



**PENN PROGRAM ON
REGULATION**

**Structuring Regulators:
The Effects of Organizational Design
on Regulatory Behavior and Performance**

Christopher Carrigan
George Washington University

Lindsey Poole
George Washington University

Research Paper Prepared for the
Penn Program on Regulation's
Best-in-Class Regulator Initiative

June, 2015

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Christopher Carrigan
George Washington University

Lindsey Poole
George Washington University

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Executive Summary

Regulatory organizations can be structured in different ways, and choices about their organizational structure can impact regulators' behavior and performance, both overall as well as at the level of individual employees. This paper analyzes structural decisions about regulatory organizations along two dimensions:

1. Vertical structure. Structures that affect the relationships between regulatory organizations and their political overseers are vertical structures. These structures can be designed so that regulators operate more or less "independently" of elected overseers. For example, some organizations have little structural independence because they are headed by officials who are themselves elected officials or political appointees of such officials. By contrast, other regulatory organizations can be headed by longer-term civil servants or by appointees who serve for fixed terms and cannot be easily removed from office.
2. Horizontal structure. Structures affecting the breadth of regulatory organizations' tasks may also impact their effectiveness. For example, legislators can assign just one main regulatory task or program to a regulatory organization, or it can assign a diverse set of tasks or programs to the same organization. Sometimes regulatory organizations will also be assigned tasks or programs that do not involve regulation, such as collecting taxes. These horizontal structures might alter how the organization behaves and how well it performs.

A review of an expansive body of research on both dimensions of regulatory structure leads to two major conclusions.

The first conclusion is that *organizational characteristics typically thought to be unrelated to structure, such as employees' mobility and diversity, as well as the political environment in which the regulator resides, have important consequences for the relationship between organizational structure and organizational behavior.*

- Formal mechanisms of vertical structure that are often used to foster regulatory independence include limiting politicians to removing the regulator's leaders only for "good cause" and decoupling elected officials from political sources of budgetary support. Still, contextual factors including the presence of other veto players in the

political environment as well as the mobility of regulatory employees can be potentially as important, if not more important, drivers in affecting whether regulators operate independently in practice.

- With respect to horizontal structures, a regulatory organization can be assigned by its political overseers other missions that require it to consider public goals that may even conflict with its regulatory charge. Still, these structures are not entirely determinative of regulatory performance. Agency features such as the physical proximity of its various divisions, the diversity of employees' professional backgrounds, and the degree to which organizational processes and systems are integrated can serve to reinforce or undermine initial horizontal structural decisions.

The second conclusion which emerges from our study is that *all organizational design choices involve tradeoffs*. Decisions about how to structure regulatory organizations should take these tradeoffs explicitly into account.

- Structuring a regulator vertically to be independent confers a number of benefits, including providing a stable environment for the regulated industry and more durable policy decisions, all while encouraging regulatory personnel to develop deeper expertise. At the same time, independence can come at a cost, including raising concerns about public accountability, transparency in decision-making, and the potential for regulatory capture, a situation in which the regulator serves the benefit of the regulated industry instead of the public interest. Similarly, structural decisions about whether regulators should be headed with political appointees or career civil servants reflect a tradeoff between democratic accountability and technocratic expertise.
- Similarly, regulators that are horizontally structured so as to have both regulatory and non-regulatory missions or, alternatively, that implement a diverse set of regulatory programs can experience goal ambiguity, which can increase management challenges and reduce employee motivation and effort. Yet, at the same time, combining missions can enable the regulator to realize synergies in sharing information and reduce inefficient duplication within its larger administrative apparatus.

The reality is that while structure matters, a regulator's performance is not fully determined by its structure, whether vertical or horizontal. Management still matters.

The recognition of the importance of nonstructural aspects of regulatory organizations is important because a regulator's structural design is typically not something in the control of the regulator itself. Rather, it is often determined through a complicated political process involving a multitude of stakeholders with divergent agendas that may care little about how a policy is actually implemented. Even so, despite seldom having control over their organizations' formal structures, regulatory leaders can still use their management of the nonstructural aspects of their organizations to foster performance success. The starting point for achieving success is to be attentive to and understand the sometimes hidden promises and pitfalls that exist in both the vertical and horizontal structures of their organizations.

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Christopher Carrigan
George Washington University

Lindsey Poole
George Washington University

The American political scientist James Q. Wilson (1989:23) asserted in his celebrated book, *Bureaucracy*, that, “Organization matters, even in government agencies.” In Wilson’s (1989:23) judgment, what separates those bureaucracies that succeed from those that fail “has less to do with finances, client populations, or legal arrangements than with organizational systems.” In this paper, we review what researchers know about organizational systems in government and how those structures affect the behavior and ultimately the performance of government regulators. We show that regulatory organizations can be structured in a variety of ways and focus particular attention on the implications of those choices in organizational structure. In short, we show how structure “matters” for governmental regulatory organizations.

We address regulatory organization along two structural dimensions: the vertical and the horizontal. Along the vertical dimension, we consider the choices of structure which help define relationships within a vertical hierarchy beginning with the politicians and extending to the departments, ministries, agencies, and bureaus that carry out the regulatory policies delegated to them.* In doing so, we explicitly consider the extent to which organizational choices affect how accountable these organizations are to those delegating policy implementation to them. We analyze how regulatory organizations can be made to function either as independent entities or within broader governmental administrative organizations such as departments or ministries. Moreover, we explicitly consider the extent to which political appointment (or lack thereof) of the organization’s senior leadership drives regulatory activities, focus, and performance. We also study the related question of how various alternatives to financing a regulator’s budget affects its relationships with political policymakers, interest groups, and the public more generally.

We then shift to consider the horizontal structure of a regulatory organization, examining the ways in which it is impacted by the breadth of assignments delegated to it by its political principals. We consider the various dimensions along which regulatory responsibilities can be combined with related missions and further show that how broadly or narrowly the regulatory organization or agency’s scope of responsibilities is defined can impact its decision-making and performance. Of particular importance are the effects of combining those missions that might directly conflict with the goals of the regulatory function. In this section, we also consider how

* Recognizing that differences exist among them in practice, in this paper, we use the terms “ministry” and “department” interchangeably and also the terms “agency,” “commission,” and “bureau” interchangeably. Although all are responsible for the implementation of government policy (i.e. public administration), the latter group often resides within – but also may be separate and “independent” of – the former. We explicitly note in the text any cases where the insights are particular to one type of organization at either a ministry and department level or an agency, commission, and bureau grouping.

integrating missions as well as creating “stovepipes” or “silos” can serve to mitigate the unwanted effects of combining or separating various regulatory and non-regulatory missions. We further explain the effects on policy implementation when regulatory organizations are structured so that their regulatory jurisdictions overlap with each other.

Summarizing the evidence accumulated from both dimensions – vertical and horizontal – we find that two core themes emerge. The first is that all decisions about how to structure regulatory organizations involve tradeoffs. From macro decisions associated with positioning regulatory organizations within or outside the reach of the central government to those considering whether to encourage personnel within the organization to work closely with each other, no costless alternatives exist. While the types of tradeoffs can vary, organizational decisions almost universally involve a tension between competing priorities, even if the tension is not recognized at the time the design choice is made. Still, we argue that – unlike what is commonly practiced by those leading design efforts – recognizing the blind spots associated with any choice in design can allow a regulator to realize the benefits of a particular organizational structure while mitigating the potential for the failures more likely to occur because of that same choice.

The second theme that emerges from our survey is that organizational structure is as much endogenously determined as it is decided ex-ante by policymakers. We show that a regulator’s formal organization is critically impacted by organizational features that are not always intended to affect its structure. These features can include the relative diversity or similarity of the backgrounds of the regulator’s employees, the geographical proximity of its functional units, and the degree of integration of the processes utilized by the organization. Although many times these kinds of features are not instituted with the intention of affecting how the regulatory agency is organized, they can serve either to reinforce or to reverse initial structural decisions. Our observations suggest that, wherever possible, organizational structure and its effects must be considered from the perspective of how the regulator actually operates. Further, despite the fact that the formal structure of a regulator is often determined by politicians and so may be largely beyond the control of those working in the organization – including its leaders – these informal elements and features are very much within the control of those inside the regulator. As a result, regulatory personnel may enjoy significant latitude to mitigate or amplify the effects of the formal organizational design for the better functioning of the regulatory organization.

I. Vertical Structure: Positioning Regulatory Agencies in Governments

In this section, we analyze how a regulator’s behavior is impacted by its positioning with respect to its political principals, which we call the organization’s vertical structure. We first consider the impacts on regulatory outcomes of decisions by policymakers to position regulatory agencies as independent entities or locate them within larger departments or ministries. As part of that discussion, we also study how independence is facilitated or impeded by how the regulator is funded. Finally, we consider the implications for performance and accountability of the choice to fill a regulator’s leadership positions through political appointees or career staff. The core findings of this section are previewed in the “takeaways” box below.

Five “Takeaways” Connected to the Vertical Structure of Regulators

- 1) Formal provisions to promote regulatory independence include: a) restricting politicians from removing agency heads except for “good cause”; b) creating multi-member boards to head the agency; c) establishing set tenures for board members; d) ensuring partisan board balance; and e) making the agency self-funded, where the agency collects fees from the regulated industry for the duties it performs.
- 2) While removal protection is typically the agency provision most closely associated with regulatory independence, many regard self-funding to be the most important, as agencies which rely on government appropriations to fund their operations remain effectively subject to their political overseers’ control. Still, some believe self-funding can leave the regulator more exposed to the possibility of becoming captured by its regulated industry – whereby the agency regulates for the benefit of the industry relative to the public – but relatively little empirical evidence exists to verify this claim.
- 3) In addition to formal provisions, informal characteristics – such as the extent to which agency personnel move back and forth between the regulatory agency and other politicized agencies – coupled with the realities of the agency’s political environment – including the number of individuals or groups in the political system whose agreement is required for any change to the status quo (i.e. the number of veto players) – impact how independently a regulator operates in practice. Determining whether an agency is independent is, thus, best considered along a continuum relative to a dichotomy.
- 4) Potential benefits of structuring regulators to be independent include: a) creating a more stable environment for the regulated entities; b) insulating current policy decisions from future political interference; and c) promoting investment by agency personnel in policy expertise. Potential disadvantages include: a) limiting agency accountability to politicians and the public; b) reducing the transparency of regulatory decision-making; and c) creating the conditions for possible capture of the regulatory process by the regulated entities.
- 5) The tradeoffs associated with assigning agency leadership positions through political appointments or by using career civil servants (who are employees of the government) are very similar to those connected to whether to make an agency independent. While theory and some empirical evidence suggests that political appointees are able to shape agency activities such that they are more aligned with their political overseers’ preferences, those agencies headed by career government employees tend to exhibit better overall performance given the these leaders’ deeper levels of specific policy expertise and organizational knowledge.

A primary consideration in deciding where to place a regulatory agency within its broader governmental framework is how the choice will affect the agency’s ability to operate independently. For the policymakers making these choices and the scholars studying them, a regulatory agency’s independence refers to the degree to which it is insulated in making policy choices from the direction of the government’s elected officials. In governmental systems with separate legislative and executive branches, independence is often considered to be insulation from the executive, but it can also refer to separation from both branches. Alternatively, in parliamentary systems, where the executive and legislative branches are more closely connected, independence simply means insulation from the central government.

Many consider debates over the relative independence of governments' central monetary authorities to be the model and precursor for similar discussions about regulatory agencies (see, e.g., Jordana & Levi-Faur 2006). A central bank is the organization within a government to which monetary policy has been delegated, although a central bank may also play a role as a regulator of financial institutions, as the U.S. Federal Reserve does. Independence of central banks – usually created by provisions that establish multi-member boards and contain removal protections for members – is designed to insulate the central banker from political pressure to undermine financial stability with policies that promote inflation.

Unlike with assessments of regulatory independence specifically, analyses of central bank independence have the advantage of a relatively uniform metric for measuring independence empirically. That metric is the freedom of the central bank to use instruments of monetary policy without restrictions, which is observable through the extent to which the central bank finances the central government's debt (Alesina & Summers 1993). An important feature of this metric is that it does not rely heavily on any legal provisions that the government enacts to confer independence (such as removal prohibitions). In other words, empirically assessing the extent to which the central bank finances government spending measures actual independence relative to formal independence which may or may not effectively separate the central monetary authority from its government. Most research on central banks measures independence using some combination of the political provisions of a country in place to provide a central bank with independence as well as the extent to which the bank funds government deficits (see, e.g., Grilli et al 1991).

Another, perhaps equally important, advantage of studying independence of central banks relative to regulatory agencies more generally is that central banks have more clearly defined measures of performance. The level of inflation and, to a lesser extent, the unemployment rate represent clear outcomes that central banks seek to influence. Partly because independence is relatively straightforward to conceptualize and outcome measures readily exist, a large body of literature exists on the importance of independence for central bank operations. This literature reveals at least two insights that are similarly applicable to a discussion of regulatory agency independence. These insights also foreshadow some of the associated complexities more recently discovered studies of the structure of regulatory organizations.

The first insight is that formal independence does not necessarily equate with actual independence. The formal structural feature of an agency that is most often associated with independence is protection of the agency director or directors from removal from office by elected officials, except for "good cause." The identification of removal protections with independence is somewhat a U.S. phenomenon based on a 1935 U.S. Supreme Court decision, which held that the existence of other features associated with independence could qualify an agency for removal protection even if it was not explicitly granted (*Humphrey's Executor v. United States*). Nevertheless, removal protection is a mechanism for formal independence outside of the U.S. as well. Other features that are associated with formal independence include a multi-member structure and requirements that a commission exhibit partisan balance in its membership (Datla & Revesz 2013).

The importance of the distinction between having formal structures in place and actually operating independently is particularly true for developing countries. For example, in their

examination of the role of formal structures to promote central bank independence, Cukierman, et al. (1992) observe that the frequency of change of the chief executive officer of the central bank in a developing country is a better proxy for independence than is any provision that assigns formal independence. Moreover, the degree of actual independence in central banks around the world derives more from opposition to inflation from the financial sector in a given country than any design choices and provisions intended to deliver independence from political influence (Posen 1995). Thus, as is often true of institutional structures, central bank independence is to some extent endogenous, which is to say that the factors that lead to a desire for formal independence could be more important for independence than the resulting formal provisions themselves.

A second related insight from the literature studying central bank independence is that formal provisions intended to provide independence are not necessarily required for some of the important outcome measures of central bank success. A broad consensus exists that central bank independence is associated with lower inflation (Grilli et al 1991, Cukierman et al 1992, Alesina & Summers 1993), sometimes without any economic drawbacks (Alesina & Summers 1993). However, Daunfeldt and De Luna (2008) show that while central bank independence is associated with price stability in OECD countries, the existence of low inflation often precedes a country's efforts to ensure more independence for its central bank. Thus, independence may not be necessary for price stability. Even in studies where price stability is associated with independence in developed countries, this relationship does not always hold in developing countries (see, e.g., Cukierman et al. 1992).

Moreover, the political system can affect the extent to which independence is associated with price stability. Advanced Western democracies regularly governed by left-leaning governments can exhibit higher baseline levels of inflation relative to those more often governed by center and right-leaning parties, as suggested in classic work by Douglas Hibbs (1977). To the extent that price stability is more the result of political and social preferences than the existence of the formal provisions typically identified with central bank independence as some research has shown (Daunfeldt & DeLuna 2008; Posen 1995), the ideologies of the parties that dominate the political system of a country may be more important than independence provisions themselves in determining actual inflation rates.

A. Using Political Channels to Drive Regulatory Independence

Research on central bank independence has provided the backdrop for a similar examination of the roles that independence can play for regulatory organizations. Unfortunately, relative to the literature studying central monetary authorities, empirical evidence on regulatory outcomes is harder to come by, likely because outcomes are much more difficult to settle on and measure in regulatory environments relative to central banks. That is not to say that no evidence is available on how independence affects regulatory outcomes, and we review that evidence below. For example, some research shows that regulatory agencies tasked with enforcing competition laws in the European Union investigate and sanction more cases the more independent they are (Guidi 2011). However, for the most part, examinations have focused on measuring the degree to which regulatory organizations do actually experience independence (see, e.g., Selin 2015) as well as conceptually what benefits independence are likely to confer and what costs result.

Unlike with central banks, because a ready empirical measure is not available, the independence of regulators has historically been considered from the perspective of the formal provisions that either permit or withhold it legally. Numerous mechanisms exist to grant a regulatory agency independence from direct political oversight. For example, provisions in the legislation and other formal documentation which outlines the regulatory agency's creation may designate that the jurisdiction's executive or president is prevented from removing the agency's director except for "good cause."

In addition, the legal documents describing the agency's structure may specify that the regulator be directed by a board with multiple members, possibly with set terms of tenure for these members. In fact, legal precedent in the U.S. gives U.S. agencies with provisions for multi-member structures and set tenures the ability to claim that these provisions imply the protection from removal of a director except for cause (Datla & Revesz 2013). For regulators with board structures, those that design an organization's structure can promote independence by requiring partisan balance in the board membership. Such a requirement is intended to limit the propensity of an agency to make politically-motivated decisions, by restricting an elected official's authority to staff regulatory agencies with board members who share his or her political ideology (Ho 2007).

Formal provisions like prohibiting the removal of the director and mandating a multi-member structure with tenure provisions and partisan balance requirements may insulate agencies from the influence of the executive administration in governmental systems which separate legislative and executive powers. Yet, these mechanisms do not simultaneously provide for agency independence with respect to the legislative branch. An agency characterized by the presence of every legal provision insulating it against the administration is still most often at the mercy of the legislature for funding, which may use that funding to influence policy, whether that influence operates through signaling (Carpenter 1996) or resource constraints (Cohen et al 2006).

To counteract this possibility, regulatory agencies can be designed to be self-funded, collecting fees from the regulated industry based on their performance of their duties. For example, the U.S. Consumer Financial Protection Bureau draws its budget from the Federal Reserve Board, which must grant the Bureau 12 percent of its own operating expenses. The Federal Reserve itself draws those funds mainly from the interest it receives on its collection of U.S. government securities as well as fees it charges depository institutions. Another example is the U.S. Food and Drug Administration, which, while drawing most of its funds from appropriations through the U.S. Congress, collects some in the form of user fees paid by pharmaceutical firms for drug reviews.

Formal documents including appropriations legislation typically designate how a self-funded agency can use the fees collected to offset the agency's budget or a portion of its budget. Some argue that self-funding is the most critical element to ensuring regulatory agency independence, notwithstanding the fact that those funds come from the regulated industry (Zaring 2012). As we demonstrate below, even while offering some level of independence from lawmakers, self-funding is more complex than is often recognized.

B. Understanding Independence as a Continuum

Specifically considering the U.S. context, regulatory agencies are categorized into “executive” and “independent” agencies, with the difference being that the former are housed in cabinet departments which report to the executive. Still, commentators argue that this stark distinction is arbitrary and that a continuum may better represent how agencies differ with respect to how much autonomy they have (Selin 2015). Datla and Revesz (2013) systematically examine structural indicators of independence and functional differences between so-called independent and executive agencies in the U.S. They find that no single characteristic is shared by all agencies traditionally classified as independent, not even the provision which allows the executive office to remove the head of the agency only for good cause. Further finding that executive agencies share many of the indicators of independence traditionally thought to be reserved for independent agencies, Datla and Revesz (2013) actually argue for the elimination of the use of the term “independent” to describe a regulatory agency. Instead, what would be considered independent regulatory agencies are best understood as executive agencies with a relatively high degree of (structural) autonomy.

Complementary to the notion that independence is best thought of as a continuum relative to a dichotomy, formal, structural mechanisms are not always the best markers to measure actual agency independence, just as is the case with central banks. Rather, informal and formal agency characteristics, in addition to other contextual factors, combine to determine how independent the regulator is in reality. For example, Barkow (2010) identifies a variety of informal contributors which she terms “equalizing insulators” that can insulate an agency from political interference better than can the traditional mechanisms of independence. In addition to self-funding, which we discuss in greater detail below, autonomy can be secured through rules which mitigate the “revolving door” – not just between the agency and industry but within the government itself. Restricting employee movements between agencies, whether at the same level of government or at different levels, can secure an agency’s independence informally by severing the ties between it and other agencies that may be more politicized. Thus, a regulatory agency’s independence or lack thereof may be determined not just through its position in the formal hierarchy, but also in the more informal relationships its employees have with counterparts in other agencies.

Informal drivers of independence extend to conditions that exist outside of the relationships between different regulatory organizations as well. Examples include the degree to which governmental decisions are governed by the rule of law as well as the existence of veto players in the political system (Gilardi 2007; Hanretty & Koop 2013). With respect to the latter, a veto player is an individual or group in the political system whose agreement is required for any change to the status quo (Tsebelis 1995). Examples potentially include a prime minister, a president, a chamber of the legislative branch, or the country’s court system. It stands to reason that the more players (with different political ideologies) that have veto power, the more inertia will likely play a role in protecting past decisions since many different ideologies would have to agree on any new policy proposal.

The result is that veto players in sufficient quantity can serve as an effective substitute for delegating regulatory policy decisions to an independent regulatory organization (Gilardi 2005). In the presence of a large number of veto players, entrusting decisions to an independent

regulatory agency to insulate it from political manipulation is not necessary because the status quo in the form of vetoes already preserves the integrity of that decision. In other words, even if the regulatory agency is not created to be independent through formal mechanisms, it may be able effectively to function independently in the presence of multiple veto players, given the inability of any one political actor to exercise control over the agency's policy choices. In fact, some recent cross-national research has shown that the presence of more veto players is associated with less formal independence of a country's agencies, possibly because the two work as substitutes (Gilardi 2005).

C. Weighing the Advantages and Disadvantages of Regulatory Independence

While the previous discussion has considered how regulatory independence may or may not be secured, equally important is the question of whether regulatory agencies should be structured as to ensure their independence at all. In this section, we outline the advantages and disadvantages noted in the literature of structuring a regulator such that it retains relative independence from political interference in its decision-making processes.

Delegating a decision to an independent regulatory agency brings with it many theoretical benefits. In some cases, lawmakers are effectively tying their own hands when they delegate policy after making the agency independent (Gilardi 2005). In much the same way that potentially beneficial agreements between firms may be limited by the specter of one of the parties reneging on the agreement after the other has made an irreversible investment (see, e.g., Williamson 1985), governments face similar difficulties in demonstrating that they will not use their power to renegotiate contracts to secure more favorable terms after entering into those contracts with private firms and citizens (see, e.g., North 1990). With respect to regulation specifically, structuring the agency to be independent of political control is one way that politicians can more credibly commit to the regulated industry that they are not going to change the rules capriciously. Relative to the actual costs imposed by regulation, senior executives at heavily regulated firms are more often concerned with uncertainty about the nature of future regulation (Dixit & Pindyk 1994). So-called commitment credibility is essential to the efficient operation of the market in particular industries, such as telecommunications, where new firms would be hesitant to undertake high initial sunk costs without assurances of the stability of the underlying regulatory structures (Majone 1997; Spiller 1993; Levy & Spiller 1994). Empirically, the independence of regulatory agencies does appear to increase investments made by regulated firms (Sutherland et al. 2011, Cambini & Rondi 2010).

Yet, in addition to tying their own hands, politicians that confer independence and delegate policy decisions to these agencies may also be tying the hands of those who will sit in their seats in the future (Gilardi 2005). A rich literature in political science explores the ways in which politicians, especially lawmakers, can solve what is known as a principal-agent problem between the elected officials and administrative bodies (Moe 1990; see Carrigan & Coglianese 2012 for a review of the literature). Because an agency (the agent) may have different preferences from its political principals, these politicians must look for ways to ensure agencies do what they prefer, both currently and into the future when those elected officials are no longer in office (McCubbins et al 1987). Although politicians can attempt to influence agency behavior through budget reviews, hearings, and sanctions, referred to as "police-patrol" oversight, they are more apt to want to control agencies through indirect means known as "fire-alarm oversight,"

including procedures which empower their constituents to oversee agencies for them (McCubbins & Schwartz 1984). As one example of fire-alarm oversight, the U.S. Administrative Procedure Act of 1946 mandates that regulatory agencies submit their proposals to public comment and respond to that feedback prior to finalizing the resulting rules (McCubbins et al 1987; 1989).

These procedures can also be used to make it difficult to overturn policy decisions in the future that are made by the current coalition. By forcing agencies to analyze the environmental impacts of their policies and allowing environmental groups the opportunity to sue if they are not adequately considered, the U.S. National Environmental Policy Act of 1969 ensured that environmentalists would have a voice in administrative decision-making going forward (McCubbins et al 1987).

Much like administrative procedures, choices about how to structure a regulatory agency can have implications for whether the policies under which it was created remain secure in the future (Macey 1992; Moe 1989; 1990). Because independent agencies are less subject to political control, political leaders which expect a future government to differ from them ideologically can design regulatory organizations with greater independence as a way of protecting past and current decisions from the influence of subsequent political administrations (Macey 1992; Gilardi 2007). Of course, the usefulness to employing regulatory independence to insulate policy decisions from future interference is largely determined by how likely an existing government is to be able to preserve its power. The likelihood of changes in partisan control of government can, thus, influence the extent to which a regulatory agency is structured to be independent.

In addition to their ability to create a more stable regulatory environment, both for their political principals as well as their regulated firms, structuring an agency such that it is independent from its political leaders may encourage the regulatory agency to develop deeper expertise (Gilardi & Maggetti 2010). By limiting the ability for politicians to overturn regulatory policy decisions made by the agencies themselves, personnel in the regulatory organization may become more willing to invest effort in the analysis leading to that decision. The decision by politicians to delegate decisions to an agency in the first place comes with hope that delegating will encourage more informed policy choices through the agency's deeper understanding of the policy area (see, e.g., Bawn 1995; Gilligan & Krehbiel 1987). Even more, choosing to delegate to an independent agency relative to one closely tied to the government is likely to bring even greater investment in expertise. Independent regulatory agencies are likely to have more proficiency in their particular policy area than lawmakers just based on the fact that they are focused on one policy area. Moreover, elected officials may be even more inclined to delegate decisions to relatively independent agencies in order to take advantage of their policy expertise relative to those regulators more closely tied to their political principals (Thatcher 1999; 2002). The relationship works both ways; independence leads to the development of expertise, and expertise can become a source of independence for an agency, as the more expertise it has relative to others, including lawmakers, the more authority it has (Zaring 2012; Carpenter 2001).

At the same time it encourages stability and the development of expertise, structuring a regulatory agency to be more independent brings with it costs. Perhaps most obvious, independence reduces an agency's political accountability (Majone 1999; 2002; Thatcher & Stone Sweet 2011). When an agency is designed to be independent of its political overseers, it

becomes, by definition, less accountable to them. And, as a result, that agency can also become less accountable to the broader public that elected those political representatives to design policy. Furthermore, the fact that they tend to have fewer requirements to operate transparently makes independent regulatory agencies even less likely to have to answer to the broader public than other regulators (Quintyn 2009). For example, while U.S. regulatory agencies in the executive branch are required to have their proposed rules reviewed by the Office of Management and Budget in the Executive Office of the President, the requirement does not similarly apply to independent agencies (see, e.g., Executive Order 12866). Since they are not subject to presidential executive orders, they are not subject to the requirements that emanate from them.

In reducing accountability and transparency, an agency designed to be independent may be more susceptible to questions about its legitimacy. At the heart of these questions is whether designing agencies to be independent makes them more likely to become captured by their regulated firms. Regulatory capture reflects the notion that the agency may, from its inception or over time, choose to regulate not for the public's best interest but for interests of the regulated industry itself (Carpenter & Moss 2014).

Still, independence can be a mechanism to insulate an agency from capture's effects when it is the politicians who are captured by industry (Barkow 2010; Jacobzone & Frison-Roche 2003). In fact, some scholars argue that limiting independence by placing agencies under political control is not the best mechanism to encourage regulatory accountability (Majone 1999; Quintyn 2009). Rather, accountability can be directly addressed through procedural constraints, such as mandating that agencies provide reasons for their decisions, accept public feedback, undergo peer review, respond to complaints, and submit to review by the courts (Majone 1999; 2005). In fact, some commentators maintain that independence and accountability can be complementary rather than competing values (Hüpkes et al. 2005; Majone 1999), as an agency's ability to maintain its independence is at least partly predicated by whether the public views it as legitimate (Quintyn 2009).

D. Self-Funding and Regulatory Accountability

Perhaps the most prominent disadvantage of making a regulator independent is that it can leave the agency vulnerable to a lack of budgetary support. The ideal balance between providing the agency with some level of autonomy while also promoting accountability is by no means clear (Quintyn 2009). Yet, a much greater level of agreement exists over the value of self-funding – also known as monetary independence – in protecting an agency from inadequate budgetary support and actually securing the advantages often associated with independence. The U.K. Financial Conduct Authority and the U.S. Federal Deposit Insurance Corporation are two examples of regulators that are self-funded. Many have argued for self-funding the U.S. Securities and Exchange Commission (SEC) as well, noting that budgetary neglect by Congress and the president has left it with insufficient funds to perform its duties effectively (Khademian 2002; Seligman 2003).

Self-funding liberates an agency from the budgetary control of the central government. Budgetary control may be used as a crude form of oversight for an agency that is otherwise independent (see, e.g., Carpenter 1996). Even when budgetary control is not intentionally exercised as oversight, the executive or legislature may under-prioritize the budget of an agency

that does not report to them, as Seligman (2003) and Khademian (2002) have argued has occurred in the case of the SEC. Self-funding also provides insulation from political pressure, which may be especially important for effectively regulating industries where interests are highly concentrated (Barkow 2010). Highly concentrated interests face a large incentive to lobby for policies that benefit them and may be most effective in working through political channels. An independent regulatory agency which is also self-funded is further insulated from the sort of influence that operates through other political actors.

Self-funding may also allow an agency to be able to adhere more faithfully to its authorizing legislation regardless of the preferences of the current administration or members of the current appropriations committee (Seligman 2003). This steadfastness is the reason for the confidence lawmakers express in delegating a decision to an independent regulatory agency in order to protect against their own capriciousness (i.e. to establish commitment credibility) or the different preferences of future legislators (i.e. to insulate against political uncertainty).

Still, while a self-funded regulatory agency may be relatively insulated from interest groups which operate through political channels, the same cannot be said of actions that the regulated industry takes to influence the regulator directly. Quite often, when the agency is self-funded, the budgetary funds are partially derived from the fees paid by the regulated entities to perform inspections or approve products. Examples of such monetary arrangements include those connected to prominent regulatory agencies in the U.S., including the previously mentioned Food and Drug Administration as well as the Consumer Financial Protection Bureau. Yet, some argue that this type of arrangement can lead a regulator to become reliant on the industry. In its worst form, the regulator can become captured by industry since it relies on the industry for its financial solvency. In the wake of both the Gulf of Mexico oil spill and worldwide financial crisis, many U.S. commentators pointed to the funding structure of the regulators connected to the crises as being a driver for the regulatory laxity which fueled the associated crisis (see, e.g., Flournoy et al. 2010).

Although the reliance on fees from industry has been criticized, it may be facile to assume that capture is simply due to use of the industry fees as a means of attaining budgetary independence. In addition to the paucity of systematic empirical evidence supporting the claim (Dal Bó 2006), closer examination of cases decried as capture often reveals a more complicated story. For example, the defunct U.S. oil and gas regulator, the Minerals Management Service, was dissolved quickly after the onset of the Gulf of Mexico oil spill partially based on the aforementioned theory that by using fees that it collected from industry to offset its budget, the agency had become captured by oil and gas exploration firms. In fact, the fees collected were from offshore leases that were not producing oil and gas, which should have provided an incentive for the agency to be a more stringent regulator, since the more it denied oil and gas companies clearance to produce, the more revenue it would collect (Carrigan 2014). As this example demonstrates, although capture through fees is certainly possible, it is overly simplistic to assume the use of fees collected from the regulated industry to offset the agency's budget will always or even often lead the regulatory agency to be overly permissive (Zaring 2012). At a minimum, such claims require a careful analysis of how the industry funding stream specifically impacts the regulator's budget.

E. Political Appointments, Regulatory Accountability, and Performance

In much the same way that formal provisions such as protecting agency leaders from removal by elected officials are intended to promote agency independence, the choice of those leaders themselves can impact how independently the agency operates in practice. In particular, a structural decision surrounding whether to head the regulatory organization with individuals who are political appointees as opposed to career civil servants can impact how closely the agency follows the direction of elected officials. When elected officials are able to select those who share their policy preferences to head the regulatory agency, the organization can be expected to be more attentive to the preferences of those politicians. In contrast, when regulators are led by members of the civil service – those who are employees of the government and not assigned to positions through political patronage – one might expect the associated agency to be less attentive. In the U.S. for example, presidents use their power to appoint the chief administrators of the executive departments as well as some of the agencies that reside in those departments as a mechanism to control those agencies' activities.

Some evidence does find that political appointees, even if supporting ideologies which oppose the historical preferences of the agency they are appointed to head, are able to at least partially shape the agency such that it better reflects the preferences of its political overseers (see, e.g., Moe 1987; Wood and Waterman 1991). Moreover, while this finding applies to all agencies, much of the evidence demonstrating the organizational effects of political appointees comes from studies of regulatory agencies. For example, when U.S. President Ronald Reagan appointed the pro-industry Michael Connolly as general counsel of the U.S. Equal Employment Opportunity Commission (EEOC) in 1981, EEOC litigation decreased almost immediately despite the controversy over his suitability for the appointment and the fact that the culture of the EEOC stood in sharp contrast to Connolly's pro-industry stance (Wood & Waterman 1991). When his contested tenure ended, EEOC litigations increased just as abruptly as they had declined with his initial appointment.

Management staff who work a step down from the agency's senior levels can also have a significant impact on the agenda of the agency. In contrast to political appointees, which serve as a form of political control of an agency by elected officials, careerists in management roles have greater opportunity to circumvent the agency's political principals and neglect the priorities of those principals. Such efforts by managers create agency autonomy, understood as the freedom accorded an agency to pursue its own objectives based on its ability to sidestep its political principals and influence their agendas (Carpenter 2001). Harvey Wiley, the chief chemist at the U.S. Department of Agriculture (USDA) at the turn of the 20th century, presents a classic example of a manager who was able secure his agency's autonomy by positioning it as the legitimate expert in the center of a movement in favor of food safety. In USDA's case, this led to the passage of landmark legislation that redefined the Department's agenda (Carpenter 2001). Wiley built a movement and produced evidence that adulterants in foods and medicines were harmful, culminating in the 1906 passage of the Pure Food and Drug Act, which delegated broad authorities to USDA.

The choice between using political appointees or career managers to head the agency also impacts the relative quality of that leadership. While political appointees have greater political access and are more apt to be able to successfully implement programs when political

maneuvering is needed (Cohen 1998; Maranto 2005; Moe 1985), careerists generally offer more expertise connected to their longer tenures in government and at the associated bureaus. In fact, the historical motivation for using career civil servants to fill leadership positions has been their relative competence (Kaufman 1965).

The relative competence of careerists also extends to management skills. Numerous scholars have asserted that career civil servants are more likely to have better public management skills than politically-appointed agency leaders (Cohen 1998; Gilmour & Lewis 2006; Heclo 1977; Kaufman 1965). Careerist supervisors are generally thought to be better positioned to monitor their subordinates and implement programs because their experience with the organization allows them to be on a more equal footing with their staff members with respect to their organizational knowledge (Lewis 2007). Even when political appointees possess experience outside the agency that is specifically relevant to that organization, the fact that they are appointed by the regime in power means that they will likely lose those positions when another government comes to power. This increase in turnover at senior levels can complicate working relationships with other bureaus and force agency employees to have to continue to adapt to a constantly changing set of organizational objectives (Boylan 2004; Heclo 1977; Lewis 2007).

In addition to the theoretical arguments that predict career staff to be more effective managers than political appointees, some empirical evidence has tried to tie these arguments to actual agency performance. For example, scholars have used the U.S. Office of Management and Budget's (OMB) Program Assessment Rating Tool (PART), an initiative of the George W. Bush Administration, to test whether agencies headed by political appointees or career staff perform better. Under the program, OMB examiners, with assistance from agency staff, assessed the performance of almost the entire universe of U.S. federal government programs along various dimensions including purpose and design, strategic planning, management, and whether the program achieved its goals. Using these data, researchers have demonstrated that agencies with politically appointed heads receive lower performance scores than those with careerist heads, a relationship that seems to derive from the limited relevant experience many political appointees have (Gilmour & Lewis 2006, Lewis 2007).

Thus, much like the broader question of whether to structure regulatory agencies to be independent of their political overseers, the choice between using political appointees or career civil servants to lead regulatory organizations involves tradeoffs. Here, the core issue involves weighing agency accountability to elected officials with management competence and its effects on organizational performance. Clearly, some degree of accountability is desirable, but it is necessary to recognize the tradeoff with management ability so that a proper balance can be achieved. As a result, at least some scholars argue that procedures for assigning agency staff should ensure adequate representation of both careerists and political appointees in the organization (see, e.g., Krause et al. 2006).

II. Horizontal Structure: Defining the Regulatory Agency's Sphere of Influence

As the previous discussion has revealed, choices about how to structure regulatory agencies vertically largely revolve around how these decisions impact whether agencies remain accountable to politicians, develop expertise, and foster stability. In this section, we consider how the performance of the agency is impacted by the breadth of assignments delegated to that

regulator, which we refer to as an agency's horizontal structure. We specifically study what is known about how assigning a non-regulatory mission, like tax collection for example, to a regulatory agency affects the agency's performance of its regulatory duties as well as those duties that are not regulatory in nature. Five key points related to the discussion in this section are outlined in the "takeaways" box below.

Five "Takeaways" Connected to the Horizontal Structure of Regulators

- 1) Regulatory agencies can be organized around: a) a specific problem like product safety; b) an industry like oil and gas exploration and development; or c) a task such as litigation. As a result, either in its creation or through subsequent policy assignments, regulatory agencies can be asked to manage even conflicting non-regulatory goals, such as those which might promote development in the same industry for which the regulator provides oversight.
- 2) Regulators asked to balance non-regulatory missions or even divergent regulatory programs face priority goal ambiguity, or "interpretative leeway" in how they prioritize their goals. Empirical evidence demonstrates that priority goal ambiguity impedes agency performance, both by diminishing employee focus, motivation, and effort as well as by making management's role in deciding upon and communicating agency priorities more difficult. Further, agencies beset with priority goal ambiguity struggle to ensure their employees respond in a consistent manner to the issues they face in their work environments.
- 3) In addition to formally separating a regulatory agency along its competing missions, priority goal ambiguity can be managed internally by creating intra-organizational divisions so as to minimize the interactions – and, thus, the associated confusion and conflict – between agency personnel working on the competing functions. In addition to introducing "silos" in the regulator's organizational chart, agency characteristics can be exploited by its leadership to separate subgroups informally including: a) physically locating personnel in separate offices or geographical locations; b) hiring personnel with divergent professional backgrounds and skills; and c) decoupling processes and information technology systems across the organization.
- 4) A regulatory agency may alternatively seek to manage competing goals by emphasizing a primary mission, determined through a combination of political and social pressure and agency preferences. Although emphasizing a subset of the assigned goals cultivates organizational focus (and is a strategy that has been used successfully by regulatory agencies), those goals that are relatively neglected are focused on important public problems as well. When the agency responds to priority goal ambiguity by concentrating on those goals which are relatively easy to achieve or measure or oversimplifies its goals to guide its work, goal displacement can result, where the agency prioritizes activities that do not accomplish its ultimate objectives.
- 5) Combining regulatory and non-regulatory missions (as well as divergent regulatory programs) in one agency offers the benefit of allowing the organization to realize synergies in sharing both information and outputs across the competing missions. These types of organizational designs simultaneously eliminate inefficient agency "turf wars" and task duplication. However, the advantages of combining missions can be lost when even informal internal divisions among agency subgroups are introduced to mitigate priority goal ambiguity.

In contrast to the findings of the literature on vertical structure, the research considering variations in how regulatory agencies are structured horizontally is more focused on what effects these decisions have on agency outputs relative to agency relationships with political overseers and the public. How a regulatory agency is structured with respect to the variety of assignments delegated to it by its political principals has important effects on how the agency will perform. This is not to say that decisions about whether to structure regulatory agencies as independent or to institute political appointees in leadership positions has no effect on performance. Some evidence suggests, as noted, that politically-led agencies perform worse than those led by career civil servants. Moreover, as we will see in this section, political pressure can influence how an agency assigned multiple missions decides to focus its attention. Still, at its core, the research on the horizontal design of regulatory agencies is more fixated on the effects of that design on the effort and motivation of agency personnel, which directly affects agency outputs.

Moreover, although the insights we share are potentially applicable to the decision to combine tasks at agencies more broadly, it is noteworthy that performance effects on agencies that combine regulatory and non-regulatory functions have been more clearly demonstrated relative to those agencies that do not regulate such as those that combine two or more non-regulatory functions like grant-making with research and development. Some of the available evidence suggests that combining regulatory and non-regulatory missions in one agency is particularly problematic relative to other types of groupings (Carrigan 2015). Further, combinations which assign different types of regulation at one agency, such as overseeing overall financial sector risk relative to protecting consumers against predatory lending by banks, can lead to trade-offs as well (Gilad 2015).

A. Varying the Breadth of Regulatory Agency Authority

The particular set of functions delegated to a regulatory agency currently will often be the result of decisions made by lawmakers and other policymakers at the time the organization was created. But over time, agencies may reorganize themselves as well as be reshaped by subsequent legislation. As a result, the existing design found at any agency will reflect organizational decisions made over the lifetime of the agency. The U.S. Social Security Administration presents one example of an agency affected by legislative decisions made after its creation which changed its organizational design. While initially focused on paying social security recipients, Congress' decision to later task the agency with evaluating disability claims had major detrimental impacts on the organization's culture, forcing employees to adopt a much more adversarial stance toward the program's potential recipients (Derthick 1990).

Primarily based on how these politicians choose to delegate missions either at the time the agency is created or later in its development, regulatory organizations can be structured based on various organizing principles. A regulatory agency, like the U.S. Consumer Product Safety Commission, may be focused on a specific *problem* such as the existence of hazardous consumer products. Alternatively, a regulatory agency can be positioned to focus on a particular *industry* as the Petroleum Safety Authority does in Norway, overseeing the Norwegian offshore oil and gas industry. Finally, an agency can be commissioned to focus on a *task*, such as the U.S. Department of Justice's Antitrust Division which is generally organized around litigation.

The result of these choices is that, to varying degrees, regulatory agencies may (or may not) be tasked with functions that extend beyond their roles to write and enforce rules. While agencies such as the Consumer Product Safety Commission primarily focus on regulation, other regulatory agencies are also assigned separate, wholly independent, non-regulatory functions in addition to their regulatory missions. For example, some agencies focused on the oil and gas industry, including government bodies such as the Canada-Nova Scotia Offshore Petroleum Board and the U.S. Department of the Interior's Bureau of Land Management, are charged with leasing government property to private firms for oil and gas exploration as well as regulating any associated production by those same firms.

Of course, whether an organization has a strictly regulatory focus or whether it has a broader focus will depend in part upon the particular level within the governmental hierarchy under consideration. As the lens narrows, from ministry to agency to division, the number of missions the organization has will tend to decrease and so will the potential for tradeoffs that arise across multiple missions. Although we observe that most of the evidence available to ascertain the effects of horizontal organization is at the agency or bureau level, the lessons from the research literature can be generally applied to other levels of governmental administration. Almost all, if not all, ministries and departments are diverse enough to face the challenges of managing mandates that compete with their regulatory functions.

We primarily study the effects of assigning functions which are not regulatory in nature to regulatory agencies based on the fact that most of the evidence considers these cases specifically. Still, the tradeoffs associated with combining or separating non-regulatory and regulatory functions also extend to choices about whether to integrate diverse regulatory programs at one agency as well. For example, in addition to regulating pollution emissions across a broad spectrum of industries, the U.S. Environmental Protection Agency's (EPA) role to protect the environment extends to different pollution targets as well, including air, water, and solid waste. The current EPA strategic plan expresses target-by-target goals, but it also contains cross-agency goals, reflecting the tensions that exist even in locating various regulatory programs in one agency (EPA 2014). Although the evidence is relatively limited, as we will show, the issues facing an agency managing a diverse set of regulatory programs overlap substantially with those facing organizations managing competing regulatory and non-regulatory missions.

B. Combining Missions and Priority Goal Ambiguity

The perception that a government agency must have well-defined and focused goals in order to succeed is one that is firmly held among scholars and practitioners of public administration (Chun & Rainey 2005b; Drucker 1980; Wilson 1989). An agency's purpose can be unclear for a variety of reasons. For example, because the laws that give agencies the impetus to act are often open ended, these organizations may in turn face a great deal of uncertainty in deciding what lawmakers intended when they framed the guidance (Locke & Latham 1990). Alternatively, goal ambiguity may arise if the agency is tasked to accomplish multiple goals simultaneously (Drucker 1980; Shalala 1998). When goals conflict with one another – such that the achievement of one is at odds with the others – an agency can become particularly difficult to manage (Rainey 2009).

An agency with multiple goals confronts what is termed *priority goal ambiguity*, described as “the level of interpretive leeway in deciding on priorities among multiple goals” (Chun & Rainey 2005b). Depending on how narrowly goals are defined, every regulatory agency is likely to face some priority goal ambiguity. For example, many regulators are asked to consider the benefits and costs of their proposed regulations. The two sides of the ledger can be incorporated into one goal if the agency states that goal in terms of designing efficient regulations. However, they can just as easily be separated into two goals.

Still, priority goal ambiguity can increase in an agency which is asked to assimilate more than one regulatory mission like the previously described U.S. Environmental Protection Agency which regulates multiple targets for pollution, including air and water. As described below, the problems connected to priority goal ambiguity can be particularly acute in regulatory agencies which combine non-regulatory missions. Such priority goal ambiguity in regulatory agencies can present itself as *goal conflict*, because the regulatory missions that require agencies to restrain undesirable behavior may be at odds with other functions which are more apt to provide benefits or services for citizens and firms. One prominent example of such an agency is the U.S. Forest Service which is asked to attend to competing missions associated with U.S. public lands, duties which include protecting wildlife, producing timber, and providing for grazing and mineral exploration (Biber 2009; Kaufman 1960).

Extensive priority goal ambiguity in public organizations is generally thought to make achieving success in such organizations more difficult (Dixit 2002; Rainey 2009; Tirole 1994). Certainly the jobs of the agency’s managers are made more complicated as they struggle to provide direction in the face of a larger number of potential objectives (Carrigan 2015; Chun & Rainey 2005a). Yet, priority goal ambiguity inhibits agency performance by raising the level of uncertainty that the organization’s staff employees face as well (Lee et al. 1989).

Developed from the findings of numerous lab and field experiments, goal-setting theory maintains that the way that goals are designed can have pronounced effects on employee performance (Locke & Latham 1990). Specific and difficult-to-achieve goals improve performance by focusing individuals and encouraging them to work harder (Steers & Porter 1974). The presence of multiple goals, on the other hand, forces employees to devote considerably more time ascertaining where their priorities should lie, particularly if those goals lie in opposition to each other (Wright 2004). To overcome confusion created by priority goal ambiguity, civil servants may have to rely on trial and error to attain a more coherent understanding of their roles in the agency. Moreover, the existence of multiple goals can make it difficult for these employees to connect their efforts to measurable performance, an effect which has been shown to reduce personnel work motivation (Locke & Latham 1990).

Priority goal ambiguity has consequences not only for individual employees, but for the organization as a whole (Wright 2004). Surely, the less effort employees collectively exert, the worse the agency will perform overall. Further, the creation of a shared understanding of the agency’s purpose will be made more difficult if that agency has to balance a multitude of potentially conflicting missions (Wilson 1989). Because priority goal ambiguity provides the impetus for employees to interpret the aims of the organization differently, its presence can lead not only to conflicts with the organization but to the need for greater efforts inside the agency to resolve those conflicts, which can present a drag on organizational performance (Milgrom &

Roberts 1988). Moreover, the leaders of an organization with an incoherent mission are less able to ensure that employees will act in a consistent manner when faced with similar circumstances. When presented with a new situation, goal ambiguity makes it difficult for a civil servant to instinctively recognize the right course of action. Before it was disbanded and its missions relocated in the U.S. Department of Homeland Security, the Immigration and Naturalization Service (INS) was asked to fulfill competing goals. For example, not only was INS charged to locate and remove illegal immigrants, but it was simultaneously asked to facilitate entry of needed foreign farm workers. Such conflicts were shown to result in low morale among agency staff (Morris 1985).

Case studies in policy areas including welfare benefits administration, financial markets, and forest management provided much of the initial evidence regarding how the organization of regulatory agencies affects organizational behavior (Biber 2009; Khademian 1995; Meyers et al. 2001). Yet, more recent large-sample statistical studies are beginning to demonstrate that goal ambiguity's negative effect on performance extends beyond individual cases (Carrigan 2015; Chun & Rainey 2005a, 2005b; Jung 2014; Jung & Rainey 2009; Lee et al. 2009). In a subset of these studies, researchers show that increases in goal ambiguity are negatively associated with PART performance specifically (Carrigan 2015; Jung 2014; Jung & Rainey 2009).

For example, Carrigan (2015) demonstrates that U.S. regulators – including prominent agencies such as the Fish and Wildlife Service, Bureau of Land Management, and Internal Revenue Service – which have been structured so as to simultaneously implement non-regulatory programs perform worse on average with respect to whether they achieve their goals. This is true regardless of whether they are compared to agencies that primarily just regulate, such as the Nuclear Regulatory Commission, or to those that do not have an important regulatory mission, including the Bureau of Labor Statistics. Employing U.S. federal government surveys of agency personnel, Carrigan further demonstrates that examining the extent to which employees in an agency connect their work with that agency's goals and priorities helps to explain why regulatory organizations balancing non-regulatory missions do worse. Personnel in these regulatory agencies tend to be more confused about how their jobs relate to the agency's goals.

C. Separation as a Mechanism to Manage Multiple Missions

Given the detrimental effects that combining regulatory and non-regulatory missions can have on a public organization's performance, researchers and practitioners generally recommend that agencies tagged with multiple competing missions be divided, thereby assigning the missions to separate organizations (Dewatripont et al. 1999; Dixit 2002; Ting 2002; Wilson 1989). For example, carving up the agency responsible for oversight was the consensus organizational reform recommendation in the wake of each of a series of disasters in regulated industries – including the Gulf of Mexico oil spill, the Japanese nuclear disaster, and to a lesser extent the financial crisis in the U.S. (Carrigan 2012). The U.S. Immigration and Naturalization Service presents another example in which an agency was divided to correct the perceived failures brought on by conflicted organizational purposes (Manns 2002).

Moreover, the simple existence of goal conflict can undermine an agency's credibility, regardless of whether that conflict was actually responsible for any observed deficiencies at the organization. In the wake of the *Deepwater Horizon* disaster in the Gulf of Mexico, popular

opinion held that the goal conflict present in the U.S. Minerals Management Service between its roles in both collecting taxes and regulating operations associated with offshore oil and gas leases was at least partially responsible for the disaster (see, e.g., Flournoy et al. 2010). Still, subsequent research has cast some doubt on this theory, noting that the two missions operated in relative isolation from each other (Carrigan 2014). In fact, proposed reforms of the Minerals Management Service prior to the onset of the spill were exclusively focused on finding ways to encourage the revenue collection and offshore oversight groups to work more closely together, as their separation was thought to be responsible for the agency's inadequacy as a tax collector (Carrigan forthcoming). Regardless, the perception that tax collection had undermined its regulatory function led to the agency's breakup soon after the onset of the spill (Salazar 2010).

Although some commentators are skeptical about reorganization as a mechanism to resolve problems that beset public administration (Kettl & DiIulio 1995; Seidman 1998; Wilson 1989), nevertheless, dividing a regulatory agency burdened with competing missions can simultaneously address many of the difficulties that arise in such situations. Specifically, breaking up the agency into multiple agencies facilitates the development of a single purpose within each, simplifying communication of that purpose such that employees are more likely to respond in a consistent manner across the organization (Dixit 2002, Siqueira 2007). Building from goal setting theory, breaking up agencies may further erase the inefficiencies created when employees need to clarify their roles and may also increase employee effort (Chun and Rainey 2005a). Political oversight can also be simplified when a regulatory agency balancing competing roles is separated (Ting 2002). In creating multiple agencies, activities in each become more transparent. As a result, elected officials may have an easier time overseeing regulators' actions, limiting the extent to which agencies can deliberately make choices which diverge from politicians' preferences.

In addition to dividing the regulatory agency according to its divergent missions, leaders within these organizations may implement intra-organizational divisions to mitigate the effects of goal ambiguity and conflict in the agency. After all, even in the aftermath of a decision made by elected officials to locate multiple missions within one agency rather than delegate regulatory and non-regulatory missions to separate agencies, the choice remains whether that agency will operate as if it were multiple units, or as one. At an agency solely responsible for regulatory functions, the same choice may still exist. Agencies responsible for divergent regulatory programs – including those managing different types of regulatory problems in the same policy space or industry sector (e.g., the financial sector) or managing the same public problem across multiple sectors (e.g., pollution) – can choose to either implement these programs independent of each other or integrate them.

The agency's management can choose to separate – through organizational charts laying out who reports to whom – the various missions or tasks within those missions. Creating divisions among missions located in the agency – sometimes referred to as creating “stovepipes” or “silos” – can help to mitigate the goal ambiguity which arises from combining multiple missions at a regulatory agency (Carrigan 2012). By situating each mission in its own division, and particularly isolating regulatory missions from non-regulatory missions, a regulatory agency tasked with both can limit the interactions between agency personnel dealing with the competing missions. For example, in the former U.S. Minerals Management Service, the agency's organizational chart firmly divided the personnel responsible for tax collection from those

responsible for managing offshore oil and gas production (Carrigan 2014). It did so by locating all personnel responsible for tax collection under one associate director and all personnel focused on offshore operations under another associate director with little overlap between the two groups. As a result, only a small number of senior officials were simultaneously focused on both tax collection and offshore oversight.

In addition to the agency's formal structure as defined by its organizational chart, divisions within the organization to mitigate priority goal ambiguity can be a product of informal elements of the organization (Meyer & Rowan 1977). Perhaps at times as much as formal structures, informal elements influence the realities of how work gets done in the organization. For example, goal ambiguity in agencies can be mitigated through features embedded in an agency's creation which physically separate groups working to fulfill the competing goals. The negative effects of priority goal ambiguity on employees' work effort can be eliminated by separations created by situating the affected groups in different geographical locations (Kaufman 1960). Alternatively, these divisions can arise naturally given differences in the core skills and professional backgrounds of the civil servants assigned to fulfill the regulatory and non-regulatory goals (Wilson 1989). For example, such a division might occur within a regulatory agency which employs both scientists and auditors. The differences in training and professional experiences can make it difficult for these individuals to connect with each other, thus creating an informal split within the organization. Although such divisions create problems of their own, they do make priority goal ambiguity less of a drag on the organization.

De facto separation of missions or tasks can also occur through the use of different information technology systems within the organization. In fact, over an extensive period of time, commentators considering the lack of coordination between and within the U.S. agencies tasked with portions of the government onshore oil and gas development missions have called for increased sharing of digital information to improve coordination (Durant 1992; U.S. Government Accountability Office 2008). In this case, the separation created by having multiple information technology systems is unintentional, but these decoupled systems could also be employed strategically to create informal divisions between missions.

D. Prioritizing as a Solution to Multiple Mandates

Regulatory leaders can also seek to address priority goal ambiguity by emphasizing a primary mission (Drucker 1980; Shalala 1998; Wilson 1989). For example, the ability of the U.S. Federal Deposit Insurance Corporation to respond effectively to external political and social pressure connected to the savings and loan crisis in the late 1980s and early 1990s was in large part due to its decision to focus on one priority, the solvency of its bank insurance fund (Khademian 1995). Like the Federal Deposit Insurance Corporation, the U.S. Forest Service is another agency whose ability to manage multiple goals is predicated on its willingness to prioritize among its various functions. The Forest Service is charged with several conflicting duties, including protecting natural resources and soil and water quality on one hand and producing timber and opportunities for mineral exploration on the other (Biber 2009; Kaufman 1960). However, the agency has traditionally focused on its mission to produce timber. This orientation has been inculcated in Forest Service rangers through the agency's hiring practices, a training regime which has customarily weeded out nonconformists, and a propensity to rotate rangers to prevent them from becoming too connected to their local communities (Biber 2009;

Kaufman 1960). Despite the broad geographical scope of land entrusted to its care, the Forest Service's clear priority on timber production helped ensure that scattered and isolated forest rangers made relatively consistent decisions (Biber 2009; Kaufman 1960).

In cases where a regulatory agency decides to focus on a subset of its multiple mandates, how that agency determines what to emphasize is dependent on forces both external to the agency as well as those inside of it. Political and social pressures have a role to play in focusing an agency balancing competing missions on one or the other roles, meaning that the agency may be called to rely on external signals to resolve the organizational conflict perpetuated by competing legislative assignments. Numerous scholars investigating how politicians delegate policies generally have demonstrated that the logic or illogic of resulting agency assignments is greatly impacted by the complicated nature of the policymaking process itself (Mayhew 1974; Mazmanian & Sabatier 1983).

As a result, it should not be surprising that organizational choices on where to focus attention after competing goals are assigned are also likely to be at least partially determined by political conditions and industry influences. For example, elected officials may attempt to influence priorities by implementing rulemaking procedures (Bawn 1995; McCubbins, Noll, Weingast 1987; Shapiro 2002) like the Administrative Procedure Act of 1946 which governs rulemaking in the U.S. Alternatively, strategic use of budgets and political appointments can be used as mechanisms to influence regulatory agencies' objectives in the face of priority goal ambiguity (Krause 1996; Wood & Waterman 1991). The very act of using these mechanisms to crystalize for the regulatory agency its priorities can attenuate the negative effects of priority goal ambiguity on the organization and its employees (Stazyk & Goerdel 2010).

Still, in addition to evidence that the procedures and other mechanisms used by politicians are imperfect in controlling agency behavior (Balla 1998; Eisner & Meier 1990; Wilson 1980), internally, preferences of middle-level managers as well as agency leaders impact agency priorities. Daniel Carpenter (2001) demonstrates that innovative career managers, distinct from political appointees, who are able to establish their expertise and legitimacy can influence the agendas of elected politicians and foster a role for their agencies as policymaking institutions. Both the Bureau of Chemistry and the Division of Forestry within the U.S. Department of Agriculture are historical examples of agencies that, through the ingenuity of specific career managers, were able to set their own policy priorities in the face of intense opposition from some members of the U.S. Congress. The abilities of these managers to build diverse coalitions of public support resulted in their receiving precisely the authority they sought, ultimately leading to the creation of two new agencies in the Department, the Food and Drug Administration and the Forest Service.

Other factors internal to the agency may determine where it decides to focus its attention. One of those elements is whether performance on the functions can be measured (Holmstrom & Milgrom 1991). The goals that become the priority are those that are relatively easy to measure, especially when they are in conflict with goals that are relatively difficult to measure. Particularly when decisions surrounding personnel pay and promotions are made based on performance, staff employees – and the managers that evaluate them – will focus their attention on observable functions over those where performance cannot easily be measured (Courty & Marschke 2003; Dewatripont et al. 2000; Wilson 1989). As a result, those functions that do not

lend themselves to easy measurement of success or failure will be relatively neglected in the organization.

In addition to operating as an independent factor, an agency's internal identity can interact with political and public pressure to determine how susceptible that agency is to efforts to shape its priorities. Sharon Gilad (2015) demonstrates how by contrasting the experiences of two financial regulators, the U.K. Financial Services Authority (FSA) and the Banking Supervision Department within the Bank of Israel (BSD). Each balanced the same two regulatory missions: managing the risk behavior of banks in making loans (prudential regulation) and protecting consumers from financial products sold using predatory lending practices (conduct-of-business regulation). However, while BSD viewed itself fundamentally as a prudential regulator, FSA organized its activities around a desire to be world-class regulatory institution and global leader. As a result, although each faced concentrated media and political pressure to focus on more visible conduct-of-business issues, BSD and FSA responded quite differently. Unlike BSD which resisted, FSA enthusiastically embraced the shift because it was not predisposed to favor a particular regulatory mission. Given the agency's internally-derived mandate to be an innovative leader rather than adopt existing best practices, FSA devoted substantial resources to an experimental approach to regulate banks' treatment of their customers, causing it to neglect prudential risk regulation and leaving Britain – relative to Israel – more exposed to the subsequent financial crisis (Gilad 2015).

E. Limits of Remedies for Managing Multiple Purposes

While separating competing missions or focusing on a subset of those missions can effectively address the problems resulting from priority goal ambiguity, these remedies come with costs. Prioritizing the various regulatory and non-regulatory goals means that those occupying the lower rungs will, by definition, be neglected (Richards 1986). Of course, if politicians and the public still regard the other goals as important – which they presumably do, especially if they were written into the agency's organizing law – ignoring or deemphasizing them can be problematic.

The experience of the U.S. Food and Drug Administration (FDA) demonstrates some of the implications that choosing among competing objectives can have. Because it has been granted authority to regulate new medicines in addition to those already on the market, the FDA has been asked to attend to related but nonetheless different regulatory problems. Observers have noted that the agency has focused its attention on prioritizing approval of new medicines based on best scientific practices (Carpenter 2010; Moffitt 2014), while devoting less attention to products once they are on the market. This strategic choice by the agency, made in order to avoid criticism and keep decisions around controversial medications from becoming politicized, has been a driver for the agency's positive reputation. Yet, focus on the pre-market approval regulation mission has led FDA to effectively shed its charge to monitor post-approval drugs. For a drug that turns out not to be safe for all patients after it is approved, regulation is accomplished by the U.S. tort liability system, rather than the FDA (Zaring 2012). So while the FDA is acclaimed for its success in regulating new medications, this success has come to some extent at the expense of the achievement of its post-approval regulation mission.

When prioritization is based on which goals can be more easily achieved or more easily measured, rather than on maximizing public value, the outcome can be particularly problematic (Blau 1963). The U.S. Occupational Health and Safety Administration has traditionally spent much more of its time developing regulations to address safety concerns relative to health concerns, not because safety issues are considered more important but rather because they are easier to identify (Mendeloff 1979; Wilson 1989). Worker accidents are much simpler to evaluate than long-term health risks. Similarly, agency dysfunction can result when employees in the organization try to establish simplified goals to guide work processes that ultimately do not accomplish the agency's missions, an effect labeled goal displacement (Merton 1957; Wilson 1989). The U.K.-based Financial Services Authority (FSA) implemented a risk-based framework for prioritizing competing missions, which was supposed to make allocation of attention between missions a technical and value-free process (Black 2005; Gilad 2015). Instead, it contributed to the neglect of the prudential regulation mission, causing FSA to be relatively unprepared to deal with the onset of the global financial crisis in 2007 and 2008.

Given the reality that regulatory agencies will often be assigned multiple missions, one possibility to encourage them not to neglect one or more goals is to assign oversight to other agencies that may be more concerned about the performance of those potentially overlooked roles (DeShazo & Freeman 2005). In the U.S., the Fish and Wildlife Service plays such a role in the context of wildlife conservation. The U.S. Endangered Species Act provides that before an agency can act in a way that might negatively impact an endangered species, it must consult with the Fish and Wildlife Service which renders an opinion on whether the actions will harm that species. The U.S. Office of Management and Budget, which reviews executive agency proposed rules to determine if they are consistent with presidential priorities, performs a role which is broader in scope and narrower in function but is otherwise similar to what the Fish and Wildlife Service does for endangered species (Biber 2009; DeShazo & Freeman 2005).

Creating organizational “silos” or splitting agencies into their component parts – either through reorganizations or through less formal mechanisms such as decoupling agency computer systems can help focus staff members on well-defined goals, but it has drawbacks too. One concern is that separating functions can create tensions between subgroups within the organization. In studying an important reorganization within the U.S. Department of State, Warwick (1975) showed how conflicts inside the Department developed not only because the professional norms of its employees varied, but also because they were evaluated using different personnel appraisal systems, fostering resentment among some that perceived that their role in the organization was diminished as a result.

Moreover, the creation of intra-organizational divisions or multiple agencies to mitigate goal ambiguity may pass up synergies between the tasks supporting the goals, a potential reason why the regulatory agency was created to combine competing missions initially (Carrigan 2012). Because each is aided by the completion of the other, complementary tasks are typically better assigned to the same organization (Dixit 2002; Holmstrom & Milgrom 1991). Assigning complementary functions to one agency can increase efficiency by encouraging information sharing. For example, recognizing the sometimes critical importance of disseminating data among different government bureaus, the 9/11 Commission (2004), formed after the terrorist attacks in the U.S. on September 11, 2001, saw a fundamental need to create incentives for

increased sharing of intelligence information among the web of agencies involved in securing U.S. borders.

The U.S. policy dialogue in the wake of the financial crisis presents another example that illustrates the role that information sharing can have in promoting regulatory effectiveness. In the search for answers as to why the crisis occurred, some targeted the structure of the Federal Reserve which is not only the U.S.'s central monetary authority but is also a bank examiner, overseeing the lending decisions of large U.S. banks. Critics argued that the primacy of monetary policy at the agency caused the Federal Reserve to neglect its role as bank supervisor. While testifying before the U.S. House of Representatives Committee on Financial Services at a March 2010 hearing, former Federal Reserve Chair Ben Bernanke argued for the existing agency structure, suggesting, "Even as the Federal Reserve's central banking functions enhance supervisory expertise, its involvement in supervising banks of all sizes across the country significantly improves the Federal Reserve's ability to effectively carry out its central bank responsibilities" (U.S. House of Representatives Committee on Financial Services 2010:8).

In separating the conflicted missions by creating "silos" in the organization or by actually splitting them into multiple self-contained governmental entities, the ability to manage any interdependencies among the functions is, thus, made more difficult (Carrigan 2012). Explicitly considering the distinction between goals and the functions that support those goals highlights the tension that can persist between desiring to manage priority goal ambiguity with a need to coordinate regulatory and non-regulatory government activities.

One effect of separating functions that, if combined, would capitalize on synergies through information sharing and jointly using organizational outputs is that doing so creates waste through duplication and the conditions for "turf wars" in resolving certain administrative issues. Some have argued that some level of duplication in government administration can increase effectiveness by manufacturing competition among agencies (O'Connell 2006; Whitford 2003). Moreover, splitting functions may insulate politicians and the public in the event that one of the duplicative agencies fails to effectively carry out its mission (Bendor 1985; Landau 1969). In cases where similar missions are delegated to separate agencies, interagency cooperation including joint rulemaking and interagency agreements may at least partially address the duplication (Freeman & Rossi 2012) while still providing some of the benefits associated with replicating missions.

Still, it is hard to deny the costs connected to duplication and to situations where agencies needlessly battle over who should control a particular function. For example, although it was broken up in the wake of the Gulf of Mexico oil spill, the U.S. Minerals Management Service was actually created to combine multiple functions because of the jurisdictional disputes, duplication, delays, and neglect that resulted from the former structure (Carrigan 2014). Before the agency was formed, congressionally appointed commissions, the U.S. Government Accountability Office, and the Department of the Interior Office of Inspector General all documented the problems of the prior design. That design separated the missions of facilitating offshore oil and gas development, regulation of that development, and oil and gas tax collection between the U.S. Geological Survey and the Bureau of Land Management. The inability of these two agencies to coordinate their activities was blamed for the loss each year of hundreds of millions of dollars in oil and gas tax revenue due the U.S. government. As this example

demonstrates, separating even obviously conflicted missions by forming multiple agencies can introduce problems that might be equally as debilitating as the priority goal ambiguity that prompted the organizational restructuring (Carrigan 2012).

Conclusion

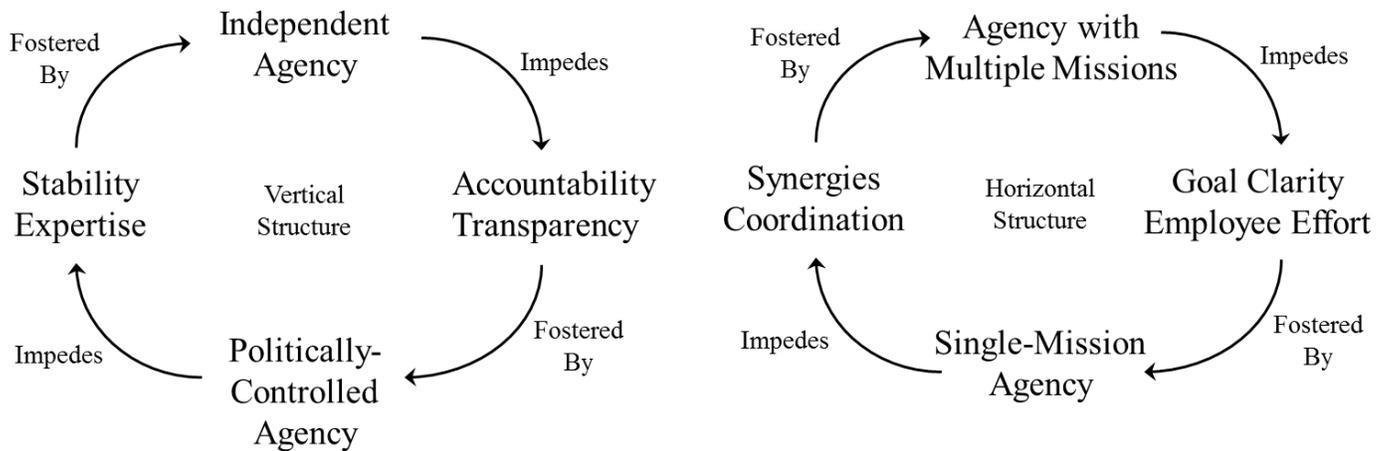
The design of an agency – whether associated with its positioning vis-à-vis its political overseers or connected to its collection of missions – is rarely at the discretion of the agency itself. Rather these decisions are typically a product of politics and a complex policy process involving multiple stakeholders (Sabatier 1999). An expansive literature in political science has shown that politicians are sometimes less concerned with how policies are implemented than with how the associated laws are received by their constituents (see, e.g., Edelman 1967), lessons which apply to how agencies are structured as well (Carrigan forthcoming). Grants of authority and political orders to regulatory agencies can be the outgrowth of symbolic gestures by elected officials to respond to electoral demands for action in the face of acute public problems (Mayhew 1974), like regulatory disasters or scandals. Moreover, when the attempts to solve problems are more than cursory, implementation may still be an afterthought for politicians as these individuals are unlikely to have the expertise to properly design the law such that it best achieves its stated purpose (Bardach 1977; Pressman & Wildavsky 1984).

As a result, not only might the regulatory agency's leadership have little ability to select its own agency's organizational structure, it may be bestowed with one less equipped to deal with the particular set of challenges it faces in its regulatory environment. In fact, sometimes agencies can be purposely designed that way (Moe 1989; 1990). To the extent an agency is structured to be inefficient, it will be less able to act expeditiously and definitively, which allows that agency to be more easily controlled by its political overseers. Cohen et al. (2006) argue that the creation of the expansive U.S. Department of Homeland Security in the wake of the 9/11 terrorist attacks was much more a product of political maneuvering than an attempt to facilitate administrative efficiency. Despite initially opposing its creation, President George W. Bush eventually supported establishing the Department both to avoid being on the wrong side of an important policy struggle as well as to promote his domestic policy goals – notwithstanding his Administration's belief that it might actually impede the government's ability to respond to terrorist threats. By assigning new homeland security functions to the agencies which were relocated to the Department without increasing their budgets, President Bush effectively reduced what these agencies could spend on their legacy programs (Cohen et al. 2006).

Still, although regulatory agency leaders may be limited in their ability to affect their organization's structure (which may be inadequate to accomplish the tasks at hand), understanding the implications of various designs can allow these leaders to still exploit the strengths of a particular design. At the same time, creating awareness can limit the likelihood that the organization's weaknesses will detrimentally affect the agency as it strives to achieve its regulatory purpose. At least two themes emerge from our review which can help support this objective.

First, we show that informal elements of a regulatory design can be every bit as important as the formal structure in explaining regulatory outcomes. In studying organizational arrangements which impact relationships between regulators and their political overseers, we

Figure 1: Illustrating the Tradeoffs in Regulatory Organizational Design Choices



find, for example, that the degree to which regulatory agencies operate autonomously of elected officials is influenced by the extent to which workers shift their employment between agencies in government. When considering how agencies can try to manage competing missions, we describe how informal characteristics such as differing professional norms among personnel employed at the agency can be used to create separation between the conflicted purposes. Thus, along the dimensions of regulatory structure, the evidence demonstrates that in addition to a regulatory agency’s formal organizational chart, characteristics not incorporated into that chart also can make a difference for important regulatory agency outcomes including accountability and performance.

Second, we demonstrate that all regulatory agency designs involve tradeoffs. As illustrated in Figure 1, any vertical or horizontal design choice solves some problems while creating others. The choice between creating an independent regulatory agency relative to one more connected to elected officials involves balancing the extent to which either achieves accountability and transparency while encouraging investments by employees in developing expertise and creating a stable environment for the regulatory community. Similarly, in deciding whether to create an agency which assimilates multiple missions or exclusively focuses on one regulatory program, one must consider the balance between minimizing priority goal ambiguity’s drag on performance while realizing the potential for synergies tied to sharing information and using the outputs of agency tasks across missions. While some designs are certainly more equipped to achieve certain benefits, the result is that all regulatory organizational designs contain flaws. Yet, all also contain elements that can propel the agency toward success.

We believe that a clear recognition of these two themes which emerge from the regulatory organization literature can benefit leaders of regulatory agencies given the reality that they may have to manage the “hand they are dealt” when it comes to structure. Even in the face of a predetermined formal organizational structure, this paper suggests that leaders of regulatory agencies not only have the opportunity to still use informal elements of structure to better position their agencies for success, but they can do so with a clear understanding of where their exposures will lie as a result.

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Structuring Regulators: The Effects of Organizational Design on Regulatory Behavior and Performance

Christopher Carrigan
George Washington University

Lindsey Poole
George Washington University

June 2015

Acknowledgments

We thank Cary Coglianesse for reviewing and providing very instructive comments on earlier drafts of this paper. We also gratefully acknowledge helpful research assistance by Megan Yan. This paper is released as part of the Penn Program on Regulation's Best-in-Class Regulator Initiative which is supported by the Alberta Energy Regulator. Additional work related to this project is available online at www.bestinclassregulator.org.

About the Authors

Christopher Carrigan is Assistant Professor of Public Policy and Public Administration at the George Washington University Trachtenberg School, a scholar at the GW Regulatory Studies Center, and a member of the faculty of GW's Environmental Resource Policy Program. His research focuses on regulatory policymaking, exploring responses to disasters in regulated industries and the influence that organizational design and politics have on regulatory performance. In addition to his publications in a variety of academic journals and edited volumes, including those assessing regulatory capture and investigating regulatory failures, Professor Carrigan is co-editor of the recently published University of Pennsylvania Press book, *Does Regulation Kill Jobs?* At the Trachtenberg School, he teaches courses on microeconomics as well as research methods and applied statistics and was the recipient of the inaugural Trachtenberg School Full-Time Faculty Outstanding Teaching Award in 2014. Professor Carrigan holds a PhD in public policy from Harvard University, an MBA from the University of Chicago, and a BA in economics from Davidson College. He joined the Trachtenberg School from the University of Pennsylvania where he was the Regulation Fellow at the Penn Program on Regulation. Previously, Professor Carrigan worked as a director at two economic consulting firms and a manager at a large financial services company.

Lindsey Poole is pursuing a Master of Public Policy degree at George Washington University with a focus on food policy. She has experience in research, policy analysis, and legislative advocacy and holds a bachelor's degree in biology from Mt. Holyoke College.