorily enshrined.

As the DED director reflected, “I’m not unaware of the fact that I’m the one that holds final authority on it. You can’t have a frontline team member being the one that signs off on a \$50 million tax credit program.” Nevertheless, members of the leadership team at DED were reflexively aware about trying to balance the formal decision rights vested in the department director with promoting informal influence and participation. A senior leader noted that, from his point of view, “Authoritative leadership enforces strong and strict accountability that can scare people. It can hinder some of that mindset that we’re trying to generate. So there’s a balance of ensuring we’re holding people accountable, but we’re also not so authoritative in that accountability that it discourages people from trying new behaviors and voicing their opinions.”

The interview data pointed to two prominent processes through which the leadership team at DED sought to expand access to voice rights in the organization both through, and despite, their hierarchical control over decision-making rights. First, the department leadership introduced “skip-level meetings” in which department staff met directly with their boss’s boss. A deputy division director described how, in the context of meeting with Director Dixon, “I’ve been in a lot of meetings with Director Dixon where he’ll just turn to me and say, what do you think? And then he will go with that decision. He really means it. I cannot say I have been in a lot of organizations in which my boss’s boss does this.” The department director used his formal authority to create spaces providing greater direct access—and opportunities for upward voice—between DED staff at different levels of the formal bureaucratic hierarchy. While interviewees reported varied experiences in such meeting with their boss’s boss, and the interview sampling protocol does not support inferences about the extent to which these skip-level meetings persistently occurred, the results suggest that skip-level meetings helped transform authority relationships for individuals at the deputy division director level or higher in the organization.

The data also suggest, however, that skip-level meetings did not necessarily engender the feeling of having the “authority to have an opinion” for DED staff who held relatively lower positions in the formal bureaucratic hierarchy. A program officer, ranked below the deputy division director level, who participated in skip-level meetings still emphasized her limited experience and comfort with directly engaging with the department leadership: “I don’t feel like I could walk up to the department director tomorrow and have a conversation with him.”

Second, the reorganization process at DED occurred in proximity with the COVID-19 pandemic and subsequent changes in Missouri state government’s operating procedures, including a transition to remote work and the introduction of a large inter-department information-gathering and -sharing meeting called a Fusion Cell. The interview data strongly suggest that after the initial iteration of the Fusion Cell, the DED leadership team used their authority to encourage nearly the entire department staff to participate in these Fusion Cell calls. The explicit goal of this Fusion Cell space was to enable public servants’ information sharing and participation in the state’s COVID-19 response across department boundaries and levels in departments’ formal organizational hierarchy. A DED staff member stated that “The Fusion Cell literally broke down the silos for all of us. Everyone from departmental directors, chiefs of staff, deputies, to everyone else came together, and all the titles were checked at the door. Everybody had a say in those conversations.” As a corollary, the exigencies of the pandemic precipitated transferring new tasks, responsibilities, and, in turn, ad hoc authority to public servants that often far exceeded the responsibilities of their pre-pandemic roles. For example, a member of DED’s Business and Community Solutions Division was put in charge of the working group overseeing economic recovery in Missouri. Meanwhile, the transition to remote work during the pandemic contributed to a flatter organizational structure at DED. During a research interview with a

marketing manager in the department, the DED director directly called the interviewee's cell phone and we had to pause the interview. Afterwards, the interviewee reflected that such direct communication rarely occurred before the transition to remote work but that the pandemic created time constraints that changed how DED staff communicated across the organizational structure.

These findings convey heterogeneous processes influencing how public servants in DED experienced bureaucratic authority that were intertwined with the secession of divisions out of the department. Exogenous events, such as the COVID-19 pandemic, contributed to and amplified these changes. Nevertheless, these findings led to the first two propositions that emerged from the qualitative data. First, the secession of divisions out of DED was associated with increases in felt authority for public servants who remained in the department. Second, the secession of divisions out of DED was associated with increases in upward voice for public servants who remained in the department.

Clearer Organizational Identity and Increased Purpose Clarity

The interview data also suggest that transferring divisions out of DED was associated with public servants developing a clearer conception of their organization's identity and purpose, as well as greater collegiality with their colleagues. The more specialized department helped enable clearer messaging from DED leadership about the department's refined mission and identity.

For example, a deputy director in DED summarized the effects of the reorganizations as a clearer conception of organizational identity: "When we started, we were by far the largest and least-focused economic development agency in the Midwest. But after the reorg, we were able to actually say this is who we are, this is what we're doing." Another DED staff member reflected,

“If you understand the mission, then it goes from just processing an application to helping a person.” These sentiments about the effects of reorganization were common contentions across the interview data.

This process was intertwined with increases in interpersonal exposure and collegiality. A member of the DED communications teams explained, “It’s crazy that I now know everybody in the department. Now, we’re not just doing it for this person that we can’t quite put a name to their face or vice versa. We’re doing it for the people that we respect and are friends with. And we’re like, oh yeah, man, Michelle? She works so hard. I absolutely want to make sure I get this done.” Several interviewees connected this increased exposure and engagement with their colleagues after the reorganization to a work experience that “feels more like a family, a team.” While collegiality itself is a separate concept from purpose clarity (Gartenberg et al. 2019), interviewees primarily described this dynamic in the context of supporting standard work tasks rather than subverting organizational directives. I therefore infer that this increased collegiality after the reorganization supported the internalization of the department’s purpose.

As previously argued, imbuing organizational values is a procedural pathway to “sanctioned acceptance” (Simon 1957), legitimate authority, and organizational control. The results from the interview data strongly suggest that public servants in DED experienced more clarity about the organization’s purpose after the reorganization, while tasks became imbued with greater value because of the increased collegiality between colleagues. Thus, the third proposition emerging from the qualitative data: the secession of divisions out of DED was associated with increases in purpose clarity for public servants who remained in the department.

The Experience of Public Servants in Transferred Divisions

The interview data also provide the opportunity to develop propositions about how the reorganization process affected public servants within the transferred divisions' experience of informal control. Based on interview data collected from one of the transferred divisions—the Division of Energy, which was relocated to the Department of Natural Resources—this section proposes a fourth, and general, proposition that the reorganization process had limited effects on how public servants within this transferred division experienced felt authority, upward voice, and purpose clarity—although the interview data suggest very heterogenous experiences among the public servants.

Interviewees at DOE described their division as neither fully fitting in at DED or DNR. A policy analyst summarized their sense of autonomy at DED as, “At DED, it seemed they weren't really familiar with the subject matter we worked with or what we did on a day-to-day basis. So, they kind of let us do whatever we really wanted to do...DOE doesn't seem to belong very well anywhere.” A manager within the division used stronger, biased language, reflecting that, “For lack of a better term, we were a red-headed step-child. We were the division nobody really wanted.”

When I followed up with interviewees at DOE about why they felt their division was somewhat neglected by their department director, they pointed to the fact that their division was primarily funded by the grants from the federal government in the United States. The programs they administered, and even their own salaries, were not allocated from part of Missouri state government's budget. Participants also described how many of the programs they administered received limited political attention, which they felt made their work less important to the department directors at both DED and DNR. Managers and leaders within DED recognized this

incongruence between many of the divisions housed within DED before the reorganization. A deputy director elaborated, “We were sort of like a holding company for all these executive branch divisions.” These findings suggest that public servants within this horizontally transferred government division did not experience significant changes in felt authority or upward voice because of the secession and absorption of their division.

Interviewees also expressed that their sense of collegiality with other colleagues, especially colleagues in other divisions, did not seem to markedly evolve after the reorganization—especially at the non-managerial level. A grants officer in DOE reflected, in comparison to other divisions in the department, that their work did not require collaborating with colleagues outside the division: “I feel like we [DOE] don’t have the same overlap [with other divisions]. If you take the Water Quality Division, they have the permitting and the environmental side. So they’re going to have some correspondence. But on my level, we don’t really have any at all.” Because collegiality did not seemingly increase, and there was persistent uncertainty about the relationship between their division and their new parent department, I also propose that the reorganization process had limited effects on the levels of purpose clarity for public servants in the transferred divisions.

Nevertheless, this description belies more heterogenous effects of the reorganization on the experiences of public servants in DOE. Several interviewees associated the transfer of their division with experiencing increased formal control by their department director, especially on issues related to renewable energy and climate change. These interviewees expressed newly experienced declines in the exercise of upward voice on issues with high degrees of political salience. Numerous interviewees also recounted feeling anxiety and uncertainty about how the organizational reforms would affect them after the restructuring was first announced.

Interviewees expressed that these concerns dissipated over time especially as it became clear that streamlining DED would not entail layoffs. The effects of the absorption of this government division clearly depended on characteristics of the receiving department.

Still, the interview data suggest several general characteristics intertwined with the autonomy and neglect of nested elements within larger government bureaucracies. First, sources of funding for personnel salaries and programs that are external to legislatively allocated budgets may induce formal and informal forms of autonomy and neglect. This dynamic primarily applies within sub-national levels of government, as the Division of Energy within Missouri state government was primarily funded by the federal United States government. Second, the organizational design of large government bureaucracies may at times be analogous to private holding companies in which seemingly unrelated subunits are managed by, and are legally accountable to, the larger parent organization. Interviewees at DED explicitly described their department before the reorganization process in these terms. Third, government subunits whose programs and work have low levels of political salience may attract less attention from the internal principal of their organization. Internal principals have limited available time, bandwidth, and bounded rationality to focus on all aspects of their government bureaucracy. Lastly, the interview data suggest that limited task interdependence between divisions nested in a larger bureaucracy may induce heightened autonomy and neglect of these subunits. The interaction between, and the consequences of, these essential features of neglected autonomous divisions should be further explored.

Triangulating the Qualitative Findings

This section triangulates these four propositions about the direction of the effects of the reorganization on public servants' experience of informal bureaucratic authority with regression

analyses of longitudinal survey data across Missouri state government. The timing of the organizational reforms between waves two and three of the longitudinal survey—detailed below—support difference-in-differences modeling (Angrist and Pischke 2009). In addition, the quantitative analyses support disentangling associations attributable to the secession and absorption of the government divisions from confounding variables that affected the entire state government such as the COVID-19 pandemic. Nevertheless, given these specific data and methodologies, this paper uses associative rather than causal language and does not provide explicit hypothesis testing.¹¹ Instead, the model results should be viewed as rigorous triangulation of the qualitative findings (Small 2011, Mele and Belardinelli 2019).

Survey Data: The data are unique longitudinal survey data set across an entire state government. Starting in December 2018, the Missouri Office of Administration began administering a quarterly organizational and management survey to government employees working in the 16 executive branch departments in the state. A total of 191 government divisions are nested within these higher-level departments.¹² These survey data—internally referred to as the Quarterly Pulse Survey (QPS)—have 11 waves between December 2018 and July 2022. Survey questions were selectively rotated by wave, so the analyses are restricted to the six waves that include the same survey questions as wave 1. The data subsequently contain two survey waves administered before the secession and absorption of the government divisions, and four survey waves after this reorganization process. Answers to the survey questions occurred on a seven-point Likert scale: 1 for strongly disagree; 7 for strongly agree. Each wave has between 14,000 to 20,000 respondents out of roughly 39,000 executive branch government employees,

¹¹ This paper uses associative language for several reasons. First, the parallel trends assumption of this type of model may not be met in the data. Second, the assignment of the treatment variable is not random. Third, the small number of giving departments in model 2 ($n = 1$) warrants significant caution in interpreting the results.

¹² This number is based on the total number of participating divisions in the QPS survey.

and the participation rate ranges from 42% to 57%. The data are anonymized on the individual level—which prevents tracking individuals across time—but includes information on respondents’ respective departments and divisions during each wave.

These data provide a rare opportunity to longitudinally analyze associations between structural reforms and public servants’ experiences of informal authority within bureaucracies across an entire executive branch of state-level government.

To operationalize the theorized concepts of felt authority, upward voice, and purpose clarity, I created three indices of questions from the survey data. All survey indices had Cronbach Alphas above 0.7, indicating sufficient levels of relationship between the questions. Survey responses for each concept were averaged together (equal weight) to create the respective indices and then aggregated up to the division/wave or agency/wave level. The nascent state of survey research on these concepts and this study’s author not participating in the survey design prevent relying on previously validated survey instruments.¹³

¹³ The specific survey questions Gartenberg and colleagues (2019) used to operationalize the concept *purpose clarity* were identified through factor analyses of a proprietary survey. The questions that load on this factor are: “My work has special meaning: this is ‘not just a job’”; “When I look at what we accomplish, I feel a sense of pride”; “I feel good about the ways we contribute to the community”; “I’m proud to tell others I work here”; “Management has a clear view of where the organization is going and how to get there”; “Management makes its expectations clear”; and “I am given the resources and equipment to do my job.”

Table 2.1. Survey Questions and Concepts

Concept (Cronbach Alpha)	Survey Questions
Felt Authority (0.74)	“Leaders in the organization (including my supervisor) use authority to get things done”
	“Leaders in the organization (including my supervisor) provide continual pressure and influence”
Upward Voice (0.80)	“Leaders in the organization (including my supervisor) ask the opinions of others before making important decisions”
	“Managers actively solicit employee involvement in setting the organization's direction”
Purpose Clarity (0.83)	“The organization has a vision for the future that is both easy to understand and meaningful to employees”
	“Employees’ day-to-day behaviors are guided by the organization's vision and strategy”
	“Leaders in the organization (including my supervisor) role model the values of the organization”

Models

This study triangulates the period-specific effects of secession and absorption of government divisions on felt authority, upward voice, and purpose clarity through two separate difference-in-differences models. The first model treats each parent-level department in the state as the unit of analysis to assess differences, if any, in how public servants within these larger organizations experience informal aspects of bureaucratic control after the secession and

absorption of nested divisions. The second model instead treats nested divisions as the unit of analysis and analyzes changes in informal aspects of bureaucratic control experienced at the division-level attributable to the reorganization process. This model addresses how, if at all, the experiences of public servants *within* the transferred divisions differed over time compared to divisions that did not undergo secession and absorption. Both models average individual-level survey responses at higher organizational levels due to individually anonymized structure of the data (Zhan et al. 2013).

To account for variation in both the size of the organizations and the precision in which the survey constructs are measured, the regression models weight the means based on the inverse value of the units' respective standard errors squared (Aitken 1935). Both models further cluster standard errors at the department-level given the nested structure of the data. Each model is used three times to assess the respective effects of the reorganization on felt authority, upward voice, and purpose clarity.

Giving and Receiving Parent-Level Departments—Model 1 Equation:

$$Y_{dw} = \beta_0 + \beta_1 T_w + \gamma_d + \delta'(G_d * T_w) + \mu'(R_d * T_w) + \varepsilon_{dw}$$

The unit of observation in model 1 is the department/wave. There are two treatment variables. First, G is a binary treatment variable for whether department d *gave* any divisions during the reorganization process (n = 1). Second, R is a binary treatment variable for whether department d *received* any of the seceded divisions (n = 3). Previous scholarship indicates that the effects of an organizational reform in government may take many years to manifest (Amiot et al., 2006) as well as dissipate over time (Grunberg et al. 2008, Wynen et al. 2016).

Consequently, the model includes wave-specific treatment variables, $(G_d * T_w)$ and $(R_d * T_w)$, which are interaction terms between the respective treatment variables for giving and receiving

departments and each survey wave; this was done to discern delayed effects of the reorganization in each post-reorganization survey wave. The coefficients of these interaction terms, δ' and μ' , provide the estimate of the wave-specific treatment effects. It can be interpreted as the average effect of the reorganization process on the dependent variables during each survey wave after the reorganization controlling for the fixed characteristics of the departments and time trends.

Transferred Nested Divisions—Model 2 Equation:

$$Y_{idw} = \beta_0 + \beta_1 T_w + \gamma_d + \delta'(M_i * T_w) + \varepsilon_{idw}$$

In contrast to model 1, the unit of observation in model 2 is the division/wave. Y_{idw} is the average survey response from division i within department d during wave w . T is a vector of survey-wave dummy variables (time fixed effects). γ is a set of dummies for each department d (department fixed effects). M is the binary treatment variable for each division having the value of 0 if division i was not transferred and a value of 1 if the division was one of the five transferred divisions across the state. The coefficient δ' on the interaction term, $(M_i * T_w)$, provides an estimate of the wave-specific treatment effects. The model includes time-fixed effects through a vector of survey wave-dummy variables, T .

Table 2.2. Dependent Variables Descriptive Statistics

	Agencies						Divisions					
	<i>M</i>	<i>SD</i>	<i>Obs.</i>	Correlations			<i>M</i>	<i>SD</i>	<i>Obs.</i>	Correlations		
				1	2	3				1	2	3
1. Felt Authority	4.39	0.16	105	1.00			4.28	0.33	878	1.00		
2. Upward Voice	4.11	0.36	105	0.68	1.00		4.24	0.55	878	0.46	1.00	
3. Purpose Clarity	4.60	0.33	105	0.73	0.95	1.00	4.68	0.47	878	0.48	0.92	1.00

Note: All correlations are significant at the $p < 0.01$ level.

Model Results

The regression analyses assess the four propositions regarding associations between secession and absorption of government divisions on felt authority, upward voice, and purpose clarity, respectively. Propositions 1–3 state that the secession of government divisions out of DED was associated with increases in these respective concepts for public servants who remained in the department. Proposition 4 states that public servants within a single one of the transferred divisions—the Division of Energy—experienced limited changes in felt authority, upward voice, and purpose clarity after being seceded by DED and absorbed by DNR. Overall, the difference-in-differences model results triangulate propositions 1–3 from the qualitative findings and offer mixed support for proposition 4.

Table 2.3 presents the results from model 1—which models the effects of the reorganization process on both the “giving” and “receiving” departments. First, these results suggest that the secession of divisions at the DED (giving department) was associated with an increase in the experience of felt authority after an initial decrease in the first survey wave (Proposition 1). The coefficients for these wave-specific treatment effects are all statistically significant at the 95% confidence interval range ($p < 0.05$). The wave-specific coefficients can be interpreted as the mean-difference between how public servants at DED experienced felt authority after the reorganization process during the given survey wave compared to the department-level average of public servants at other departments that did not undergo a similar reorganization or “giving” process—controlling for baseline conditions in the respective departments and time-effects. Said simply, it is the time-delayed “effect” of transferring divisions on the department-level average of felt authority for the giving department during each survey wave. To note, the coefficient for wave 3, which is the first survey wave after divisions

were formally transferred to other departments, is negative and thus in the opposite direction as the qualitatively developed proposition. One possible explanation of this small negative effect (-0.068 on seven-point Likert scale) is that the reorganization of DED entailed a short-term uncertainty about the organizational structure and formal procedures. Therefore, the authority of the department's leadership may have been less apparent to department staff during the initial stages after the reorganization.

Meanwhile, the results suggest that public servants who remained at DED experienced increases in upward voice (Proposition 2) and purpose clarity (Proposition 3) after the organizational restructuring. The wave-specific treatment coefficients for these respective constructs are all statistically significant at the 99% confidence range ($p < 0.01$). These results provide suggestive, but not causal, evidence supporting the qualitative theory development. Moreover, the model design does not evaluate the explicit causal mechanism identified in the qualitative data—that the department leadership used their authority to increase employees' upward voice.

For public servants in the “receiving” departments that absorbed transferred divisions, model 1 results suggest that this process was associated with a slight decrease in the experience of felt authority immediately after the reorganization ($p < 0.05$), although this effect dissipates and loses its statistical significance over time. In contrast, the results suggest that public servants in the receiving departments experienced increases in purpose clarity and upward voice in most survey waves excluding the first wave after their departments absorbed new divisions. These associations, however, were not addressed in the qualitative findings (they do not correspond with any of the propositions) because the qualitative data do not contain interviews conducted with public servants in these receiving departments—excluding members of a single transferred

division. Therefore, this study presents these regression results for the receiving departments primarily for informational purposes rather than to triangulate any of the qualitative findings.

Table 2.3. Model 1 Department Level Effects of Secession and Absorption

	Felt Authority	Upward Voice	Purpose Clarity
Giving Department—Wave 3(5)	-0.068 * (0.030)	0.481 ** (0.054)	0.381 ** (0.068)
Giving Department—Wave 4(6)	0.151 ** (0.031)	0.698 ** (0.020)	0.562 ** (0.024)
Giving Department—Wave 5(8)	0.260 ** (0.032)	0.626 ** (0.030)	0.461 ** (0.040)
Giving Department—Wave 6(10)	0.140 ** (0.043)	0.636 ** (0.062)	0.519 ** (0.060)
Receiving Department—Wave 3(5)	-0.071 * (0.027)	-0.112 (0.081)	-0.083 (0.082)
Receiving Department—Wave 4(6)	-0.028 (0.080)	0.219 ** (0.036)	0.172 ** (0.034)
Receiving Department—Wave 5(8)	-0.062 (0.052)	0.268 ** (0.048)	0.209 ** (0.041)
Receiving Department—Wave 6(10)	-0.020 (0.086)	0.296 ** (0.081)	0.279 ** (0.072)
Intercept	4.294 ** (0.035)	4.440 ** (0.051)	4.799 ** (0.058)
Survey-Wave and Department FE	Y	Y	Y
Number of observations	105	105	105

** p < .01, * p < .05

Results from Model 2 (Table 2.4), which analyzes the effects of the reorganization process on the transferred divisions themselves rather than on their respective parent-level giving and receiving departments (Proposition 4), primarily suggest limited associations with public servants' experience of informal control mechanisms. While Proposition 4 pertained to a single division, these results suggest the same general pattern across all the transferred divisions. Model 2 results primarily suggest that the secession and absorption of divisions had limited associations with how public servants in these divisions experienced felt authority, upward voice, and purpose clarity after the secession and absorption process. However, the model results have several notable exceptions, the model specifications obscure possible heterogeneity in

experiences across the five transferred divisions, and the results of Wald tests for the treatment variables (Appendix II Table A.1) suggest that in multiple instances we cannot reject the null hypothesis these coefficients are equal to zero.

Table 2.4. Model 2 Division Level Effects of Secession and Absorption

	Felt Authority	Upward Voice	Purpose Clarity
Transferred Division—Wave 3(5)	-0.225 (0.106)	-0.669 (0.351)	-0.579 (0.278)
Transferred Division—Wave 4(6)	-0.068 (0.085)	-0.061 (0.331)	-0.282 (0.153)
Transferred Division—Wave 5(8)	-0.067 (0.050)	-0.130 (0.292)	-0.252 (0.171)
Transferred Division—Wave 6(10)	0.092 (0.048)	0.027 (0.119)	-0.033 (0.086)
Intercept	4.354 ** (0.028)	4.680 ** (0.047)	5.017** (0.055)
Survey-Wave and Department FE	Y	Y	Y
Number of observations	874	875	875

** p < .01, * p < .05

DISCUSSION AND CONCLUSION

Despite the prevalence of structural reforms in government at the sub-agency or sub-department level, the effects of the secession and absorption of government units have received limited attention in public administration scholarship (Rolland and Roness 2011, Carroll et al. 2022). While previous literature maintains that comprehensive reforms of government administration rarely alter or improve the ability of leaders to instrumentally control their bureaucracies (March and Olsen 1983, Brunsson and Olsen 1993), the applicability of this theory to targeted reforms at the subunit level of government departments or agencies is less understood. In addition, public administration scholarship on bureaucratic authority and control in government predominantly focuses on the formal aspects of bureaucratic hierarchies. As a result, scholars and practitioners have limited guidance on the relationship between the secession

and absorption of government subdivisions and how public servants experience the informal aspects of bureaucratic control.

This study integrates and refines concepts from organizational theory and organizational sociology—combined with an abductive theory approach—to expand the predominant conceptualization of bureaucratic control in public administration scholarship. The analyses focus on felt authority, upward voice, and purpose clarity as integral informal aspects of how individuals within government bureaucracies experience bureaucratic control. In addition, the data—a rare combination of interviews within multiple government divisions and longitudinal survey data across an entire state-level government—support developing and triangulating propositions about associations between the secession and absorption of government subunits and public servants’ experience of informal bureaucratic control.

The results demonstrate that public servants who remain with a giving government organization—the parent-level department or agency from which a nested sub-organization seceded or is transferred—may experience increases in upward voice and purpose clarity after a reorganization process decreases the size and scope of their department. The interview data suggest that the transferring divisions out of the Missouri Department of Economic Development produced a more specialized department with greater internal awareness about the department’s organizational identity and increased levels of internal purpose clarity. These findings largely align with the results of previous studies on specialization in government—often advanced under such terms as agencification or new public management. The identity and purpose of a smaller government organizations are often easier for leaders and managers to define and communicate while staff in a smaller department may experience it as more collegial (Quenneville et al. 2010).

However, the interview data further suggest that secession of government divisions out of DED increased the extent to which public servants in the department experienced felt authority. The organizational reforms increased the leadership team's available bandwidth to directly engage with staff across the organization. The internal principal in DED—the department director—further used his authority after the secession of divisions to expand and, at times, force upward voice among public servants in the department. The qualitative data provide suggestive evidence that expanding the available bandwidth of the leadership team was an enabling condition for using formal authority to expand voice rights across the organization. In Missouri, the expansion of felt authority within DED after the reorganization was paradoxically intertwined with the expansion of upward voice.

The results from the first difference-in-differences model of longitudinal survey data across Missouri state government largely triangulates the direction of these proposed associations—without directly assessing the internal processes posited by the qualitative data analyses. The secession of divisions out of DED was strongly associated with increases in department members' experience of felt authority, upward voice, and purpose clarity—controlling for department and survey-wave fixed effects. The results from model 2, however, offer limited support for the fourth proposition that the secession and absorption process had limited effects on how public servants *within* these transferred divisions experienced felt authority, upward voice, and purpose clarity after the reorganization.

These findings make several contributions to public administration scholarship on bureaucratic control (DeHart-Davis and Pandey 2005, DeHart-Davis 2009) and reorganization processes (Kuipers et al. 2014, De Vries et al. 2016). First, the results suggest that public administration scholarship on bureaucratic control should expand its conceptualization from

formalization and red tape to also address public servants' experience of authority through organizational norms, non-codified processes, and internalized values. This contribution is based both on integrating concepts from organizational theory and organizational sociology, and on the interview results demonstrating that public servants' experience of bureaucratic control was intertwined with informal processes. In this context, the findings show that authority was exercised to solicit and support more upward voice in the department. This change matters for issues of bureaucratic control because upward voice is part of how public servants resist, negotiate, and reach sanctioned acceptance about legitimate power within organizations (Carpenter and Krause 2015). Meanwhile, increases in purpose clarity after the reorganization at DED suggest increases in normative or "concertive" control. Ultimately, these findings about informal aspects of bureaucratic control help expand research on aligning bureaucratic objectives, values, and actions around democratically sanctioned values and goals as defined by legislation and appointed department principals—an integral process for democratic state administration.

In organizational theory, previous research shows that the feeling of control can engender openness among leaders and managers to the voice and constructive feedback of subordinates in their organization (Sherf et al. 2019). In organizational sociology, scholarship contends that expanding voice rights is both enabled by, and can support, hierarchical decision rights (Turco, Zuckerman). Observing similar dynamics in public bureaucracies further supports the need for cross-fertilization between these literatures and future research that expands our understanding of the spectrum of informal dynamics intertwined with bureaucratic authority and control.

Second, secession and absorption of government subunits are relatively common processes, especially compared to structural reorganizations in which parent-level departments or

agencies merge, split, or are terminated (Rolland and Roness 2011, Carroll et al. 2022). While scholars have included secession and absorption in research on the effects of *frequent* change initiatives in government (Wynen et al. 2019, Wynen et al 2020), the effects of *individual* secession and absorption processes on the experiences of public servants remain poorly understood. In addition, I am unaware of any study that treats informal processes for bureaucratic control as the dependent variable in public administration scholarship. This study therefore contributes to this literature on secession and absorption processes (Rolland and Roness 2011, Carroll et al. 2022) and builds on scholarship that foregrounds the experiences of public servants during organizational reform (Wynen et al. 2019, Wynen et al 2020).

Third, this paper presents orthogonal findings to Olsen and colleagues' (March and Olsen 1983, Brunsson and Olsen 1993) classic theory about organizational reform processes in government. Their scholarship suggests that comprehensive reforms of government bureaucracies are often pursued for institutional legitimacy and symbolic reasons with limited effects on bureaucratic principals' ability to control their departments. Instead, this research suggests that in the context of secession and absorption of government divisions—which are an organizational level below the departments and agencies that Olsen, March, and Brunsson studied—organizational reforms in Missouri significantly altered the experience and exercise of authority for public servants within the giving department. The qualitative findings provide suggestive evidence that this change partially occurred because secession of department divisions increased the bandwidth of the department's leadership team to directly engage with public servants who remained in the department.

Lastly, as a corollary, this study's transactional authority approach also demonstrates that internal principals' available time and bandwidth to engage with department personnel—in

addition to previously theorized concepts such as expertise, reputation, and charisma—are integral in processes shaping how bureaucratic authority is legitimized and experienced. Future research on other processes constraining and expanding the bandwidth of bureaucratic leaders could help better align public servants’ experience of bureaucratic control with conceptions of more optimal levels.

For practitioners, this study also addresses a challenge facing central managers responsible for a portfolio of government agencies—such as central oversight agencies at the federal level or chief operating officers and county managers at the state and local levels—who are considering structural reform initiatives: identifying and addressing the consequences of reform initiatives for the entire subset of government organizations involved. Studies of change initiatives in government tend to focus on reforms that target individual organizations and sectors (Kuipers et al. 2014) or mass administrative reorganizations that affect all executive branch agencies (Bertelli and Sinclair 2016). The middle ground reform space in which divisions are horizontally transferred between several parent-organizations—but where the structural reform is not system- or sector-wide—lacks targeted guidance for practitioners. This study provides cautionary support for the secession of government divisions as a process supporting greater purpose clarity, upward voice, and more felt exercises of authority within the giving department. However, a plethora of other context-specific factors also seemed to mediate these associations.

Lastly, the theory development in this article should be validated in other contexts with data and methods supporting causal inferences. Expanding insights into how organizational reforms affect public servants’ experience of informal bureaucratic control helps address normative questions about democratic control of government bureaucracies as well as practical

challenges about gauging the effects and trade-offs of sub-department level structural reform initiatives.

CHAPTER 3

PROCEDURAL BURDEN AND PATTERNS IN THE MONETIZATION OF REGULATORY BENEFITS ACROSS THE FEDERAL REGULATORY STATE

Abstract:

When do federal agencies provide monetized estimates of regulatory benefits during the regulatory development and review process? Using an original dataset with information on nearly all major rules and their respective regulatory impact assessments between 1996–2016 ($n = 713$), this paper presents the first empirical analysis of the associations between policy issue areas and the monetization and non-monetization of regulatory benefits across the federal regulatory state. The results demonstrate systemic differences in whether or not federal agencies monetize the benefits of major regulatory proposals based on regulatory policy topics. The paper further introduces the concept of procedural burden—defined as the extent of barriers facing interest groups and citizens in wielding power over regulatory policy formation. The empirical findings combined with this theoretical concept suggest that the patterns in the monetization of regulatory benefits can constitute a form of procedural inequality that weakens pluralist democracy in regulatory rulemaking.

Keywords: regulatory impacts assessments, regulatory review, inequality, pluralist democracy

INTRODUCTION

In the United States, presidential executive orders and the Office of Management and Budget (OMB) direct federal administrative agencies to evaluate the benefits and costs of all major proposed regulations and to provide a draft of these formal regulatory impact assessments (RIAs) to the Office of Information and Regulatory Affairs (OIRA) for review. The stated intent of this cost-benefit analysis (CBA) process is to enhance the quality of federal regulations, constrain arbitrary policies and authority, and provide citizens and socioeconomic groups an opportunity to observe, contest, and influence federal agencies' justifications for regulatory policy proposals (Sunstein 1996). While this legal directive applies to all significant regulations—officially defined by executive order—scholarship demonstrates significant variation in whether federal agencies provide monetized estimates of regulatory benefits in their RIAs (Masur and Posner 2016, Ellig and Fike 2016).

Previous scholarship primarily studies this heterogeneity in the context of trying to explain variation in the *quality* of federal agencies' cost-benefit analyses (Hahn and Dudley 2007, Ellig and Fike 2016). However, the role of this variation in cost-benefit analyses as both a cause and effect of inequality in regulatory rulemaking has not been systematically explored. This omission in scholarship is surprising because previous findings suggest several reasons why federal agencies' approaches to formally assessing regulatory proposals—and in particular whether they monetize the value of regulatory benefits in RIAs—might be intertwined with who wields influence during regulatory rulemaking. For example, both Heinzerling (2014) and Costa et al. (2019) suggest that the methodologies and evidence federal agencies use to evaluate and justify proposed rules may endogenously influence how federal agencies view regulatory issues, appropriate policy solutions, and subsequently draft regulatory policies. Similarly, formally assessing the benefits and costs of regulatory policies in monetary terms requires extensive resources, technocratic expertise, and the existence of context-specific scientific research (Sinden 2015)—and therefore may privilege regulatory policies towards the preferences of groups with greater economic and technical resources who can conduct such analyses of their own (Rahman 2011). Nevertheless, the literature lacks, as a foundational baseline to help evaluate the role of monetization in RIAs in regulatory inequality, an empirical description of if and how federal agencies' assessments of regulatory proposals differ across the regulatory state conditional on the regulatory policy area and the socioeconomic groups affected by the rule.

In order to contribute to this larger research agenda on the relationship between federal agencies' CBA of regulatory proposals and inequality in the rulemaking process, this paper asks: How do monetization and non-monetization of regulatory benefits in federal agencies' RIAs vary by policy issue area across the regulatory state? Based on a novel dataset containing information

on nearly all major rules and their respective RIAs between 1996–2016 (n = 713), this paper demonstrates systematic differences in how federal agencies evaluate the benefits of regulations depending on the regulatory policy issue area. The findings, which are based on a permutation test methodology (Hayes 1996, Collingridge 2013), not only suggest higher-level policy categories associated with monetization and non-monetization, respectively—such as air pollution and health care—but also identify granular policy issues such as “small businesses,” “research,” and “ozone,” on one hand, and “health facilities,” “rural areas,” and “privacy,” on the other, in which monetization and non-monetization of regulatory benefits are firmly established procedural norms. The paper hypothesizes that different evaluative norms across policy issue areas—for example, between “imports” and “employment”—have contributed to which groups of citizens have been able to drive and benefit from regulatory policies. The paper also presents descriptive statistics about variation within agencies in monetization of regulatory benefits in RIAs. Overall, 62% of all major RIAs between 1996–2016 did not provide monetized estimates of regulatory benefits. This dataset, which is available online accompanying the article, provides the most extensive description of monetization and non-monetization of regulatory benefits in federal agencies’ RIAs to date.

Intertwined with these empirical analyses—and building from scholarship on administrative burden (Herd and Moynihan 2019)—this paper introduces the concept of procedural burden, defined as the extent of barriers facing interest groups and citizens in wielding power over regulatory policy formation. I argue that monetizing regulatory benefits is a type of procedural norm that constructs an onerous barrier both for interest groups and individual citizens to presenting information seen as persuasive and, subsequently, to wielding influence during the rulemaking process. While procedural burden is a neutral concept—it fundamentally

reflects procedures for maintaining democratic control over the regulatory state—I argue that its relative distribution across policy issue areas and stakeholders matters for normative questions regarding democratic power and inequality in the administrative process. The paper’s results suggest the need for future research that explores how different dimensions of procedural burden—including monetization of regulatory impacts but also the technical and legal complexity of regulatory analyses (Wagner 2009, Shapiro 2018)—are distributed across the regulatory state and consequently shape policy outcomes and the quality of pluralist democracy in regulatory politics.

ROLE OF MONETIZATION AND RIAs IN THE REGULATORY DEVELOPMENT PROCESS

Formal requirements for cost-benefit analyses during regulatory review are intertwined with conceptions of quantitative accountability—the expectation that quantification can be used to “evaluate performances, facilitate decision making, or constrain discretion” (Espeland and Vannebo 2007, p. 24). Quantification is a social process of producing and communicating numbers (Espeland and Stevens 2008). In contrast, monetization is a form of quantification that uses money to make quantitative amounts of different categories comparable based on a common metric (Espeland and Stevens 1998) and most commonly refers to the process of ascribing monetary values to non-market goods that are not directly bought and sold (Schlaudt 2021). Monetization therefore provides a partial and ostensibly less political tool for assessing whether the advantages of a policy outweigh its disadvantages. Historians of the proliferation of quantitative tools note that the production of numbers often appears objective and apolitical, and thus helps bestow legitimacy on contested political authority (Porter 1995).

In 1993, President Bill Clinton created the framework for regulatory review with Executive Order 12866 that has largely persisted across subsequent presidential administrations (Libgober 2020). Executive Order 12866 directs federal agencies to quantitatively assess regulatory costs and benefits as supported by scientific research “and propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs” (Clinton 1993). Meanwhile, OMB Circular A4, a guidance document to federal agencies for regulatory analyses issued in 2003, states “You [federal agencies] should monetize quantitative estimates whenever possible.” Within this context, federal agencies must submit RIAs for significant regulatory proposals to OIRA, which has the authority to raise objections to the agency’s analyses and return the proposed regulation to the issuing agency if disagreements are not sufficiently addressed (Sunstein 2013, Heinzerling 2014).

Federal agencies subject to Executive Order 12866 subsequently face the dual analytical challenge of projecting the social and economic consequences of regulatory proposals before they are implemented and assessing the value of these regulatory impacts in monetary terms (Sinden 2015). For example, the RIA for the Department of Housing and Urban Development (HUD)’s 2011 regulation *Emergency Homeowners’ Loan Program* assessed that the regulation would assist between 22,546 and 34,474 homeowners. The RIA then combined academic research with the agency’s own analyses to estimate regulatory benefits based on expected avoided economic costs of mortgage foreclosures for homeowners, lenders, local governments, and neighbors. In particular, the agency assessed that the regulation would produce between \$1,238 to \$1,609 million in benefits. Figure 3.1 from the RIA summarizes HUD’s monetization of the regulatory benefits.

Figure 3.1. “Table 1. Expected Economic Benefits” from Regulatory Impact Analysis: Emergency Homeowners’ Loan Program

Category of Benefit	Expected Benefits per Foreclosure Prevented (\$)	Expected Benefit per EHL P Loan at Program Foreclosure Rate of 15% (\$)	Expected Benefit per EHL P Loan at Program Foreclosure Rate of 25% (\$)
Homeowner	10,339	8,788	7,754
Lender	24,508	20,832	18,381
Local government*	6,200	5,270	4,650
Neighboring home value	13,859	11,780	10,394
Average Economic Benefits	54,906	46,670	41,180
Aggregate for 22,546 Households	1,237,910,676	1,052,224,075	928,433,007
Aggregate for 34,474 Households	1,892,829,444	1,608,905,027	1,419,622,083

* Does not include lost or unpaid property taxes or utility bills, or property maintenance costs.

Outside of the executive branch, the courts treat the production and content of RIAs as evidence as to whether federal agencies are abiding by their statutory authority and procedural requirements. In particular, RIAs help federal agencies demonstrate compliance with the Administrative Procedure Act (APA), which prohibits arbitrary or capricious rulemaking and requires that agencies respond to material comments from the public on draft versions of the regulation (Garvey 2017). While the courts have established a level of deference to agencies in interpreting their own statutory authority deriving from ambiguous legislation under the Chevron doctrine (Elliott 2005), the courts have also established a precedent for invalidating federal regulations based on perceived inadequacies in how federal agencies assess and compare regulatory benefits and costs (Kraus and Raso 2013). Notably, in 2015, the Supreme Court’s decision in *Michigan vs. EPA* held that the agency was required to take into account regulatory costs in order to meet the “appropriate and necessary” standard in the Clean Air Act authorizing the regulation of hazardous pollutants (Masur and Posner 2016). Writing for the majority, Justice Antonin Scalia wrote, “One would not say that it is even rational, never mind ‘appropriate,’ to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits” (576 U.S. 743, 752).

Heterogeneity in Federal Agencies' RIAs

Nevertheless, in practice, federal agencies often do not provide monetary estimates of regulatory benefits in RIAs. Masur and Posner (2016) manually review 106 major promulgated regulations from fourteen federal agencies between 2010–2013 and find that 47 RIAs did not monetize any benefits. Hahn and Dudley (2007) similarly find that roughly 20% of RIAs from the EPA between 1983–1999 did not provide any quantitative estimates of the regulatory benefits. In practice, RIAs that do not provide monetized estimates of regulatory benefits tend to either exclusively describe the benefits qualitatively or provide quantitative modeling and analyses but shy away from presenting monetized benefits attributable to the regulation. For example, the Department of Labor (DOL)'s 2010 RIA for the regulation *Improved Fee Disclosure for Pension Plans* qualitatively summarizes the regulatory benefits as “information cost savings, discouraging harmful conflicts of interest, service value improvements through improved decisions and value, better enforcement tools to redress abuse, and harmonization with other EBSA rules and programs.” In contrast, the RIA for the Food and Drug Administration (FDA)'s 2016 rule *Sanitary Transportation of Human and Animal Food* quantitatively analyses the number of affected actors in the food supply chain but states, “We lack sufficient data to quantify the potential benefits of the final rule. The causal chain from inadequate food transportation to human and animal health and welfare can be specified but not quantified.” OIRA summarized the benefits from this regulation as “not estimated” (OMB 2017).

The primary approach in previous scholarship is to frame or analyze this heterogeneity in monetization in cost-benefit analyses as an issue of RIA quality, and then seek to explain why the methodologies and approaches in federal agencies' cost-benefit analyses vary. For example, literature analyzing RIA quality—as gauged by welfare economists' best practices for cost-

benefit analyses and guidance documents from OMB—finds that such factors as the independence of economists within government departments (Ellig and Konieczny 2019), political salience of regulations (Shapiro and Morrall 2012), and agency effort during the regulatory development stage (Ellig and Fike 2016) are correlated with more extensive use of quantitative analyses and formal cost-benefit techniques. Scholars also contend that how federal agencies conduct CBA for proposed regulations is associated with the difficulty of *ex ante* predicting the impacts of the policy proposals (Hahn and Tetlock 2008), the expected magnitude of economic costs created by the regulation (Masur and Posner 2016), and the specifics of the authorizing legislation for the regulation (Sunstein 1996).

Instead, this paper departs from previous scholarship analyzing federal agencies' RIAs in three ways. First, rather than explaining why federal agencies' RIAs vary based on exogenous factors, it seeks to understand how this heterogeneity maps onto policy context. Guided by neo-institutional theory (Meyer and Rowan 1977, Dobbin 1994) and the sociology of valuation (Lamont 2012), this paper views policy issue areas as part of institutional fields that may mediate organizations' conceptions of legitimate evaluative practices. Subsequently, we should expect that regulatory policy issues—rather than simply which agency drafted a regulation—are intertwined with whether federal agencies present monetized values for regulatory benefits in RIAs. As further argued below, examining descriptive patterns in these valuation practices based on policy issue areas may illuminate how interest groups and citizens experience and wield power across the regulatory state.

Second, following the extensive literature criticizing the methodological practices involved in economically valuing nature, humans, and society in the CBAs of federal regulations (see Ackerman and Heinzerling 2004, Kysar 2010 for a review), this study does not treat

monetization of regulatory impacts as a full or partial proxy for RIA quality. It instead argues that monetizing the value of regulatory benefits in RIAs is one type of procedural hurdle—conceptualized as *procedural burden*—that mediates how regulatory stakeholders seek to and can influence regulatory policy proposals.

Third, this study analyzes relationships—if they exist—between monetization of regulatory benefits on one hand and policy domains on the other as procedural *norms* in these respective regulatory spaces. Norms are generally defined as shared expectations about appropriate behavior (Chatman and O’Reilly 2016) that can emerge based on instrumental adaptation for legitimacy and resources (Powell 1991, Dobbin 1994) or through the past socialization processes of organizational members (Carpenter 2010, Tyllström 2021). The benefit of this perspective, which builds from a transactional authority approach to bureaucratic politics, is that it enables us to move beyond focusing on formal mechanisms of institutional control to studying informal organizational variables that are often lacking in the study of administrative politics (Carpenter and Krause 2015).

The paper proceeds as follows. First, it introduces the concept of procedural burden to help contextualize and explore how federal agencies’ evaluative practices during the rulemaking process may mediate who wields influence over regulatory policies. Second, the paper argues that monetization of regulatory benefits in federal agencies’ RIAs should be studied in the context of policy domains. Third, the paper presents the results from a variance decomposition model conveying how much variation in monetization of regulatory benefits is attributable to clustering of regulations within federal agencies—substantiating an analytic approach focusing on regulatory policy issue areas rather than solely which federal agency drafted a regulation and RIA. Fourth, building on these arguments and relying on quantitative permutation tests, this

paper evaluates if and when federal agencies persistently monetize and do not monetize regulatory benefits based on the issue area and socioeconomic groups affected by a rule. The paper concludes with a discussion of the implications of the findings for pluralist democracy during federal rulemaking and policy recommendations for improving regulatory development and review in the United States.

PROCEDURAL BURDEN AND MONETIZATION OF REGULATORY BENEFITS

I define *procedural burden* as the extent of barriers facing interest groups and citizens in wielding power over regulatory policy formation. I further maintain that whether or not monetizing regulatory benefits is a procedural norm for particular regulatory policy areas is one type of barrier facing interest groups and citizens seeking to influence regulatory policy formation in that given domain. The primary benefit of conceptualizing federal agencies' processes for assessing regulatory impacts from the point of view of a burden is that it helps empirically describe the costs—even if justified by legislation or democratic political theory—of both formal procedural standards and informal procedural norms for actors outside the state seeking to influence regulatory rulemaking.

This concept of procedural burden fundamentally builds from scholarship on administrative burden (Herd and Moynihan 2019), which Burden et al. (2012) define as “an individual’s experience of policy implementation as onerous” (Burden et al. 2012, p. 741) in the context of citizens’ attempts to access their rights and services vis-à-vis the state. Procedural burden is an intertwined but distinct concept because, although exercising voice during the rulemaking process is largely enshrined as a right for the public in the Administrative Procedures Act (Garvey 2017), exercising power and influence over regulatory policy proposals is not. Procedural burden seeks to document this latter phenomenon: the burdens and barriers for

exerting power during, rather than simply participating in, the rulemaking process. In addition, procedural burden is relevant to, but distinct from, the concept of ossification in the regulatory process (Yackee and Yackee 2012)—which primarily pertains to the barriers and burdens facing regulatory agencies and public servants, rather than actors outside of the state, in promulgating contentious and high-stakes regulation (McGarity 1992, Pierce 2012). Similarly, procedural burden differs from the concept of compliance burden (Bozeman 1993) because compliance burden pertains to the resources expended by government agencies in complying with a rule.

It is important to note that procedural burden is a democratically necessary mechanism for constraining regulatory policy discretion and subordinating regulatory agencies to Congress and the Office of the President. Barriers to socioeconomic groups wielding power over regulatory policy can also help prevent regulatory capture (Carpenter and Moss 2013) and legitimize regulations to shareholders and the public (Porter 1995). Moreover, this paper does not take a stance on the optimal level and distribution of procedural burden for public welfare and democratic governance. A high level of procedural burden does not necessarily translate into parochial regulatory policy decisions—such as the onerous requirements for influencing nuclear waste disposal standards. Similarly, a low level of procedural burden does not necessarily mean that organizations seeking to influence the regulatory proposal achieve their desired policy outcome. Indeed, low barriers to political influence may produce incoherent regulatory policies in which all effected parties are dissatisfied with the process and result (Coglianese 2004).

However, I argue that scholars of the administrative process should care about the *relative distribution* of procedural burden because high costs associated with influencing administrative rulemaking risk systematically excluding certain affected groups from accessing political power (Wagner 2010). This risk to pluralistic governance is a profound outcome of

interest within itself in a democratic system. Moreover, similar to administrative burden, I posit that procedural burden can be a tool of “hidden politics” for shaping regulatory decisions without “broad political consideration” (Moynihan et al. 2014). Orthogonally, procedural burden may also be an unintentional outcome or unrecognized norm that nevertheless considerably shapes government administration.

To substantiate this posited relationship between monetization of regulatory benefits in RIAs and the extent of procedural barriers to influence—and thus procedural burden—during the rulemaking process, I make the following arguments. First, analyzing, contesting, and justifying regulatory policy options based on monetized estimates of regulatory benefits require extensive resources, data, and a particular form of technocratic expertise. For interest groups, relevant outlays might include directly funding relevant research on an issue area they care about (Yackee 2021), hiring lawyers to draft public comments, which can cost up to \$100,000 per regulatory comment (Dash 2011), accessing scientific research that is often published behind paywalls, or hiring staff or consulting firms with expertise in quantitative data analyses. Still, specific data on exactly how much time and resources interest groups and citizens spend on analyses of regulatory policy impacts are difficult to come by—which is an issue within itself and should be the subject of future research.

Second, I define procedural burden as the degree of onerous processes tied to exerting influence on regulatory policies, not as how onerous it is to simply participate in the rulemaking process. Monetization of regulatory benefits conveys one aspect of procedural burden, as defined, because justifications for policy preferences based on numbers tend to be viewed as more authoritative and therefore more politically influential than non-quantitative analyses (Potter 1995). OIRA as the gatekeeper for major regulatory policies tends to prefer monetary

cost-benefit analyses from agencies and at times dissuades agencies from considering or advancing regulations that might fare poorly in a formal comparison between projected costs and monetized benefits (Heinzerling 2014). We also know from previous research that more sophisticated public comments during the notice and comment period are more likely to influence final regulations (Cuellar 2005) and that comments from business interests on draft regulation tend to have more impact on the final regulation than comments from public interest groups (Yackee and Yackee 2006). While neither of these studies directly addresses the comparative influence of monetized estimates of value, it is reasonable to assume that there is a strong link between sophisticated comments and/or comments from businesses, on one hand, and the use of quantitative projections and monetization of regulatory impacts, on the other. Indeed, Rashin (2021) finds in the context of SEC rulemaking that public comments on draft regulation with more figures, tables, and law and banking terms are both more likely to come from organized interests and more likely to induce changes in the final rule. However, these possible relationships need to be further explored. Ultimately, any citizen or socioeconomic group can comment on draft regulation subject to the public and notice comment period. Yet, as Libgober and Rashin (2018) conclude, “the most important dimension of inequality in voice during rulemaking is access to persuasive information.”

Nevertheless, one may object to the concept of procedural burden—and to treating monetization as a barrier to influence during regulatory rulemaking—by arguing that federal agencies’ monetization and evaluations of regulatory proposals are simply based on the available scientific research. However, scientific research itself does not fully explain how government regulatory agencies apply and reconstruct science to inform and justify policy decisions (Jasanoff 1987), especially for questions about commensurability and monetizing value that science cannot

answer (Ackerman and Heinzerling 2004, Kysar 2010). Moreover, the availability of scientific research for monetizing regulatory impacts is endogenous to the federal agencies' institutional environment. Federal agencies, such as the EPA, invested in developing internal expertise in formal cost-benefit analysis techniques and further funded relevant external research when confronted with economic analyses from external interest groups contesting the agency's policies and authority (Halvorson 2017). Therefore, analyzing patterns in when federal agencies provide monetized estimates of regulatory benefits probably demonstrates which institutional policy contexts engender monetary valuations of policy proposals rather than simply the state of available scientific research. Lastly, focusing on the role of science in how federal agencies analyze regulatory policy proposals is an intertwined but separate issue to studying how interest groups and citizens experience the regulatory state.

In addition, as many proponents of formal cost-benefit analyses for regulatory proposals argue, these procedures may improve the quality and transparency of regulatory policies and enable the Office of the President to better control the regulatory state (Tozzi 2011, Sunstein 2013). While these arguments raise valid concerns, they do not negate the argument being advanced in this paper—that regulatory procedures create benefits and costs for actors participating in the rulemaking process, both of which need to be analyzed and taken into account during regulatory development and review. In addition, the relationship between RIAs and regulatory quality is difficult to demonstrate while case studies on the rulemaking process tend to suggest that RIAs primarily serve as ex post justifications for politically driven decisions (Ellig et al. 2013). At the same time, scholarship suggests that the methodologies and evidence federal agencies use to evaluate and justify proposed rules may influence, in the long term, how federal agencies view regulatory issues and appropriate policy solutions (Heinzerling 2014,

Costa et al. 2019). Therefore, the strong possibility of an endogenous feedback loop between evaluative methodologies, interest group influence, and the construction of policy options (Espeland 1998) should still be explored as a source of inequality in administrative politics.

Policymakers should further care about the distribution of procedural burden across the regulatory state primarily because of the implications for pluralist democracy. Fundamentally, the distribution of procedural burden across the regulatory state suggests the distribution of a type of barrier for various groups in wielding power over regulations that affect them. Although this paper's data do not directly capture or measure policy influence during the rulemaking process—which is notoriously difficult to observe (Carpenter and Moss 2013)—the methodology operationalizes one form of barrier to influence, which is an important contribution in itself. This paper subsequently provides data to help address a normative question for democratic governance: What should be the distribution of barriers to shaping regulatory policies, and what are they now? This question for pluralistic governance involves thorny trade-offs between the power of federal agencies and the power of affected socioeconomic groups as well as normative questions about defining relevant knowledge and expertise for shaping policy decisions (Wagner 2010). Nevertheless, empirically describing the distribution of procedural burden is a necessary step for better aligning the regulatory process with democratically sanctioned procedures and goals. Identifying persistent patterns in the monetization and non-monetization of regulatory impacts in RIAs—as a type of procedural burden—contributes to this research agenda. This paper therefore contributes to the burgeoning literature on inequality in administrative democracy (Yackee and Yackee 2006, Libgober 2020).

Monetization of Regulatory Benefits and Policy Domains

As previously mentioned, scholarship addressing heterogeneity in federal agencies' RIAs tends to focus on organizational and political antecedents that might explain the observed variation. Yet there is a lack of scholarship systematically studying associations between policy domains and how federal agencies conduct CBAs on proposed regulation. This limitation in previous scholarship might simply derive from the intertwinement of, or endogeneity between, policy issue areas and federal agencies. For example, regulations addressing veterans tend to originate with the Department of Veterans Affairs (VA) while the Department of Labor (DOL) primarily drafts rules focusing on employment standards.

Nevertheless, focusing on regulatory policy issue areas rather than solely which agency drafted a rule better addresses the rich and often neglected heterogeneity in how federal agencies wield regulatory power and how socioeconomic groups engage with and experience the administrative process. Theories of bureaucratic behavior (Carpenter 2001, Carpenter and Krause 2015), neo-institutional organizational theory (Dobbin 1994), and sociologically driven scholarship on organizations and valuation (Lamont 2012) all suggest that organizations' evaluative practices are based on conceptions of legitimate behavior in their institutional field. Therefore, we should expect that policy issue areas mediate conceptions of legitimate evaluative practices and, subsequently, are intertwined with whether federal agencies present monetized values for regulatory impacts in RIAs. Experimental research, for example, similarly suggests that policy issue areas mediate the effects of transparency into policy decisions on perceived legitimacy (de Fine Licht 2014). This approach focusing on policy issue areas is especially warranted given Golden's (1998) finding that the socioeconomic groups who participate in the notice and comment period vary extensively by individual rules even across regulations drafted

by the same agency—suggesting different configurations of groups participating in, observing, and conferring legitimacy on the rulemaking process at the sub-agency level. While this paper does not causally study why federal agencies’ RIAs vary, the strong unexplored possibility of associations between policy issues, configurations of participating and affected interest groups, and monetization in federal agencies’ cost-benefit analyses partially motivates this study.

DATA AND METHODS

This paper has argued that non-monetization and monetization of regulatory benefits in RIAs may be a form of procedural burden that mediates influence during the rulemaking process. It further maintains that these differences in monetization may be systemically intertwined with policy domains. To statistically describe the distribution of one type of procedural burden and empirically test these arguments, this paper relies on a permutation test methodology (Hayes 1996, Collingridge 2013) to analyze non-causal associations between subject tags in the text of major regulatory policies and monetization of regulatory benefits in the regulation’s respective RIA. The analyses include nearly all major rules between 1996–2016. Prior to these analyses, the paper also presents the results of a variance decomposition model quantifying the percentage of the variance in monetization of regulatory benefits attributable to the clustering of rules within agencies. The results of this model further justify focusing on the role of policy domains.

This paper addresses regulatory benefits rather than projected regulatory costs for both theoretical and methodological reasons. First, there is significantly less heterogeneity in whether federal agencies provide monetized estimates of regulatory costs than regulatory benefits (Masur and Posner 2016)—even though the extent of these analyses of regulatory costs still varies in RIAs (Sinden 2015). On conceptual grounds, monetization of regulatory benefits better operationalizes procedural burden because regulatory benefits, compared to regulatory costs, are

more likely to invoke non-market goods—such as environmental degradation—and thus require technocratic and elaborate methodologies to analyze in monetary terms (Ackerman and Heinzerling 2004).

The research relies on two sources of intertwined data. First, I compiled the appendix tables “Summary of Agency Estimates for Final Rules” in OIRA’s annual reports to Congress for each year between 1997–2017—excluding 1999 due to data availability limitations.¹⁴ These tables list all major regulations from the previous year, the issuing agency’s estimates of respective cost and benefits, and an “other information” column with supplemental details OIRA deems relevant. Collectively, the OIRA report appendices contain information on 713 major regulations from twenty-one distinct executive branch agencies between 1996 and 2016. OIRA broadly defines a major rule as any regulation from an executive branch agency that has more than a \$100 million annual effect on the U.S. economy, has a significant adverse impact on prices for consumers, or significantly hinders competition, productivity, or investment (OMB 2017).¹⁵ In addition, these appendix tables in the OIRA reports only include major regulations originating from federal agencies subject to Executive Order 12866 and OIRA review, which excludes “independent regulatory agencies” such as the Securities and Exchange Commission. Figure 3.2 provides an excerpt of an appendix table from the 2009 OIRA Report. The data provide a population-level account, rather than a sample, of the federal regulatory states’ major RIAs during the given timeframe of analysis.

¹⁴ The OIRA report to Congress for 1999 is not available online: https://obamawhitehouse.archives.gov/omb/inforeg_regpol_reports_congress. In addition, the titles of the appendix tables slightly change between the years 1997–2005.

¹⁵ “Major” is a more inclusive term than “economically significant.” See Office of Management and Budget—Office of Information and Regulatory Affairs. 2017. Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act.

Figure 3.2. Excerpt from 2008 OIRA Appendix Table: “Table A-1: Summary of Agency Estimates for Final Rules. October 1, 2007–September 30, 2008 (As of Date of Completion of OMB Review)”

Rule [FR Cite]	Agency	Benefits	Costs	Other Information
Right Whale Ship Strike Reduction [73 FR 60173]	DOC/NOAA	Not estimated	\$105 million per year	Benefits: Reduction of right whale mortality which reduces the likelihood of extinction of this endangered species. Costs: Total costs include both direct and secondary economic effects. The RIA is available online at: http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/feis_economic_analysis.pdf
Energy Efficiency Standards for Residential Furnaces and Boilers [72 FR 65136]	DOE/EERE	\$120 - 182 million per year	\$33 - 38 million per year	Energy savings of 0.011 quadrillion BTUs of energy from 2015 to 2038. The RIA is available online at: http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/fb_fr_tsd/ria.pdf

Second, for each RIA I identified and obtained the full text of its final regulation. I relied on federalregister.gov for this information and combined automatic web-scraping with manual searches and review to ensure that I identified the correct rule.

Together these two sources of data—the OIRA summary information on 713 RIAs and the corpus of all major regulations between 1996–2016—provide unique information on the extent of monetization in federal agencies’ formal cost-benefit analyses and the characteristics of each respective regulation. The dataset is both novel and extensive in its ability to provide a description of monetization of regulatory impacts across the federal regulatory state.

Interest Groups and Regulatory Issue Areas

In order to identify regulatory issue areas and social groups associated with each federal regulation, I relied on each rule’s “List of Subjects” section in the text of the final rule. This section, mandatory for federal regulations, categorizes the content areas of the rule based on terms provided in a formal document called the *Federal Register Thesaurus of Indexing Terms*

(Office of the Federal Register 2019).¹⁶ For example, the Department of Energy’s regulation *Energy Efficiency Standards for General Service Fluorescent Lamps* in 2009 contains the following information under the List of Subjects:

administrative practice and procedure, confidential business information, energy conservation, household appliances, imports, incorporation by reference, intergovernmental relations, small businesses.

These subject tags under the List of Subjects convey federal agencies’ formal classifications for each rule. There are 1042 different raw subject tags in the data on federal regulations, ranging from “peanuts” to “health insurance” to “coal miners.” However, data cleaning steps detailed in Appendix III to address occasional discrepancies in spelling between subject tags, similarities in content, and missing data translated into a refined total of 912 unique subject tags across the entire dataset on major federal regulations. Over 85% of the subject tags occur three or fewer times in the dataset, while subject tags such as “reporting and recordkeeping requirements” are present in over 72% of the regulations.

Dependent Variables: Monetized and Non-Monetized Benefits

First, for each RIA, I constructed a binary variable for whether the agency monetized any benefits according to the OIRA Report appendix tables. I relied on algorithmic analysis of the text¹⁷ to code regulations with any dollar value in the Benefits column as having monetized benefits of the regulation. This measurement does not include monetization or non-monetization of regulatory costs nor does it capture varying extents of monetization *within* an RIA. It simply

¹⁶ Nevertheless, 34 rules in the dataset do not contain a List of Subjects. The primary analyses in this paper keep these rules in the dataset. As a robustness check, dropping these rules with no subject tags from the analyses does not substantively change the results. All robustness checks are available upon request from the author.

¹⁷ This algorithmic coding was conducted in Python and supplemented with manual correction and review. A small number of regulations included such statements as “see Other Information” under benefits and were subsequently evaluated by the author. These rules were coded as monetized when “Other Information” stated that the benefits were monetized and subtracted from the amount in the costs column.

captures whether an RIA claimed *any* monetary benefits for the regulation according to OIRA. Table 3.1 provides the overall distribution of this monetization measurement.

Second, for each of the 912 regulatory subject tags, I identified all federal regulations containing the tag that monetized and non-monetized regulatory benefits, respectively, based on a keyword search across the List of Subjects. This approach produced 6,358 subject tag-regulation pairs. I then constructed variables for each subject tag counting the number of associated RIAs that monetized and did not monetize regulatory benefits, respectively. For example, of 20 regulations addressing “food labeling,” 13 did not monetize any benefits in their accompanying RIA, while seven monetized projected regulatory benefits. These observed counts of monetization and non-monetization for each subject tag—13 and seven in the previous examples—are the primary dependent variables of interest.

Table 3.1. Summary Table of Variables

Variable	RIAs
Monetized Regulatory Benefits	False: 442 (62.0%) True: 271 (38.0%) n = 713 RIAs
Subject-Regulation Pairs	Non-Monetized: 4134 (65.0%) Monetized: 2224 (35.0%) n = 6358

Analytical Approach

First, I present the intraclass-correlation coefficient (ICC) from an unconditional mean model, which is a form of a variance decomposition model. In this model, monetization of regulatory benefits is the dependent variable, but there are no other predictor variables besides the federal agencies in which the rule-level observations are clustered. The subsequent ICC from

this unconditional mean model conveys how much of the total variance in the dependent variable is attributable to the clustering of the observations (Wu et. al 2012). The model therefore disentangles variation attributable to agency effects from variation attributable to characteristics that vary *within agencies*, such as, but not exclusively limited to, regulatory subject tags.

Second, motivated by the results of the variance decomposition model, I rely on a permutation test methodology (Hayes 1996, Collingridge 2013) to identify statistically significant associations between regulatory subject tags and the monetization of regulatory benefits in federal agencies' RIAs. The null hypothesis for the permutation test analyses is that observed patterns—or conditional probabilities—between respective regulatory subject tags and non-monetization of regulatory benefits in federal agencies' RIAs are attributable to chance. In practice, a permutation test repeatedly randomizes assignment of the dependent variable values to the independent variables and thereby creates data in which any association between the outcome variable and the explanatory variables is completely spurious. For each subject tag, the permutation test therefore provides an observed p-value, or the expected probability, of observing a value as extreme as the actual monetization value if the null hypothesis is true (Hayes 1996, Collingridge 2013). Evaluating the observed data against simulated expected data under this null hypothesis enables inferences about which, if any, regulatory issue areas and affected social groups are associated with monetization and non-monetization of regulatory benefits in RIAs across the federal regulatory state. I implemented a Monte Carlo version of a permutation test with 10,000 simulations—each randomizing whether all RIAs in the dataset monetize regulatory benefits at the observed 62% probability while maintaining each regulation's observed list of subjects.

For example, seven of the 12 regulations addressing “airports” in the data did not monetize regulatory benefits. Simulating random monetization across the dataset 10,000 times produces 6,647 instances in which seven or more of the 12 regulations tagged with “airports” presented non-monetized regulatory benefits. The p-value for “airports” is therefore $6,647/10,000 = 0.665$, and we fail to reject the null hypothesis of no association between regulations addressing “airports” and non-monetization in federal agencies’ RIAs at the standard 95% confidence level.

In contrast, the subject tag “emergency medical services” was present in 29 different regulations, 27 of which did not monetize any regulatory benefits in their respective RIA. The permutation test suggests that the likelihood of observing 27 or more RIAs tagged with “emergency medical services” which did not monetize benefits by chance is 0.0001. The simulation produced a single instance out of 10,000 random possibilities in which non-monetization was as extreme for “emergency medical services” as its actual observed value. As a result, we can reject the null hypothesis that the subject tag “emergency medical services” is not associated with non-monetization in federal agencies’ RIAs at an extremely high degree of statistical confidence.

Nevertheless, this permutation test is a form of multiple hypothesis testing because it evaluates the null hypothesis of no association for 912 separate subject tags. I subsequently relied on the Benjamini–Yekutieli procedure to correct for the false discovery rate and address potential correlations between the subject tags. The Benjamini–Yekutieli procedure creates an adjusted p-value based on the probability of a false discovery rate rather than on the family-wise error rate, as in the Bonferroni correction (Benjamini and Yekutieli 2001). It therefore provides greater statistical power than common alternative approaches (Thissen et al. 2002). The approach

also addresses potential dependencies between the multiple hypotheses (Benjamini and Yekutieli 2001)—in this case, the dependencies between the highly correlated regulatory subject tags. In addition, I dropped all subject tags that occurred too infrequently to provide sufficient statistical power for the analyses. Given the probability of monetization and non-monetization, respectively, across the dataset, subject tags required a minimum total n of 7 for identifying associations with non-monetization and a minimum total n of 4 for analyzing associations with monetization. The power analyses justifying these thresholds are detailed in the appendix.

Lastly, to further address the variation in RIAs *within* agencies, I ran a permutation test for each agency. These additional permutation tests randomized monetization using the agency's observed conditional probability of monetization. Agencies that exclusively monetized or non-monetized regulatory benefits in RIAs for regulations in the dataset, as reported in Table 3.2, were excluded from these analyses. While the smaller n in these agency-level permutation tests make statistical inferences more difficult, they still provide a means to evaluate the observed patterns against the null hypothesis of no association.

A permutation test approach is strongly preferable to regression analyses in this context given the inductive research question and extreme multicollinearity in the data. The subject tags are extensively correlated with each other while 668 subject tags out of the 912 total perfectly predict monetization or non-monetization—every single regulation tagged with one of these subjects either monetizes or does not monetize regulatory benefits, respectively, across the entire dataset. Moreover, there are 912 unique subject tags in the data and 713 observations. Normal regression models do not support having more explanatory variables than observations. Lastly, several attempts to reduce the dimensionality of the subject tags through standard clustering

techniques, such as k-modes (Chaturvedi et al. 2001), produced multiple incoherent clusters and thus would not provide readily interpretable results in a regression analysis.

Ultimately, this permutation test methodology combined with the Benjamini–Yekutieli procedure for simultaneous hypothesis testing enables identification of all subject tags associated with non-monetization and monetization, respectively, across the dataset of federal agencies’ RIAs at a high degree of statistical confidence. The agency-level permutation tests provide additional insight into when monetization of regulatory benefits conditional on the regulatory policy topic varies within agencies.

Agency Descriptive Statistics

Table 3.2 presents descriptive statistics about the number of major rules and RIAs produced by agency and year, as well as the percent of RIAs that monetized regulatory benefits during the period of analysis 1996–2016. Several agencies, such as Veterans Affairs and the Department of Commerce, never produced RIAs that monetized estimates of regulatory benefits, while agencies such as the Department of Energy and the Department of Transportation monetized regulatory benefits in over 70% of their major RIAs.¹⁸

¹⁸ Federal regulations produced through joint-agency rulemaking were coded based on the first agency listed in the OIRA appendix tables.

Table 3.2. Monetization and Non-Monetization of Regulatory Benefits in Major RIAs by Agency and Year

	1997	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Board of Directors of the HOPE for Homeowners Program																					
Monetized Benefits													0								0
Non-Monetized Benefits													1								1
Department of Agriculture																					
Monetized Benefits	2	2	0	0	1	1	0	2	1	0	2	1	0	0	0	0	0	0	2	1	12
Non-Monetized Benefits	2	3	2	1	2	1	1	0	1	9	4	7	6	6	7	5	6				63
Department of Commerce																					
Monetized Benefits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Monetized Benefits	1	1	1	3	1	2	1	2	1	2	1	2	1	2	1	1	1				15
Department of Defense																					
Monetized Benefits													0	0	0	0	0	0	0	0	0
Non-Monetized Benefits													2	2	2	2	2	1	1	1	12
Department of Education																					
Monetized Benefits			1										0	0	0	0	0	0	0	0	1
Non-Monetized Benefits			0										2	8	2	6	2	3	1	24	
Department of Energy																					
Monetized Benefits	2		3	1					1	1	2	3	3	2	2	6	3	3	3	32	
Non-Monetized Benefits	0		0	0					0	0	3	2	0	0	0	0	0	0	0	5	
Department of Health and Human Services																					
Monetized Benefits	3	1	3	4	4	2	4	3	1	2	1	4	0	1	3	1	0	4	3	40	
Non-Monetized Benefits	0	10	1	1	1	2	1	0	0	2	12	19	16	18	20	20	14	31	168		
Department of Homeland Security																					
Monetized Benefits							0	0	0	1	1	0	0	1	0	1	1	1	1	6	
Non-Monetized Benefits							3	5	1	1	3	2	4	3	0	1	1	2	2	28	
Department of Housing and Urban Development																					
Monetized Benefits									0				1	1	1	0	0	0	3		
Non-Monetized Benefits									1	0	1	1	1	1	1	1	1	1	1	4	
Department of Justice																					
Monetized Benefits	0				0		1						3	0	0	0	0	0	0	4	
Non-Monetized Benefits	1				1		0						0	1	1	1	1	1	1	5	
Department of Labor																					
Monetized Benefits	0	0	1	1	1	0	0	1	1	1	1	0	1	2	1	1	2	1	1	14	
Non-Monetized Benefits	1	1	0	3	1	0	1	1	0	1	1	2	1	1	2	3	1	2	5	25	

Table 3.2. Monetization and Non-Monetization of Regulatory Benefits in Major RIAs by Agency and Year (Continued)

Department of State																											
Monetized Benefits											0	0															
Non-Monetized Benefits											1	1															
Department of the Interior																											
Monetized Benefits	0	0	2	2	4	2	2	2	2	2	1	3	2	2	2	2	2	2	1	37							
Non-Monetized Benefits	2	2	0	0	1	0	0	0	0	0	0	3	0	1	1	0	0	0	2	12							
Department of the Treasury																											
Monetized Benefits												0	0	0	1	0	0	0	0	1							
Non-Monetized Benefits												1	2	1	2	1	1	1	2	11							
Department of Transportation																											
Monetized Benefits	1	0	1	0	1	1	2	2	4	2	2	3	8	5	3	4	2	1	2	3	47						
Non-Monetized Benefits	2	1	2	1	1	1	0	1	0	0	0	1	0	0	0	2	1	1	2	16							
Environmental Protection Agency																											
Monetized Benefits	2	6	5	5	5	1	1	5	4	3	2	6	1	5	2	4	3	2	8	4	74						
Non-Monetized Benefits	5	3	3	1	2	0	1	2	0	0	1	0	1	4	1	1	0	0	2	2	29						
Equal Employment Opportunity Commission																											
Monetized Benefits																				0	0						
Non-Monetized Benefits																				1	1						
Federal Acquisitions Regulation Council																											
Monetized Benefits																				0	0						
Non-Monetized Benefits																				1	2						
Office of Personnel Management																											
Monetized Benefits																				0	0						
Non-Monetized Benefits																				1	2						
Pension Benefit Guaranty Corporation																											
Monetized Benefits																				0	0						
Non-Monetized Benefits																				1	1						
United States Access Board																											
Monetized Benefits																				0	0						
Non-Monetized Benefits																				1	1						
Veterans Affairs																											
Monetized Benefits																				0	0	0					
Non-Monetized Benefits																				1	1	3	1	2	5	2	16
Total Monetized Benefits	8	11	13	8	19	5	8	13	16	9	12	14	19	19	15	17	11	14	23	17	271						
Total Non-Monetized Benefits	13	22	9	4	15	1	6	13	5	1	6	7	47	47	38	31	43	39	37	58	442						

Variance Decomposition Model

The variance decomposition model produced an intraclass-correlation coefficient (ICC) of 0.53, which suggests that 53% of variance in monetization of regulatory benefits is attributable to the clustering of regulations by agencies. This finding partially supports previous research emphasizing associations between federal agencies and variation in RIA methodologies (Ellig and Fike 2016). Nevertheless, this result also suggests that 47% of the total variance in monetization of regulatory benefits is unexplained by the clustering of rules in agencies and is instead attributable to characteristics that vary *within agencies*—which could include rule-level variables such as authorizing legislation or higher-level groupings such as presidential administration that still vary across the rules within a given agency. This finding from the variance decomposition model is noteworthy in itself because it quantifies the percentage of total variance in monetization of regulatory benefits attributable to federal agencies and suggests that the variance is not simply a matter of agency effects as previous scholarship and common sense suggest. The ICC further justifies the permutation test approach to explore which subject tags are associated with monetization and non-monetization of regulatory benefits because focusing on agencies only accounts for about half of the total variation.

RESULTS

The Monte Carlo permutation test for the full dataset suggests that 26 subject tags are associated with monetization of regulatory benefits in federal agencies' RIAs, while 22 subject tags are associated with non-monetization. For these 48 total regulatory issue areas, we reject the null hypotheses of no association with monetization or non-monetization at the 95% confidence level after correcting for multiple and correlated hypotheses testing with the Benjamini–Yekutieli procedure. In contrast, we fail to reject the null hypothesis of a spurious association for

163 subject tags with non-monetization and 278 subject tags with monetization. Meanwhile, 609 subject tags occur too infrequently in the data to assess their relationship with monetization of regulatory benefits while 727 subject tags similarly lack the statistical power to assess their association with non-monetization.

The 26 subject tags associated with monetization of regulatory benefits, listed in Table 3.3, range from “household appliances” to “exports” and “ozone.” Regulations tagged with these statistically significant subject tags have an extremely high probability of presenting monetized estimates of regulatory benefits in their respective RIAs—especially compared to the statistical expectation under the null hypothesis. While individuals familiar with the regulatory rulemaking process may predict certain subject tags listed in Table 3.3—such as “particulate matter” or “motor vehicle pollution”—the subject tags do not exclusively align with issue areas commonly perceived as high-cost (Masur and Posner 2016), politically contentious (Shapiro and Morrall 2012), or the regulatory domain of federal agencies with extensive quantitative analytical capabilities (Ellig and Konieczny 2019). For example, the probability of the observed patterns in monetization for RIAs tagged with “intergovernmental relations” or “research” occurring by chance approaches zero even after correcting for multiple hypothesis testing. These specific regulatory subjects given as examples are conceptually broad and are not the purview of any individual federal agency. Other statistically significant subject tags associated with monetization of regulatory benefits, however, appear to cluster into higher-level groups manually labeled as *Pollution*, *Trade and Business*, *Transportation*, and *Energy Efficiency* that more closely align with individual agencies. These higher-level clusters provide a heuristic simplification for broadly describing the results. However, caution is warranted in drawing associations between these higher-level clusters and monetization of regulatory impacts because

the grouping was done only on the statistically significant individual subjects tags, not on all the subject tags in the data prior to the analyses (Morgan and Winship 2015).

The 22 subject tags associated with non-monetization include such policy domains as “veterans,” “rural areas,” and “government contracts.” While these results demonstrate heterogeneity in the policy issue areas associated with non-monetization of regulatory benefits, the subject tags primarily relate to *Health Care* as a higher-level category. Table 3.4 presents all subject tags associated with non-monetization based on the results of the permutation test, as well as these thematic clusters. Tables 3.3 and 3.4 also include for each subject tag: the total number of RIAs tagged with each subject tag; the observed count of RIAs providing non-monetized estimates of regulatory benefits; the simulated p-value, which is the probability of observing as many or more RIAs with non-monetized benefits tagged with the given subject under the null hypothesis of no association; and the corrected p-value based on the Benjamini–Yekutieli procedure.

Table 3.3. Permutation Test Results—Monetization

Subject	Cluster	Total RIAs	Monetized Benefits: Non-Monetized Benefits	P-Value (Corrected P-Value)
Energy conservation	Energy Efficiency	39	32: 7	0.0000 (0.0000)
Household appliances	Energy Efficiency	23	23: 0	0.0000 (0.0000)
Environmental protection	Environmental Protection	102	75: 27	0.0000 (0.0000)
Incorporation by reference	Incorporation by Reference	128	97: 31	0.0000 (0.0000)
Intergovernmental relations	Intergovernmental Relations	78	57: 21	0.0000 (0.0000)
Labeling	Labeling	47	33: 14	0.0000 (0.0000)
Hazardous substances	Pollution	36	30: 6	0.0000 (0.0000)
Ozone	Pollution	16	15: 1	0.0000 (0.0000)
Air pollution control	Pollution	69	58: 11	0.0000 (0.0000)
Particulate matter	Pollution	18	17: 1	0.0000 (0.0000)
Waste treatment and disposal	Pollution	11	11: 0	0.0001 (0.0091)
Nitrogen dioxide	Pollution	14	13: 1	0.0002 (0.0153)
Sulfur oxides	Pollution	13	12: 1	0.0002 (0.0153)
Research	Research	24	20: 4	0.0000 (0.0000)
Exports	Trade & Business	58	37: 21	0.0002 (0.0153)
Warranties	Trade & Business	22	20: 2	0.0000 (0.0000)
Small businesses	Trade & Business	18	16: 2	0.0000 (0.0000)
Imports	Trade & Business	123	95: 28	0.0000 (0.0000)
Confidential business information	Trade & Business	66	53: 13	0.0000 (0.0000)
Highway safety	Transportation	12	11: 1	0.0000 (0.0000)
Motor vehicle safety	Transportation	26	23: 3	0.0000 (0.0000)
Transportation	Transportation	71	45: 26	0.0002 (0.0153)
Tires	Transportation	10	10: 0	0.0003 (0.0220)
Motor vehicle pollution	Transportation/Pollution	26	22: 4	0.0000 (0.0000)
Wildlife	Wildlife & Hunting	45	34: 11	0.0000 (0.0000)
Hunting	Wildlife & Hunting	41	34: 7	0.0000 (0.0000)

Table 3.4. Permutation Test Results—Non-Monetization

Subject	Cluster	Total RIAs	Monetized Benefits: Non-Monetized Benefits	P-Value (Corrected P-Value)
Colleges and universities	Colleges and Universities	20	0: 20	0.0001 (0.0063)
Consumer protection	Consumer Protection	21	1: 20	0.0003 (0.0169)
Government contracts	Government Contracts	21	1: 20	0.0005 (0.0244)
Grants administration	Grants Administration	14	0: 14	0.0004 (0.0204)
Health professions	Health Care	94	8: 86	0.0000 (0.0000)
Health maintenance organizations (HMO)	Health Care	36	1: 35	0.0000 (0.0000)
Health care	Health Care	76	7: 69	0.0000 (0.0000)
X-rays	Health Care	31	2: 29	0.0000 (0.0000)
Grant programs—Health	Health Care	83	5: 78	0.0000 (0.0000)
Health facilities	Health Care	126	17: 109	0.0000 (0.0000)
Kidney diseases	Health Care	44	0: 44	0.0000 (0.0000)
Medicare	Health Care	102	15: 87	0.0000 (0.0000)
Health insurance	Health Care	75	12: 63	0.0000 (0.0000)
Privacy	Health Care	43	4: 39	0.0000 (0.0000)
Claims	Health Care	32	1: 31	0.0000 (0.0000)
Medicaid	Health Care	73	12: 61	0.0000 (0.0000)
Loan programs—health	Health Care	18	0: 18	0.0001 (0.0063)
Emergency medical services	Health Care	29	2: 27	0.0001 (0.0063)
Puerto Rico	Puerto Rico	29	1: 28	0.0000 (0.0000)
Rural areas	Rural Areas	43	0: 43	0.0000 (0.0000)
Travel and transportation expenses	Travel and Transportation Expenses	15	0: 15	0.0002 (0.0119)
Veterans	Veterans	16	0: 16	0.0004 (0.0204)

Subject tags are sorted by the manually assigned clusters in alphabetic order.

The primary value of the permutation test results is enabling direct comparisons between how federal agencies assess regulatory benefits based on granular-level policy issues—rather than broad policy clusters—across the regulatory state. For example, 20 out of 21 RIAs addressing “consumer protection” provide non-monetized analyses of the regulatory benefits.

The simulated p-value for consumer protection is 0.000 (corrected value of 0.017) suggesting that it is highly unlikely that this association is attributable to chance or interdependencies with other subject tags. In contrast, 33 out of 47 RIAs addressing “labeling” monetize the value of projected regulatory benefits (simulated p-value: 0.000; corrected p-value: 0.000) even though both regulatory issue areas seem to address the provision of better information to consumers. Such comparisons between patterns in the monetization of regulatory benefits in RIAs could help decision-makers in the federal government and scholars identify related regulatory spaces with divergent evaluative practices.

Similarly, the granular-level comparisons between subject tags provide strong suggestive evidence about the distribution of procedural burden across the regulatory state. For example, 95 out of 123 RIAs tagged with “imports” monetize the projected regulatory benefits according to the OIRA data. The permutation test suggests that this association is highly unlikely—the observed p-value is 0.000 and the corrected p-value is 0.000. In contrast, 17 out of 19 regulations tagged with “employment” provide non-monetized estimates of the regulatory benefits in their respective RIAs. The permutation test suggests that this distribution of non-monetization has a 0.006 probability of occurring by chance prior to correcting for multiple hypothesis testing, although the corrected p-value is 0.132 and therefore not statistically significant at normal confidence interval levels. Nevertheless, these descriptive statistics suggest differing procedural practices for evaluating the policy benefits of regulations addressing imports versus employment—and therefore potentially different experiences for socioeconomic groups seeking to influence and participate in these regulatory spaces. If, as theorized, monetization as a procedural norm entails higher levels of procedural burden, then we would expect more groups and citizens to be excluded from meaningfully influencing regulations addressing imports

compared to regulations addressing employment. This postulate does not necessarily mean that regulations addressing imports or employment are relatively better or worse than each other. Rather, the results help rigorously describe differences in regulatory procedures for democratic influence in these respective policy spaces. The online appendix provides the full results from the permutation test enabling such comparisons in monetization and non-monetization of regulatory benefits across the entire regulatory state in the United States for the first time.

The null results from the permutation test provide additional insights into if and when monetization of regulatory benefits is patterned by policy domains. The permutation test explicitly fails to reject the null hypothesis of no association for 92 subject tags. These results do not prove a lack of association between the respective subject tags and monetization or non-monetization—only that we fail to reject the hypothesis of no association at standard confidence levels. For example, such regulatory subject tags as “lead” and “electric power” are probably associated with monetization of regulatory benefits despite corrected p-values outside of the 95% confidence range. Their simulated p-values from the permutation test—0.001 and 0.003, respectively—suggest a strong association with monetization. The Benjamini–Yekutieli procedure, however, provides a conservative statistical adjustment for multiple hypothesis testing and subsequently deems these subject tags not statistically significant. The collective set of descriptive statistics from the data provides evidence about the direction of the association between the regulatory subjects and monetization of regulatory benefits—such as that 11 out of 14 regulations tagged with “civil rights” provide non-monetized regulatory benefits in their RIAs—even if the permutation test formally fails to reject the null hypothesis of no association. Still, other subject tags, such as “fuel economy” and “animal diseases” appear firmly unassociated with either monetization or non-monetization of regulatory benefits in federal

agencies’ RIAs based on the results of the permutation test. These null results suggest—but do not firmly establish—regulatory policy spaces with unsettled or ambiguous organizational norms for evaluating regulatory proposals. Table 3.5 provides a partial list of the null results from the permutation test—the full results are available in the online appendix.

Table 3.5. Permutation Test Null Results—Monetization and Non-Monetization

Subject	Total RIAs	Monetized Benefits: Non-Monetized Benefits	Monetization P-Value (Corrected P-Value)	Non-Monetization P-Value (Corrected P-Value)
Lead	13	11: 2	0.0014 (0.0989)	0.9998 (1.000)
Electric power	12	10: 2	0.0033 (0.2030)	0.9998 (1.000)
Civil rights	14	3: 11	0.9617 (1.0000)	0.1242 (1.000)
Fuel economy	13	8: 5	0.0978 (1.0000)	0.9682 (1.0000)
Animal diseases	9	5: 4	0.2741 (1.0000)	0.8957 (1.0000)
Individuals with disabilities	29	4: 25	0.9997 (1.0000)	0.0017 (0.0629)
Air carriers	20	9: 11	0.4077 (1.0000)	0.7507 (1.0000)
Cosmetics	9	4: 5	0.5201 (1.0000)	0.7267 (1.0000)
Reporting and recordkeeping requirements	514	212: 302	0.3104 (1.0000)	0.7184 (1.0000)

Agency-Level Permutation Tests

The results from the agency-level permutation tests identify a limited number of statistically significant subject tags within agencies and only two federal agencies in which this statistically significant variation occurs: the Department of the Interior (DOI) and the Department of Health and Human Services (DHHS). Within DOI, RIAs addressing “wildlife,” “hunting,” and “transportation,” among others listed in Table 3.6, tend to monetize regulatory

benefits while subject tags such as “oil and gas exploration” and “environmental protection” are associated with non-monetized regulatory benefits in RIAs. However, delving into the regulations tagged with statistically significant subject tags for monetization within DOI suggests that these subject tags are perfectly correlated with each other and that a single recurring set of regulations, *Migratory Bird Hunting*, primarily explains this persistent monetization of regulatory benefits within DOI. Within the Department of Health and Human Services (DHHS), “rural areas” and “kidney disease” are associated with non-monetization, and “incorporation by reference” is associated with monetization.

These results, however, and the overall limited statistical significance of regulatory subject tags on the agency level, are probably due to the limited agency-level sample size. For example, given the observed probability of monetization of regulatory benefits—0.746—within the Department of Transportation (DOT)’s 63 major regulations in the dataset, a subject tag needed to occur 11 or more times in DOT regulations to provide enough statistical power to evaluate an association with monetization. Only 8 out of 111 subject tags used by DOT meet this criterion and could be evaluated through a permutation test approach. Relatedly, across all agency-level permutation tests, 772 subject tag-agency pairs were dropped from the analyses because they occurred too infrequently to provide statistical power to assess their association with monetization while 1,027 subject tag-agency pairs were dropped because they lacked the statistical power to analyze their relationship with non-monetization. Yet 959 subject tag-agency pairs—out of a total of 1,190 in the data—perfectly predict monetization or non-monetization of regulatory benefits in an agency’s RIAs.

Nevertheless, descriptive statistics about monetization and non-monetization of regulatory benefits conditional on subject tags within agencies still provide comparative insights

into how evaluative procedures differ within agencies. For example, within the Department of Agriculture, seven out of 10 RIAs tagged with “poultry and poultry products” monetize regulatory benefits according to OIRA summary reports to Congress, while all 10 RIAs tagged with “nutrition” provide non-monetized estimates of regulatory benefits. These data therefore help identify sites of variation within agencies, even if the permutation test methodology and limited sample sizes prevent inferences about statistical associations. These empirical results further suggest regulatory spaces within agencies in which procedural norms might heterogeneously legitimize and constrain federal regulators in drafting regulations based on their own autonomy and expertise. These data, fully available in the online appendix, provide a tool to explore the distribution of evaluative practices in federal agencies’ RIAs across 1,190 subject tag-agency pairs.

Table 3.6. Statistically Significant—Agency-Level Permutation Test Results

Agency	Subject	Total RIAs within Agency	Monetized Benefits: Non-Monetized Benefits	P-Value (Corrected P-Value)
<u>Monetized</u>				
Department of the Interior	Wildlife	41	37: 4	0.0152 (0.0447)
	Transportation	41	37: 4	0.0152 (0.0447)
	Hunting	41	37: 4	0.0152 (0.0447)
	Imports	41	37: 4	0.0152 (0.0447)
	Exports	41	37: 4	0.0152 (0.0447)
Department of Health and Human Services	Incorporation by reference	20	13: 7	0.0000 (0.0000)
<u>Non-Monetized</u>				
Department of the Interior	Incorporation by reference	5	0: 5	0.0013 (0.0176)
	Environmental protection	6	0: 6	0.0002 (0.0036)
	Administrative practice and procedure	8	0: 8	0.0001 (0.0036)
	Continental shelf	6	0: 6	0.0002 (0.0036)
	Public lands—mineral resources	4	0: 4	0.0045 (0.0348)
	Penalties	4	0: 4	0.0039 (0.0348)
	Oil and gas exploration	4	0: 4	0.0042 (0.0348)
Department of Health and Human Services	Rural areas	36	0: 36	0.0004 (0.0270)
	Kidney diseases	44	0: 44	0.0002 (0.0270)

Ultimately, the results of the permutation test provide a clear and systematic description of patterns in non-monetary and monetary justifications for regulatory decisions across federal government bureaucracies. The permutation test results provide strong evidence of established and persistent procedural norms for how federal agencies evaluate regulatory benefits in these

statistically significant policy issue spaces. As a result, the findings suggest varying levels of procedural burden based on the regulatory issue area across federal executive branch agencies.

DISCUSSION

The burgeoning literature on inequality in administrative politics (Yackee and Yackee 2006, Libgober 2020) has not engaged with public administration research on the heterogeneity in federal agencies' cost-benefit analyses of regulatory proposals (Masur and Posner 2016, Ellig and Fike 2016). As a result, the relationship between how federal agencies analyze and assess regulatory impacts, on the one hand, and inequality in influence and outcomes in regulatory rulemaking, on the other, is not yet understood. As groundwork for this field of research, this paper provides the first empirical analyses of associations between policy issue areas and monetization of regulatory benefits in federal agencies' RIAs across the federal regulatory state. The results provide evidence that procedural norms for evaluating regulatory policy proposals differ based on the policy issue area for regulatory domains such as, but not limited to, "energy conservation," "hazardous substances," "intergovernmental relations," and "confidential business information"—associated with monetization—and "colleges and universities," "rural areas," and "health insurance"—intertwined with non-monetization. These procedural norms for evaluating and comparing regulatory policy proposals likely mediate what types of information federal regulatory agencies and OIRA deem persuasive during the rulemaking process in these respective regulatory spaces—and therefore the barriers and onerous procedures facing interest groups and citizens seeking to shape federal regulations based on their own preferences and expertise.

These empirical findings demonstrate an overlooked mechanism through which power is wielded in the administrative rulemaking process—procedural norms for projecting and

evaluating regulatory impacts. Federal agencies persistently promulgate major regulations addressing policy issues such as “consumer protection” or “rural areas” without monetizing the regulatory benefits but seemingly clear a separate analytical procedural hurdle to regulate such issues as “small businesses” or “air pollution control.” The results further demonstrate that organizational norms for producing RIAs vary within agencies, although these relationships are harder to document and statistically discern given the limited sample sizes. The null results from the permutation test also imply that numerous regulatory policy issues are not associated with established procedural norms for how to legitimately assign value to regulatory impacts and justify regulatory proposals.

In addition, the paper introduces the concept of *procedural burden*—defined as the extent of the barriers facing interest groups and citizens in wielding power over regulatory policy formation. The empirical findings combined with this theoretical concept suggest that variation in monetization of regulatory benefits—as a type of procedural burden—can be a meaningful form of procedural inequality given the resources and costs associated with conducting monetary valuation of regulatory benefits. As Wagner (2010) shows, high barriers to influencing administrative rulemaking risk systematically excluding certain affected groups from accessing political power. Such exclusion of socioeconomic groups from political influence based on technocratic procedures and justifications is at odds with pluralist conceptions of bureaucratic governance (Caramani 2017). This suggested relationship between procedural evaluative norms and inequality in regulatory rulemaking warrants further inquiry even if this form of procedural inequality is sanctioned by Congress, correlates with the magnitude of the projected regulatory costs, is partially a product of which rules are transfer regulations, or reflects methodical best practices for conducting CBA with limited available data.

The concept of procedural burden makes several contributions to theory on the regulatory administrative process. First, following Carpenter and Krause's (2015) call for research to focus on informal compliance and resistance in bureaucratic politics, the paper documents informal organization norms that, in all likelihood, shape how federal regulators conceive of policy issues and possible regulatory solutions. While previous scholarship contends that such a relationship exists (Heinzerling 2014, Costa et al. 2019), this paper is the first to inductively identify when procedural norms for regulatory analyses are pronounced, persistent, and distinct between regulatory policy issue areas. Methodologically, the paper does not seek to disentangle the effect of individual regulatory subject tags from the institutional, policy, or scientific context precisely because organizational evaluative norms are embedded in and endogenous to their institutional environment (Espeland 1998, Lamont 2012). 668 subject tags out of the total 912 perfectly predict monetization or non-monetization of regulatory benefits in federal agencies' RIAs while numerous regulatory subject tags are highly associated with which federal agency drafted the regulation. Nevertheless, the permutation test approach (Hayes 1996, Collingridge 2013) combined with the correction for multiple and non-independent hypothesis testing (Benjamini and Yekutieli 2001) enables statically rigorous inferences about when observed conditional probabilities between a subject tag and monetization are too improbable to alternatively attribute to other correlates or chance. The permutation test approach, therefore, helps overcome a methodological barrier to operationalizing and quantitatively studying organizational norms in bureaucratic politics.

Second, the concept of procedural burden builds upon the vast theoretical foundation from scholarship on administrative burden (Burden et al. 2012, Herd and Moynihan 2019) but offers a new conceptual tool to study the burden associated with accessing political power—

rather than services and rights—vis-à-vis the administrative state. Surprisingly, the field lacks a concept for studying the costs and barriers to accessing political power during the regulatory rulemaking process. Procedural burden therefore helps further theorize and study the heterogeneity in how actors experience the administrative state—which is one of the most important correlates predicting popular satisfaction with democratic governance (Dahlberg and Holmberg 2013). While monetizing the value of regulatory proposals is a resource-intensive process for producing persuasive information during the rule-drafting process, it is only one aspect of procedural burden as defined. Future research based on survey, interview, and ethnographic methods could expand our understanding of the types and distributions of burdens and barriers facing interest groups seeking to access and wield power over regulatory policy proposals—and how these procedural burdens shape political influence, regulatory policy outcomes, and quality of democratic procedures for regulatory governance.

Third, the paper contributes to political theory on strengthening democratic control of the regulatory state. The results challenge analytical and theoretical assumptions justifying monetary cost-benefit analyses as a democratic oversight mechanism for all federal agencies and policy issue areas. If federal agencies do not provide monetary estimates of regulatory benefits for 62% of all major regulations between 1996–2016, then in practice the president may not be relying on this mechanism to control and direct the majority of major regulatory actions. If so, openness about underlying political reasons for regulatory policy decisions, rather than monetary analyses providing at times ex post justifications for politically directed regulations, would provide more genuine transparency into federal agencies’ regulatory decision-making processes (Watts 2009).

Furthermore, the results and theorizing suggest that evaluative procedures for regulatory proposals are, at times, endogenous to the interests and influence of powerful groups in the

policy space. The Biden administration, as of this paper’s drafting and publication, has directed OMB to develop recommendations to better address distributional consequences of regulation and to modernize formal guidance to agencies in ways that “fully accounts for regulatory benefits that are difficult or impossible to quantify” (Biden 2021). The data and results support this effort. Requiring standardized approaches for analyzing proposed regulations in non-standard informational and organizational environments may not be a recipe for strengthening democratic oversight or improving regulatory policy. Instead, such executive guidance to agencies for cost-benefit analyses should be targeted by policy issue area, focus on scenario planning and probabilistic forecasting of regulatory impacts rather than speculation about the value of these impacts in monetary terms, and reflect a formal decision by the president about the desired level of procedural burden for promulgating different types of regulatory policies based on authorizing legislation and the president’s political priorities.

Lastly, the full dataset used in this research is available online—which is a new resource both for scholars and practitioners studying the regulatory process. The data contain information on the 713 major regulations identified by and included in OIRA’s annual reports to Congress between 1997–2017. Future research using these data could explore how federal agencies’ specific methodologies for cost-benefit analyses evolve and diffuse or become associated with the projected economic costs of the regulation.

Nevertheless, the data and analyses in this paper have several limitations. First, the analyses are based on subject tags which federal agencies self-select for each regulation. The data, therefore, do not provide an exhaustive coding of the affected social groups or regulatory issue areas associated with each regulation and RIA. While seven regulations contain the subject tag “women,” it is unlikely that these regulations are the only rules in the dataset that directly

affect women. Moreover, this paper relies on data from OIRA’s summaries. The permutation test analyses therefore do not distinguish between *degrees* of monetization of the regulatory benefits in federal agencies’ RIAs. Monetization is a spectrum of methodologies and outputs rather than a binary occurrence (Hirshman et al. 2016). Future research should address variation in the specific methodologies that federal agencies use to monetize or qualitatively assess regulatory impacts—such as willingness to pay and willingness to accept—as well as document which specific endpoints tend to be identified and monetized in bureaucratic analyses and justifications.

This research also relied on a monetization of regulatory benefits to study procedural burden without observational data on the resources directly expended on monetarily analyzing regulatory proposals. Future mixed-methods research could shed new light on how socioeconomic groups experience the rulemaking process and allocate resources to analyzing and seeking to influence regulatory proposals. Such research should expand this paper’s focus on regulatory benefits to also address the resources allocated to monetizing regulatory costs.

CONCLUSION

Federal agencies assess the benefits and costs of proposed regulations in order to justify rules to multiple external audiences and to advance regulatory proposals through government oversight procedures. This process, in theory, contributes to executive control of the regulatory state, transparency into federal agencies’ regulatory decisions, and democratic accountability for federal agencies’ rule-making authority (Sunstein 1996). Moreover, monetization of regulatory benefits can provide a mechanism for stakeholders and citizens to contest regulatory policies, substantiate their own claims about preferable policy options, and potentially improve regulatory policies. Yet as previous scholarship has demonstrated, federal agencies inconsistently quantify the value of regulatory benefits in formal RIAs—often providing qualitative descriptions of the

benefits instead or stating that available data and methodologies are insufficient to predict and quantify the impact of the rule (Masur and Posner 2016, Hahn and Dudley 2007, Sinden 2019).

This paper presents the first empirical analysis of the associations between policy issue areas and the monetization of regulatory benefits in RIAs for major rules across the entire federal regulatory state. The results demonstrate systematic heterogeneity in whether federal agencies monetize regulatory benefits depending on regulatory issue areas. I argue that persistent patterns in the monetization and non-monetization of regulatory benefits are best conceptualized as procedural norms—which mediate the forms of information deemed persuasive during the rulemaking process and thus barriers to regulatory influence. The results and data from this paper provide baseline empirical statistics to study and evaluate claims that monetary cost-benefit analysis methodologies bias regulations towards business interests and away from addressing societal-level problems. The paper also introduces procedural burden as a concept to help address the distribution of barriers to exercising power and influence in the rulemaking process—thereby contributing to the larger project of studying and helping better align informal procedural norms across federal government bureaucracies with conceptions of well-functioning pluralist democracy (Carpenter and Krause 2015).

Moving forward, the challenge is to describe a regulatory development and review process that promotes rigorous analyses of regulatory options, democratic transparency and participation, and pluralistic methodologies for describing and operationalizing both causal relationships and the value of regulatory impacts. These issues are imperative for both scholars and practitioners.

CONCLUSION

A fundamental challenge for scholarship in organizational behavior is to contribute insights into democratic governance. Executive branches of government in the United States—at the state and federal levels—are systems of organizations that have broad responsibilities for administering programs and services and constructing rules governing society. Meanwhile, democratic governance is predicated upon these bureaucratic organizations being responsive to citizens and stakeholders as well as accountable to, and controllable by, both elected government officials and appointed leadership. These multiple and, at times, competing mandates, combined with constraints on government bureaucracies' resources and legitimacy, produce significant organizational challenges.

This dissertation contains three separate chapters that each address core aspects of these issues from the point of view of non-elected bureaucratic actors with oversight or management responsibilities for multiple government bureaucracies. The benefit of this focus is that, despite the immense power of these positions—such as Chief Operational Officers (COOs) or the Office of Information and Regulatory Affairs (OIRA)—in government administration, scholarship does not extensively focus on, or provide rigorously informed guidance about, the role these structural positions in contributing to or undermining democratic governance. In addition, bringing together disciplinary perspectives from organizational theory, sociology, and public administration provides conceptual tools to study how government bureaucracies are embedded within their institutional environments while addressing the agency of individuals to help change these institutional systems.

In Chapter 1, I address a pronounced puzzle facing collaborative crisis management across a system of executive branch departments. How can government organizations with

limited previous experiences and skills in collaboration and organizational learning nevertheless learn new collaborative practices during a crisis? Based on a rare combination of non-participant observation of crisis management meetings within a state government, semi-structured interviews, and archival documents, this chapter develops the concept of bureaucratic backstopping to explain how Missouri state government was able to learn collaborative practices during a crisis and improve the quality of its administrative response to the COVID-19 pandemic. Bureaucratic backstopping in Missouri enabled the crisis management leadership to relocate public servants with relatively rare skillsets to fulfill critical roles. It also supported organizational learning by identifying public servants who could model new collaborative norms and processes for other government employees in the state. The results further suggest that relationships that emerged prior to the pandemic between the state's COO, as well as other members of the crisis response leadership team, with public servants across the state were integral to the emergence of effective bureaucratic backstopping. These findings advance scholarship on collaborative crisis management (Nohrstedt et al. 2018, Nohrstedt and Bynander 2020, Parker and Sundelius 2020), identifying how government organizations can address a catch-22 in intra-crisis organizational learning and collaboration.

In Chapter 2, I show that formally transferring divisions between parent-level government departments can paradoxically both increase the extent to which public servants in the “giving” department experience the authority of their department leadership and the extent to which these public servants are granted voice rights to provide feedback and communicate their opinions. The results suggest that increasing the bandwidth of the department's leadership team was an enabling condition supporting the expansion of voice rights after the reorganization process. By focusing on the subunit level of government departments and public servants'

experiences of informal processes, the findings provide an orthogonal account from previous scholarship about how changes in formal organizational structure can alter internal norms and processes within government bureaucracies. The theorizing and results also suggest that scholarship on bureaucratic control in public management should expand to include such informal dynamics as felt authority—a concept revealed through abductive theorizing and data analysis in this paper.

Chapter 3 analyzes associations between policy domains and the monetization of regulatory benefits in federal agencies' regulatory impact assessments (RIAs) of major regulatory proposals. In the United States, federal agencies must draft RIAs for all major regulations. Based on a novel data set of nearly all RIAs produced by federal government agencies between 1996–2016 ($n = 713$), I find that there are distinct evaluative approaches for regulatory policies depending on the policy issue area and the socioeconomic groups affected by the rule. For example, regulations addressing such topics as exports, energy conservation, and the ozone persistently monetize the value of regulatory benefits in their respective RIAs while regulations addressing employment, rural areas, and health care tend to describe the benefits qualitatively. Based on existing scholarship, I argue that these different evaluative norms influence which socioeconomic groups wield power during the rulemaking process and which subsequently benefit from it. Moreover, the paper contends that the combination of formal standardized rules for how federal agencies should analyze regulatory proposals with, in practice, heterogeneous organizational norms that often vary by policy topic undermines the strength of pluralist democracy in the rulemaking process.

These studies contribute to our understanding of patterns in how systems of executive branch government bureaucracies behave that are not reducible to the sum of their parts.

Bureaucratic backstopping, the effects of transferring divisions from one parent department to another, and valuation norms for regulatory policy impacts are endogenous to a system of government bureaucracies rather than emerging from a single organization. The research also addresses formal and informal tools at multiple operational levels that are at the disposal of central bureaucratic actors with oversight and operational management responsibilities for a portfolio of executive branch organizations. Chapter 1 focuses on the tools and process of moving individuals across bureaucratic boundaries. Chapter 2 focuses on transferring larger groups or divisions from one department to another. Chapter 3 studies evaluative norms across an institutional field.

The strength of this research also lies in the new questions that its core findings raise. Chapter 1 identifies bureaucratic backstopping as an integral part of Missouri state government's administrative response to the COVID-19 pandemic. Yet this process of moving around government employees and responsibilities across organizational boundaries is likely to also manifest in non-crisis contexts given widespread resource, capacity, and personnel constraints in government administration. Future research should assess the prevalence of bureaucratic backstopping in conventional state administration based on qualitative and quantitative data. In addition, assessing the consequences of bureaucratic backstopping—using methodologies supporting causal inferences—on multiple measures of government performance and public servants' well-being would provide new insights into when this process is warranted and how best it could be pursued.

The research also points to the need for further work on the effects of secession and absorption of government divisions or other nested subunits within larger departments and agencies. Such research would be timely given the prevalence of these types of reforms and their

limited fit within any prominent paradigm in government reform processes (Rolland and Roness 2011, Carroll et al. 2022). In addition, more research is needed on informal mechanisms that can contribute to and balance both centralized bureaucratic control with public servants' experiences of power within their respective departments and agencies.

In addition, the dissertation chapters suggest future research about how citizens, interest groups, and elected government officials engage with and exert influence on central bureaucratic actors responsible for a portfolio of government bureaucracies. For example, a nascent literature interrogates how interest groups directly lobby the Office of Management and Budget (OMB) during the rulemaking process (Haeder and Yackee 2015). Related research on how citizens and interest groups seek to directly influence chief administrative officers or chief operating officers—as well as how these actors are shaped by their institutional contexts—could expand our understanding of how power operates in bureaucratic politics.

Lastly, this dissertation recognizes and further suggests the need for greater conversations between organizational scholarship and political theory. What does it mean to hold to account non-elected actors responsible for the oversight of a system of government bureaucracies? How can these actors both have sufficient power and autonomy to do their jobs well without subverting the role and authority of the chief executive? Studying the interplay between bureaucratic organizing and democratic governance should be intertwined with philosophically and morally informed accounts of a just distribution of power within and between organizations.

REFERENCES

Introduction

- Achen, C.H. and Bartels, L.M., 2017. Democracy for realists. In *Democracy for Realists*. Princeton, New Jersey: Princeton University Press. Altamimi, H., Liu, Q. and Jimenez, B., 2023. Not too much, not too little: Centralization, decentralization, and organizational change. *Journal of Public Administration Research and Theory*, 33(1): 170-185.
- Blau, P.M., 1956. *Bureaucracy in modern society*. New York: Random House.
- Brodkin, E.Z., 2007. Bureaucracy redux: Management reformism and the welfare state. *Journal of Public Administration Research and Theory*, 17(1): 1-17.
- Brunsson, N. and Olsen, J.P., 1993. *The Reforming organization: Making Sense of Administrative Change*. London: Routledge.
- Bynander, F., and Nohrstedt, D. (eds.), 2019. *Collaborative Crisis Management: Inter-Organizational Approaches to Extreme Events*. New York: Routledge.
- Carpenter, D., 2001. *The Forging of Bureaucratic Autonomy*. Princeton, NJ: Princeton University Press.
- Carpenter, D., 2010. *Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA*. Princeton, NJ: Princeton University Press.
- Carpenter, D. and Krause, G.A., 2015. Transactional authority and bureaucratic politics. *Journal of Public Administration Research and Theory*, 25(1): 5–25.
- Carpenter, D. and Moss, D.A., eds., 2013. *Preventing Regulatory Capture: Special Interest Influence and How to Limit It*. New York: Cambridge University Press.
- Carroll, B.J., Bertels, J., Froio, C., Kuipers, S., Schulze-Gabrechten, L., and Viallet-Thévenin, S., 2022. Between life and death: Organizational change in central state bureaucracies in cross-national comparison. *International Review of Administrative Sciences*, 88(4): 943–959.
- Dahlberg, S. and Holmberg, S., 2014. Democracy and bureaucracy: How their quality matters for popular satisfaction. *West European Politics*, 37(3): 515–537.
- Emerson, K., Nabatchi, T. and Balogh, S., 2012. An integrative framework for collaborative governance. *Journal of Public Administration Research and Theory*, 22(1): 1–29.
- Espeland, W.N., 2000. Bureaucratizing democracy, democratizing bureaucracy. *Law & Social Inquiry*, 25(4): 1077-1109.

- Etzioni-Halevy, E., 2013. *Bureaucracy and democracy*. London: Routledge.
- Gruber, J., 2023. *Controlling bureaucracies: Dilemmas in democratic governance*. Berkeley: University of California Press.
- Haeder, S.F. and Yackee, S.W., 2015. Influence and the administrative process: Lobbying the US president's office of management and budget. *American Political Science Review*, 109(3): 507-522.
- Lewis, D.E., 2019. Deconstructing the administrative state. *Journal of Politics*, 81(3): 767–789.
- March, J.G. and Olson, J.P., 1983. Organizing political life: What administrative reorganization tells us about government. *American Political Science Review*, 77(2): 281–296.
- Moe, Terry M. 1985. The politicized presidency. In John E. Chubb and Paul E. Peterson (eds.), *The new direction in American politics*, 235-71. Washington, DC: Brookings Institution.
- Monteiro, P. and Adler, P.S., 2022. Bureaucracy for the 21st century: Clarifying and expanding our view of bureaucratic organization. *Academy of Management Annals*, 16(2): 427–475.
- Moynihan, D.P., 2009. From intercrisis to intracrisis learning. *Journal of Contingencies and Crisis Management*, 17(3): 189–198.
- Moynihan, D.P., 2022. Delegitimization, deconstruction and control: Undermining the administrative state. *Annals of the American Academy of Political and Social Science*, 699(1): 36–49.
- Moynihan, D.P. and Landuyt, N., 2009. How do public organizations learn? Bridging cultural and structural perspectives. *Public Administration Review*, 69(6): 1097–1105.
- Nohrstedt, D., Bynander, F., Parker, C. and 't Hart, P., 2018. Managing crises collaboratively: Prospects and problems—A systematic literature review. *Perspectives on Public Management and Governance*, 1(4): 257–271.
- Olsen, J.P., 2008. The ups and downs of bureaucratic organization. *Annual Review of Political Science*, 11: 13-37.
- Parker, C.F. and Sundelius, B., 2019. Avoiding the failures of collaborative crisis management. In Bynander and Nohrstedt (eds.), *Collaborative Crisis Management: Inter-Organizational Approaches to Extreme Events*: 119–131. New York: Routledge.
- Peters, B.G., 2010. Bureaucracy and democracy. *Public Organization Review*, 10: 209-222.
- Rolland, V.W. and Roness, P.G., 2011. Mapping organizational change in the state: Challenges and classifications. *International Journal of Public Administration*, 34(6): 399–409.

- Rothstein, B., 2009. Creating political legitimacy: Electoral democracy versus quality of government. *American behavioral scientist*, 53(3): 311-330.
- Weber, M., 1978. *Economy and Society: An Outline of Interpretive Sociology*, ed. G. Roth and C. Wittich. Berkeley: University of California Press.
- Witesman, E.M. and Wise, C.R., 2009. The centralization/decentralization paradox in civil service reform: How government structure affects democratic training of civil servants. *Public Administration Review*, 69(1): 116-127.

Chapter 1

- Acosta, A., Benoit, M.A., Conway, C., Hughes, D., Levi, J., Markus, A., Regenstein, M., Seyoum, S., Trott, J. and Van Bronkhorst, H., 2021. Missouri's Public Health Response to COVID-19: Key Findings and Recommendations for State Action and Investment. https://hsrc.himmelfarb.gwu.edu/sphhs_policy_briefs/61/.
- Andrews, R. and Entwistle, T., 2010. Does cross-sectoral partnership deliver? An empirical exploration of public service effectiveness, efficiency, and equity. *Journal of Public Administration Research and Theory*, 20(3): 679–701.
- Ansell, C., Boin, A. and Keller, A., 2010. Managing transboundary crises: Identifying the building blocks of an effective response system. *Journal of Contingencies and Crisis Management*, 18(4): 195–207.
- Ansell, C. and Gash, A., 2008. Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, 18(4): 543–571.
- Ansell, C. and Gash, A., 2018. Collaborative platforms as a governance strategy. *Journal of Public Administration Research and Theory*, 28(1): 16–32.
- Arias E, Bastian B, Xu JQ, Tejada-Vera B., 2021. U.S. state life tables, 2018. *National Vital Statistics Reports*, 70(1). Hyattsville, MD: National Center for Health Statistics. DOI: <https://doi.org/10.15620/cdc:101128>.
- Barrett, K. and Greene, R. The Rise of the COO in State Government. *Governing.com*. <https://www.governing.com/archive/gov-state-chief-operating-officers.html>.
- Battilana, J., 2006. Agency and institutions: The enabling role of individuals' social position. *Organization*, 13(5): 653–676.
- Battilana, J., Leca, B. and Boxenbaum, E., 2009. How actors change institutions: Towards a theory of institutional entrepreneurship. *Academy of Management Annals*, 3(1): 65–107.

- Boardman, C., 2011. Organizational capital in boundary-spanning collaborations: Internal and external approaches to organizational structure and personnel authority. *Journal of Public Administration Research and Theory*, 22(3): 497–526.
- Bodin, Ö. and Nohrstedt, D., 2016. Formation and performance of collaborative disaster management networks: Evidence from a Swedish wildfire response. *Global Environmental Change*, 41: 183-194.
- Boin, A. and Bynander, F., 2015. Explaining success and failure in crisis coordination. *Geografiska Annaler: Series A, Physical Geography*, 97(1): 123–135.
- Boin, A., Stern, E. and Sundelius, B., 2016. *The Politics of Crisis Management: Public Leadership under Pressure*. Cambridge: Cambridge University Press.
- Bundy, J., Pfarrer, M.D., Short, C.E. and Coombs, W.T., 2017. Crises and crisis management: Integration, interpretation, and research development. *Journal of Management*, 43(6): 1661–1692.
- Bynander, F., and Nohrstedt, D. (eds.), 2019. *Collaborative Crisis Management: Inter-Organizational Approaches to Extreme Events*. New York: Routledge.
- Carpenter, D., Chattopadhyay, J., Moffitt, S. and Nall, C., 2012. The complications of controlling agency time discretion: FDA review deadlines and postmarket drug safety. *American Journal of Political Science*, 56(1): 98–114.
- Christensen, T., Lægreid, P. and Rykkja, L.H., 2016. Organizing for crisis management: Building governance capacity and legitimacy. *Public Administration Review*, 76(6): 887–897.
- Cloutier, C., Denis, J.L., Langley, A. and Lamothe, L., 2016. Agency at the managerial interface: Public sector reform as institutional work. *Journal of Public Administration Research and Theory*, 26(2): 259–276.
- Curnin, S. and O’Hara, D., 2019. Nonprofit and public sector interorganizational collaboration in disaster recovery: Lessons from the field. *Nonprofit Management and Leadership*, 30(2): 277–297.
- Drabek, T.E. and McEntire, D.A., 2002. Emergent phenomena and multiorganizational coordination in disasters: Lessons from the research literature. *International Journal of Mass Emergencies and Disasters*, 20(2): 197–224.
- Drolc, C.A. and Keiser, L.R., 2021. The importance of oversight and agency capacity in enhancing performance in public service delivery. *Journal of Public Administration Research and Theory*, 31(4): 773–789.

- Eckhard, S., Lenz, A., Seibel, W., Roth, F. and Fatke, M., 2021. Latent hybridity in administrative crisis management: The German refugee crisis of 2015/16. *Journal of Public Administration Research and Theory*, 31(2): 416–433.
- Edmondson, A.C. and McManus, S.E., 2007. Methodological fit in management field research. *Academy of Management Review*, 32(4): 1246–1264.
- Emerson, K., Nabatchi, T. and Balogh, S., 2012. An integrative framework for collaborative governance. *Journal of Public Administration Research and Theory*, 22(1): 1–29.
- Farazmand, A., 2017. Learning from the Katrina crisis: A global and international perspective with implications for future crisis management. In Farazmand (ed.), *Crisis and Emergency Management*: 461–476. Boca Raton, FL: Routledge.
- Gerlak, A.K. and Heikkila, T., 2011. Building a theory of learning in collaboratives: Evidence from the Everglades Restoration Program. *Journal of Public Administration Research and Theory*, 21(4): 619–644.
- Gibbons, R. and Henderson, R., 2012. What do managers do? Exploring persistent performance differences among seemingly similar enterprises.” In R. Gibbons and J. Roberts (eds.), *The Handbook of Organizational Economics*: 680–731. Princeton, NJ: Princeton University Press.
- Gioia, D.A., Corley, K.G. and Hamilton, A.L., 2013. Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, 16(1): 15–31.
- Gonsalves, L., 2020. From face time to flex time: The role of physical space in worker temporal flexibility. *Administrative Science Quarterly*, 65(4): 1058–1091.
- Government Performance Project. 2008. Measuring performance: The state management report card for 2008. Pew Center on the States. https://www.pewtrusts.org/-/media/legacy/uploadedfiles/pes_assets/2008/gradingthestates2008pdf.pdf.
- Greif, A., 2006. *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*. Cambridge: Cambridge University Press.
- Gupta, P.P., Dirsmith, M.W. and Fogarty, T.J., 1994. Coordination and control in a government agency: Contingency and institutional theory perspectives on GAO audits. *Administrative Science Quarterly*: 264–284.
- Hansen, M.B., 2011. Antecedents of organizational innovation: The diffusion of new public management into Danish local government. *Public Administration*, 89(2): 285–306.

- Heinrich, C.J., Lynn Jr, L.E. and Milward, H.B., 2010. A state of agents? Sharpening the debate and evidence over the extent and impact of the transformation of governance. *Journal of Public Administration Research and Theory*, 20(suppl.): i3–i19.
- Hernandez, S, Manley, B, O’Key, S. and H. Pettersson. 2022. Tracking Covid-19 cases in the US. CNN Health. <https://edition.cnn.com/interactive/2020/health/coronavirus-us-maps-and-cases/>.
- Howlett, M. and Ramesh, M., 2016. Achilles’ heels of governance: Critical capacity deficits and their role in governance failures. *Regulation & Governance*, 10(4): 301–313.
- Johnston, Ryan J. 2021. Missouri faced “roadblocks” on data literacy during COVID-19. Statescoop. <https://statescoop.com/missouri-covid-19-data-driven-decisions/>
- Kaveney, Brian. 2020. COVID-19 Outbreak—Missouri Veterans Home. An Independent Investigation Conducted for the Missouri Veterans Commission. <https://mvc.dps.mo.gov/docs/commission/external-review-report.pdf>.
- Ketokivi, M. and Mantere, S., 2010. Two strategies for inductive reasoning in organizational research. *Academy of Management Review*, 35(2): 315–333.
- Klijn, E.H., Edelenbos, J. and Steijn, B., 2010. Trust in governance networks: Its impacts on outcomes. *Administration & society*, 42(2): 193–221.
- Krasner, S.D. and Risse, T., 2014. External actors, state-building, and service provision in areas of limited statehood. *Domestic Politics and Norm Diffusion in International Relations: Ideas Do Not Flow Freely*. New York: Routledge.
- Langley, A., & Tsoukas, H. 2010. Introducing perspectives on process organization studies. In T. Hernes and S. Maitlis (eds.), *Process, Sensemaking, and Organizing*: 1–26. Oxford: Oxford University Press.
- Lazarini, S.G., Pongeluppe, L.S., Ito, N.C., Oliveira, F.D.M. and Ovanessoff, A., 2020. Public capacity, plural forms of collaboration, and the performance of public initiatives: A configurational approach. *Journal of Public Administration Research and Theory*, 30(4): 579–595.
- Lenz, A. and Eckhard, S., 2022. Conceptualizing and explaining flexibility in administrative crisis management: A cross-district analysis in Germany. *Journal of Public Administration Research and Theory*: 1–13.
- Lewis, D.E., 2019. Deconstructing the administrative state. *Journal of Politics*, 81(3): 767–789.
- Locke, K., 2011. Field research practice in management and organization studies: Reclaiming its tradition of discovery. *Academy of Management Annals*, 5(1): 613–652.

- Lin, Z., Zhao, X., Ismail, K.M. and Carley, K.M., 2006. Organizational design and restructuring in response to crises: Lessons from computational modeling and real-world cases. *Organization Science*, 17(5): 598–618.
- Marsden, P.V., 1983. Restricted access in networks and models of power. *American Journal of Sociology*, 88(4): 686-717.
- Marshall Project. 2021. A State-By-State Look at 15 Months of Coronavirus in Prisons. <https://www.themarshallproject.org/2020/05/01/a-state-by-state-look-at-coronavirus-in-prisons>.
- McDonnell, E.M., 2020. *Patchwork Leviathan*. Princeton, NJ: Princeton University Press.
- Mele, V. and Belardinelli, P., 2019. Mixed methods in public administration research: Selecting, sequencing, and connecting. *Journal of Public Administration Research and Theory*, 29(2): 334–347.
- Mills, A.J., Durepos, G. and Wiebe, E. (eds.), 2009. *Encyclopedia of case study research*. Thousand Oaks, CA: Sage.
- State of Missouri. 2016. Compensation & Benefits Study Report. Presented by CBIZ Human Capital Services. <https://oa.mo.gov/sites/default/files/2016-State-of-Missouri-Compensation-Benefits-Report.pdf>.
- Moynihan, D.P., 2009. The network governance of crisis response: Case studies of incident command systems. *Journal of Public Administration Research and Theory*, 19(4): 895–915.
- Moynihan, D.P., 2009. From intercrisis to intracrisis learning. *Journal of Contingencies and Crisis Management*, 17(3): 189–198.
- Moynihan, D.P., 2022. Delegitimization, deconstruction and control: Undermining the administrative state. *Annals of the American Academy of Political and Social Science*, 699(1): 36–49.
- Moynihan, D.P. and Landuyt, N., 2009. How do public organizations learn? Bridging cultural and structural perspectives. *Public Administration Review*, 69(6): 1097–1105.
- New York Times. 2023. Track COVID-19 in Missouri. <https://www.nytimes.com/interactive/2023/us/missouri-covid-cases.html>.
- Nohrstedt, D., Bynander, F., Parker, C. and 't Hart, P., 2018. Managing crises collaboratively: Prospects and problems—A systematic literature review. *Perspectives on Public Management and Governance*, 1(4): 257–271.

- Nohrstedt, D. and Bynander, F., 2019. Lessons and avenues for future research in collaborative crisis management. In Bynander and Nohrstedt (eds.), *Collaborative Crisis Management: Inter-Organizational Approaches to Extreme Events*: 148–160. New York: Routledge.
- Nowell, B. and Albrecht, K., 2019. A reviewer's guide to qualitative rigor. *Journal of Public Administration Research and Theory*, 29(2): 348–363.
- Nowell, B., Steelman, T., Velez, A.L.K. and Yang, Z., 2018. The structure of effective governance of disaster response networks: Insights from the field. *American Review of Public Administration*, 48(7): 699–715.
- O'Donoghue, Julie. 2020. Missouri struggles to keep up with unemployment applications. St. Louis Public Radio. <https://news.stlpublicradio.org/politics-issues/2020-04-13/missouri-struggles-to-keep-up-with-unemployment-applications>.
- Okhuysen, G.A. and Bechky, B.A., 2009. Coordination in organizations: An integrative perspective. *Academy of Management Annals*, 3(1): 463–502.
- Parker, C.F., Nohrstedt, D., Baird, J., Hermansson, H., Rubin, O. and Baekkeskov, E., 2020. Collaborative crisis management: A plausibility probe of core assumptions. *Policy and Society*, 39(4): 510–529.
- Parker, C.F. and Sundelius, B., 2019. Avoiding the failures of collaborative crisis management. In Bynander and Nohrstedt (eds.), *Collaborative Crisis Management: Inter-Organizational Approaches to Extreme Events*: 119–131. New York: Routledge.
- Pettigrew, A.M., 1972. Information control as a power resource. *Sociology*, 6(2): 87–204.
- Potter, R.A. and Shipan, C.R., 2019. Agency rulemaking in a separation of powers system. *Journal of Public Policy*, 39(1): 89–113.
- Prado, M.M. and Trebilcock, M.J., 2018. *Institutional Bypasses: A Strategy to Promote Reforms for Development*. Cambridge: Cambridge University Press.
- Public Policy Institute. 2022. AARP Nursing Home COVID-19 Dashboard. AARP. <https://www.aarp.org/ppi/issues/caregiving/info-2020/nursing-home-covid-dashboard.html>.
- Pratt, M.G., Rockmann, K.W. and Kaufmann, J.B., 2006. Constructing professional identity: The role of work and identity learning cycles in the customization of identity among medical residents. *Academy of Management Journal*, 49(2): 235–262.
- Quick, K.S. and Feldman, M.S., 2014. Boundaries as junctures: Collaborative boundary work for building efficient resilience. *Journal of Public Administration Research and Theory*, 24(3): 673–695.

- Riche, C., Aubin, D. and Moyson, S., 2021. Too much of a good thing? A systematic review about the conditions of learning in governance networks. *European Policy Analysis*, 7(1): 147–164.
- Rosenthal, U., Boin, A. and Comfort, L.K., 2001. *Managing Crises: Threats, Dilemmas, Opportunities*. Charles C Thomas.
- Schmidt, V.A., 2013. Democracy and legitimacy in the European Union revisited: Input, output and “throughput.” *Political Studies*, 61(1): 2–22.
- Schmitt, Will. 2018. Leaked workforce survey data show widespread leadership problems in Missouri government. *Springfield News-Leader*. <https://www.news-leader.com/story/news/politics/2018/03/08/missouri-coo-describes-systemic-leadership-issues-among-state-workforce-after-data-leaks/403830002/>.
- Schoorman, F.D., Mayer, R.C. and Davis, J.H., 2007. An integrative model of organizational trust: Past, present, and future. *Academy of Management Review*, 32(2): 344–354.
- Small, M.L., 2011. How to conduct a mixed methods study: Recent trends in a rapidly growing literature. *Annual Review of Sociology*, 37: 57–86.
- Smets, M., Morris, T.I.M. and Greenwood, R., 2012. From practice to field: A multilevel model of practice-driven institutional change. *Academy of Management Journal*, 55(4): 877–904.
- Steelman, T.A., Nowell, B., Bayoumi, D. and McCaffrey, S., 2014. Understanding information exchange during disaster response: Methodological insights from infocentric analysis. *Administration & Society*, 46(6): 707–743.
- Strauss, A. and Corbin, J., 1998. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 2d ed. Thousand Oaks, CA: Sage.
- Streeck, W. and K. Thelen, 2005. Institutional changes in advanced political economies. In Streeck and Thelen (eds.), *Beyond Continuity: Institutional Change in Advanced Political Economies*. Oxford: Oxford University Press: 1–39.
- Tavory, I. and Timmermans, S., 2014. *Abductive Analysis: Theorizing Qualitative Research*. Chicago: University of Chicago Press.
- Valentine, M.A., 2018. Renegotiating spheres of obligation: The role of hierarchy in organizational learning. *Administrative Science Quarterly*, 63(3): 570–606.
- Van der Heijden, J., 2011. Institutional layering: A review of the use of the concept. *Politics*, 31(1): 9–18.

- Warren, Carol. 2001. Qualitative interviewing. In J. F. Gubrium and J. A. Holstein (eds.), *Handbook of Interview Research: Context and Method*: 83–102. Thousand Oaks: Sage.
- Waugh Jr, W.L. and Streib, G., 2006. Collaboration and leadership for effective emergency management. *Public Administration Review*, 66(s1): 131–140.
- Winter, Søren C. 2003. Implementation: Introduction. In J. Pierre and B. G. Peters (eds.), *Handbook of Public Administration*: 205–211. London: Sage.
- Yang, T.M. and Maxwell, T.A., 2011. Information-sharing in public organizations: A literature review of interpersonal, intra-organizational and inter-organizational success factors. *Government Information Quarterly*, 28(2): 164–175.
- Zhang, F., Welch, E.W. and Miao, Q., 2018. Public organization adaptation to extreme events: Mediating role of risk perception. *Journal of Public Administration Research and Theory*, 28(3): 371–387.

Chapter 2

- Adler, P.S., 2012. Perspective—the sociological ambivalence of bureaucracy: from Weber via Gouldner to Marx. *Organization Science*, 23(1): 244-266.
- Adler, P.S. and Borys, B., 1996. Two types of bureaucracy: Enabling and coercive. *Administrative Science Quarterly* 41(1): 61–89.
- Aitkin, A.C., 1935. On least squares and linear combination of observations. *Proceedings of the Royal Society of Edinburgh*, 55: 42–48.
- Andrews, R., 2016. NPM and the search for efficiency. In T. Christenen and P. Læg Reid (eds.), *The Ashgate Research Companion to New Public Management* (pp. 297–310). London: Routledge.
- Angrist, J.D. and Pischke, J.S., 2009. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton, NJ: Princeton University Press.
- Amiot, C.E., Terry, D.J., Jimmieson, N.L., and Callan, V.J., 2006. A longitudinal investigation of coping processes during a merger: Implications for job satisfaction and organizational identification. *Journal of Management*, 32(4): 552–574.
- Baker, G., Gibbons, R. and Murphy, K.J., 1999. Informal authority in organizations. *Journal of Law, Economics, and Organization*, 15(1): 56–73.
- Barnard, C.I., 1968. *The Functions of the Executive* (Vol. 11). Cambridge, MA: Harvard University Press.

- Barker, J.R., 1993. Tightening the iron cage: Concertive control in self-managing teams. *Administrative Science Quarterly*, 38(3): 408–437.
- Battilana, J. and Casciaro, T., 2021. *Power, for All: How It Really Works and Why It's Everyone's Business*. New York: Simon and Schuster.
- Battilana, J., Fuerstein, M., & Lee, M. 2018. New prospects for organizational democracy? How the joint pursuit of social and financial goals challenges traditional organizational designs. In S. Rangan (Ed.) *Capitalism beyond mutuality? Perspectives integrating philosophy and social science*. Oxford: Oxford University Press.
- Bertelli, A.M. and Sinclair, J.A., 2018. Democratic accountability and the politics of mass administrative reorganization. *British Journal of Political Science*, 48(3): 691–711.
- Bezes, P. and Le Lidec, P., 2016. The politics of organization. The new divisions of labor in state bureaucracies. *Revue française de science politique*, 66(3): 407–433.
- Bilodeau, N., Laurin, C., and Vining, A., 2007. “Choice of organizational form makes a real difference”: The impact of corporatization on government agencies in Canada. *Journal of Public Administration Research and Theory*, 17(1): 119–147.
- Bourgoin, A., Bencherki, N., and Faraj, S., 2020. “And who are you?”: A performative perspective on authority in organizations. *Academy of Management Journal*, 63(4): 1134–1165.
- Brass, D.J. and Burkhardt, M.E., 1993. Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal*, 36(3): 441–470.
- Brunsson, N. and Olsen, J.P., 1993. *The Reforming organization: Making Sense of Administrative Change*. London: Routledge.
- Cardinal, L.B., Kreutzer, M., and Miller, C.C., 2017. An aspirational view of organizational control research: Re-invigorating empirical work to better meet the challenges of 21st century organizations. *Academy of Management Annals*, 11(2): 559–592.
- Carpenter, D. and Krause, G.A., 2015. Transactional authority and bureaucratic politics. *Journal of Public Administration Research and Theory*, 25(1): 5–25.
- Carpenter, D.P. and Lewis, D.E., 2004. Political learning from rare events: Poisson inference, fiscal constraints, and the lifetime of bureaus. *Political Analysis*, 12(3): 201–232.
- Carroll, B.J., Bertels, J., Froio, C., Kuipers, S., Schulze-Gabrechten, L., and Viallet-Thévenin, S., 2022. Between life and death: Organizational change in central state bureaucracies in cross-national comparison. *International Review of Administrative Sciences*, 88(4): 943–959.

- Carton, A.M., 2018. “I’m not mopping the floors, I’m putting a man on the moon”: How NASA leaders enhanced the meaningfulness of work by changing the meaning of work. *Administrative Science Quarterly*, 63(2): 323–369.
- Courpasson, D., 2000. Managerial strategies of domination. Power in soft bureaucracies. *Organization Studies*, 21(1): 141–161.
- Courpasson, D. and Clegg, S., 2012. The polyarchic bureaucracy: Cooperative resistance in the workplace and the construction of a new political structure of organizations. In D. Courpasson, D. Golsorkhi, and J. Sallaz (eds.), *Rethinking Power in Organizations, Institutions, and Markets*. Bradford, UK: Emerald Group Publishing Limited.
- De Vries, H., Bekkers, V., and Tummers, L., 2016. Innovation in the public sector: A systematic review and future research agenda. *Public Administration*, 94(1): 146–166.
- DeHart-Davis, L., 2009. Green tape: A theory of effective organizational rules. *Journal of Public Administration Research and Theory*, 19(2): 361–384.
- DeHart-Davis, L. and Pandey, S.K., 2005. Red tape and public employees: Does perceived rule dysfunction alienate managers? *Journal of Public Administration Research and Theory*, 15(1): 133–148.
- Eglene, O., Dawes, S.S., and Schneider, C.A., 2007. Authority and leadership patterns in public sector knowledge networks. *American Review of Public Administration*, 37(1): 91–113.
- Feeney, M.K. and DeHart-Davis, L., 2009. Bureaucracy and public employee behavior: A case of local government. *Review of Public Personnel Administration*, 29(4): 311–326.
- Freeland, R.F. and Zuckerman Sivan, E.W., 2018. The problems and promise of hierarchy: Voice rights and the firm. *Sociological Science*, 5: 143–181.
- Gartenberg, C., Prat, A., and Serafeim, G., 2019. Corporate purpose and financial performance. *Organization Science*, 30(1): 1–18.
- Gibbons, R. and Henderson, R., 2012. Relational contracts and organizational capabilities. *Organization science*, 23(5): 1350–1364.
- Grant, A.M., Gino, F., and Hofmann, D.A., 2011. Reversing the extraverted leadership advantage: The role of employee proactivity. *Academy of Management Journal*, 54(3): 528–550.
- Grunberg, L., Moore, S., Greenberg, E.S., and Sikora, P., 2008. The changing workplace and its effects: a longitudinal examination of employee responses at a large company. *Journal of Applied Behavioral Science*, 44(2): 215–236.

- Jilke, S., Olsen, A.L., Resh, W., and Siddiki, S., 2019. Microbrook, mesobrook, macrobrook. *Perspectives on Public Management and Governance*, 2(4): 245–253.
- Kaufman, H., 1976. *Are Government Organizations Immortal?* Washington, D.C: Brookings Institution.
- Kuipers, B.S., Higgs, M., Kickert, W., Tummers, L., Grandia, J., and Van der Voet, J., 2014. The management of change in public organizations: A literature review. *Public Administration*, 92(1): 1–20.
- Kuipers, S., Yesilkagit, K., and Carroll, B., 2018. Coming to terms with termination of public organizations. *Public Organization Review*, 18: 263–278.
- Libgober, B., 2020. Agency Failure and Individual Accountability. *CSAS Working Paper* 20-03.
- Long, C.P., 2010. Control to cooperation: Examining the role of managerial authority in portfolios of managerial actions. In S.B. Sitkin, L.B. Cardinal, and K.M. Bijlsma-Frankema (eds.), *Organizational Control*: 365–395. Cambridge: Cambridge University Press.
- Magee, J.C. and Galinsky, A.D., 2008. 8 Social hierarchy: The self-reinforcing nature of power and status. *The academy of management annals*, 2(1): 351–398.
- March, J.G. and Olson, J.P., 1983. Organizing political life: What administrative reorganization tells us about government. *American Political Science Review*, 77(2): 281–296.
- Mele, V. and Belardinelli, P., 2019. Mixed methods in public administration research: Selecting, sequencing, and connecting. *Journal of Public Administration Research and Theory*, 29(2): 334–347.
- Meyer, J.W. and Rowan, B., 1977. Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of sociology*, 83(2): 340–363.
- Monteiro, P. and Adler, P.S., 2022. Bureaucracy for the 21st century: Clarifying and expanding our view of bureaucratic organization. *Academy of Management Annals*, 16(2): 427–475.
- Morrison, E.W., 2014. Employee voice and silence. *Annu. Rev. Organ. Psychol. Organ. Behav.*, 1(1): 173–197.
- Ouchi, W.G., 1979. A conceptual framework for the design of organizational control mechanisms. *Management Science*, 25(9): 833–848.
- Overman, S., 2016. Great expectations of public service delegation: A systematic review. *Public Management Review*, 18(8): 1238–1262.

- Overman, S., Schillemans, T., and Grimmelikhuijsen, S., 2021. A validated measurement for felt relational accountability in the public sector: gauging the account holder's legitimacy and expertise. *Public Management Review*, 23(12): 1748–1767.
- Overman, S. and Van Thiel, S., 2016. Agencification and public sector performance: A systematic comparison in 20 countries. *Public Management Review*, 18(4): 611–635.
- Podolny, J.M., Khurana, R., and Hill-Popper, M., 2004. Revisiting the meaning of leadership. *Research in Organizational Behavior*, 26: 1–36.
- Pugh, D. S., D. J. Hickson, C. R. Hinings, and Turner, C., 1968. Dimensions of organizational structure. *Administrative Science Quarterly*, 13: 65–105.
- Quenneville, M.È., Laurin, C., and Thibodeau, N., 2010. The long-run performance of decentralized agencies in Québec. In P. Lægreid and K. Verhoest (eds.), *Governance of Public Sector Organizations: Proliferation, Autonomy and Performance*: 157–176. Palgrave Macmillan.
- Rolland, V.W. and Roness, P.G., 2011. Mapping organizational change in the state: Challenges and classifications. *International Journal of Public Administration*, 34(6): 399–409.
- Rothschild, J., 2000. Creating a just and democratic workplace: More engagement, less hierarchy. *Contemporary Sociology*, 29(1): 195–213.
- Roy, D., 1952. Quota restriction and goldbricking in a machine shop. *American Journal of Sociology*, 57(5): 427–442.
- Selznick, Philip. 1952. *The Organizational Weapon: A Study of Bolshevik Strategy and Tactics*. New York: McGraw-Hill.
- Selznick, P., 2011. *Leadership in Administration: A sociological Interpretation*. New Orleans: Quid Pro Books.
- Simon, H.A. 1957. Authority. In C.M. Arensberg et al. (eds.), *Research in Industrial Human Relations: A Critical Appraisal*: 103–118. New York: Harper & Row.
- Simon, H.A., 1997. *Administrative Behavior*. New York: Simon and Schuster.
- Small, M.L., 2011. How to conduct a mixed methods study: Recent trends in a rapidly growing literature. *Annual Review of Sociology*, 37: 57–86.
- Suddaby, R., 2006. From the editors: What grounded theory is not. *Academy of Management Journal*, 49(4): 633–642.
- Tavory, I. and Timmermans, S., 2014. *Abductive Analysis: Theorizing Qualitative Research*. Chicago: University of Chicago Press.

- Turco, C.J., 2016. *The Conversational Firm: Rethinking Bureaucracy in the Age of Social Media*. New York: Columbia University Press.
- Van der Hoek, M., Groeneveld, S., and Beerkens, M., 2021. Leadership behavior repertoire: An exploratory study of the concept and its potential for understanding leadership in public organizations. *Perspectives on Public Management and Governance*, 4(4): 363–378.
- Verhoest, K., van Thiel, S., and De Vadder, S.F., 2021. Agencification in public administration. In *Oxford Research Encyclopedia of Politics*.
- Warren, C. 2001. Qualitative interviewing. In J.F. Gubrium and J.A. Holstein (eds.), *Handbook of Interview Research: Context and Method*: 83–102. Sage.
- Weber, M., 1978. *Economy and Society: An Outline of Interpretive Sociology*, ed. G. Roth and C. Wittich. Berkeley: University of California Press.
- Weiss, R.S., 1994. *Learning from Strangers: The Art and Method of Qualitative Interview Studies*. New York: Simon and Schuster.
- Williamson, O. E., 1975. *Markets and Hierarchies, Analysis and antitrust Implications: A Study in the Economics of Internal Organization*. New York: Free Press.
- Whiting, S.W., Maynes, T.D., Podsakoff, N.P., and Podsakoff, P.M., 2012. Effects of message, source, and context on evaluations of employee voice behavior. *Journal of Applied Psychology*, 97(1), p.159.
- Wynen, J., Verhoest, K., and Kleizen, B., 2019. Are public organizations suffering from repetitive change injury? A panel study of the damaging effect of intense reform sequences. *Governance*, 32(4): 695–713.
- Wynen, J., Kleizen, B., Verhoest, K., Lægreid, P., and Rolland, V., 2020. Just keep silent... Defensive silence as a reaction to successive structural reforms. *Public Management Review*, 22(4): 498–526.
- Zhan, X., Lo, C.W.H., and Tang, S.Y., 2014. Contextual changes and environmental policy implementation: A longitudinal study of street-level bureaucrats in Guangzhou, China. *Journal of Public Administration Research and Theory*, 24(4): 1005–1035.
- Zuckerman, E.W., 2010. Speaking with one voice: A “Stanford school” approach to organizational hierarchy. In F. Dobbin and C.B. Schoonhoven (eds.), *Stanford’s Organization Theory Renaissance, 1970–2000*. Bingley, UK: Emerald Group Publishing Limited.

Chapter 3

- Ackerman, F. and Heinzerling, L., 2004. *Priceless: On Knowing the Price of Everything and the Value of Nothing*. New York: New Press.
- Benjamini, Y. and Yekutieli, D., 2001. The control of the false discovery rate in multiple testing under dependency. *Annals of Statistics*: 1165–1188.
- Biden Jr., Joseph R. 2021. Modernizing Regulatory Review. *Presidential Actions*.
- Burden, B.C., Canon, D.T., Mayer, K.R. and Moynihan, D.P., 2012. The effect of administrative burden on bureaucratic perception of policies: Evidence from election administration. *Public Administration Review*, 72(5): 741–751.
- Caramani, D., 2017. Will vs. reason: The populist and technocratic forms of political representation and their critique to party government. *American Political Science Review*, 111(1): 54–67.
- Carpenter, D., 2001. *The Forging of Bureaucratic Autonomy*. Princeton, NJ: Princeton University Press.
- Carpenter, D., 2010. *Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA*. Princeton, NJ: Princeton University Press.
- Carpenter, D. and Krause, G.A., 2015. Transactional authority and bureaucratic politics. *Journal of Public Administration Research and Theory*, 25(1): 5–25.
- Carpenter, D. and Moss, D.A., eds., 2013. *Preventing Regulatory Capture: Special Interest Influence and How to Limit It*. New York: Cambridge University Press.
- Chatman, J.A. and O'Reilly, C.A., 2016. Paradigm lost: Reinvigorating the study of organizational culture. *Research in Organizational Behavior*, 36: 199–224.
- Chaturvedi, A., Green, P.E. and Carroll, J.D., 2001. K-modes clustering. *Journal of classification*, 18(1): 35-55.
- Clinton, William Jefferson. 1993. Executive Order 12866 of September 30, 1993: Regulatory Planning and Review. *Federal Register* 58(190).
- Coglianesi, C., 2004. The internet and citizen participation in rulemaking. *ISJLP*, 1: 33-58.
- Collingridge, D.S., 2013. A primer on quantitized data analysis and permutation testing. *Journal of Mixed Methods Research*, 7(1): 81–97.

- Costa, M., Desmarais, B.A. and Hird, J.A., 2019. Public comments' influence on science use in US rulemaking: The case of EPA's national emission standards. *American Review of Public Administration*, 49(1): 36–50.
- Dahlberg, S. and Holmberg, S., 2014. Democracy and bureaucracy: How their quality matters for popular satisfaction. *West European Politics*, 37(3): 515–537.
- Dash, Eric. 2011. “Feasting on Paperwork.” *New York Times*, September 9.
- De Fine Licht, J., 2014. Policy area as a potential moderator of transparency effects: An experiment. *Public Administration Review*, 74(3): 361–371.
- Department of Housing and Urban Development. 2011. Regulatory Impact Analysis: Emergency Homeowners' Loan Program. 76 FR 11946. <https://www.hud.gov/sites/documents/ia-emrgncyhownerslp.pdf>.
- Dobbin, F., 1994. Cultural models of organization: The social construction of rational organizing principles. In *The Sociology of Culture: Emerging Theoretical Perspectives*, ed. Diana Crane: 117: 141. Oxford: Basil Blackwell.
- Ellig, J. and Fike, R., 2016. Regulatory process, regulatory reform, and the quality of regulatory impact analysis. *Journal of Benefit-Cost Analysis*, 7(3): 523–559.
- Ellig, J. and Konieczny, C., 2019. *The Organization of Economists in Regulatory Agencies: Does Structure Matter?* FCC OEA Working Paper 48 (April).
- Ellig, J., McLaughlin, P.A. and Morrall III, J.F., 2013. Continuity, change, and priorities: The quality and use of regulatory analysis across US administrations. *Regulation & Governance*, 7(2): 153–173.
- Elliott, E.D., 2005. Chevron matters: How the chevron doctrine redefined the roles of Congress, courts and agencies in environmental law. *Villanova Environmental Law Journal*, 16: 1–18.
- Employee Benefits Security Administration, Department of Labor. 2012. Reasonable Contract or Arrangement Under Section 408(b)(2)—Fee Disclosure. 77 FR 5631. <https://www.federalregister.gov/documents/2012/02/03/2012-2262/reasonable-contract-or-arrangement-under-section-408b2-fee-disclosure#h-2>.
- Espeland, W.N. 1998. *The Struggle for Water: Politics, Rationality, and Identity in the American Southwest*. Chicago: University of Chicago Press.
- Espeland, W.N. and Stevens, M.L., 1998. Commensuration as a social process. *Annual Review of Sociology*, 24(1): 313–343.

- Espeland, W.N. and Stevens, M.L., 2008. A sociology of quantification. *European Journal of Sociology/Archives Européennes de Sociologie*, 49(3): 401–436.
- Espeland, W.N. and Vannebo, B.I., 2007. Accountability, quantification, and law. *Annual Review of Law Social Science*, 3: 21–43.
- Food and Drug Administration, Department of Health and Human Services. 2016. Sanitary Transportation of Human and Animal Food. <https://fda.report/media/97388/Sanitary-Transportation-of-Human-and-Animal-Food-%28Final-Rule%29Regulatory-Impact-Analysis.pdf>.
- Garvey, T. 2017. A Brief Overview of Rulemaking and Judicial Review. *Congressional Research Service*.
- Golden, M.M., 1998. Interest groups in the rule-making process: Who participates? Whose voices get heard? *Journal of Public Administration Research and Theory*, 8(2): 245–270.
- Hahn, R.W. and Dudley, P.M., 2007. How well does the US government do benefit-cost analysis? *Review of Environmental Economics and Policy*, 1(2): 192–211.
- Hahn, R.W. and Tetlock, P.C., 2008. Has economic analysis improved regulatory decisions?. *Journal of Economic Perspectives*, 22(1): 67–84.
- Halvorson, G.C., 2017. *Valuing the Air: The Politics of Environmental Governance from the Clean Air Act to Carbon Trading*. PhD dissertation, New York: Columbia University.
- Hayes, A.F., 1996. Permutation test is not distribution-free: Testing $H_0: \rho = 0$. *Psychological Methods*, 1(2): 184–198.
- Heinzerling, L., 2014. Inside EPA: A former insider's reflections on the relationship between the Obama EPA and the Obama White House. *Pace Environmental Law Review.*, 31(1): 325–369.
- Herd, P. and Moynihan, D.P., 2019. *Administrative Burden: Policymaking by Other Means*. New York: Russell Sage Foundation.
- Hirschman, D., Berrey, E. and Rose-Greenland, F., 2016. Dequantifying diversity: Affirmative action and admissions at the University of Michigan. *Theory and Society*, 45(3): 265–301.
- Jasanoff, Sheila. 1987. Contested boundaries in policy-relevant science. *Social Studies of Science*, 17: 195–230
- Kraus, B. and Raso, C., 2013. Rational boundaries for SEC cost-benefit analysis. *Yale Journal on Regulation*, 30(2): 289–342.

- Kysar, D.A., 2010. *Regulating from Nowhere: Environmental Law and the Search for Objectivity*. New Haven: Yale University Press.
- Lamont, M., 2012. Toward a comparative sociology of valuation and evaluation. *Annual Review of Sociology*, 38: 201–221.
- Libgober, B.D., 2020. Strategic proposals, endogenous comments, and bias in rulemaking. *Journal of Politics*, 82(2): 642–656.
- Libgober, B. and Rashin, S., 2018. What Public Comments During Rulemaking Do (and Why). In *Southern Political Science Association Annual Conference*.
- Luttrell, M.J., 2014. The social cost of inertia: How cost-benefit incoherence threatens to derail U.S. climate action. *Duke Environmental Law & Policy Forum*, 25(1): 131–184.
- Masur, J.S. and Posner, E.A., 2016. Unquantified Benefits and the Problem of Regulation under Certainty. *Cornell Law Review*, 102: 87–138.
- Meyer, J.W. and Rowan, B., 1977. Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2): 340–363.
- Morgan, S.L. and Winship, C., 2015. *Counterfactuals and Causal Inference*. Cambridge: Cambridge University Press.
- Moynihan, D., Herd, P. and Harvey, H., 2015. Administrative burden: Learning, psychological, and compliance costs in citizen-state interactions. *Journal of Public Administration Research and Theory*, 25(1): 43–69.
- Office of the Federal Register. 2019. Thesaurus of Indexing Terms. National Archives.
- Office of Management and Budget (OMB). 2003, Circular A-4, Regulatory Analysis. <https://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a004/a-4.pdf>.
- Office of Management and Budget—Office of Information and Regulatory Affairs. 2009. Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act.
- Office of Management and Budget—Office of Information and Regulatory Affairs. 2017. Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act.
- Porter, T.M., 1995. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. Princeton, NJ: Princeton University Press.

- Powell, W. W. 1991. Expanding the scope of institutional analysis. In W.W. Powell and P.J. DiMaggio (eds.), *The New Institutionalism in Organizational Analysis*: 183–203. Chicago: University of Chicago Press.
- Rahman, K.S., 2011. Envisioning the regulatory state: Technocracy, democracy, and institutional experimentation in the 2010 financial reform and oil spill statutes. *Harvard Journal on Legislation*, 48: 555–590 .
- Rashin, Steven Daniel. 2020. *Essays on Private Influence on the Policymaking Process*. PhD dissertation, New York: New York University.
- Raso, C., 2015. Agency avoidance of rulemaking procedures. *Administrative Law Review*, 67(1): 65–132.
- Schlautt, O., 2021. “Who is there that doesn’t calculate?” Homo economicus as a measuring instrument in non-market accounting. *Perspectives on Science*, 29(6): 842–868.
- Shapiro, S. and Morrall III, J.F., 2012. The triumph of regulatory politics: Benefit–cost analysis and political salience. *Regulation & Governance*, 6(2): 189–206.
- Sinden, A., 2015. Formality and informality in cost-benefit analysis. *Utah Law Review*, 1: 93–172.
- Sinden, A., 2019. The problem of unquantified benefits. *Environmental Law*, 49(1): 73–129.
- Sunstein, C.R., 2013. *Simpler: The Future of Government*. New York: Simon and Schuster.
- Sunstein, C.R., 1996. The cost-benefit state. Coase-Sandor Institute for Law & Economics Working Paper No. 39.
- Thissen, D., Steinberg, L. and Kuang, D., 2002. Quick and easy implementation of the Benjamini–Yekutieli procedure for controlling the false positive rate in multiple comparisons. *Journal of Educational and Behavioral Statistics*, 27(1): 77–83.
- Tozzi, J., 2011. OIRA’s formative years: The historical record of centralized regulatory review preceding OIRA’s Founding. *Administrative Law Review*, 63: 37–69.
- Tyllström, A., 2021. More than a revolving door: Corporate lobbying and the socialization of institutional carriers. *Organization Studies*, 42(4): 595–614.
- U.S. Supreme Court, 2015. Michigan v. EPA, 576 U.S. 743.
- Wagner, W.E., 2010. Administrative law, filter failure, and information capture. *Duke Law Journal*, 59: 1321–1432.

- Watts, K.A., 2009. Proposing a place for politics in arbitrary and capricious review. *Yale Law Journal*, 119: 2–85.
- Wu, S., Crespi, C.M. and Wong, W.K., 2012. Comparison of methods for estimating the intraclass correlation coefficient for binary responses in cancer prevention cluster randomized trials. *Contemporary Clinical Trials*, 33(5): 869–880.
- Yackee, S.W., 2021. The “science” of policy development during administrative rulemaking. *Policy Studies Journal*, 49(1): 146–163.
- Yackee, J.W. and Yackee, S.W., 2006. A bias towards business? Assessing interest group influence on the U.S. bureaucracy. *Journal of Politics*, 68(1): 128–139.

APPENDIX I: BUREAUCRATIC BACKSTOPPING ILLUSTRATIVE DATA CODING

Figure A. Data and Coding Schemes for Leadership Team

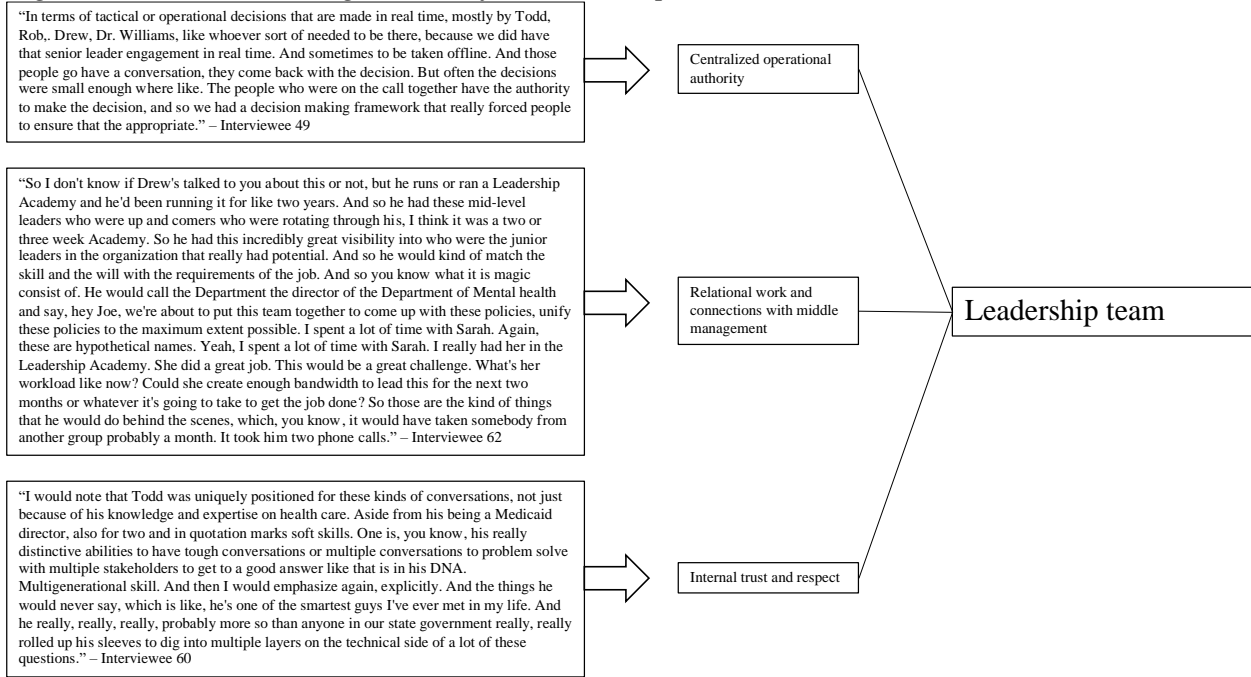


Figure B. Data and Coding Schemes for Technology-Enabled Virtual Spaces

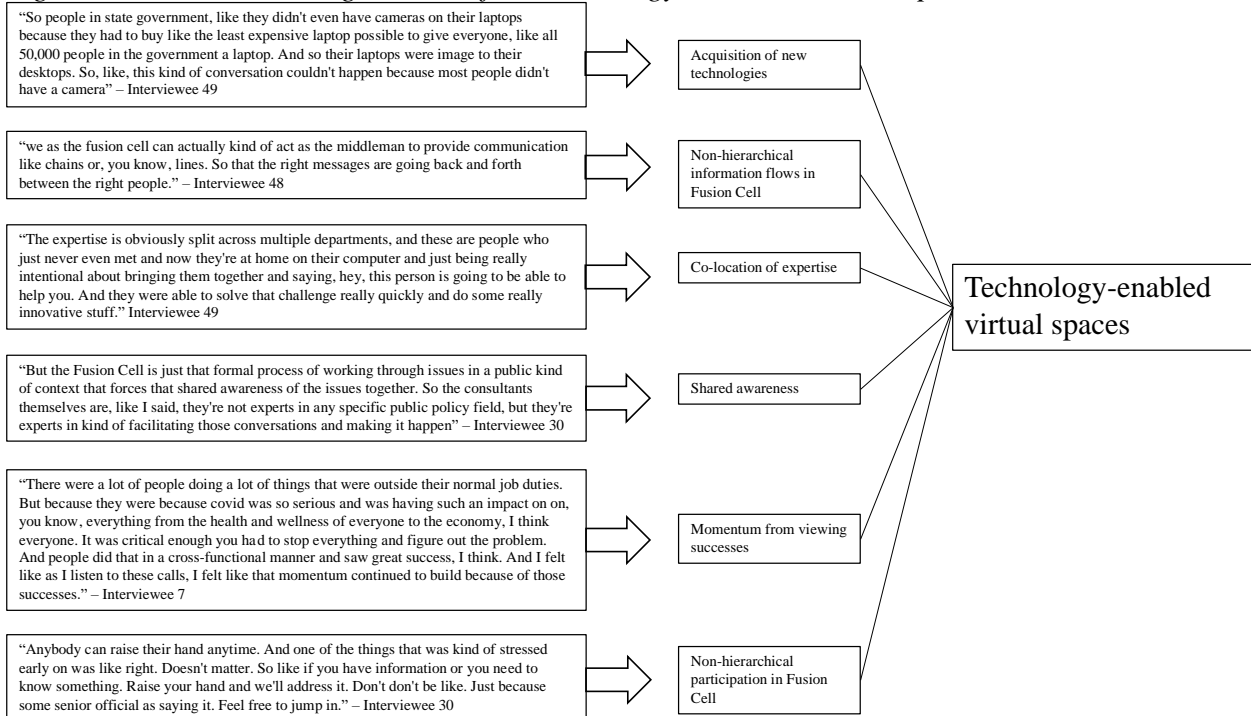
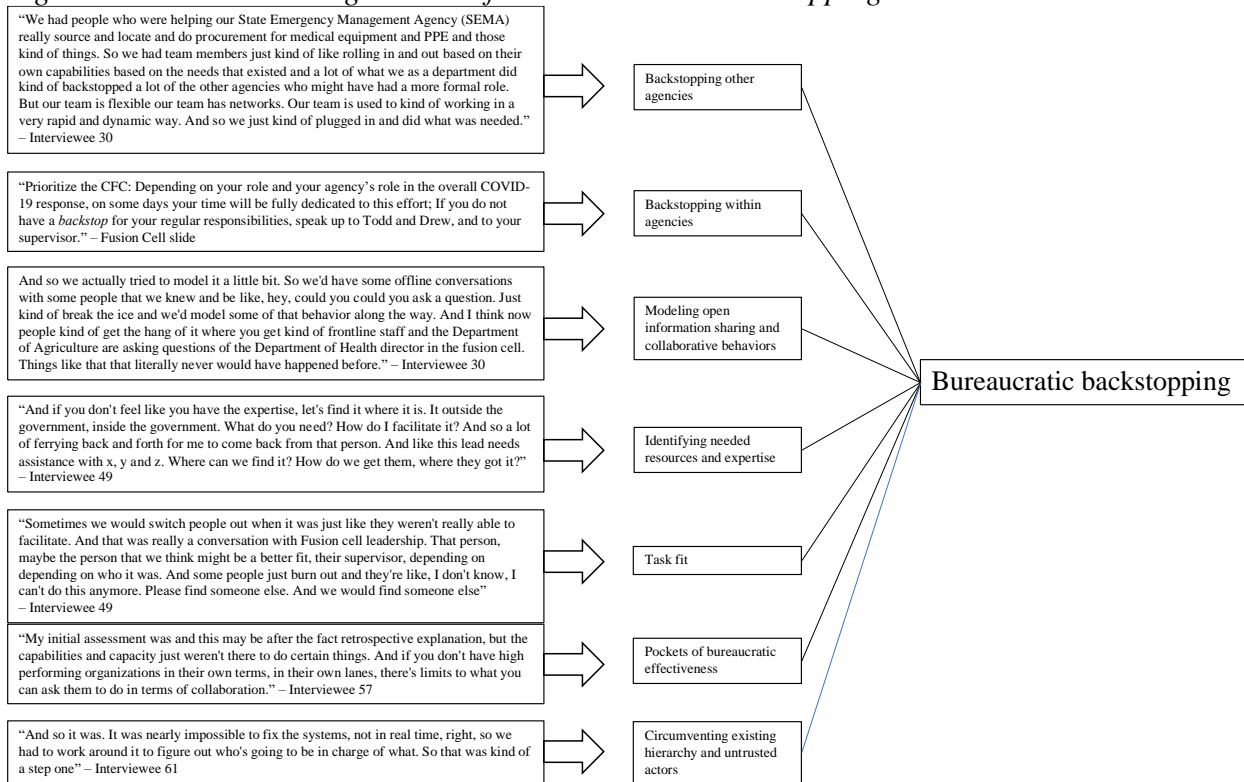


Figure C. Data and Coding Schemes for Bureaucratic Backstopping



APPENDIX II: ROBUSTNESS CHECKS

Table A.1. Felt Authority Model 2 Wald Tests Results

	Felt Authority			Upward Voice			Purpose Clarity		
	F(df,15)	df	p > F	F(df,15)	df	p > F	F(df,15)	df	p > F
Transferred Division—Wave 3(5)	4.50	1	0.051*	3.63	1	0.076	4.33	1	0.055
Transferred Division—Wave 4(6)	0.63	1	0.438*	0.03	1	0.856	3.40	1	0.085
Transferred Division—Wave 5(8)	1.76	1	0.204*	0.20	1	0.662	2.17	1	0.162
Transferred Division—Wave 6(10)	3.77	1	0.071*	0.05	1	0.8267	0.15	1	0.708
All	490.97	4	0.000	77.63	4	0.000	15.00	4	0.000

All coefficient specific p-values are unadjusted for multiple hypothesis testing.

APPENDIX III: DATA CLEANING AND STATISTICAL POWER CALCULATIONS

A – Subject Tag Data Cleaning

The data cleaning of the subject tags from the Federal Register was performed in Python with the FuzzyWuzzy package. This package calculates the Levenshtein Distance between two strings—which is “The smallest number of insertions, deletions, and substitutions required to change one string or tree into another” (Black 2008). I relied on the “process.extract” function to compare every subject tag to each other and extract the closest matches. Based on a visual comparison of similarity ratios, I determined that similarity ratios at or above 0.91 denoted substantively the same string. This methodology grouped together such subject tags as, “health professional,” “health professions,” and “health professionals.” The methodology ultimately produced 912 fuzzy-matched subject tags from an initial 1042 raw subject tags in the data.

B – Power Calculations

The fundamental logic for the power calculations was to determine the minimum n (number of occurrences) for a subject tag such that the permutation test methodology *could* establish a statistical relationship with monetization and non-monetization of regulatory benefits, respectively, prior to the correction for multiple hypotheses testing. In practice, this approach required calculating how many times a subject tag had to occur in the dataset such that observing either monetization every time or non-monetization every time had less than or equal to a 5% of occurring by chance.

Non-Monetization: $0.6199^x = <0.05: x> = 6.267$

Monetization: $0.38^y = <0.05: y> = 3.09$

For example, the probability of observing non-monetization of regulatory benefits in six RIAs for a given subject tag when the subject tag occurs a total of six times in the dataset is: $0.599^6 = 0.0462$, which is below the standard .05% threshold that the association could have occurred by chance. In contrast, if the subject tag only occurred five times in the dataset, then the probability of observing five non-quantified RIAs would have a $0.599^5 = 0.0771$. Therefore, an n of 5 does not produce the possibility of rejecting the null hypothesis of no association between the subject tag and non-monetization at the 95% confidence level.