Ambiguity in Public Organizations – Is it always Negative and Difficult to Manage or does Theory Assume Too Much?: A Case Study Review of Customs and Border Protection's Container Security Initiative

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ABSTRACT

This research study provides a conceptual framework to understand how public managers
strategically engage ambiguity and translate the complexity associated with ambiguity to
manageable objectives to control complex work within federal programs.[1] A central
assumption for this study is that ambiguity is an organizational reality due to the social
nature of administrative systems, influencing how managers approach and understand
problem sets. This research study demonstrates the impact of management strategies in
combating organizational ambiguity, at a strategic level, as well as mitigating and
reducing uncertainty at more tactical levels of an organization.

Theoretically, this study engages the current divide between organizational theory and
public management scholarship by providing an empirical perspective on the
management and execution of a key national security program. Through examination of
the Container Security Initiative (CSI) program within the Department of Homeland
Security (DHS) Customs and Border Protection (CBP), this research explores how
ambiguity and uncertainty, within bureaucratic settings, is managed on an ongoing basis
in the pursuit of defined goals and objectives. Examination of how public managers
strategically engage ambiguity and implementation pressures, which manifest as a result
of systemic external and internal pressures, to translate complexity associated with the
ambiguity into manageable program objectives, provides valuable insight into the impact
of managerial processes within public organizations.

Through this managerial process and by setting priorities and objectives, public managers
decompose and translate ambiguity and complexity in order to more actively and
effectively utilize strategies and resources in support of those defined objectives. Central
to the translation process is managing the interface between the strategic and tactical
dimensions of programs, through goal setting and priority definition, enabling the
execution of key program activities and operations.

This study's findings build upon existing research that examines the role of management
within public organizations, as well as challenges several assumptions within the extant
literature regarding the influence and consequences of ambiguity within public
organizations. Addressing the need to empirically demonstrate how management

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[1] For purposes of this study, the term "strategically engage" or "strategic engagement" means to act in a
thoughtful manner or with purposeful intent at a certain organizational level to address complexity
pervading the organization and affecting the pursuit of priorities and objectives. The term "management
strategies" can be viewed as a formula or approach guiding managerial action toward a specific purpose or
objective. Use of the term "strategy" generally refers to a conceptual level of analysis for the public
manager.

matters, this research emphasizes the role public managers play in actively engaging and managing organizational and program complexity in order to accomplish the objectives of public bureaucracies.

Dedication

For Henry and Bill

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I would like to take this opportunity to thank those individuals who were instrumental in the completion of this dissertation. I have to thank my wife for all of her support and encouragement throughout the years. Without her guidance and steadfast encouragement I would have never started nor completed this process. Her love, patience, and support throughout my graduate school experience have meant so much to me and were so instrumental to me in completing this project. I also want to thank my daughter, Audrey Fae, whose birth in early May provided me the extra motivation I needed to finish this project.

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The important role that CBP plays in keeping America safe does not go unnoticed and the role that each of you have in that process is commendable. I want to personally thank

them for their selfless dedication and support to the mission of the Department of Homeland Security and the Customs and Border Protection.

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Chapter 1: Theoretical Motivation, Challenges, & Research Purpose

Organizational goal ambiguity continues to garner interest and focus among organizational theorists and public management scholars based on claims that "government organizations' ambiguous goals have major effects on their operations" (Lee, Rainey, & Chun, 2009, p. 474) . The central assumption among organizational theorists that "if goals have importance, then so do the claims of many scholars and practitioners that government organizations have, as compared to other organizations such as business firms, particularly ambiguous goals" requires further empirical attention and examination (Lee, Rainey, & Chun, 2009, p. 459). Weick (2001) elaborates upon the role of ambiguity within organizations noting that "ambiguity is found in all aspects of organizational activity. It can be found in changing and complex environments, nonroutine tasks, and networks that have dense interdependencies"…"Because ambiguity is never fully removed, it is part of the normal context of organizational action" (p. 44–46).[2] If we assume the phenomenon of ambiguity within public bureaucracies is a public manager's reality, then what does the existence of ambiguity mean for the execution of programs and their overall effectiveness? Does ambiguity hamper and inhibit the effectiveness of public programs or do public managers engage and manage ambiguity, and if so, how and to what end? A better understanding of the role of public managers and the value of management strategies in enabling the purposeful achievement of organizational goals and priorities is warranted. This study will consider the "structures and processes guiding administrative activity that create constraints and controls and confer or allow autonomy and discretion on the part of administrative actors"

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[2] For purposes of this study, I am assuming the presence of ambiguity within bureaucratic settings. This study does not directly examine the political dimensions of ambiguity as it is outside the scope of this research. The author acknowledges the fact that ambiguity is driven down from Congress to public organizations; however this study is concerned with understanding how public organizations confront and manage ambiguity. This study then assumes the prevalence of ambiguity and empirically examines what it looks like and how it is managed once it manifests within the organization.

(Lynn, Heinrich, Hill, 2001, p. 32). As Lynn, Heinrich, and Hill (2001) indicate, management strategies are important within both the private and public sector domains (p. 33). This research observes the role of management strategies in deconstructing and mitigating organizational ambiguity and complexity within the selected case.

In an effort to address concerns with scholarship generalizing these "observations across all government organizations, with little attention to variations among them" (Lee, Rainey, & Chun, 2009, p. 458), recent studies investigate the implications of organizational ambiguity on organizational performance. Lee, Rainey, and Chun (2009) note "an organization's performance can be enhanced by articulating its goals, and by managerial accountability for accomplishing those goals, based on indicators to assess the achievement of goals (457). These studies demonstrate that "multiple factors influence goal clarity and ambiguity, and that multiple factors besides these goal characteristics influence performance and other important outcomes" (474).

Lee, Rainey, and Chun (2009) advance their arguments through a framework of the central factors that influence goal ambiguity in public organizations, highlighting that "antecedents to goal ambiguity are organized into three major components: organizational characteristics, external environmental influences, and managerial actions and influences" (461). Although each of these factors no doubt drives and affects the goals of organizations, this framework fails to adequately account for and explain the role of public managers in engaging organizational and program complexity. The authors emphasize the importance of managerial capacity and the "management resources that can be utilized for management activities related to clarifying organizational goals, such as strategic planning and performance measurement," but under

appreciate the evolving nature of organizational goals and priorities as a result of external and internal drivers that public managers must be adept at responding to in a deliberate fashion.

As Chun and Rainey's (2005) work relates "measures of goal ambiguity to other important characteristics of federal agencies, including indicators of their performance," further research and consideration of how public managers cope with and manage ambiguity within public organizations is important for addressing the current gap between organizational theory and public management scholarship. Steve Kelman (2005) points out the need to address this gap, noting, "scholars working on public administration/public management need to connect to the broader world of mainstream organization theory, which can help enrich our understanding of the public sector problems we study. Also, more scholars in the mainstream organizational theory communities need to work on public organizations and public problems" (967). Kelman further asserts that as "the field of organization studies has grown enormously over the last decades, the attention the field pays to public organizations and public problems has withered" (967).

Furthermore, he states "our country faces serious challenges of managing public organizations effectively and of solving intractable public problems that have a strong management component" (967). Kelman highlights key areas "where organization research can make contributions to better public sector performance" (967). For example, Kelman highlights that "emphasis on the management of routine government operations" will provide valuable research and insight into government organizations (968). This study directly engages Kelman's call to expand research to public organizations where "in each of these areas, current research in organization theory/behavior can contribute" (967). He states further, "it would be extremely

helpful to locate much more field-based research on topics such as these in government organizations, to see if publicness acts as a moderator of relationships between independent and dependent variables we study" (968). This study answers Kelman's call for more prescriptive research on public organizations by examining the CSI program within CBP and empirically observing the role of public managers in actively managing ambiguity through the use of management strategies.

The research also informs Kelman's call for more prescriptive research by providing empirical evidence regarding the importance and value of managing and decomposing ambiguity within public bureaucratic settings. Dimension 3 of the conceptual model speaks to the prescriptive nature of this research. Dimension 3 of the model demonstrates that by actively managing and engaging ambiguity public managers can gain better understandings of their environments which can inform their management decisions to make them more purposeful in nature. Furthermore, actively engaging ambiguity and complexity allows public managers to be more knowledgeable and cognizant of their environments contributing to more purposeful decisions. This approach is advantageous because the use of management strategies makes their work more direct and focused on achieving the goals of the organization. These strategies can also contribute to the day-to-day execution of tasks and assignments, generally making decisions more mindful and purposeful toward the goals of the organization. Dimension 3 also reflects the sensemaking process that is occurring which provides contextual shared meaning throughout the components of the program examined for this study.

As indicated by scholars such as Kelman, Feldman, and Rainey, an important relationship exists between organizational theory and public management research. For purposes of this research, public management scholarship refers to the extant literature (Ingraham, Lynn, Hill, Heinrich, Barzelay) that conceptually addresses the role of public management in improving the overall performance of government programs both from an efficiency and effectiveness perspective. As Ingraham, Joyce and Donahue (2003) state, "we assume that management activities and systems do not exist as ends in themselves but as one part of the complex capacity-building link to performance in public organizations (p. 2).

Although it is beyond the scope of this study to assess the overall effectiveness of the selected program (CSI), this research does explore Ingraham's, Joyce's, and Donahue's question of "how, when, and under what conditions management matters" (Ingraham, Joyce, & Donahue, 2003, p.3). Ingraham, Joyce, and Donahue further caveat that "a critical component remains largely unexamined. Management — its qualities, processes, and activities — has been taken for granted" (p. 1). This study begins to explore the premise that "what managers and management systems do inside public organizations and how they do it have an impact on how public organizations are able to perform" (p. 2). Understanding how public managers engage, manage, and mitigate organizational ambiguity is a key area for further empirical examination to bettter understand how public organizations perform in the midst of evolving complexity and uncertainty.

Kelman (2005) calls out a key area where organization theory might influence efforts to improve public sector performance, highlighting that approaches and responses to "high-visibility public

programs that significantly involve how public programs are managed" is an important area to examine for bridging the theoretical gap (968). This study addresses this important research area and informs organization theory and public management scholarship by providing empirical evidence about how managers act in a purposeful manner to engage and manage organizational complexity. The theoretical motivation for this research is driven by the need to continue to examine the tension within the literature between the role of the institution and the role of the agent within bureaucratic settings, particularly public organizations. Organizational theory scholarship assumes and places credence on the assumption that ambiguity pervades organizations — contributing to high levels of complexity and uncertainty for organizational actors and participants.[3] However, the literature fails to acknowledge and give adequate credibility to the active management of ambiguity, and more importantly, the strategies utilized by public managers to mitigate and control for ambiguity. The central arguments advanced by both streams of scholarship are discussed throughout this study.

As Kelman (2005) highlights, organizational theory can benefit from the "legitimacy of prescriptive research — that is, research having an explicit goal of theorizing and gathering empirical evidence about effective practice" (968). He further states that there are many issues involving organizational behavior that are more important in public contexts than in private, and there are others that arise almost exclusively in public organizations (968). This research expands upon the extant literature by addressing key theoretical limitations, specifically related to the role of public managers in driving organizational purpose and outcomes, through observation and documentation of effective practice within an institutional setting. Furthermore,

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[3] For purposes of this study, organization theory scholarship refers to literature defined by the work of Meyer, Rowan, Weick, DiMaggio, and Powell, which emphasizes that governing relations and structures are socially constructed and sustained as a result of myths that become legitimized over time.

this study begins to address key theoretical assumptions within the extant literature, such as: Does ambiguity detract from organizational and program effectiveness? Does ambiguity contribute to negative organizational consequences? Does the prevalence of ambiguity mean less specificity and more complexity in organizational goals? Engaging the theoretical challenge identified by Kelman, this study illustrates the role that active public management can have in driving organizational direction and purpose, as well as its importance in facilitating incremental change within institutional settings. Applying a management perspective to a fundamental organizational theory challenge, coping with the existence of ambiguity in a meaningful and constructive manner, this study builds upon research that considers the impact of managerial actions within public bureaucracies. The following section provides an overview of the chapters within the dissertation.

Dissertation Overview:
Addressing Kelman's challenge, to connect public management research to organization theory, this study expands upon existing research that examines the relationship between organizational ambiguity and performance by exploring how public managers purposefully engage ambiguity and decompose the associated complexity of that ambiguity into manageable program objectives. Specifically, the research focuses upon understanding how management strategies are utilized and leveraged to break down ambiguity and reduce uncertainty within a Department of Homeland Security (DHS) Customs and Border Protection (CBP) maritime security program known as the Container Security Initiative (CSI). The CSI program "places staff at participating foreign seaports, through bilateral agreements, to work with host country customs officials to target and examine high risk cargo to be shipped in containers for weapons of mass destruction before they are shipped to the United States" (United States Government Accountability Office

(b), 2008, Supply Chain p. 11). CSI initially become operational within the top twenty largest volume ports that export to the United States, however CBP now bases expansion of the program on the "strategic importance related to terrorist threats" (Customs and Border Protection, 2006, p. 6).

The program serves as an exemplar to understand how public managers engage the ambiguity of homeland security in the post 9/11 world to pursue meaningful program priorities. The management strategies utilized throughout the CSI program contribute to the reduction of uncertainty and to the overall management of ambiguity within the program. CBP leaders engage the complexity introduced by the systemic pressures in order to translate manifest ambiguity into manageable and achievable program objectives and priorities. Critical to the translation and decomposition of the ambiguity is the ongoing evaluation and assessment of program goals and objectives. This evaluation is driven by serious managerial consideration of how these systemic pressures affect the implementation and realization of defined priorities and objectives.

Through this process, CBP managers establish strategies and management practices to pursue these priorities and objectives, accounting for factors such as organizational capacity, program credibility, access to data, and legal constraints — which all affect the daily execution of key management activities. March and Olsen (1976) speak to the significance of bureaucratic administrative procedures, which entail "some process by which problems are solved" (24). The central focus remains on the resolution of problems, where "relevant solutions are associated with appropriate problems and choices are made in order to resolve problems" (March & Olsen,

1976, p. 24). This study directly identifies key implementation pressures, across multiple

components, that affect the CSI program, and the corresponding strategies constantly developed

and implemented by CBP managers to mitigate and address these key pressures to ensure the

efficient execution of program operations.

Within Chapter 2, the dissertation introduces the complexity of DHS and CBP and discusses the

integration of legacy Customs functions into the unified border agency in response to events of

9/11. CBP, as part of the DHS, is charged with "managing, securing, and controlling the

nation's border to prevent terrorists and terrorists weapons from entering the United States." In

this capacity, CBP must improve "security not only at physical borders and ports of entry, but

also globally, in collaboration with other countries and the international trade community"

(Customs and Border Protection, 2006, p. 6). This chapter introduces the balance the

organization must strike in supporting both a national security and trade facilitation mission. As

CBP notes, "we must perform this security and border-related work while facilitating the flow of

legitimate trade and travel that is so important to our nation's economy" (Customs and Border

Protection, 2006, p. 6). Both the organization and its scope of responsibilites is vast, with more

than 43,000 employess responsible for managing, controlling, and protecting the nation's borders

at and between the official ports of entry (Customs and Border Protection, 2006, p. 6). This

chapter also underscores the importance of CBP's field structure in the overall implementation of

its mission. Currently, CBP is organized into Commissioner staff offices, "responsible for issues

falling under the Commissioner's direct operational control and that report directly to the

Commissioner," as well as Assistant Commissioner offices (U.S. Customs and Border

Protection, 2006, p. 20). The CSI program is managed within the Assistant Commissioner's Office of Field Operations, whose responsiblititles will be outlined later in chapter 4.

Chapter 3, literature review, engages the theoretical tension between organization theory and public management scholarship regarding the role of ambiguity within bureaucratic settings by examining three distinct literatures central to the theoretical basis of this research. This study reviews classic organization theory literature that address the significance and complexity of ambiguity with bureaucratic settings; goal ambiguity scholarship that focuses on understanding the consequences of goal ambiguity on performance; and strategic management and public management literature that emphasizes the active role of public managers in managing organizational complexity and driving agency direction. Table 1 below provides a summary of each literature.

Table 1: Summary of Literature

Literature	Relevant Scholars	Theoretical Focus
Ambiguity and Uncertainty	March and Olsen, Wieck, DiMaggio and Powell, Wilson	▪ Process of interpretation ▪ Complexity of ambiguity and uncertainty ▪ Bounded rationality ▪ Socially constructed structures institutionalized over time ▪ Bureaucratic constraints
Organizational Goal Ambiguity	Chun, Rainey, Pandey	▪ Defining measures/ indicators of goal ambiguity ▪ Measuring the impact of goal ambiguity on organizational performance ▪ Understanding the consequences of organizational goal ambiguity
Strategic Management	Moore, Behn, Kelman, Ingraham, Feldman, Lynn, Meier	▪ Management matters ▪ Management for the sake of efficiency and effectiveness ▪ Managerial initiative ▪ Motivating the workforce ▪ Public managers exercising leadership to accomplish organizational mission and objectives ▪ Reduced form model

Furthermore, this chapter expands upon how organizational goal ambiguity and uncertainty are understood within the extant literatures, as well as engages how each is conceptually distinct. Exploring the concept of ambiguity and uncertainty, as discussed by March and Olsen, Weick, and expanded upon by Feldman, this chapter and overall study engages a key assumption within organization theory: Due to the prevalence of ambiguity within organizational settings, "people engage in sensemaking because they are confused by too many interpretations, whereas in the case of uncertainty, they do so because they are ignorant of any interpretations" (Weick, 1995, p. 91). Through empirical observation, this study brings a management focus to the question of ambiguity and uncertainty, and empirically considers how managers behave strategically,

primarily through the utilization of management strategies, to engage, mitigate, and manage both.

Chapter 4, methodology, focuses on the interview data collection techniques and observation aspects of the study. The context provided by observing the interviewees in their daily environments allowed for greater interpretation of the observations. The data collection process was also reinforced through direct observation of internal CSI operations. This section elaborates upon the techniques used during the interview process to collect the data, as well as highlights many of the challenges and insights gained during the data collection process. This chapter addresses the thought process and rationale used to select the public/open source research that reinforces, corroborates, and builds upon the data collected during the interview and observation process. Chapter 4 also details the analytical process for choosing, reviewing, and analyzing the publicly available content on the CSI program pertinent to the study's overall focus.

Direct observation of multiple components of the CSI program provided unique insight into program operations, component level priorities, key pressures, and associated strategies that were critical to the development of the conceptual model for the study. Key observations regarding the role of CSI manager in engaging and decomposing program ambiguity and complexity to workable objectives was central to study's analysis and findings. Chapter 4 also provides details on how the collected interview data was organized in order to analyze the data and elaborate upon the findings for this study.

Chapter 5, Observations and Findings, builds out the study's conceptual and empirical model (Figures 2 and 3) and identifies the central external and internal systemic pressures influencing the CSI program. Next, the analysis illustrates how the identified systemic pressures contribute to the manifestation of ambiguity and distinctive implementation pressures across the components. Examples of the resulting ambiguity and implementation pressures are developed and discussed throughout the chapter. The analysis then examines and describes the iterative strategic management process that occurs in order to translate and decompose the complexity associated with the ambiguity into program level objectives. This ongoing process enables CSI managers to utilize management strategies to mitigate implementation pressures and align organizational resources and capabilities toward the execution of program objectives. The process of translating and decomposing ambiguity into manageable objectives enables the management strategies to act as a central tool for mitigating implementation pressures, which promotes the overall reduction of uncertainty and management of ambiguity throughout the program.

This process is critical for producing new information in relation to evolving internal and external implementation pressures and solidifies CSI leadership's understanding of how these evolving pressures affect program priorities and objectives. As Feldman (1989) notes, "when information is available, uncertainty can be resolved" (5). The study's findings demonstrate that the proactive and reoccurring evaluation of management strategies to assess and better understand how shifting and evolving pressures are affecting each dimension of program implementation can play a key role in meeting program objectives and priorities in a more effective manner. This management process allows CBP leadership and managers to better

determine: Do we have the right approach given the challenges we face in order to meet our goals and objectives?

Chapter 6, Outcomes and Areas for Future Research, discusses the implications of the analysis and findings discussed within Chapter 5. This chapter reengages several key assumptions addressed throughout this study to emphasize the importance of public managers behaving strategically to address the complexity of ambiguity in administering public programs. This research reveals that although ambiguity affects organizational goals and priorities, it does not have to detract from the sound, coordinated implementation of public programs as managers can play a larger role in shaping program direction and outcomes by addressing, managing, and mitigating ambiguity. The consistent and ongoing nature of public managers engaging ambiguity, in order to decompose it into meaningful and manageable program priorities and objectives, is a central takeaway from this research.

Chapter 2: Context and Problem Statement

The terrorist attacks of September 11, 2001, fundamentally altered how policy makers understand and approach homeland security in the United States. Prior to 9/11, homeland security responsibilities were dispersed across 22 federal departments and agencies. By establishing the Department of Homeland Security (DHS), the federal government reorganized the broad elements of immigration, border protection, emergency management, and intelligence analysis functions, thus representing "Washington's biggest transformation in 50 years." (Firestone, 2002, p. 1). The organizational complexity and challenges associated with homeland security policy in the aftermath of 9/11 left policy makers facing a series of complex questions, such as:

- How should the government handle the consolidation of such a diverse range of traditional homeland security responsibilities in order to prevent unnecessary duplication of functions?

- To what extent should a new emphasis on anti-terrorism be the primary focus of DHS, and what should be the appropriate balance between mission functions?

- How should the priorities of global trade and efficiency be weighed against concerns for increased security? (Khademian & Berberich, 2009, p. 156).

As O'Hanlon et al. note: "The organizational challenge of homeland security is profound, for there are few government activities that are at once so crucial and so difficult to manage. Responsibility is widely dispersed, not only within the federal government, but also among federal, state, and local authorities, and the private sector. … These units lack a culture of cooperation" (p. 99–100).

Immediate steps focused on how best to restructure and reorganize the multitude and scope of homeland security functions, dispersed throughout every level of government and the private sector, into a consolidated, integrated, and functional organizational construct.

September 11 dramatically illustrated the immediate threat of international terrorism on American soil and highlighted the need for policy makers to make an immediate policy response to an extremist external threat. As a result, as debate began about how best to organize the federal government to provide more effective homeland security with the central focus centered on preventing future acts of terrorism on American soil. As the U.S. Commission on National Security/21st Century highlighted in 2001, "Preventing a potential attack comes first. Since the occurrence of even one event causes catastrophic loss of life would represent an unacceptable failure of policy, U.S. strategy should therefore act as far forward as possible to prevent attacks on the homeland" (U.S. Commission on National Security/21st Century, 2001, p.12). Given the failures of 9/11, the need for the organizational consolidation and restructuring of essential homeland security functions became paramount as increasing pressures was placed upon the U.S. government to "reorganize the Executive Branch's efforts to combat terrorism" (Wise, 2002, p. 131). The U.S. Commission on National Security/21st Century noted that prior to 9/11, homeland security activities were dispersed across more than 40 federal agencies and an estimated 2,000 separate Congressional appropriations accounts" (U.S. Commission on National Security/21st Century, 2001, p. 12). The commission further highlighted that, "within the federal government, almost every agency and department is involved in some aspect of homeland security. None have been organized to focus on the scale of the contemporary threat to homeland security" (U.S. Commission on National Security/21st Century, 2001, p. 14).

The U.S. Commission on National Security/21st Century recommended a series of sweeping "institutional and procedural changes throughout the executive and legislative branches," drawing significant attention on the need to increase the overall vigilance of border security and surveillance — highlighting this dimension as one of three key instruments to "prevent agents of attack who are not detected and stopped overseas from actually entering the United States" (U.S. Commission on National Security/21st Century, 2001, p. 12). The Commission further stated "improving the capacity of border control agencies to identify and intercept potential threats without creating barriers to efficient trade and travel requires a sub-strategy" (U.S. Commission on National Security/21st Century, 2001, p. 13). A central strategy recommended by the Commission focused on "bolstering the intelligence gathering, data management, and information sharing capabilities of border control agencies to improve their ability to target high-risk goods and people for inspection" (U.S. Commission on National Security/21st Century, 2001, p. 13). "The recommended approach is one that balances prudence, on the one hand, with American values of openness and free trade on the other. To shield America from the world out of fear of terrorism is, in large part, to do the terrorists' work for them. To continue business as usual, however, is irresponsible" (U.S. Commission on National Security/21st Century, 2001, p.13).

It is against this backdrop that on November 25, 2002, President Bush signed Public Law 107-296 (The Homeland Security Act of 2002), establishing the Department of Homeland Security (DHS) to assume responsibility for the execution of multiple missions, including, "preventing terrorist attacks within the United States; reducing the vulnerability of the United States to

terrorism; and minimizing the damage, and assisting in the recovery, from terrorist attacks that

do occur within the United States" (Department of Homeland Security (c), 2008). As the Act

states, "protecting the American people from terrorist threats is the founding principle and the

highest priority" (Department of Homeland Security, 2011, p. 1). However, the scope of the

mission places responsibility for the achievement of lower-level objectives in the areas of

"guarding against terrorism, securing out borders, enforcing immigration laws, improving

readiness for, response to and recovery from disasters, and maturing and unifying the

Department" under the purview of a multitude of departmental-level offices established or

transferred upon the establishment of the Department (p. 1).[4]

Formation of Customs and Border Protection: Integration of Legacy Functions
As indicated above, the scope of the Department's responsibility is vast and compounded by the

transfer of functions and layering of additional responsibilities associated with the execution of

an anti-terrorism focus, on top of existing mission responsibilities presenting a multitude of

challenges from an organizational and management perspective. Legacy responsibilities of the

agency include,

> apprehending individuals attempting to enter the United State illegally, stemming the
>
> flow of illegal drugs and other contraband, protecting agricultural and economic interests
>
> from harmful pests and diseases, protecting American business from theft of their
>
> intellectual property rights, and collecting import duties and enforcing U.S. trade laws
>
> (Customs and Border Protection, 2006, p. 6).

As Former Commissioner Bonner noted during Congressional testimony, "one of the realizations

that I had, on the morning of 9/11, was that on that morning the priority mission of the United

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[4] Table 7, located in the back of document, provides a comprehensive overview of the significant legislative events that led to the creation and establishment of the DHS in November of 2002 (Department of Homeland Security, 2010).

States Customs became national security. It became nothing short of doing everything that we could responsibly with the resources we have to prevent terrorists and terrorist weapons from getting into our country" (Federal Document Clearing House, 2005, p. 8).

Reviewing the transfer of functions into the new Department highlights the significant restructuring of the government's inspection and border and ports of entry responsibilities, culminating in the formation of the U.S Customs and Border Protection (CBP). CBP resulted from the consolidation of legacy functions performed within three U.S. Cabinet departments, including Justice, Treasury, and Agriculture. The consolidation and integration of activities led CBP to assume responsibility for "securing the Nation's borders to protect America from the entry of dangerous people and goods and prevent unlawful trade and travel, while ensuring the efficient flow of legitimate trade and travel across U.S. borders" (U.S. Customs and Border Protection Strategic Plan, 2009, p. 11).

As a former CBP senior official highlighted, with the merger of functions and with the formation of a new federal agency, "for the first time in our nation's history one agency of the federal government was responsible for managing and securing our country's borders. The creation of one border agency was one of the least noticed, yet one of the most important ideas of the Homeland Security reorganization" (Bonner Speech, 2006, p.19). As Senator Coleman noted, "After September 11, unfairly or not, Customs and Border Protection was thrust onto the front lines of the war on terrorism. CBP was placed in the untenable position of having to transform itself overnight from an agency focused on interdicting guns, drugs, and money, to the agency

chiefly responsible for protecting us against a chemical, biological, radiological, or nuclear

attack" (Federal Document Clearing House, 2005, p. 1).[5]

Immediately after the events of 9/11, the protection of air passenger traffic dominated the

attention of policy makers. However, in response to emerging threats the protection of the

maritime supply chain became a growing area of concern due to its economic influence and

importance to the United States and broader world economy. The 9/11 Commission stated in its

final report that "while commercial aviation remains a possible target, terrorists may turn their

attention to other modes. Opportunities to do harm are as great, or greater in maritime and

surface transportation. Initiatives to secure shipping containers have just begun" (9/11

Commission, 2004, p. 391).

Several statistics detail the magnitude of the United States' dependency on maritime

transportation of goods. Haveman, et al (2007), note, "in 2003, $807 billion worth of goods

flowed through the United States' 361 seaports representing about 41 percent of all U.S.

international goods trade" (1). The Government Accountability Office highlighted in 2008 that,

"over 11 million oceangoing cargo containers arrived at U.S seaports" (United States

Government Accountability Office (a), 2008, p. 1). The Congressional Research Service (CRS)

revealed that "the top 50 ports in the United States account for about 90 percent of all cargo

tonnage and 25 U.S. ports account for 98 percent of all container shipments" (Frittelli, 2005,

p.2). During testimony provided by former Commissioner Bonner in 2005, he noted that

"approximately 25,000 seagoing containers arrive at our nation's seaports equating to 9.2 million

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[5] Table 8 provides a full listing of the organizations transferred into the DHS from legacy organizations on 1 March 2003.

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a year. About 90 percent of the world's manufactured goods move by container, much of it

stacked many stories high on huge transport ships. Each year, 200 million cargo containers are

transported between the world's seaports, constituting the most critical component of global

trade" (Hearing before the Permanent Subcommittee on Investigations, Senate Committee on

Homeland Security and Governmental Affairs, 2005, p.3). For additional context, the CRS

reported in 2005 that "the United States is the world's leading maritime trading nation,

accounting for nearly 20 percent (measured in tons) of the annual world ocean-borne overseas

trade. Ships carry more than 95 percent of the nation's non-North American trade by weight and

75 percent by value. Trade now accounts for 25 percent of U.S. Gross Domestic Product, up

from 11 percent in 1970" (Frittelli, 2005, p.3).

Regarding the economic significance of maritime trade to the U.S, in 2002 the Brooking

Institution estimated that the "costs associated with United States port closures from a detonated

terrorist weapon could amount to $1 trillion from the resulting economic slump" (Hearing before

the Permanent Subcommittee on Investigations, Senate Committee on Homeland Security and

Governmental Affairs, 2005, p.2-3). An independent cost estimate of $1 billion per day was

provided by a task force sponsored by the Council of Foreign Relations examining the West

Coast port closures as a result of a labor-management dispute in 2002 (Frittelli, 2005, p. 4).

Therefore, "as the debate progressed, the issue of maritime goods movement became more

prominent. U.S. policymakers and their international counterparts quickly devised new rules and

programs to protect seaports and the maritime supply chain" (Haveman, Shatz, Jennings, &

Wright, 2007, p. 1).

Protecting the Maritime Supply Chain[6]: A Multifaceted Task

As introduced above, the protection of the maritime supply chain presents special challenges

from an economic, supply chain, and national security perspective. Willis and Ortiz (2004) note,

"prior to September 11, 2001, supply chain security focused primarily on reducing shrinkage —

the loss of cargo shipments through theft and misrouting" (p. 1). "The container shipping system

is designed for speed and efficiency, however "the containers carrying goods that are shipped in

oceangoing vessels are of particular concern because they can be filled overseas at many

different locations and are transported through complex logistics networks before reaching U.S.

seaports" (United States Government Accountability Office, 2008, p. 8). Willis and Ortiz (2004)

note, "the global supply chain is an international system that has evolved to make the transport of

freight throughout the world amazingly efficient. The chain consists of the suppliers,

manufacturing centers, warehouses, distribution center, and retail outlets the move raw materials,

work-in-progress inventory, and finished products from producer to consumer" (Simchi-Levi,

Kamisksy, and Simchi-Levi, 2002 in Willis and Ortiz, p. 1). As Frittelli (2005) underscores,

transportation services are a critical component of the global, low-inventory (i.e., just-in-time)

distribution model that many manufacturers have adopted" (p. 4). "The shipping container and

its transport system are integral components of the global supply chain" (Willis & Ortiz, 2004, p.

1).

Former Commissioner Bonner highlighted in 2005 that, "the greatest threat we face to global

maritime security is the potential for terrorists to use the international maritime system to

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[6] For purposes of this study, the global supply chain is understood as three interdependent and interacting networks as defined by Willis and Ortiz (2004). They define these networks as a physical logistics system for transporting goods; a transaction-based system that procures and distributes goods; and an oversight system that implements and enforces rules of behavior within and among subsystems through standards, fines, and duties (p. ix). This study examines the oversight/regulatory layer of this framework through examination of CBP's CSI program and does not consider the physical logistics or transaction-based layer of Willis and Ortiz's framework.

smuggle terrorist weapons — or even terrorist operatives — into a targeted country" (Hearing before the Permanent Subcommittee on Investigations, Senate Committee on Homeland Security and Governmental Affairs, 2005, p.2). Ports present a target for terrorist attack and any "attack on a large port could temporarily halt much of the maritime supply chain and cause extensive economic damage. Terrorists can also use international supply routes to move weapons or terrorists themselves, making the port a conduit" (Haveman, Shatz, Jennings, & Wright, 2007, p.1) The CRS highlights that, "experts are concerned that if a nuclear weapon in a container abroad a ship in port is detonated, it could not only kill tens of thousands of people and cause massive destruction, but could also paralyze the movement of cargo containers globally, thereby shutting down world trade" (Frittelli, 2005, p. 6).

The issue of container shipments presents a complexity within the maritime domain. For example, "many containers that enter U.S. waters are bound for other nations or move by truck or rail to other cities within the U.S." (Frittelli, 2005, p. 8). John Frittelli speaks to additional complexities, noting that containers are loaded away from the port at individual company warehouses, so the "a typical single container may involve a multitude of parties and generate 30 to 40 documents. A single container could also carry cargo for several customers, thus multiplying the number of parties and documents involved." Therefore, "each transfer of the container from one party to the next is a point of vulnerability in the supply chain" (Frittelli, 2005, p. 8). Willis and Ortiz (2004) contribute further, noting that "each transaction or movement of goods over the supply chain occurs under the auspices of a regulatory regime consisting of all the rules, regulations, and enforcement mechanisms that govern the structure and operation of the transaction and physical layers of the supply chain" (p. 12).

The sheer scope of the global supply chain presents security experts and policy makers with difficult challenges as "materials move by ship, rail, and truck, making it hard to secure. Also, the United States has 12,000 miles of coastline, making it hard to funnel cargo through a limited number of entrances" (Homeland Security Newswire, 2010, p. 1). Estimating the potential economic costs associated with a port closure as a result of suspected WMD/Explosive in a container adds an additional layer of complexity. Leveraging academic and government studies, CBP leadership uses the estimate of "$1billion per day for a port shutdown with a 1 percent probability of occurrence" (Customs and Border Protection, 2006, p. 31). The unique nature of securing the global supply chain and American seaports led to an actionable policy response. As Stephen Flynn noted in written testimony, "the possibility that terrorists could compromise the maritime and intermodal transportation system and global supply chains has led several U.S agencies to pursue initiatives designed to manage that risk" (Flynn, 2006, p. 3).

Questions surrounding the need for more robust container scanning, as opposed to screening, and what constitutes an acceptable level of inspection for U.S.-bound containers have presented contentious debate among Congressional leaders, industry, and policy makers. The American Association of Port Authorities defines screening as a "visual or automated review of information about goods, including manifest or entry documentation accompanying a shipment being imported into the U.S., to determine the presence of misdeclared, restricted, or prohibited items to assess the level of threat posed by such cargo" (American Association of Port Authorities, 2010). Scanning refers to the "utilization of nonintusive imaging equipment, radiation detection, or both, to capture data, including images of a container" (American

Association of Port Authorities, 2010). Additional requirements were levied on CBP and the

CSI program with the 2007 passage of H.R. 1, "Implementing the Recommendations of the 9/11

Commission." The legislation states, "a container that was loaded on a vessel in a foreign port

shall not enter the United States unless the container was scanned by nonintrusive imaging

equipment and radiation detection equipment at the foreign port before it was loaded on the

vessel" (United States Senate , 2007, Sec 1701). The mandate to scan 100 percent of inbound

cargo presents challenges, "given the dependence of the United States and the global economy

on a highly efficient maritime transportation system" (Frittelli, 2005, p.4).[7] As Frittelli notes,

"slowing the flow of trade to inspect all inbound containers, or at least a statistically significant

random sample would be "economically intolerable" (p. 4).

Herein lays the dichotomy that policy makers and CBP leadership must manage: balancing

security and commerce by "increasing port security to desired levels while minimizing the

economic impacts associated with impeding the maritime trade system" (Frittelli, 2005, p. 17).

In response to this policy challenge, Congress charged CBP with the principal responsibility of

"inspecting cargoes, including cargo containers, that commerical ships bring into U.S. ports from

any foreign port" and piloted a risk-based security program known as the Container Security

Initiative (CSI) to execute the "two overarching and sometimes conflicting goals" of "increasing

security while facilitating legitimate trade" (Frittelli, 2005, p. 10 and United States Government

Accountability Office, 2008, p. 1).

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[7] The 100% scanning requirement was immediately identified by DHS and CBP official as unrealistic and not practically implementable. The challenges associated with implementing this requirement are discussed throughout this document.

The Container Security Initiative: A Critical Piece of a Multi-Layered Approach

Launched in 2002, the CSI program, through foreign partnerships, "is designed to help protect global trade lanes by targeting and examining container cargo that poses a threat as early as possible in the global supply chain" (United States Government Accountability Office (b), 2008, p. 2). Managed within CBP's Office of Field Operations, Cargo and Conveyance Security Office, the CSI "addresses the threat to border security and global trade posed by the potential for terrorist use of a maritime container to deliver a weapon (Customs and Border Protection, 2008). CBP's Office of Field Operations (OFO) is vital to CBP efforts to protect U.S. borders, as nearly 27,000 of CBP's 43,000 member workforce compose this Office (Department of Homeland Security, 2011). The OFO has an "annual operating budget of $3.2 billion and manages core CBP programs such as: border security and facilitation, passenger operations, targeting and analysis, trade compliance and facilitation, summary operations, trade risk management, enforcement, seizures and penalties, as well as expanding trade operations to focus on anti-terrorism" (Department of Homeland Security, 2011). The CSI program ensures that all "containers that pose a potential risk for terrorism are identified and inspected at foreign ports before they are placed on vessels destined for the United States through direct interaction with host foreign government counterparts to target and prescreen containers while developing additional investigative leads related to the terrorist threat to cargo" (Customs and Border Protection, 2008).

The program is part of a layered and risk-based security approach focused on "enhancing the security of the goods and people entering the United States" (Owen Congressional Testimony, 2008, p. 2). This layered approach extends the United States zone of security outward through the establishment of partnerships with the international community in order to provide advanced

intelligence to assist with the "identification of and inspection of high-risk cargo at foreign ports" (Department of Homeland Security Office of Inspector General , 2010, p.1). CSI is driven by three strategic goals: secure U.S. borders, build a robust CSI cargo security system, and protect and facilitate trade (Customs and Border Protection, 2006). Each of the three strategic goals is supported by detailed objectives and strategies to help the program address the terrorist threat facing maritime trade.

From a performance mangement perspective, CBP leadership is challenged in measuring the overall effectiveness of the program due to the primary outcomes of the program: prevention and deterrence. The CSI strategic plan notes that, "one of the primary outcomes of the program is that of deterrence, to prevent containers with WMD/E from arriving at U.S. ports. The target for this deterrence goal is that no containers with WMD/E enter the country" (Customs and Border Protection, 2006, p. 33). The expectation that no containers carrying WMD will enter the U.S. does not fall solely on the CSI program as "CSI is only one layer of the CBP layered strategy, and there are other programs such as the C-TPAT that contribute to this deterrence outcome" (p. 33). Furthermore, it is impossible to know with absolute certainty whether or not a terrorist weapon has entered the country unless the weapon is used (p. 33). As the program has matured, CBP leadership has focused on capturing and measuring many of its qualitative benefits such as, "increased collaboration and partnerships, information sharing, and standard security practices" (p. 33).

The CSI is unique in that it allows CBP officers to be stationed at foreign seaports where "CBP and host government officials share the role assessing the risk of U.S.-bound container cargo

leaving the seaports of countries participating in CSI" (United States Government Accountability Office (b), 2008, p. 2,). The program is driven by four core elements. First, the CSI identifies high-risk containers, through the use of automated targeting tools "to identify containers that pose a potential risk for terrorism based on advance information and strategic intelligence" (Customs and Border Protection, 2008, p. 1). Specifically, those containers "at risk of containing weapons of mass destruction (WMD) or other terrorist contraband" are of primary concern to overseas officers (United States Government Accountability Office (b), 2008, p. 2). Second, the CSI "prescreens and evaluates containers before they are shipped. Containers are screened as early in the supply chain as possible, generally at the port of departure" (Customs and Border Protection, 2008, p. 1). Third, the CSI uses "technology to prescreen high-risk containers to ensure that screening can be done rapidly without slowing down the movement of trade" (Customs and Border Protection, 2008, p.1). Finally, the CSI uses smarter, more secure containers allowing CBP officers at United States ports of arrival to identify containers that have been tampered with during transit" (Customs and Border Protection, 2008, p. 1). The active collaboration between Customs administrations allows CSI to act as an active deterrent for terrorism. A key element to the program is its focus on improving detection capabilities at foreign ports of origin to reduce "U.S. exposure to losses from fraud and terrorism damage" (Willis & Ortiz, 2004, p. 21).

The CSI is a centerpiece of CBP's layered approach to secure the international supply chain, including maritime cargo, targeted on striking an appropriate balance between vigilant security measures and a free-flowing global supply chain. The overall strategy is to "focus security efforts beyond U.S. borders" and deploy initiatives "that attempt to focus resources on

potentially risky cargo shipped in containers while allowing other containers carrying cargo to proceed without unduly disrupting commerce into the United States" (United States Government Accountability Office(b), 2008, p. 10). Currently the CSI is operational within 58 ports in 33 foreign countries. As a result of this strategic presence, the CSI enables CBP the ability to mitigate threats and "focus its limited resources on cargo containers that are most likely to pose a risk to the United States" (United States Government Accountability Office, 2008, p. 5). The GAO reports that "improved information sharing between U.S. and foreign customs operations and a heightened level of bilateral cooperation and international awareness regarding securing the whole global shipping system across governments," have been important outcomes of the CSI (United States Government Accountability Office, 2005, p. 4).

Chapter 3: Literature Review

This section explores and develops theoretical concepts central to the empirical focus of this study. In addition, the study examines the relationship between ambiguity and uncertainty and explores the conceptual distinction between both, drawing attention to conceptual points of departure. The literature review engages the central arguments and tenets of the goal ambiguity literature, identifying conceptual gaps that warrant further research, clarification, and engagement. An important gap between organization theory and public management research is revealed, placing emphasis on the need to better understand the role of public managers in driving organizational and program direction as well as change. This research highlights the fluid nature of goals, and management's ability to shift and adjust in response to such changes. Kelman (2005) states that practitioners "face serious challenges of managing pubic organizations effectively and of solving intractable public problems that have a strong management component" (967). The literature review elaborates upon the theoretical contribution and framework of this study, revealing how public managers behave strategically to actively translate and decompose ambiguity and thus bringing a management focus to this area of organization theory. Lastly, this section examines key arguments within the public management literature and considers the role that public managers can play in driving organizational direction and results.

Terminology: Ambiguity, Uncertainty, Interpretation, and Points of Departure

Distinguishing between ambiguity and uncertainty is central to the empirical focus of this study. As introduced earlier, this study is theoretically grounded in the notion that ambiguity manifests as a result of organizational complexity and is perpetuated by the notion that organizational choices are fundamentally ambiguous given that an "organization is a set of procedures for argumentation and interpretation as well as for solving problems and making decisions" (March

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& Olsen, 1976, p. 25). Wieck (1979) argues that an organization is defined by "appropriate procedures and appropriate interpretations" (p. 4). "The conjunction of these procedures, interpretations, behaviors, and puzzles describes what organizing does and what an organization is" (p. 4). Feldman (1989) expands upon this concept noting, "anytime we confront a complex reality, ambiguity is possible," underscoring the influence of organizational ambiguity on the operation of public bureaucracies (19). March and Olsen (1976) expand upon the challenges associated with organizational decision making, stating that organizations are "plagued with goal ambiguity and conflict, with poorly understood problems that wander in and out of the system, with a variable environment, and with decision makers who may have other things on their mind" (37). Therefore, "the prevalence of ambiguity makes obvious what is probably more common elsewhere than we appreciate. Action is driven by routines. Individuals attend to decisions when, and because, that is what they are expected to do" (March & Olsen, 1976, p. 49).

Weick (1995) notes that "two types of sensemaking occasions common to an organization are ambiguity and uncertainty" (91). For Weick, "ambiguity refers to an ongoing stream that supports several different interpretations at the same time. Ambiguity is subjectively perceived, interpreted, and felt. People judge events to be ambiguous if those events seem to be unclear, highly complex, or paradoxical" (92). He states further, "the problem in ambiguity is not that the real world is imperfectly understood and that more information will remedy that. The problem is that information may not resolve misunderstandings (92). This research addresses organizational contexts where there are multiple and conflicting interpretations, where organizational participants develop multiple, and sometimes conflicting interpretations where facts and their significance can be read in several ways (Weick, 1995, 93). Given this, then "ambiguity implies

a lack of clarity in meaning; no one meaning is given, and that there may be many meanings"
(Feldman, 1989, p. 20). Multiple meanings within bureaucratic settings introduces an additional
layer of complexity on top of an already complex operating environment — presenting
challenges for public managers.

Weick (1995) further notes that "although ambiguity means the presence of two or more
interpretations, it can also mean something quite different namely, a lack of clarity, which makes
it quite similar to uncertainty" (p. 95). For Weick (1995), "ambiguity understood as confusion
created by multiple meanings calls for social construction and invention. Ambiguity understood
as ignorance created by insufficient information calls for more careful scanning and discovery"
(p. 95). Therefore, contrasted with ambiguity, uncertainty is conceptually distinct in that it
manifests within organizational settings as a result of a lack of information surrounding
particular problems. Uncertainty manifests as "imprecision in estimates of future consequences
conditional on present actions" (Weick, 1995, 95).

Weick (1995) deconstructs ambiguity and uncertainty into an analytical distinction between
ignorance and confusion. He notes, "to remove ignorance, more information is required. To
remove confusion, a different kind of information is needed, namely, the information that is
constructed in face-to-face interaction that provides multiple cues" (p. 99). The resolution of
uncertainty lends itself to analytically driven, fact-based approaches. Feldman (1989) notes that,
"uncertainty can be resolved by obtaining certain specifiable pieces of information." Ambiguity,
by contrast, cannot be resolved simply by gathering information. Ambiguity is the state of

having many ways of thinking about the same circumstances or phenomena. Thus, more information is not directly relevant to resolving ambiguity" (p. 5).

Weick (1995) states, "when confronted with an equivocal [ambiguous, confusing] event, managers use language to share perceptions among themselves and gradually define or create meaning through discussion, groping, trial and error, and sounding out" (Huber & Daft, 1987, in in Weick, 1995, p. 99). Weick elaborates further,

> "shared meaning is difficult to attain. Although people may not share meaning, they do share experience. This shared experience may be made sensible in retrospect by equivalent meanings, but seldom by similar meanings. Individual histories are too diverse to produce similarity. So if people share anything, what they share are actions, activities, moments of conversation, and joint tasks, each of which they then make sense of using categories that are more idiosyncratic (p. 188).

Based on this understanding, an analytical discrepancy exists between the two concepts that is related to the overall management and resolution of both. Weick (1995) point out that, "when multiple meanings produce a shock, a greater quantity of information is less help than is a different quality of information. To reduce multiple meanings, people need access to more cues and more varied cues" (99). First, it is necessary to move from ambiguity to more manageable levels of uncertainty in pursuit of organizational goals and objectives as organizations are often "plagued by goal ambiguity and conflict, with poorly understood problems that wander in and out of the system" (March & Olsen, 1976, p. 37). "The problem with ambiguity is that people are unsure what questions to ask and whether there even exists a problem they have to solve.

These are issues that need to be hammered out through subjective opinions, because no one has

the foggiest idea what objective data, if any, are present (Weick, 1995, p. 99). Therefore

individuals will try to make sense out of ambiguous or uncertain situations they confront.

As March and Olsen (1976) note, "individuals try to make sense out of their experience, even

when that experience is ambiguous or misleading and even when that learning does not lead to

organizational actions. They impose order, attribute meaning, and provide explanations" (67).

Therefore, an analytical process is necessary to address the organizational complexities of

ambiguity. Given that "issues of ambiguity cannot be resolved in the way uncertainty can,"

consideration of how the resolution of ambiguity is achieved becomes paramount (Feldman,

1989, p. 144). Feldman (1989) notes, "resolution is a matter of agreement rather than proof. To

the extent that resolution occurs, it comes from shared understandings, not factual information"

(144).

Interpretation, as discussed by March and Olsen, is an analytical process capable of enabling

movement from an organizational/bureaucratic dynamic dominated by multiple and conflicting

meanings to an environment where organizational resources and management strategies can be

applied against defined problem sets. March and Olsen (1976) highlight that environmental

actions and events are frequently ambiguous.

> Ambiguity may be inherent in the events, or be caused by the difficulties participants
>
> have in observing them. The complexity of, and change in, the environment often
>
> overpower our cognitive capacity. Furthermore, our interpretations are seldom based on
>
> our own observations; they rely heavily on the interpretations offered by others. Our

trust in the interpretations are clearly dependant upon the efficiency of the channels

through which interpreations are transmitted (18).

Therefore, "since ambiguous issues have no clear meaning they need to be interpreted. The

meaning they acquire helps to determine what actions are appropriate. Lack of clear meaning

often results from the fact that there are many possible ways of perceiving the issue; these may

be thought of as competing interpretations" (Feldman, 1989, p. 7). The complexity of ambiguity

within bureaucratic settings requires that ambiguity be "resolved by shared agreements about

what is important and what is unimportant. These agreements are reached through a process of

interpretation. It is a process that is continuous. New issues arise about which there are no

agreements, and old agreements are called into question" (Feldman, 1989, p. 6).

Feldman (1989) elaborates, "as ambiguity is highly dependent on the process of interpretation,"

it is significantly influenced by individual perceptions of a given issue (p. 5). "The more

consensuses there is about the meaning of an issue, the less interpretation is necessary.

Agreement about how to view the issue includes agreement about what is problematic about it.

If problems are defined, then their solution can be attempted" (p. 9). Weick (1995) emphasizes

the importance of a stable environment. He notes, "a socially constructed world is a stable

world, made stable by behaviorally confirmed expectations. Both perceivers and targets collude

in achieving this stability, because neither of them welcome uncertainty. Different as their

individual goals may be, they share this aim of stability in the service of sensemaking (p. 154).

For purposes of this research, interpretation refers to the "process of giving meaning" and

includes "discussions of what is relevant as well as what value to give the many relevant features

of the question" (Feldman, 1989, p. 5&7). The fundamental premise is that "organizational members engage in interpreting events and contexts. This interpretive process is necessary for organizational members to understand and to share understandings about such features of the organization as what it is about, what it does well and poorly, what the problems it faces are, and how it should resolve them" (Feldman, 1989, p. 19). A central element of this study focuses on capturing and describing the iterative process by which CBP/CSI managers evaluate and assess the varying implementation pressures facing them in daily execution of the program, and the subsequent development and utilization of the management strategies to mitigate and address those pressures.

Organizational Goal Ambiguity: Identify, Define, and Measure
Understanding the impact and influence of ambiguity on the organizational pursuit of goals is related to the empirical focus of the study. Organizations are inherently inclined to be driven by goals and the execution of tasks in pursuit of those goals, which presents additional complexity and introduces the opportunity for ambiguity. As March and Olsen (1976) note, "goals are thrust upon the intelligent man, we ask that he act in the name of goals. We ask that he keep his goals consistent. We ask that a social system amalgamate individual goals into collective goals" (72). The complications of organizations' pursuit and acheivement of goals is further compounded within public sector organizations as "public agencies rarely have single clear goals. Their ends are often general and always multiple" (Wilson, 1989, p. 34). Waterman and Meier (1998) state simply that in a bureaucratic setting, the focus on the organization is on "policy, not profit" (185). Furthermore, arguments within the extant literature consistently maintain that "public agencies have particularly vague, hard-to-measure, multiple, and conflicting goals" as a result of

"complications due to political oversight and interventions by multiple authorities and interest groups; and value-laden and sharply conflicting mandates" (Rainey & Bozeman, 2000, p. 452).

Central to the concept of goal ambiguity is the assumption that ambiguity pervades public bureaucracies and contributes to negative organizational consequences. As Warwick observes, "the goals of most federal agencies are vague, intangible, and not readily subject to quantification…such that…administrators and employees have few direct measureable indicators of how well they are doing" (Lee, Rainey, & Chun, Goal Ambiguity, Work Complexity, and Work Routineness in Federal Agencies, 2009, p. 2). This classic assumption resonates within multiple streams of literature that examine the distinction between public and private organizations and public sector performance management scholarship focused on measuring organizational performance and outcomes. Although conceptually distinct, the central focus is on understanding the complexity and multiplicity of public organizational goals and how the prevalence of goal ambiguity affects public bureaucratic performance.

A series of studies published by Chun and Rainey explore the phenomenon of goal ambiguity within public agencies. In a 2005 study, Chun and Rainey "developed measures of goal ambiguity from archival sources, demonstrated the validity of the measures, and showed how different dimensions of goal ambiguity related to different antecedent variables such as agency size, age, policy problem complexity, regulatory status, competing demands, and financial publicness" (Lee, Rainey, & Chun, Goal Ambiguity, Work Complexity, and Work Routineness in Federal Agencies, 2009, p.3). In another 2005 study, Chun and Rainey "analyzed the relationships between the goal ambiguity measures and measures of organizational performance;

the findings further supported the viability of this approach to conceiving and measuring organizational goal ambiguity" (Lee, Rainey, & Chun, Goal Ambiguity, Work Complexity, and Work Routineness in Federal Agencies, 2009, p. 3). Within the study, the authors leverage four measures of perceived organizational effectiveness to develop an aggregate measure of organizational performance (Chun & Rainey, 2005, p. 8). The authors employ this approach because "for the U.S. federal agencies, common, relatively "objective or quantifiable measures of performance rarely exist, making it difficult to compare agencies on performance measures. For this reason, we used measures of perceived effectiveness" (Chun & Rainey, 2005, p.11). The authors note, "we used four separate measures of perceived organizational effectiveness: managerial performance, customer service orientation, productivity, and work quality" (11).

Further addressing the usefulness of Chun's and Rainey's goal ambiguity measures, Lee et. al., (2009) "analyze how organizational technology, or more specifically the routineness and complexity of the work the people do, relate to goal ambiguity in public organizations" (3). As indicated above, a clear emphasis within the extant literature is concerned with measuring goal ambiguity and identifying its determinants as well as assessing the impact of goal ambiguity on organizational performance.

According to Chun, Rainey, and Feldman, ambiguity pervades an organization when an environment is susceptible to a "state of having many ways of thinking about the same circumstances or phenomena." (Chun & Rainey, 2005, p. 2). Based on this understanding, then an "organizational goal loses clear meaning and becomes ambiguous when it invites a number of different interpretations" (Chun & Rainey, 2005, p. 2). The extent to which organizational goals

are subject to interpretation is significant as, "the leeway for interpretation that an organizational goal or set of organizational goals allows is manifested by at least four dimensions, which refer to communicating the reason for the existence of an organization, directing organizational activities, evaluating organizational performance, and making decisions about organizational priorities" (Chun & Rainey, 2005, p. 3). To gain a more accurate measurement of the varying dimensions of goal ambiguity, the authors selected several antecedent variables because "one might expect that the selected antecedents will relate differently to the dimensions of goal ambiguity in public organizations" (Chun and Rainey, 2005, p. 4). For purposes of this research priority and directive, goal ambiguity will be discussed in greater detail.

Chun and Rainey (2005) characterize priority goal ambiguity as "the level of interpretive leeway in deciding on priorities among multiple goals. To indicate priorities means to make decisions about which goals take precedence over others at a given time, or to form a goal hierarchy in which the goals are vertically arranged through means-ends relationships" (4). The authors elaborate further, "the presence of multiple goals without any hierarchical arrangement and prioritization leaves much room for interpretation of such priorities and about which goals take precedence" (2005, p. 4). Wilson (1989) also notes, "even if individuals agree on the meaning of one goal, they will disagree as to what other goals should be sacrificed to attain them" (33). Regarding priority goal ambiguity, Chun and Rainey (2005) hypothesize that "agencies with higher levels of financial publicness will have higher levels of priority goal ambiguity (7). Chun and Rainey (2005) hypothesize that competing demands from constituencies has a negative effect upon federal agencies' ability to mitigate priority goal ambiguity. The authors note that "federal agencies with more competing demands from constituencies will have higher levels of priority goal ambiguity" (7). The authors also highlight that organizational age and size are two

key antecedent variables associated with priority goal ambiguity. Chun and Rainey (2005) hypothesize that "older agencies will have higher levels of priority goal ambiguity and that larger agencies will have higher levels of priority goal ambiguity" (10). Institutional location is another important antecedent variable that needs to be considered when examining the prevalence of priority goal ambiguity within federal bureaucracies. Chun and Rainey (2005) characterize institutional location as "whether a federal agency is inside an executive department or is an independent establishment" (10).

The authors elaborate upon the concept of directive goal ambiguity, stating that this type of goal ambiguity "refers to the amount of interpretive leeway available in translating an organization's mission or general goals into directives and guidelines for specific actions to be taken to accomplish the mission" (2005, p.3). The authors further note, "Lerner and Wanat's (1983) concept of 'fuzzy mandates' of public bureaucracy taps the same construct as directive goal ambiguity when they point out that fuzzy terms in legislation provide too little guidance for crisp implementation of legislative mandates" (Chun & Rainey, 2005, p.3). The authors offer a point regarding the importance of this dimension: "As administrative interpretation of the political mandates codified in legislation becomes increasingly common in modern governments, this dimension of goal ambiguity has been the subject of growing interest for both political scientists and public administration scholars" (2005, p.3). Regarding directive goal ambiguity, the authors hypothesize that "agencies with higher levels of financial publicness will have higher levels of directive goal ambiguity" (2005, p. 7), and that "agencies with more competing demands from constituencies will have higher levels of directive goal ambiguity" (7). They further hypothesize that "agencies with regulatory policy responsibilities will have higher levels of directive goal

ambiguity than those with nonregulatory ones" (7), and that "agencies with more complex policy problems will have higher levels of directive goal ambiguity" (7). Lastly, Chun and Rainey suggest that "older agencies will have lower levels of directive goal ambiguity" (7).

Conceptual Gaps within Goal Ambiguity Literature
Although ambiguity is a persistent challenge within public organizations, there is undue attention within the extant literature on identifying and measuring dimensions of goal ambiguity and understanding the consequences of goal ambiguity on organizational performance and outcomes (Chun & Rainey, Consequences of Goal Ambiguity in Public Organizations, 2006; Chun & Rainey, Goal Ambiguity in U.S. Federal Agencies, 2005; Chun & Rainey, Goal Ambiguity and Organizational Performance in U.S. Federal Agencies; 2005). Existing scholarship imposes prescriptive dimensions, definitions, and measures to the concept of goal ambiguity and insufficiently investigates the concept of interpretive leeway, due to a limited interpretation of the term. Previous studies tend to view organizational goals as linear in nature, diminishing the significance of understanding the implications associated with organizational ambiguity and how this concept empirically matters and affects organizations at the implementation level. In addition, the studies "miss the specificities of the different fields of government intervention and may lead to an averaging of situations that are significantly different" (Calciolari, Cantu, & Fattore, 2011, p. 166.) Table 2 provides a summary of key conceptual gaps within the goal ambiguity literature.

Table 2: Conceptual Gaps within the Goal Ambiguity Literature

1. Insufficient empirical focus on subjective elements of organizational goal ambiguity
2. Inadequate exploration of the managerial processes and strategies that are utilized across organizational levels (strategic to tactical) to cope with ambiguity
3. Strategic engagement and decomposition of ambiguity and complexity in pursuit of organizational outcomes
4. Lack of empirical focus on the role of public managers in driving organizational purpose

and outcomes

Although the extant literature overly focuses upon measuring and understanding the influence of goal ambiguity upon organizational performance, there is a lack of attention given to understanding the impact of goal ambiguity within a distinct organizational setting, particularly within organizations experiencing change. Steven Kelman (2005) speaks to the challenge of change within government settings, noting:

> government often underachieves. This applies most obviously to some of the biggest, hardest activities it undertakes — reducing poverty, battling drug addiction, educating disadvantaged children, or fielding new weapons systems on time and on budget. It also applies, however, to more mundane tasks, such as managing customer interactions in licensing drivers and applying the latest technology to air traffic control (1).

Kelman's desire to better empirically understand how public organizations are managed, to include how they cope with evolving ambiguity and complexity, provides an appropriate lens from which to examine the DHS and the implementation of its range of mission responsibilities.

Within the domain of homeland security, leadership within DHS has grappled with addressing important policy questions such as defining the appropriate balance between security and individual liberty and balancing competing mission priorities, all while undergoing significant redefinition, consolidation, and integration in the post-9/11 world. This redefinition and integration has brought challenges as the organization has responded to the evolving nature of threats and continual expansion of mission responsibilities by making adjustments to the organization's structure and redefining key functional areas of responsibility. As a result, the organization has experienced a significant amount of flux as it has matured and responded to the

demands of a diverse and complex mission set. As Kelman (2005) notes, "change does not automatically produce improvement. However, if government is not performing as well as it should, government organizations clearly need some kind of change to improve performance" (2).

This perspective is valuable in that it recognizes the contribution of organization theory in accounting for a complex organizational phenomenon, but also brings a management focus to questions of how change occurs within bureaucratic settings. Kelman (2005) notes, "behavior in government organizations is harder to change than in other organizations — and bureaucratic organization in government is particularly resistant to change (28). He challenges a key assumption within organization theory literature, stating that the contention that people are resistant to change is "often oversimplified and misleading" (28). For Kelman (2005), change within public bureaucratic setting is achievable as "organizations change all the time. Employees and managers come and go, new procedures get written, new products or services are introduced. Where organizational change becomes difficult is where it requires modification of embedded individual behavior patterns or ways the organization has been structured" (5).

Change can be a powerful organizational driver, however, it is dependent on an organizations ability to be adaptable and recognize the need to change. Traditional organizational hierarchy has an impact on the "attitudes and behaviors, particularly the work-related ones, of their members. Some features of organizations in general — abstracted from the specifics of any individual organization — tend to discourage individuals inside them from changing job-related attitudes and behaviors" (Kelman, 2005, p. 24). Although "many organizations and individuals

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do become attached to how they behaved in the past, the view that people resist change ignores that social arrangements often create discontent as well as satisfaction" (Kelman, 2005, p. 6). The role of individual managers in facilitating and "unleashing" change is a foundation to this argument. For Kelman (2005), "when leaders at the top proclaim change, supporters at the bottom are given an opportunity to initiate change they already seek. Through their actions, top leaders in effect intervene in the politics of the front lines" (p. 7). He further argues, that "simply launching the change effort and continuing it over time generate forces building support for change. Thus launching and persisting in a change effort itself increases the likelihood the effort will succeed" (p. 111). Based on these arguments, this analysis next considers the role of public managers in driving organizational direction and setting organizational priorities.

Congressional Dominance: Multiple Principals and Information Asymmetry
Although it is beyond the scope of this study to examine the political roots of ambiguity and its overall impact on the implementation of public programs, this research does acknowledge and recognize the important role that the political process plays in the manifestation of organizational ambiguity. Ingraham, Joyce, and Donahue (2003) frame a critical discussion noting, "administration, to be effective, had to focus on technique and technical skills; it had to be removed from policy in the political decision-making sense of the term, and efficiency objectives had to take priority" (p. 4). The author acknowledges the administration and management of public programs is not isolated from the political process, but investigating the manifestation of this reality is not the focus of this study. However, an overview of a few of the central arguments from this literature are considered below.

Institutional theory addresses the concept of ambiguity through consideration and discussion of bureaucratic control and autonomy. Institutional theorists debate the question of who controls the bureaucracy and through which mechanisms (formal or informal). As Hammond and Knott (1996) observe, "some scholars have argued that the Congress, acting through its committee system, exercises a dominant influence over the bureaucracy. Other scholars have suggested that this "congressional dominance argument overstates the impact of Congress and understates the role that the president plays in managing the bureaucracy. Still others have asserted that the courts are a significant constraint on bureaucratic action" (p. 120). A common theme among each perspective is that each branch of government places a series of constraints upon bureaucracies and the actions of their administrators. Wilson (1989) notes "government administrators are hemmed in by a variety of legal and political constraints; they usually will lack the power to impose their own sense of mission on the organizations of which they are nominally the head (p. 96)."[8]

Despite these constraints, bureaucracies exercise some autonomy due to the prevalence of multiple principals and information asymmetries between agencies and those who control them. Terry Moe (1987) notes, "in fact, the agency finds itself surrounded by multiple principals…These principals compete for influence over the agency which as a result finds itself under crosspressures, forced to make compromises and trade-offs favoring some principals over

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[8] James Q. Wilson. (1989). *Bureaucracy: What Agencies Do and Why They Do It*. New York: Basic Books, Inc. Wilson notes that government agencies face a series of constraints that make the management of agencies and achievement of missions increasingly difficult. Wilson (1989) states, "to a much greater extent than is true of private bureaucracies, government agencies, (1) cannot lawfully retain and devote to the private benefit of their members the earnings of the organization, (2) cannot allocate the factors of production in accordance with the preferences of the organizations' administrators, and (3) must serve goals not of the organization's own choosing. Control over revenues, productive factors, and agency goals is all vested to an important degree in entities external to the organization…In other words, government management focuses on the 'top line' (that is, constraints)." (p. 115).

others, and, in its own self-interest, attracted to strategies that play principals off against one another"(p 482) And Waterman and Meier (1998) state, "from the perspective of bureaucracy, the notion of conflicting policy goals is not unusual…The existence of multiple principals strongly indicates that not all the principals will agree on goals" (p. 179). The existence of multiple principals allows for information asymmetry to persist between agencies and the executive and legislative branches create a situation win which agency goals are pursued in isolation.[9] As Hammond and Knott (1996) note,

> "there may be 'hidden information,' which refers to the fact that agencies may control secret information or have technical expertise that the president and Congress lack. There may also be 'hidden action,' which refers to the fact that agencies can take actions that are not easily observable by the president or Congress. Each kind of information asymmetry enables an agency to pursue its own goals, even if contrary to those of the president and Congress" (p. 122).

Although the organizational reality of the legal and political constraints facing agencies is ambiguous goals and priorities, institutional theorists assume such an outcome will occur. As Waterman and Meier (1998) observe, "bureaucracies are caught in a web of conflicting goals espoused by Congress, the president, federal courts, the media, regulatees, environmental groups, state-level politicians, and many others" (179–180). Again, this study acknowledges this literature, but does not seek to build upon the theory of organization ambiguity. This research enhances organization theory's conceptual and empirical understanding of how ambiguity

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[9] Wilson (1989) elaborates upon the balance that agencies can strike in responding to external political demands, noting, "the bureaucracy cannot evade political control nor sustain for long the view that there is a realm of administration that is immune from 'politics.' But it can maneuver among its many political masters in ways that displease some of them and can define its tasks for internal reasons and not simply in response to external demands" (p. 237).

actually appears within public organizations, while also considering and exploring how it is managed.[10]

Strategic Management within Public Bureaucracies:
Although the prevalence of ambiguity introduces the organizational complexities and challenges discussed above, public managers can proactively exercise discretion and behave strategically to engage and manage such complexity. Mark Moore (1995) speaks to the role of management within public bureaucracies: "In the public sector, the overall aim of managerial work seems less clear; what managers need to do to produce value is far more ambiguous; and how to measure whether value has been created is far more difficult" (28). For purposes of this study, public managers are viewed as "decision makers, strategists, and analysts rather than as neutral technocrats" (Ingraham, Joyce, & Donahue, 2003, p. 5). Ingraham, Joyce, and Donahue (2003) indicate that this form of management is "connected by the common theme of proactive management; emphasizing that management and leadership activities play an important shaping role both inside and outside the organization" (p. 5). This perspective is consistent with current public management scholarship that views administrators as more than focused on "passive, neutral "black box" implementation", but instead views public managers as having a "substantial and legitimate role in shaping public policy" (Ingraham, Joyce, & Donahue, 2003, p. 5-6).

Ingraham, Joyce, and Donahue (2003) underscore a crucial point for this research which is "many contingencies that critically influence government performance, such as elections, socioeconomic conditions, media scrutiny, legislative priorities, and social perception of the scope and scale of policy problems, are beyond the control of public organizations and their

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[10] This study does not compare or examine the relationship between the role of public managers and interest groups or Congressional committees. This comparison is a noted limitation of this study, but remains an area to be considered in future research.

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managers" (p. 13). They further note, "legislative mandates often dictate – and constrain – the very structure of government organizations" (p. 13). However, the authors argue that public management has a critical role to play in shaping the management systems and processes within public organizations to improve their overall performance and effectiveness. They note, "public management does influence considerably the approaches governemnts and their agencies use to orchestrate resources and translate them into public services. Thus in order to understand how to improve public performance, those components of performance that public managers do substantially control must receive prime attention" (Ingraham, Joyce, Donahue, 2003, p. 13).

Lynn, Heinrich, and Hill in <u>Improving Performance: A New Logic for Empirical Research,</u> present a valuable model to garner a better understanding of "how public sector regimes, agencies, programs, and activities can be authorized, organized, and managed to perform at high levels in achieving public purposes" (p. 2). Lynn, et al. are also concerned with better understanding what "are government's purposes, as well as strategies and techniques for achieving them" (p. 3). The authors present a reduced-form model of governance to help scholars "balance the many considerations at stake" in framing research designs (2001, p. 80). They emphasize further that "by approaching the complexity of social and human phenomena with theory accompanied by a logic of governance we can enhance the usefulness of research for policy designers who must implement program and policies in a policy complex that is more complex than any research design can accommodate (2001, p 81). Therefore, the author's argue that the complexity and variables associated with the governance process can be represented as

$$O = f(E, C, T, S, M)^{11} \text{ (p. 81)}.$$

As the author's note, "it is not a theory of governance; it identifies an array of dependant and independent concepts that investigators encounter in empirical governance research, whether they analyze those concepts through lenses of political economy, network analysis, systems models, or institutional approaches" (Lynn, Heinrich, and Hill, 2001, p. 81). Leveraging this framework, this study focuses upon the *M* dimension which emphasizes managerial roles and actions. As this study empirically considers the role of public managers in engaging and coping with organization ambiguity and the strategies utilized to deconstruct and manage the associated complexity, this research builds upon field's empirical understanding of how public managers function within complex institutional environments.

Robert Behn calls to attention the need for active, motivated, and entrepreneurial leadership/management within public sector organizations. Behn (1998) notes, "as leaders, public managers do a lot of other things. They mobilize resources and motivate people. They make choices and explain decisions. They demonstrate agency competence and educate the citizens" (p. 210). For Behn, public managers have an obligation to exhibit initiative and address management deficiencies within the the federal government. He notes, "public managers can help to improve our American system of governance. Specifically, public managers can help correct seven failures of governance: organizational, analytical, executive, legislative, political, civic, and judicial failures. By exercising leadership, public managers can make government more democratic and more effective" (1998 p. 210). Moore (1995) elaborates upon the

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[11] O = individual-level and/or organization-level outputs and outcomes, E = Environmental contingencies, C = Client relationships, T = primary work or core processes or technology, S = Structures, and M = Managerial roles and actions.

significance of public sector management noting, "the aim of managerial work in the public sector is to create public value just as the aim of managerial work in the private sector is to create private value" (p. 28). The following section will explore in greater detail how public managers can demonstrate initiative to engage and address many of the governance failures addressed by Behn.

Examining the legislative branch highlights a fundamental challenge for public agencies in that "laws rarely determine clear missions or priorities for public agencies. Rather, an agency's authorizing legislation usually charges it with achieving multiple and, often, conflicting missions, while the agency's annual budget rarely provides the resources necessary to pursue more than a few of these purposes" (Behn, 1998 p. 214). Given this reality, public managers are "forced to exercise leadership. They have to develop a balanced strategy for pursuing these multiple purposes. They have to convey the subtlety of that strategy to those who work in the organization…and they have to make the strategy work" (Behn, 1998, 215). For Moore (1995), this strategy "influences how managers distribute their attention, thought, and action across their operational environments…and can be particularly helpful to them in performing the crucially important task of defining their organization's overall mission and goals" (p. 71). According to Moore, the organizational strategy is pursued with an interest in measuring the value of these organizational efforts bringing legitimacy to the enterprise. Accepting that "leaders exercise initiative by articulating and clarifying purposes; by setting and pursuing performance targets; by educating, persuading, and motivating people; by choosing among alternatives; and by experimenting with strategies and tactics" in the face of legislative ambiguity acknowledges a critical bureaucratic paradigm that public managers must confront (Behn, 1998, p. 211).

From an organizational perspective, "one of the most obvious failures in our system of governance lies in the behavior of large public agencies. These organizations do not function in the way that they are instructed to function nor do they produce the results they are expected to produce" (Behn, 1998, p. 3). In response to this reality, public managers must exhibit and demonstrate active leadship within public bureaucracies to compensate for organizational deficiencies. Behn (1998) notes, "markets don't work perfectly. Neither do organizations. Without some kind of conscious, active intervention — without leadership — public agencies will fail to achieve their purposes" (p. 212). According to Moore (1995), leaders must be allowed to exercise responsible administrative discretion and autonomy in order to achieve public goals and objectives. He states, "it is easy to exaggerate the degree of discretion that public managers possess. Close, continuing oversight by elected executives, legislatures, the media, and interest groups sharply limits their discretion" (p. 63). Moore (1995) further suggests, "there are usually enough criticisms of the efficacy of current operations and enough proposals for improvement that enterprising public sector executives can find some room for innovation and experimentation" (p. 63). Furthermore, without leadership, "public agencies can quickly switch from seeking to achieve their authorized public purpose to pursuing organizational survival" (Behn, 1998, p. 211).

From an implementaion perspective, Behn (1998) notes that "designing an effective implementation system from the beginning is difficult. It may be possible to get a good, general framework. But getting the details right is almost impossible" (213). Therefore, public managers face the challenge of "knowing what it wants to accomplish but not knowing exactly

how it can get there" (Behn, 1998, p. 213). To accommodate, public managers "grope

purposefully with a clear objective. It tries a variety of strategices and tactics, discovers what

works and what does not, cancels it failures, and builds on its successes with new modificatons"

(Behn, 1998, p. 213).

This strategy is "derived from the observation that you can never get it right the first time. Thus,

from the beginning, this strategy conciously builds in flexibility — the capacity to make

modifications in structures and systems as the organization learns" (Behn, 1998, p. 213).

Consistent with Behn, Moore (1995) views the role of the public manager as an "explorer who,

with others, seeks to discover, define, and produce public value" (p. 20). Moore (1995) speaks

to the inherent challenges to such an approach noting, "it threatens precisely what the familiar,

traditional conception was designed to avoid — namely, the domination of the democratic

political process by self-serving or misguided bureaucrats" (p. 20). However, he acknowledges

"an alternative approach to controlling managerial influence would be to recognize its potential

utility, as well as inevitability and to provide more formal channels through which managerial

ideas about opportunities to create public value could be properly expressed" (p. 21).

The need for active public management within bureaucratic organizations is driven by the fact

that "most of the directives that public managers receive will be either ambiguous or

contradictory" (Behn, 1998, p. 214). Moore advocates for active leadership noting that, "with

the ambiguity about purposes and means comes some degree of discretion and, with that, an

opportunity for leadership. Society needs leadership from these managers to help it learn what is

both desirable and possible to do in public domains for which these managers are temporarily

responsible" (Moore 1995, p. 63). The call for more active public sector leadership is further underscored by fact that "to get an organization to accomplish any purpose, you have to motivate people. Different political environments and different organizational cultures require the adaptation of program specifics to the particularities of each situation" (Behn, 1998, p. 213). As Moore (1995) states, "without leadership public organizations will never mobilize themselves to accomplish their mandated purposes, let alone figure out how best to do that" (p. 3).

Summary and Key Points:
Based on the extant literature, if organizations do in fact face ambiguous goals, mandates, and direction, then the active management of programs becomes a necessary mechanism in order to effectively operate within this organizational reality. As Behn (1998) notes, "Leaders exercise initiative…why should such an opportunity be denied to public managers? Do not public managers have at least as much knowledge and wisdom about the capabilities of governmental and nongovernmental organizations, the character of citizen concerns, and the nature of organizational capabilities" (p. 210). Given the ambiguity facing public sector organizations, public managers must exercise responsible initiative to drive agency mission and program outcomes.

> They need to articulate their organization's purpose and motivate people to achieve it.
> They have to keep their agency focused on pursuing its mission. They need to encourage
> people to develop new systems for pursuing that mission. Markets don't work perfectly.
> Neither do organizations. Without some kind of conscious, active intervention —
> without leadership — public agencies (like private and nonprofit organizations) will fail
> to achieve their purposes. The people best situated, best equipped to exercise this
> leadership are the managers of the agency (Behn, 1998, p. 212).

In driving organizational and program direction, public mangers are also driving organizational change. Promoting and managing change is a mechanism to engage and manage organizational complexity associated with ambiguity. "It is common to understand organizational actions in terms of intentions, either organizational or individual, to imagine that individuals have intentions and that those intentions are translated into action in a way that makes organizational action some product or individual or group will" (March & Olsen, 1976, p.19). As a result, scholars and practitioners need to better understand how public managers decompose ambiguity and manage organizational complexity while pursuing meaningful objectives.

As discussed throughout, recent research has emphasized the negative effect of organizational ambiguity on performance; however it is not clear that this organizational phenomenon contributes to the extent of residual consequences currently discussed and examined within the extant literature. Does ambiguity detract from organizational and program effectiveness? Does ambiguity contribute to negative organizational consequences? Does the prevalence of ambiguity mean less specificity and more complexity in organizational goals?

In some cases, yes. However, current research studies remain too open-ended in their overall focus of measuring and understanding the impact of ambiguity on organizational performance. This study expands on this focus to examine how ambiguity appears within a large scale public program and considers the role that public managers play in engaging and decomposing ambiguity to accomplish the work of bureaucratic organizations. As outlined earlier, this study explores the managerial process by which ambiguity is engaged and decomposed into manageable program objectives for uncertainty reduction and the overall management of

program complexity. Chapters 4 and 5 explain the methodological approach, associated data and

observations, and the overall findings for this study.

Chapter 4: Research Methodology

A holistic single case design was utilized for this study to examine the "global nature" of the CSI program (Yin, 2003, 43). This *theoretical exploration* generalizes the research findings to theory, given the issues associated with generalizing "from one case to another" (Yin, 2003, p. 40). This case empirically investigates the relationship between the role and influence of the institution and the role of the manager/agent within institutional settings. As a single case, this study demonstrates the role of public managers in processing, addressing, and grappling with organizational ambiguity and complexity in order to pursue and execute purposeful and defined goals and objectives. Central to this process is the ongoing management of ambiguity and implementation pressures, through the use of management strategies, which indicates that public managers more than just grope along within institutional settings. The empirical investigation of this case also significantly contributed to the development of the study's conceptual model. This model defines the analytical process by which CBP managers translate ambiguity to manageable program objectives in order to utilize management strategies to mitigate implementation pressures and reduce ambiguity throughout the program.

The scope of the study consisted of 11 elite interviews conducted with government officials at CBP headquarters and the National Targeting Center (NTC) in the Washington, DC area, as well with domestic port officials. The context provided by conducting the interviewees within the interviewee's daily environments allowed for greater interpretation of the observations.

The data collection process was reinforced through direct observation of internal CSI operations. Direct observation of multiple components of the CSI program provided unique insight into

program operations, strategies, priorities, and challenges that drove the development of the conceptual model discussed in Chapter 5. The interview data is supplemented by secondary research sources that include DHS, CBP, and CSI annual performance reports, United States Government Accountability (GAO) Studies, Congressional Research Service Reports, and industry, trade, and think tank publications related to CBP and the implementation of the CSI program.

Given the focus of the study, specific actions were taken to maintain the study's validity and reliability. King, Keohane, and Verba (1994) highlight potential pitfalls to the overall research design and quality of data in these two areas. They emphasize the need to "maximize the validity of our measurements," and "ensure that data-collection methods are reliable" (25). The authors note, "it is easiest to maximize validity by adhering to the data and not allowing unobserved or unmeasurable concepts to get in the way" (1994, p. 25). Furthermore, "reliable measures also produce the same results when applied by different researchers, and this outcome depends, of course, upon there being explicit procedures to can be followed" (1994, p.25–26).

To maximize the study's validity, the management strategies employed by CSI personnel to mitigate implementation pressures and drive the execution of program objectives served as the primary construct and unit of analysis for the study. Ensuring a consistent unit of analysis across each component of investigation allowed for consistency in the data collection process. To account for external validity concerns, data was collected from three components of the CSI program described in detail later in this section. Furthermore, the use of multiple sources of evidence for this study develops converging lines of inquiry (Yin, 2003, p. 98).

The study emphasizes data triangulation in an effort to "corroborate the same fact of phenomenon," which are the management strategies employed throughout the CSI components (Yin, 2003, p. 99). Generalizability for this study is focused on analytical generalization aimed at "generalizing a particular set of results to broader theory" (Yin, 2003, p. 37). The study utilizes the same measures to observe more units in order to increase the total number of observations. As King, Kohene, and Verba (1994) note, "obtaining additional observations using the same measurement strategy is the standard way to increase the number of observations. We apply the same theory or hypothesis, using essentially the same variables, to more instances of the process which the theory describes" (219). This approach addresses the question of, "what are the possible observable implications of our theory or hypothesis? And how many instances can we find in which those observable implications can be tested?" (1994, p. 218).

Document Analysis of Open Source Information Pertinent to the CSI Program
To reinforce the interview and observation data, I conducted research on publicly available information on the CSI program from a range of credible sources. I then worked to categorize the data according to topic area related to the CSI program. Data sources included GAO reports, Congressional testimony, DHS and CBP strategic plans and annual reports, trade and industry reports and publications, CRS reports, and technical studies conducted by national think tanks and other nonprofit research organizations. The primary technique for selecting those data sources was that each addressed, at varying levels and specificity, pertinent programmatic and technical information about the CSI program and details regarding its creation and day-to-day implementation. The GAO, DHS, and CBP reports in particular examined key aspects regarding the overall implementation of the program, as well as its key strategic challenges.

Because the program was piloted in 2002, I was able to see and scan any available documentation and research on the program from 2002 to present. First, the content searches were broad in nature and focused on any content related to cargo security, container security, port security, maritime security, and the CSI program. Based on my initial results and in order to maintain and further limit the overall scope of my searches, I filtered results to those documents that specifically addressed the CSI program and its formulation, implementation, and future challenges. Overall, the research and available content on this area of national security tends to be strategic in nature rather than focused on more nuanced levels of the program and its implementation. I believe the sensitivity of the subject area drives the analytical level of detail available on this program.

One challenge I encountered when scoping the results of my searches was that most of the available documentation was more topically driven and not specific to the implementation and execution of the program. For example, a majority of my search results against the GAO, CRS, and RAND databases returned content broadly on cargo security, port security, maritime security, container security, port security, and non-proliferation. Although a majority of this content did not relate specifically to the management of the CSI program, this content was extremely helpful for setting the context of the research. The sensitivity of the data was another key limitation of the publicly available information on the CSI program. Some research conducted by the GAO was not available, as it was designated "Limited Official Use."

Overall, existing research, analysis, and discussion on the CSI program is captured within the broader context of topical subject matter on port security, maritime security, cargo and container security, and securing the global supply chain. The program is so interrelated to each of these research areas that it is difficult to separate and not discuss the program as a subset to a larger national security or trade-related policy discussion. However, research and analysis on the implementation and management of the program is limited almost exclusively to the GAO studies, which examine various aspects of the program discussed throughout this study.

It is important to note that after 2006, research on the CSI program significantly decreased across government, industry, and nonprofit research institutions. After 2006, analysis and research focused almost exclusively on the implementation challenges associated with the 100 percent scanning requirement mandated by Congress, and how well the CBP and CSI programs were identifying and scanning high-risk cargo. The GAO and CRS conducted a very limited number of studies related to the CSI program in 2008 and 2009, a majority of which focused on the topical areas of maritime security and supply chain security — with mention of the program within the context of these broader policy areas. I was careful not to overly rely on publicly available information, specifically GAO reports, due to the relevance and age of some of the data. The goal of this study was not to validate and conduct follow-up research on previous GAO audit findings and recommendations. Instead, I only selected information that built upon or corroborated data that I gathered during the interview and observation process.

Decline in the amount of research specific to the CSI program could be attributed to number of factors. Given the age and maturity of the program, government, industry, and nonprofit

research interest in the program may have waned over time. Another factor could be driven by transitions in research staff at the GAO, contributing to a change in research focus, as well as a change in presidential administration. Interest in the topic may have also been superseded by more pressing national security research priorities, such as the United States' continued engagement in the Global War on Terrorism (GWOT).

Data Collection and the Observation Process: CSI-D, NTC-C, and Domestic Port[12]
A series of four interviews with former senior DHS and CBP officials directly responsible for the strategic implementation of the CSI program drove the selection of and access to the three components selected for this study. The target interview population for this set of individuals was set at one to two — I anticipated a low response and participation rate given the prominence of these former officials, therefore I set the number of total interviewees at a realistic number. To engage these officials, I sent a personalized letter to each asking for their voluntary participation in this research study. A total of four individual interviews were conducted over the phone with four separate officials.

My interviews with former senior officials played a critical role in establishing subsequent interviews at the CSI-D and NTC-C. At the conclusion of each interview and discussion, I was guided to specific individuals to whom I should reach out, given their significant involvement with the CSI program and the focus of my research. As a result, the individuals selected and interviewed for this study were not randomly selected, but instead identified through professional referrals and recommendations.

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[12] Due to practical considerations, no data was collected at a foreign port where the CSI program is currently operational, indicating a potential limitation of this study.

As the selection of key interviewees within the CSI-D and NTC-C was indirectly based on a recommendation from one of the former DHS or CBP officials, this level of support helped to provide additional credibility to my research as I began reaching out to each of the identified CBP officials. Being able to state that I had spoken with multiple former DHS and CBP officials helped make a majority of interviewees more comfortable and amenable to speaking directly with me about the program.

Prior to beginning the interview process, I set the overall target interview population between eight and 12. Initially, I anticipated a low response and participation rate; however, given that each of my interviews was derived indirectly from a professional referral, non-response was not an major issue for this study. A CBP official declined to speak with me directly in only one instance. Even though I did not speak to this one individual directly, I was given permission to speak to his deputy, allowing me to capture information for a key dimension of the CSI program. In essence, through referrals (throughout every level of the organization) and an overall willingness to participate in the study, I was able to access the key individuals, within each of designated CSI components, necessary to gather the appropriate data for this study.

The former DHS and CBP officials each were willing to dedicate significant time to me during the interview process, and they were very candid in providing their answers. In fact, each interview evolved more into a discussion than an actual interview, and each lasted well over an hour and covered an extensive range of topics. Discussion covered the individual's personal management style, approach to managing a large bureaucratic organization, and implementation strategy for the CSI program.

The interviews revealed important insight into central components of CBP responsible for the day-to-execution of the CSI program. The Office of Field Operations, Container Security Initiative-Division (CSI-D) and the National Targeting Center-Cargo (NTC-C) were identified as key focus areas during these interviews. In fact, it was not until I was fully engaged in the data collection phase that I began to understand the vital role that the NTC-C plays in the CSI program. Open-source information is very scant on this entity; therefore gaining access to this key organization was critically important to this research effort and gaining a full understanding of the nuances of the CSI program. The relationships I was able to establish at the NTC-C, during the course of multiple interviews, provided me with access to the selected domestic port. Furthermore, working through the NTC-C provided me with insight into the important role that personal networks play in this program. The CBP (in particular the CSI) network is very close, and relationships established throughout individual careers are very important.

The scope of the interviews with the selected components focused exclusively on maritime cargo screening functions associated with the execution of the CSI program. In total, **a series of 11** interviews were conducted across the selected components and with former DHS and CBP senior officials, in which the "respondent was interviewed for a short period of time and answered a set of questions derived from the case study protocol" (Yin, 2003 p. 90). The interviews were focused but open-ended in nature, allowing for a conversational tone from respondents; each lasted approximately 45–60 minutes and was exploratory in nature. Every effort was made to increase the number of overall interviews to help control for causal inference associated with a single observation (i.e. single case study).

Based on feedback during the interviews conducted with the former senior DHS and CBP officials, interviews were conducted at the CSI-D, NTC-C, and a domestic port. The CSI-D is located within CBP's Office of Field Operations Cargo and Conveyance Security Directorate. The CSI-D is heavily involved in establishing policy direction for the CSI program, ensuring the integration of overseas and domestic functions, staffing the program with qualified personnel, and ensuring the efficient day-to-day operational aspects of the program.

The NTC-C is responsible for providing "tactical targeting and analytical research in support of Customs anti-terrorism efforts and cargo targeting operations (Department of Homeland Security, 2004, p. 1 & United States Government Accountability Office, 2008, p. 8). The NTC is a "24 hours a day, 7 days a week operation, established to provide tactical targeting information aimed at interdicting terrorists, criminal actors and implements of terror or prohibited items. NTC-C analysts generate targets of interest or interdiction based upon the results of their research" (Heyman, 2009). According to CBP, the NTC was established in "response to the need for proactive targeting aimed at preventing acts of terror and to seize, deter, and disrupt terrorists and the implements of terror" (United States Government Accountability Office (a), 2008, p. 8).

A final component of the CSI program examined for this study was one of the United States domestic ports. The domestic ports maintain responsibility for "handling a variety of cargoes, including bulk or loose cargo; breakbulk cargo in packages such as bundles, crates, barrels, and pallets; liquid bulk cargo like petroleum; dry bulk such as grains; and general cargo in steel

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boxes called containers or TEUs" (American Association of Port Authorities, 2008).

Furthermore, the domestic ports "own a layer of the overall security approach for CSI" (personal communication, September 20, 2010).

Once the components were identified, interviewees were selected from within the ranks CBP personnel who are currently associated with or directly support the CSI program. I identified interviewees through open source Internet research and leveraged the Federal Yellow Book Winter 2010 to identify those CBP personnel functionally aligned to the program at both the headquarters and field level. I also received referrals for interviewees from CBP personnel who willingly participated in the study. I initiated a broad chain of email communications with staff located within the headquarters component of the Office of Field Operations, leveraging publicly available organizational charts, in order to identify the managers who support the CSI program. I was finally referred to an appropriate point of contact within the CSI-D, at which point I was able to establish an interview. Similar to the approach taken to engage the former DHS and CBP officials, I prepared a standard interview request letter to engage these individuals in my research study. As part of my overall IRB package and to gain the interviewee's consent, a recruitment letter requesting voluntary participation in the study was sent directly to the identified subjects (**Appendix II**). This letter served as a key tool to engage the appropriate individuals in this process. Individuals not associated with or supporting the CSI were excluded from the study's sample population. Table 3 provides an overview of methodology applied for the data collection portion of this study.

Table 3: Methodology for Interview Data Collection

Study Design	Holistic Single Case Design/Single Case Study
Target Population	8–12 Total Interviews
Study Population	Former DHS and CBP Senior Officials

	Three Components
	▪ CSI-D
	▪ NTC-C
	▪ Domestic Port
Inclusion Criteria	▪ Former CBP Officials/Senior Leaders
	▪ CBP officials associated with or having a strong knowledge of the CSI program
	▪ Bureaucrats within CBP who are currently associated with or directly support the CSI with one of the three selected components
Exclusion Criteria	Bureaucrats within CBP who are not currently associated with or directly supporting the CSI with one of the three selected components
Study Procedures	The interview protocol was approved through the IRB process
Total Sample Size	11 Individuals (Four senior-level interviews with former officials)
Interview Duration	Each interview lasted between 45–60 minutes
	Note: Interviews with each of the four former DHS and CBP senior officials lasted beyond the average interview time of 45–60 minutes

Prior to initiating the interview, verbal consent was obtained from each of the interviewees

regarding their voluntary participation and consent was also obtained when the interviewee

agreed to participate in the study upon reviewing the recruitment letter and/or recruitment email.

In addition, before conducting the interview, a consent statement (**Appendix III**) was read to

each participant asking for his or her willing participation in the study. Participants were also

provided an opportunity to review and discuss the attached recruitment letter and consent form

with myself prior to an interview being conducted. Interviews were conducted either in person at

the selected individual's work location or over the phone, and all interview data was recorded by

hand; no interviews were audio or tape recorded.

Due to the confidential and anonymous nature of the interviews, I reviewed and removed all

identifying information for each interview in accordance with the submitted Institutional Review

Board (IRB) protocol. The study provided full anonymity and confidentiality to all participants.

To maintain and protect participant confidentiality, each interviewee was assigned a random

number and the key assigning numbers to subject names was stored in a file on a separate

personal computer that only the research team could access and separate from the interviewees' names. Copies of the interview data collected will be retained until 2015 (five years) after the completion or publication of the study consistent with IRB guidelines.

The research protocol developed for this study helped to guide the data collection process and ensure the overall reliability of the data collected across the selected data sample. For each interview conducted, a standardized question set was developed to "structure the line of inquiry during the interview process" (Yin, 2003, p. 89–90) (**Appendix IV**). Each individual interviewee was provided the opportunity to speak freely about their level of involvement/association with the CSI program. The question set focused on two primary areas: individual responsibilities and office functions. Individual questions inquired about the individual's day-to-day responsibilities, work priorities, and strategies utilized to manage those priorities. The questions also explored the key drivers and pressures that influence the individual's daily work behaviors, while also inquiring about the strategies employed in order to mitigate and manage those pressures. Office function questions asked individual interviewees to describe the function of their office and its role in support of the Container Security Initiative (CSI). The questions also probed interviewees to describe the level of coordination required to enact the mission of the CSI as well as to discuss the primary CSI coordination points both internally and externally. Interviewees were asked to describe goals of the CSI program and to identify any perceived inconsistencies between the work of the CSI at the headquarters and field levels.

Observations gathered at the CSI-D were important for enhancing my understanding of the program's true focus. Prior to meeting with the CSI-D, I firmly believed there was a strong trade

dimension to the CSI program. However, during the course of my interviews I learned that trade

facilitation is handled through the C-TPAT program and that the CSI program is "the security

piece, not the trade piece" (personal communication, August 5, 2010).

These interviews provided key insight into the strategic priorities of the program, which include

the importance of coordination and relationship management and a strong emphasis placed on

continuous process improvement. By allowing the interviewees to speak freely and openly, I

learned more about the role of the NTC-C in day-to-day CSI operations and the role that

declarations of principles play in governing the actions and behaviors of overseas CBP officers.

Interviewees at the CSI-D also revealed key external pressures that influence the implementation

and future direction of the program. Interviews were more limited within the CSI-D, although I

did receive a key point of contact within the National Targeting Center.

Observations gathered that the NTC-C revealed the critical role of this entity in driving the CSI

program. Early discussions with NTC-C leadership were very high-level and did not provide a

detailed level of nuance regarding the role that NTC-C has in supporting CSI operations.

However, after I established a rapport with NTC-C management, additional details were

gathered. I gained trust during the interview process by being able to articulate the primary goals

and objectives of the CSI program, as well as ask follow-up and probing questions in response to

many of the answers provided. I gained valuable insight into the bureaucratic hierarchy of the

NTC-C and the roles of personnel, specifically the watch commanders, as well as gleaned a

better understanding how the NTC-C organizationally aligns to the CSI-D. I also learned more

about the accountability of CBP personnel to the CSI-D and NTC-C, but interviewees requested

I not elaborate upon these relationships in the final dissertation due to sensitivities with the information.

In speaking with NTC-C personnel I gained a nuanced understanding of the influence of NTC-C in overall operation and execution of the CSI program. In particular, I was provided access to multiple watch commanders within the organization, and I was fortunate to speak with the Director of the National Targeting Center-Cargo, who explained the overall role of the NTC-C in support of the program. The GAO notes "CBP established the National Targeting Center to serve as the national focal point for targeting imported cargo and for distributing periodic intelligence reports" (United States General Accounting Office, 2004, p. 2). Given the sensitivity of the NTC-C and CSI program, I was unable to record additional observations regarding the day-to-day execution of targeters. However, I was provided a brief tour of the facilities, where I observed remote targeting occurring on a real-time basis. At the NTC-C, I was unable to speak with the individual analysts/targeters supporting the program, which limited the sample's overall population as well as the amount of empirical data I was able to collect and observe on this facet of the organization.

The data collected at the selected domestic port was facilitated through the NTC-C. One of the interviewees offered to assist me in connecting with a former colleague within the domestic port. Access to the port facility required a pre-screening with CBP security prior to being granted permission to visit the facility and conduct the interviews. I spent four hours (8:00 a.m. – 12:00 p.m.) at the selected port, meeting with three individuals who represented the Enforcement Branch and the Anti Terrorism-Contraband Enforcement Team (AT-CET) Advance Targeting

Unit (ATU) Seaport Operations Division within the port. My contact offered up additional

individuals to interview, however I only selected these individuals because these two areas

represent core domestic port functions in support of the CSI program. I was able to conduct the

interviews within the offices of the domestic port, and the first hour of the interview was in a

group setting.

The group interview format presented challenges from a data collection perspective, as each

individual was talking freely with each participant and providing his or her respective input and

answers to the questions. I asked if I could meet with each of the interviewees individually,

which simplified the interview process as I was able to focus and home in on specific answers

that were important for capturing key nuances of how the domestic port supports the CSI

program. Observing the interviewees within their day-to-day environment, the layout of the port,

the amount of cargo within the port, and the NII equipment used in support of the CSI provided

additional perspective regarding the tremendous volume of cargo that enters and leaves U.S.

ports on a daily basis, as well the significance of the program's overall mission area and scope of

responsibility.

Although interviewees were willing to openly discuss the CSI program, I experienced challenges

in keeping some of the interviewees on point during the discussions. Because the interviews

were open-ended in nature, several of the interviewees preferred to simply speak about how they

or their team support the CSI program and avoided or circumvented the prepared questions.

Also, many of the interviewees spoke openly about the environment of domestic ports, which

although useful and insightful, was somewhat outside the empirical focus of this study. In

addition, I had to be mindful of my time during the interviews, as each individual was willing to

openly discuss the program. Although I captured a tremendous amount of data and information

during the interview, the analysis of the data was challenging in terms of reviewing the

information to determine what was useful and applicable to the scope of the study and what was

outside the scope. Transitioning from the data collection phase to the data analysis phase of the

research forced me to think through and clarify the empirical focus of the study.

Based on the observations collected across each component, I prepared an approach to assist

with data interpretation and analysis. For each interview conducted, I hand recorded the answers

provided to each question. At the conclusion of each interview, I reviewed the answers captured

during the course of the discussion and add any missing/non-recorded data pertinent to the

overall discussion. Upon completing all 11 interviews, I grouped each of the interviews by

component level to determine the total number of interviews at each level and help keep the data

organized. The CSI-D was designated as component I, the NTC-C as component II, and the

domestic port as component III. For example, interviews numbered 4, 6, and 7 were grouped

together because each interviewee functioned at component II of the program. Based on the

overall responsibilities of each component in relation to the execution of the CSI program, I

viewed responsibilities associated within the CSI-D as strategic, responsibilities associated with

NTC-C as operational, and responsibilities associated with the domestic port as tactical to help

highlight the role of each in the CSI program.

Because the questions focused on understanding the day-to-day responsibilities of managers

supporting the CSI as well as the principal factors and challenges influencing these

responsibilities, I began grouping and organizing similar information with each component. I

also organized the data collected regarding the primary office functions to ascertain a true understanding of each component's role in the execution of the CSI program. During the interview process, program priorities were revealed across each component, providing insight into how each component views its respective responsibilities. I focused the analysis on understanding day-to-day responsibilities of the interviewees, in relationship to the component's functional responsibilities, as well as the primary challenges associated with execution of those responsibilities. Furthermore, I wanted to understand how these individuals were addressing the day-to-day challenges through the use of strategies and mitigation techniques. Therefore, my analysis focused on organizing the data around key sources of pressures and the corresponding strategies utilized to mitigate and manage those pressures in order to execute against component priorities and objectives. Once I had a solid understanding the primary functions and responsibilities of each component and how they support the implementation of the CSI program, I was able to identify key sources of pressures that introduce uncertainty and complexity on the program. I then organized and aligned my interview data based on empirical evidence in support of the key pressure. Each identified pressure was supported through observational data. After analyzing the data for key sources of pressures and empirical examples, I then focused on identifying any strategies utilized by CBP personnel to mitigate and manage these pressures. Through the interview process, mitigation strategies were identified to correspond to each identified pressure. The CSI-D interview and observation data was reviewed first, followed by the domestic port, and then the NTC-C interview data. A summary Excel table was created for each component level to organize the identified component level pressures and corresponding management strategies. Three spreadsheets managed the data.

Once the key pressures and mitigation strategies were identified for each component, I began

analyzing the data within each component to identify common themes in the areas of component

goals and priorities, key pressures, and strategies and approaches utilized by CBP managers to

mitigate those pressures. I began to analyze the data from a systemic perspective to understand

potential macro-level implications. Leveraging secondary data sources to gain additional

insights on the program and understand previously documented evidence of challenges, I

questioned what was driving each of the identified component-level pressures. To what extent

did each of the pressures stand alone? Or, where these key pressures and challenges manifesting

as a result of larger systemic pressures influencing the totality of the program?[13]

When the data was reviewed in aggregate, it revealed important systemic external and internal

pressures creating ambiguity within the CSI program and impacting the strategic (CSI-D),

operational (NTC-C) and tactical (domestic port) implementation dimensions of the program.

Interviews indicated that competing interpretations regarding the program's overall management

approach and future direction was impacting the strategic outlook of the program. In reviewing

the component-specific pressures against the broader systemic pressures and resulting ambiguity,

it became clear that many of these pressures were not entirely distinct to one component, but

instead could be viewed and understood more accurately as pressures impacting the overall

implementation of the program. As a result, although the implementation pressures at each

component of the program are distinctive in nature, they inform each other from the perspective

that they create shared understanding and meaning across the program. Furthermore, each set of

pressures may be contextualized and addressed differently at each component, however

collectively they create a shared understand across the program which accommodates

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[13] The systemic pressures include external pressures from Congress and various interest groups.

sensemaking. As a result, I reframed each component-distinct pressure as an implementation

pressure and consolidated data accordingly.

Given the prevalence of implementation pressures across the three components, I then

reexamined and analyzed the relationship of the strategies to the pressures. In an effort to

understand and explain the relationship between these key data points, I determined that although

strategies and approaches were being utilized to address the pressures, distinctively across the

components a central piece of the analytical process I was observing was lacking in the framing

of my conceptual model. In reviewing the various strategies, I determined that not only did they

help to address the pressures; they also supported the central priorities and objectives of the

program — but at the component level. From this takeaway, I began to discern the central

priorities and objectives across the three components for the program. Central to management of

the CSI program is the strategic engagement of ambiguity and complexity by CBP/CSI leaders

and managers to create priorities and goals that can be managed through an iterative process of

defining and assessing what is valuable to the program in response to systemic pressures and

shifts in external threats. Based on these observations, and to better describe and illustrate the

relationship between the primary data elements, the following conceptual model was developed.

Chapter 5 engages each element of the conceptual model and describes the overall observations

and findings for the study.

Figure 1: **Conceptual Model and Areas of Empirical Focus**

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┌─────────────────────────────────────────────┐
│   1. Systemic pressures on the CSI program   │
└─────────────────────────────────────────────┘
                  │ Manifest as
                  ▼
┌─────────────────────────────────────────────┐
│ 2. Ambiguity and implementation pressures    │
│    throughout the CSI Program                │
└─────────────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────────────┐
│   4. Defined program and objectives          │
└─────────────────────────────────────────────┘
                  │ Enables
                  ▼
┌─────────────────────────────────────────────┐
│ 5. Utilization of management strategies to   │
│    mitigate implementation pressures in      │
│    support of program objectives             │
└─────────────────────────────────────────────┘
                  │ For
                  ▼
┌─────────────────────────────────────────────┐
│ 6. Outcome: Uncertainty reduction and the    │
│    strategic management of ambiguity         │
└─────────────────────────────────────────────┘
```

3. Translation Mechanism: **Strategic Engagement by (CSI-D and NTC-C leaders)** to translate ambiguity to manageable program objectives

Regarding the conceptual model, the bi-directional arrows moving along each dimension of the model illustrates the interrelationship among each dimension. Although the model is depicted as linear in nature, the relationship among each is adaptive and managerially purposeful. Conceptually the bi-directional arrows indicate the continuous feedback process that is occurring within each dimension, as well as demonstrating a higher level of purposefulness and mindful management that is influenced by the complexity of the policy environment. The model illustrates that public managers can drive toward the purposeful pursuit of goals and objectives which contributes to the overall management of ambiguity and reduction of uncertainty. The purposefulness and adaptive nature of the model is greatly affected by the strong level of commit exhibited by the CSI managers and the complexity of the policy environment.

Another important point regarding the development of the conceptual model is the dynamic nature of its overall development. Over time and as the data analysis phase of research matured, the conceptual model evolved and expanded. As the model matured, the significance of translation process that is occurring between dimensions 2 and 3, which illustrates managerial purposefulness in the pursuit of goals and objectives, became more analytically clear. The strategic management between dimensions 2 and 3, can also be understood as mindful management which provides additional clarity for managers in pursuing goals and objectives.

As the analysis took on additional clarity and definition, the dimensions of the model began to represent shared clusters of meaning and shared understandings derived from the data collected at each component level. As the model indicates, each dimension informs each other and shows

the purposefulness and managerial intent embedded throughout the model. The evolution of the model is notable as it reflects the extent of progress made during the data analysis phase of this research. The model's current state is reflective of a continuum along each analytical dimension which contributes to the generalizability of the model.

A final point needs to be made regarding the interview process, from selection of individuals to actually conducting and facilitating the interviews. Prior to beginning this research, I anticipated that finding individuals willing to participate would be very difficult and challenging based on the national security focus of the program. I assumed that most individuals, in particular the former senior DHS and CBP officials, would be very hesitant to speak with me about the program and any role that they may have had with the execution of the program. I also anticipated that I would have a lot of difficulty identifying the right individuals within the CBP bureaucracy to speak with about the CSI program. I also expected that those individuals who did participate would be very hesitant to elaborate and be forthcoming during the interviews.

However, I found the complete opposite was true. After reaching out to several former DHS and CBP officials, I was pleasantly surprised by their overall willingness to participate. My research efforts were greatly facilitated by the interviews I was able to conduct with these individuals. I also spent a great deal of time reviewing CBP organizational charts and the federal Yellow Book to ensure I was targeting the correct individuals for my interviews. The single point that I consistently reemphasized with each interviewee was that full anonymity was guaranteed for any information discussed during the interview. This statement reassured each interviewee, and I found that after this disclosure each individual was very willing to discuss the program, program

operations, and their overall role in support of the program. By the conclusion of each interview, I felt that a certain level of trust had been established with each of study's participants, and that there was a strong sense of overall support for this research effort.
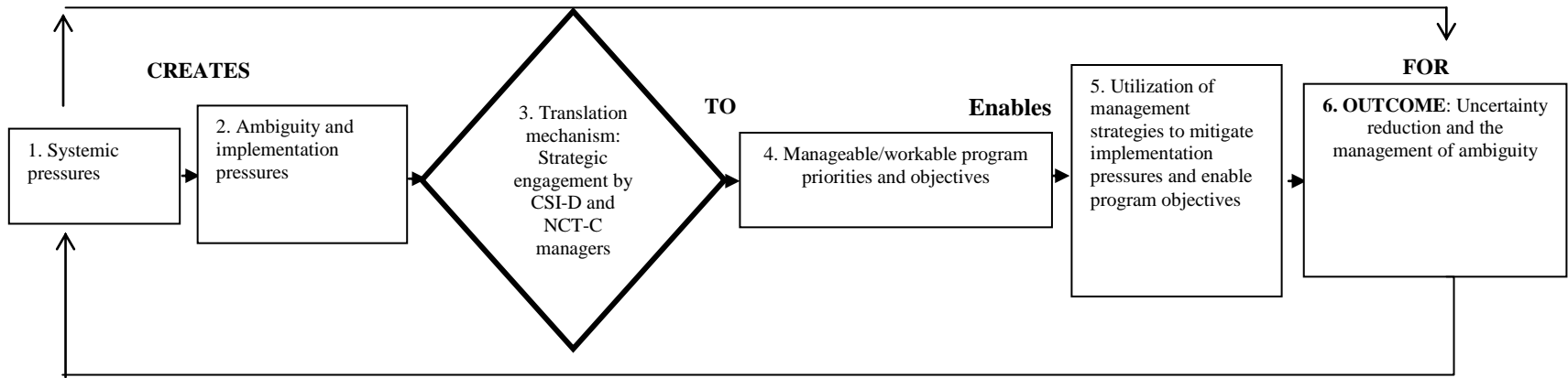
Chapter 5: Observations and Findings

The following analysis identifies the key systemic pressures influencing the three components of the CSI program selected for this study. The analysis highlights the significance of the identified pressures by providing observational evidence of how these pressures are contributing to the manifestation of ambiguity and distinct implementation pressures. Discussions at each component reveal that the identified systemic pressures and resulting ambiguity is impacting not only the strategic dimensions of the program, but the implementation aspects as well. From a strategic perspective, competing frameworks for managing the implementation of the program and debate surrounding the best approach to facilitate the transition of the program from a large overseas presence to a more domestic-centric operation introduces challenges for CSI managers. As a result, ambiguity within the program is contributing to distinct implementation pressures across the three components. In observing the multiple components of the program, this analysis identifies the central implementation pressures (CSI-D, NTC-C and the domestic port) that hinder the obtainment of program priorities and objectives.

A central observation emerged of the process that is occurring to engage ambiguity, from a strategic perspective, to translate and decompose the complexity associated with the ambiguity into manageable program objectives. Through this process, CSI-D and NTC-C leadership drive the decomposition of ambiguity and program complexity by setting program priorities while utilizing strategies and resources to support those priorities and objectives. CSI managers are able to mitigate implementation pressures and manage ambiguity through the use and application of strategies that support defined program objectives. The proactive engagement of organizational complexity by CSI management drives the translation process and facilitates CSI-

D and NTC-C working within organizational and program constraints to leverage available resources and push the boundaries of program capacity, strategy, and operations. Employees at both components indicated in the interviews that there is a clear emphasis on ensuring the priorities and objectives of the CSI program are clear and consistently messaged throughout each level of the program. One interviewee noted, "the CSI program has a very clear mandate preventing ambiguity about what the goal/scope of the program is" (personal communications #5, 2010). CBP management recognizes that ambiguity must be addressed and mitigated to ensure efficient and effective program operations. As a result, appropriate actions are taken to account for this organizational need and both NTC-C and CSI-D are instrumental in driving program priorities and objectives.

The following section provides observational data on each dimension of the conceptual model provided in Figure 2 below. Each dimension of the conceptual model is supported by interview or observational data. The systemic pressures impacting the CSI program present distinct challenges to the overall implementation of the program and have manifested distinctly over time. The ability of CSI managers to mitigate implementation pressures and manage ambiguity through the utilization of management strategies provides further evidence and support to the role that management can play in shaping organizational outcomes.

Figure 2: Conceptual Model

CREATES

1. Systemic pressures

2. Ambiguity and implementation pressures

3. Translation mechanism: Strategic engagement by CSI-D and NCT-C managers

TO

4. Manageable/workable program priorities and objectives

Enables

5. Utilization of management strategies to mitigate implementation pressures and enable program objectives

FOR

6. OUTCOME: Uncertainty reduction and the management of ambiguity

The following section provides empirical evidence regarding how systemic pressures drive the

manifestation of ambiguity and implementation pressures that influence the CSI program across

each component. In addition, it discusses the ongoing strategic engagement process that occurs

to translate and decompose the ambiguity and program complexity to manageable program level

objectives. The organic nature of this process allows CBP leadership to position and assign

resources and support activities based on internal and external events and drivers, providing a

unique level of flexibility to the program. The data expand upon and illustrate how managers

within the CSI program utilize various management strategies to mitigate implementation

pressures and reduce uncertainty throughout the program. Those management strategies are

instrumental to reduce uncertainty at each of the component levels while also manage ambiguity

from a strategic perspective. Tables 4 and 5 elaborate upon each dimension of the conceptual

model discussed above and provide subsequent analysis of each dimension.[14]

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[14] I acknowledge that the systemic pressures listed in Tables 4 and 5 are not equal in terms of importance to and
influence on the CSI program. A majority of the analysis focuses upon systemic pressure #1 and the associated data,
to include implementation pressures and management strategies. The systemic pressures should not be viewed or
analyzed as equally driving forces on the program.

Table 4: Systemic Pressures, Ambiguity, and Implementation Pressures Associated with Managing the Evolution of the U.S. Customs Service

Systemic Pressure #1: Managing the evolution of the U.S. Customs Service to a national security centric organization and the implementation of a more complex mission set	▪ **Resulting Ambiguity:** Competing interpretations regarding implementation approach
	  o Risk management (Twin Goals)
	  o 100% scanning requirement outlined in Safe Port Act of 2006 and 9/11 Act

Implementation Pressures — Pressures Distinct to the CSI Components
▪ **CSI-D and NTC-C**: Execute CSI operations/functions within the boundaries of established declarations of principles (DOPs) while providing timely assessments of risk level to overseas CBP officers to maintain an effective overseas presence
▪ **Domestic Port**: Ensure effective implementation and compliance with headquarters-level (CBP/CSI-D) policy guidance and direction to balance the program's national security and trade facilitation priorities/responsibilities

Strategic Engagement Process — Engagement by CSI-D and NTC-C Management

Program Objective: Establish national policy, business rules, and standard operating procedures (SOPs) and processes for overseas and domestic CSI personnel

Management Strategies
▪ Standardized analytical workflows and targeting approach supported by advance information/analytics, automated tools and technology, and functional specialization of CSI personnel
▪ Engage in the shaping and setting of national level policy through the use of task forces and working groups to ensure policy is manageable and implementable from an operational perspective

Managing the Evolution of the U.S. Customs Service

In the face of external world events, the U.S. Customs Service has had to shift its focus and

priorities from enforcement and regulation to security. That shift has influenced the overall

operating model of the Customs Service due to the consolidation of legacy functions. As Willis

and Ortiz (2004) note in the aftermath of September 11,

> new regulation has focused almost exclusively on security measures. The focus on
>
> security is a dramatic shift from the previous regulatory regime, which focused on

reducing fraud and smuggling, while ensuring the safety of participants in the supply

chain, reducing the environmental consequences of trade, and collecting all relevant

tariffs and duties (p. 13).

Interviews with former CBP senior leaders revealed that since 9/11 "the focus of Customs has

shifted from an emphasis on enforcement to a focus on national security" (personal

communication, March 18, 2010). CBP officials stated that, "given the urgency to take steps to

protect against terrorism after the September 11, 2001, terrorist attacks, we had to take an

implement and amend approach to targeting cargo containers that may hold weapons of mass

destruction" (United States General Accounting Office, 2004, p. 8).

Congressional testimony from 2005 highlights the impact of the shift as Former Commissioner

Bonner noted, "one of the realizations that I had…on the morning of 9/11 was that on that

morning the priority mission of the United States Customs, now Customs and Border Protection,

became national security. I mean, it became nothing short of doing everything that we could

responsibly with the resources we have to prevent terrorists and terrorists weapons from getting

into our country" (Federal Document Clearing House, 2005, p. 8). The integration of legacy

functions into CBP influenced how leadership approached the new organizational mission of

increasing the overall security level of the United States, while remaining multifaceted in order

to meet other policy priorities (commerce) (personal communication, March 18, 2010).

A former CBP official indicated that "after 9/11 there was a heavy emphasis placed on the

security mission of the organization. There was indoctrination into the need for more security as

the law enforcement and security functions were given priority. The mindset needed to change to focus on security, but a greater degree of facilitation must occur as well" (personal communication, March 18, 2010). Another official expanded that, "the first step was to refocus the agency on the priority mission — because Customs, like any bureaucracy, will continue in its old direction unless there is leadership that says: 'We're changing. Here's why.' (Bonner R.C., 2006, p.10). There was a realization on the morning of 9/11 that the "priority mission of U.S. Customs needed to dramatically and immediately change, from the interdiction of illegal drugs and regulation of trade — to a national security mission — preventing terrorists and terrorist weapons from getting into the United States" (Bonner R.C., 2006, p.6).

A former CBP official spoke about the formation and consolidation of Customs noting, "the merger of CBP was a headquarters-driven merger. CBP was a brand-new agency comprised of disparate organizations and represented one of the largest mergers of functions for the entire department (DHS)" (personal communication, March 18, 2010). The consolidation of functions introduced challenges at the field level within the organization with the merging of personnel and functions. A former official noted that, "the integration of personnel at the field level was challenging due to changes in the field structure. The biggest challenge was with the three operational components (Office of Field Operations, Border Patrol, and Air and Marine). Following the consolidation of CBP, leadership within headquarters began interacting with field very differently, placing emphasis upon increasing the coordination between headquarters and the field" (personal communication, March 18, 2010). The balance of organizational functions "occurs at the headquarters level because headquarters directs policy and resources. The balance

of responsibility and functions also occurs at the field level through managerial action and day-to-day decision-making" (personal communication, March 18, 2010).

Resulting Ambiguity

The resulting focus on national security for CBP introduced competing interpretations of how best to address the transition of U.S. Customs from an enforcement and regulatory centric organization to a national security-focused organization with the primary mission to execute anti-terrorism responsibilities. Strategic-level ambiguity manifested in response to the question of how best to approach the implementation of CBP's new priority focus of national security, while still maintaining responsibility for execution of legacy responsibilities. Practically, the legacy functions of Customs needed to be seamlessly integrated into the new organization to prevent overlap and redundancy. As former Commissioner Bonner highlighted, "it was important that we figured out as best we could and as quickly as we could we did the security in a way that didn't shut down our economy in the process" (Federal Document Clearing House, 2005, p. 8). Central to managing the overarching priorities of securing the United States and facilitating the legitimate flow of trade and commerce is CBP's strategy of a smart border. Such an approcah "pushes our zone of security out beyond our border so that we know what is headed our way before it arrives here at our ports, and so that our borders are our last line of defense, not our first line of defense" (Federal Document Clearing House, 2005, p.8).

The area of maritime security and the protection of cargo continued to garner attention in the post 9/11 environment, and there was "tremendous external emphasis on maritime containers as they were seen as a high consequence area of concern" (personal communication, March 18, 2010). A former CBP official noted, "containers were seen as a huge vulnerability by Congress"

(personal communication, March 18, 2010). A key event highlighted as a driver for the emphasis placed on maritime and cargo security was the news that "Dubai Ports World (a terminal operating company owned in part by the government of the United Arab Emirates) would provide stevedore services (loading and unloading containers from ships) and manage terminals in U.S. ports" (Khademian & Berberich, 2009, p. 156). A former CBP official noted, this event "served as an impetus to place a priority on cargo security and the threat posed by WMD" (personal communication, March 18, 2010). The connection between the United Arab Emirates and two of the 9/11 hijackers brought significant political attention to the proposed transaction. Beisecker notes, "what was lost in the debate was the potential for actually achieving improved security when large companies such as Dubai Ports World run operations in multiple ports and are able to take advantage of economies of scale that might allow security investments elsewhere" (Beisecker 2006 in Khademian & Berberich, 2009, p. 156). This example highlights the challenge of balancing the priorities of trade and efficiency against security.

Two competing policy frameworks were presented to establish the direction of the CBP in maritime security and drive the execution of newly defined responsibilities. As indicated above, CBP leadership delineates between the primary responsibility of securing the United States and ensuring the flow of legitimate trade and travel and acknowledges both responsibilities as the organization's twin goals. One goal focused on "achieving greater security" and another goal focused on "facilitating the flow of legitimate cross-border trade and travel" (Bonner R. C., 2006, p. 9). Execution of CBP's twin goals is built upon a "layered approach to increase the

security of maritime cargo and all cargo moving into the United States" (Federal Document Clearing House, 2005, p. 8).

As discussed throughout, the CSI program is just one dimension of this layered strategy that "attempts to address cargo container security comprehensively while ensuring that security attention is directed toward the highest-risk containers within the supply chain" (United States Government Accountability Office, 2008, p. 6). As Willis and Ortiz (2004) argue, "supply-chain efficiency and security are distinct but interconnected" (p. xiii). An interviewee noted that, "the CSI program enables the flow of commerce and trade through the application of a layered security approach" (personal communications, June 25, 2010). The layered approach comprising the CSI, in addition but not limited to, the Customs-Trade Partnership Against Terrorism (C-TPAT) program, the Automated Targeting System (ATS), 24 Hour Rule, and the Secure Frieght Initiative, aim to secure oceangoing containers at the point of departure from a foreign seaport. This approach allows CBP leadership to balance the demands of security and commerce, as Congress and CBP wrestle with the issue of "increasing port security to desired levels while minimizing the economic impacts associated with impeding the maritime trade system" (Frittelli, 2005, p. 17).

A competing framework was introduced with the Security and Accountability for Every (SAFE) Port Act in 2006 requiring CBP to establish a pilot program to "test the feasibility of scanning 100 percent of U.S. –bound cargo containers. The legislation established the CSI program in addition to requiring that the Secure Freight Initiative be initiated to test the feasibility of scanning 100 percent of U.S.-bound cargo containers using nonintrusive imaging equipment and

radiation detection equipment at foreign seaports" (United States Government Accountability Office (a), 2008, p. 2). Congressional expectations and requirements increased in 2007 with the passage of the Implementing Recommendations of the 9/11 Commission Act of 2007 mandating that by 2012, all U.S.-bound containers would be scanned at more than 700 foreign seaports shipping to the United States (United States Government Accountability Office(b), 2008, p. 11-12). Additionally, the legislation called for "annual benchmarks on the percentage of maritime cargo headed for the U.S.; an analysis of how to best incorportate existing maritime security initiatives, including the CSI, and C-TPAT; and an analysis of the scanning equipment, personnel, and technology needed to reach the 100-percent container scanning objective" (Burnson, 2009).

A former CBP official noted that "political expectations did not always match up to the priorities of CBP leadership" (personal communications, March 18, 2010). The official further elaborated that "there were inconsistent political expectations for the performance of the organization" (personal communications, March 18, 2010). One these expectations was the mandate to scan 100 percent of all U.S. bound cargo by 2012. "The 100 percent mandate was driven from the administration and Congress and did not represent internal CBP priorities. This mandate presented serious challenges and Congress did not provide the budget or the resources necessary to deliver on this mandate" (personal communications, March 18, 2010). It was further noted that, "the 100 percent screening requirement is not technically feasible and would essentially shut down world trade and present serious challenges from a reciprocity perspective, as foreign countries would require that 100 percent of US outbound cargo be scanned" (personal communications, March 18, 2010). The 100 percent scanning requirement was "not a cost-

effective way to secure the global supply chain and was seen as a classic case of bureaucratic obstructionism" (personal communications, March 18, 2010).

CBP leadership is challenged with applying a risk management framework while balancing Congressional expectations for 100 percent scanning of all U.S.-bound containers outlined in the 9/11 Act. The sheer volume of cargo entering and exiting the United States on an annual basis creates challenges associated with the implementation requirements outlined by Congressional leaders. From a logistical perspective, "the technology necessary to truly scan 100 percent of the maritime cargo entering the United States is currently not available. The placement of scanners proved a logistical problem as many ports were not built with a natural bottleneck through which all cargo passes" (McNeill and Zuckerman, 2010, p. 3).

Cost is also a significant factor associated with this mandate, as "a single x-ray scanner, the most common technology used for cargo scanning, has a price tag of $4.5 million, plus an estimate annual operating cost of $200,000 (McNeill and Zuckerman, 2010, p. 3). As recently as March 2009, DHS Secretary Napolitano indicated to the House of Representatives Homeland Security Committee that "100-percent scanning of inbound ocean cargo containers will not meet the 2012 deadline." (Burnson, 2009). Napolitano further indicated that current screening practices "were working, but scanning was not" (Burnson, 2009). The distinction between screening and scanning is important from an implementation perspective. The American Association of Port Authorities highlights that "screening means a visual or automated view of information about goods, to include manifest or entry documentation accompanying a shipment being imported to the U.S.," while scanning refers to the use of "nonintrusive imaging equipment, radiation

detection equipment, or both, to capture data, including images of a container" (American Association of Port Authorities, 2010). Noted limitations exist with the use of inspection equipment used in support of CSI's targeting efforts. The GAO observed that "a number of factors constrain the use of inspection equipment, including crowded port terminals, mechanical breakdowns, inclement weather condidtions, and the safety concerns of longshoremen at some ports. Some of these constraints, such as space limitations and inclement weather conditions, are difficult if not impossible to avoid" (United States General Accounting Office, 2004, p. 12).

The current risk-based approach has been widely accepted by the international community; therefore, requiring 100 percent scanning of U.S.-bound cargo using "nonintrusive imaging equipment and radiation detection equipment at foreign seaports…while also maintaining a risk-based security approach" will present challenges (United States Government Accountability Office, 2007, p. 43). The 100 percent scanning mandate outlined in the SAFE Port Act of 2006 and 9/11 Act represents a "departure from existing container security programs built on bilateral partnerships with foreign governments and the private sector" (United States Government Accountability Office(a), 2008, p. 19). McNeill and Zuckerman (2010) highlight the significance of this policy decision, noting that "previously the United States had encouraged its friends abroad to adopt voluntary security practices based on risk; so this mandate is seen as an about face on policy" (4). Furthermore, the requirement could hinder implementation of some existing container security programs by reducing the willingness of some foreign governments to work with CBP to identify and examine containers at their ports, and the willingness of some private companies to partner with CBP to improve their internal security programs (United States Government Accountability Office(a), 2008, p. 19).

International partners, including foreign customs services, port operators, trade groups, and international, have indicated that that a "100 percent requirement is inconsistent with widely accepted risk management principles as well as inconsistent with the principles contained in the SAFE Framework" (United States Government Accountability Office(a), 2008, p. 18). The SAFE Framework is based on the current risk management approach being executed by the implementation of the CSI and C-TPAT programs. A European commission examining the issue emphasized that the policy focus should shift toward "developing a package of measures to cope with the wide diversity of security risks and address supply chain security not only from a national perspective but also as a global and complex challenge" (European Commission Staff Working Paper, 2010, p. 5). Furthermore, the World Customs Organization (WCO) noted that "the implementation of 100 percent scanning would be tantamount to abandonment of risk management" (United States Government Accountability Office(a), 2008, p. 18). As McNeill and Zuckerman (2010) note, "the WCO's Framework of Standards to Secure and Facilitate Global Trade describes best practices for cargo security and many nations have adopted the recommendations" (4).

Significant issues also arise from a trade reciprocity perspective with a mandate to scan 100 percent of cargo. The GAO notes, "implementation of the 100-percent scanning requirement could result in call for reciprocity of scanning activities from foreign officials and be viewed as a barrier to trade" (United States Government Accountability Office, 2008, p. 19). McNeill and Zuckerman (2010) highlight that "at a basic level, the 100 percent cargo scanning measure gives

American allies the impression that the U.S. cannot trust them to adequately perform security screening and that they are not a true partner in global commerce" (p. 4).

Both the European Union and WCO have shown concern that the "unilateral nature of such a requirement undermines prior multilateral efforts to govern the maritime security domain" (McNeill and Zuckerman, 2010, p. 4). More importantly, European Customs officials indicated that, "should the implementation of the 100 percent scanning requirement be pursued, foreign governments could establish similar requirements for the United States, forcing U.S. export cargo containers to undergo scanning before being loaded at U.S. seaports" (United States Government Accountability Office(a), 2008, p. 19). GAO findings report that CSI currently does not have the resources of capability to meet such a reciprocal mandate, therefore "U.S security cannot come at the cost of economic prosperity" (McNeill and Zuckerman, 2010, p. 4).

Implementation Pressures: Observations across 3 CSI Components
Driven by the need for situational awareness of and visibility into the global supply chain, the CSI-D has established an overseas U.S. customs presence in 58 ports throughout 32 countries (personal communication, August 5, 2010). From a strategic perspective, "the overseas officers serve as a force multiplier for the research, analysis, and intelligence functions that support the CSI, through the NTC" (personal communication, August 5, 2010). A strong contingent of overseas officers allows the U.S. to push the borders outward while reaching "deep into the global supply chain to decrease the overall threat level to the U.S. and its domestic ports" (personal communication, August 5, 2010). Although the number of CBP officers varies by geographic location, a typical CSI team consists of the following officials,

a CSI team leader, who manages the team and monitors the relationship with the host country; CBP officers/targeters, who target high-risk cargo and observe the host government's examination of containers carrying the cargo; an intelligence research specialist, who assimilates data to support timely and accurate targeting of containers; and a special agent responsible for CSI-related investigations at the seaport and who also serves as liaison with all appropriate U.S. embassy attachés (United States Government Accountability Office, 2008, p. 14).

Despite the physical operational presence within the foreign ports, the NTC-C maintains responsibility for identifying the overall threat/risk level to the United States, in a timely fashion to support overseas officers. Determining the overall threat/risk level is exacerbated by the fact that threat and risk vary by CSI port and associated geographic location (personal communications, June 25, 2010). Furthermore, the volume of data required to be analyzed creates challenges for both overseas and domestic targeters. As one interviewee noted, "a significant challenge is sorting through all of the information and data and then analyzing the data due to sheer volume of information. There always exists the problem that analysts are receiving information too late and then how do you prioritize, analyze, and act up upon the data that is received" (personal communications, June 25, 2010). Interviews indicated that the priority goal for the program is to "identify and mitigate risks and threats to U.S.-bound containerized cargo at the final port of loading instead of allowing the cargo to arrive at a specific domestic port" (personal communication, August 5, 2010). Given this mandate, the timely flow of information between overseas CBP personnel, the NTC-C, and the domestic ports is critical to an accurate determination of overall threat and risk level.

From an implementation perspective, the CSI program is driven by the need for the CBP to

maintain an effective overseas presence capable of operating within the parameters of established

declarations of principles (DOPs) that govern overseas CBP's officers' relationship with foreign

customs officials and agencies. According to CBP, in support of the CSI program, "CBP has

negotiated and entered into nonbinding, reciprocal arrangements with foreign governments,

specifying the placement of CBP officials at foreign seaports and the exchange of information

between CBP and foreign customs administrations" (United States Government Accountability

Office(b), 2008, p. 14). The established DOPs also outline the sovereignty parameters between

the United States and the foreign country to control the actions of overseas CBP officers

(personal communication, August 5, 2010). For example, "CBP officials do not have the legal

authority to inspect U.S.-bound containers in foreign ports, the host government customs

officials are to conduct the inspections. CBP officials are to observe the inspections and

document inspection results" (United States Government Accountability Office, 2005, p. 16).

The DOPs are critical to facilitating and promoting host nations "sharing critical data,

intelligence, and risk management information with CBP officials," as this is crucial to the

success of the program (United States Government Accountability Office(b), 2008, p. 14).

Issues with international sovereignty affect the program as requirements outlined in the SAFE

Port Act push for more standardization of processes and the establishment of minimal technical

criteria for scanning equipment. The GAO found that "the agency faces challenges in

implementing these requirements due to sovereignty issues and the fact that the agency is not a

standard setting organization, either for equipment or for inspection processes or practices"

(United States Government Accountability Office(e), 2008, p. 33). CBP has established several

criteria for participation as a CSI port and outlined the minimum requirements associated with

implementation of the program at a foreign port. For example, the host nation must "utilize a

seaport that has regular, direct, and substantial container traffic to seaports in the United States;

customs staff with the capability of examining cargo originating in or transisting through its

country; and nonintrusive inspection equipment with gamma or X-ray capabilities and radiation

detection equipment" (United States Government Accountability Office (b), 2008, p. 14).

A central pressure influencing domestic port operations is the need to ensure effective

implementation and compliance with CBP and CSI-D headquarters policy guidance and

direction in order to execute the priority mission of securing the global supply chain, while still

ensuring and facilitating the flow of commerce. Interviews indicated that "headquarters sets the

policy direction and the port is responsible for implementing the policy" (personal

communications, September 20, 2010). The domestic ports are made aware of changes and

shifts in policy direction through the appropriate Office of Field Operations (OFO) field office,

which provides oversight to domestic port operations. From an accountability perspective, the

domestic ports are responsible for reporting to a corresponding OFO field office. The CSI-D and

NTC-C set the policy direction for the program and then push the policy through the OFO field

offices for domestic port review/comment or implementation (personal communications,

September 20, 2010).

The need for CBP personnel to execute the priority mission of securing the global supply chain,

while still ensuring and facilitating the flow of commerce and travel, presents several challenges

for the program. Interviews at the domestic port indicated that there is a conscious recognition

by CBP officers about the need to balance the facilitation of trade and commerce against the

priority mission of providing a sound security strategy and enforcement practices to secure the

global supply chain. Interviews highlighted that although there is conscious recognition of the

need to maintain a "true balance of security and commerce," this dichotomy presents a

"legitimate pressure on domestic port operations" (personal communications, September 20,

2010). The security/anti-terrorism aspect is "just one dimension of cargo targeting, and as a

result, CBP's twin goals are not separate and should not be presented or understood as separate

goals. The twin goals are an integrated goal" (personal communications, June 25, 2010).

From an operational perspective, facilitating the movement of cargo throughout the domestic

ports while adhering to security protocols and practices is challenging given the volume of cargo

entering and exiting domestic ports each day. As one interviewee noted, "the overall size of the

port and the sheer volume of cargo that arrives daily presents a significant challenge in moving

legitimate commerce given security demands" (personal communications, September 20, 2010).

"On any given day, the port handles so many issues associated with trade, customs, passenger

entry, immigration, and security enforcement that a true balance of priorities remains a

challenge" (personal communications, September 20, 2010).

Program Objective: Establish national level policy, business rules, and standard operating procedures (SOPs) and processes for CSI personnel
In response to these implementation challenges, CBP and CSI-D leadership have focused on the

development and codification of national level policy, business rules, and standard operating

procedures to drive the implementation of the program objective through the NTC-C and

domestic ports. As Figure 4 illustrates, the CSI-D actively pushes information to the NTC-C and

domestic ports to ensure the flow of information throughout all levels of the program. CBP and

CSI leadership (CSI-D and NTC-C) have placed significant emphasis on evaluating current

business processes to periodically review CSI policies, operating procedures, and business

practices to "ensure there are clearly defined rules of engagement through clearly defined

standard operating procedures and declarations of principles" (personal communications,

August 5, 2010). This practice highlights how CSI leadership and management are constantly

and consistently reviewing operating procedures to ensure the program is focused on its pressing

priorities.

The program has a paramount need to have repeatable and standardized business rules and

processes across program components. The CSI-D serves as the primary headquarters function

for the program and is responsible for setting the overall direction and determining priorities.

Although organizationally independent of the CSI-D, the NTC-C operates in conjunction with

the CSI-D to exercise a significant level of influence over the program, "from setting policy

direction to establishing screening standard operating procedures" (personal communications,

August 6, 2010). CBP officers located within the NTC-C provide:

> support to CBP officers located the CSI seaports. These officials assist the CSI teams at
>
> high-volume seaports to ensure that all containers that pass through CSI seaports are
>
> targeted to identify high-risk container cargo; carry out CSI targeting responsibilities for
>
> CSI seaports that do not have CBP officials stationed there; and conduct targeting for
>
> U.S. bound container cargo that does not pass through CSI seaports using national
>
> sweeps to identify high-risk container cargo (United States Government Accountability
>
> Office, 2008, p. 14).

The role of the NTC-C in domestic port operations is underscored by the fact that "over 185

domestic seaports throughout the United States interact daily with the NTC-C to ensure the

overall security of the port" (American Association of Port Authorities, 2008). Figure 3 displays

the relationship of the three components as well as highlights the operational dynamic of the

NTC-C to the CSI-D and the domestic ports. The NTC-C operates as a key interface between

CSI components influencing strategic direction within the CSI-D, while providing analytical and

advanced targeting support to overseas CBP teams and as well domestic port operations. NTC-

C's role as a liaison between the CSI-D and domestic port operations allows the program to

remain adaptable to external threats and pressures.

The NTC-C is instrumental in bridging the analytical and administrative dimensions of the

program given the cadre of CSI targeters that provides the NTC-C with tremendous insight into

execution and implementation of the CSI program, both from an overseas as well as domestic

perspective (personal communications, August 6, 2010). One interviewee reinforced the

importance of the NTC-C to the CSI program, noting "the NTC-C is the overall architecture that

controls the CSI program" (personal communications, August 5, 2010).

Figure 3: Flow of Data Between CSI Components
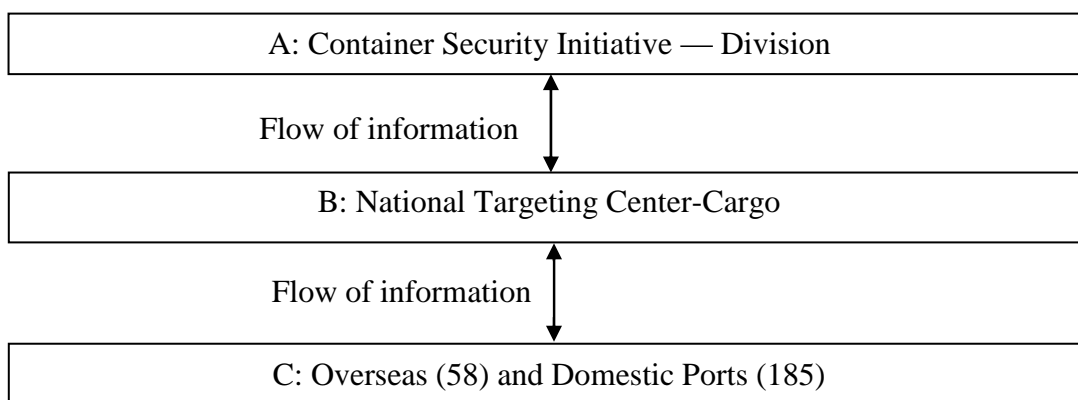
A: Container Security Initiative — Division

Flow of information

B: National Targeting Center-Cargo

Flow of information

C: Overseas (58) and Domestic Ports (185)

Management Strategies: Standardized analytical workflows and targeting approach supported by advance information/analytics, automated tools and technology, and functional specialization of CSI personnel

Central to the CBP targeter's ability to develop sound analytic judgments is access to data and advance information. To help CBP targeters formulate and develop analytic positions, the CSI program has instituted a layered approach to leverage multiple data sources. This approach enables the facilitation of trade as targeters are provided with more accurate data, enabling them to develop timely and sound analytic judgments "allowing cargo to be cleared through the port faster" (personal communications, September 20, 2010).

Advance information provided through the 24-hour rule and the Importer Security Filing (10+2) provides CBP with "timely information about cargo shipments that enhance our ability to detect and interdict high risk shipments" by requiring both importers and carriers to submit additional cargo information to CBP before cargo is brought to the United States (Federal Information & News Dispatch, Inc., 2009, p. 2). The security filing, or 10+2, is a "regulation that requires importers and vessel operating carriers to provide additional advance trade data to CBP pursuant to the SAFE Port Act of 2006" (Department of Homeland Security (a), 2008).

The 10+2 imposes requirements on both importers and carriers. For importers handling U.S.-bound cargo, the regulation "requires the electronic filing of an Importer Security Filing (ISF) comprised on 10 data elements no later than 24 hours before the cargo is laden aboard a vessel" (Department of Homeland Security (a), 2008). For carriers, "vessel stow plans are required for arriving vessels with containers as well as container status messages for containers arriving via vessel" (Department of Homeland Security (a), 2008).

The Importer Security Filing data requirement has contributed significantly to the efficiency and comprehensiveness of CSI targeting functions. As an interviewee noted, the "10 additional data points helps targeters assign risks, which leads to more comprehensive risk assessments" (personal communications, August 5, 2010). Furthermore, additional data points help "balance the secondary mission of facilitating trade as less cargo is selected for inspection" (personal communications, September 20, 2010). The additional advance information provides "Customs extra time to use risk analysis to target suspicious shipments" (Elite Group Inc., 2007). Due to the tremendous volume of cargo entering and exiting the port on any given day, standardized processes and measures are required to "keep the legitimate cargo moving from place to place" (personal communications, September 20, 2010).

One process used to manage CBP's twin goals at the domestic port level is establishing "designated timelines for how long cargo can sit within a given port, which helps keep the flow of commerce moving" (personal communications, September 20, 2010). To further promote the timely shipment of cargo, CBP has formed a problem resolution team to "speak with customs brokers and answer questions regarding when particular shipments (containers) are reviewed" (personal communications, September 20, 2010). When conducting these discussions, the problem resolution team reinforces the distinction between the screening and scanning of containers. The domestic port Advanced Targeting Units (ATU) expanded upon this distinction, noting that screening constitutes an "analytical review of the targeting data," while "scanning is more intensive and requires a Non Intrusive Inspection (NII) and potentially further physical examination or inspection" (personal communications, September 20, 2010). The GAO research indicates that should a NII determined to be necessary, CBP officials "might conduct the

inspection with equipment such as the Vehicle and Cargo Inspection System (VACIS), which takes a gamma-ray image of the container so inspectors can detect any visual anomalies. With or without VACIS, inspectors can open a container and physically examine its contents" (United States General Accounting Office, 2004, p. 5).

The risk-based approach used by CBP to secure container cargo facilitates the flow of information between CSI components and helps to mitigate the NTC-C and CSI-D pressure of identifying the overall threat and risk level in a timely fashion. Advance information received through the 24-hour rule is critical to help identify the overall threat level posed by a particular container. The 24-hour rule requires that "ocean carriers electronically transmit cargo manifests to CBP's Automated Manifest System 24 hours before the U.S. bound cargo is loaded onto a vessel at a foreign seaport" (United States Government Accountability Office, 2008, p. 11). The advance electronic cargo information "is evaluated using the Automated Targeting System [ATS] before arrival to the United States" (Federal Information & News Dispatch, Inc., 2009, p. 2).

The data provided by the carriers and importers strengthens how the ATS assigns risk scores (United States Government Accountability Office(a), 2008, p. 11–12), and the ATS is a decision support tool for "CBP officers working in Advanced Targeting Units (ATUs) at domestic ports of entry and CSI ports abroad" (Federal Information & News Dispatch, Inc., 2009, p. 2). The ATS is used "to assess the risks of individual cargo containers. The ATS is a complex mathematical model that uses weighted rules that assign a risk score to each arriving shipment based on shipping information" (United States Government Accountability Office, 2007, p. 27).

The system provides uniform review of cargo shipments for identification of the highest threat shipments, and presents data in a comprhensive, flexible format to address specific intelligence threats and trends. Through rules, the ATS alerts the user to data that meets or exceeds certain predefined criteria. National targeting rule sets have been implemented in ATS to provide threshold targeting for national security risks for all modes of transportation (Federal Information & News Dispatch, Inc., 2009, p. 2).

The ATS serves as the central tool to promote analytic standardization across each component of the CSI, to include the domestic ports. One interviewee noted that the ATS system is used by the CSI program to manage and coordinate communication across the entire program, as all of the program's targeters use ATS to support the CSI (personal communications, August 30, 2010). The ATS provides decision support to CBP officers and is critical to the CSI program because it allows overseas customs officers to communicate with the NTC-C as well as provides the NTC-C with the ability to communicate with the domestic port ATUs — ensuring that targeting performed in support of the CSI is uniform and consistent across each program component (personal communications, September 20, 2010). Targeters have the ability to "review overseas screening results in the ATS, providing deep insight into overseas CSI operations" (personal communications, September 20, 2010). Although the duties performed by overseas CBP officers often expand beyond the scope of targeting, requiring overseas officers to be multifaceted and diverse, "leveraging detection technology and the ATS allows for the inspection of far more cargo shipments, more rapidly" (personal communications, August 5, 2010 and Bonner R.C., 2006).

On a daily basis, the domestic port ATUs perform advance targeting in coordination with the

NTC-C to support CSI operations. One interviewee noted, "the level of coordination depends on

the severity of the case" (personal communications, September 20, 2010). At the domestic ports,

the ATUs locally assess every shipment coming into the port using the ATS (inspection rate is

about 9 percent). The ATS operates off of system threshold calculations and conditions.

Analysts leverage the ATS, and associated targeting criteria, to determine a risk score for a

particular container, which drives the container's overall threshold value. Additionally, the

ATUs work closely with NTC-C to determine and ensure the correct conditions are applied to

certain containers (personal communications, September 20, 2010). The ATS is powerful

because it "applies system conditions/rule sets to a particular target, which then flags certain

targets based on an overall risk score and resulting threshold level" (personal communications,

September 20, 2010). "The resulting total threshold value of the container is then used to

determine if a mandatory review of the cargo is required" (personal communications, September

20, 2010). Per national level policy, a mandatory exam is required when a "target reaches a

certain threshold level, partially derived from the risk score" (personal communications,

September 20, 2010). Discussions revealed that CBP officers do exercise discretion, in terms of

ordering additional physical inspections of cargo based on the overall threshold value of a

particular target. However, 100 percent of high-risk targets pass through the Non Intrusive

Inspection (NII) equipment (personal communications, September 20, 2010).

It is accepted throughout the NTC-C and domestic port to leverage standardized analytical

workflows and processes to control the flow of information to functionally specialized teams.

For example, within NTC-C, analytical workflows and priority national security issues are
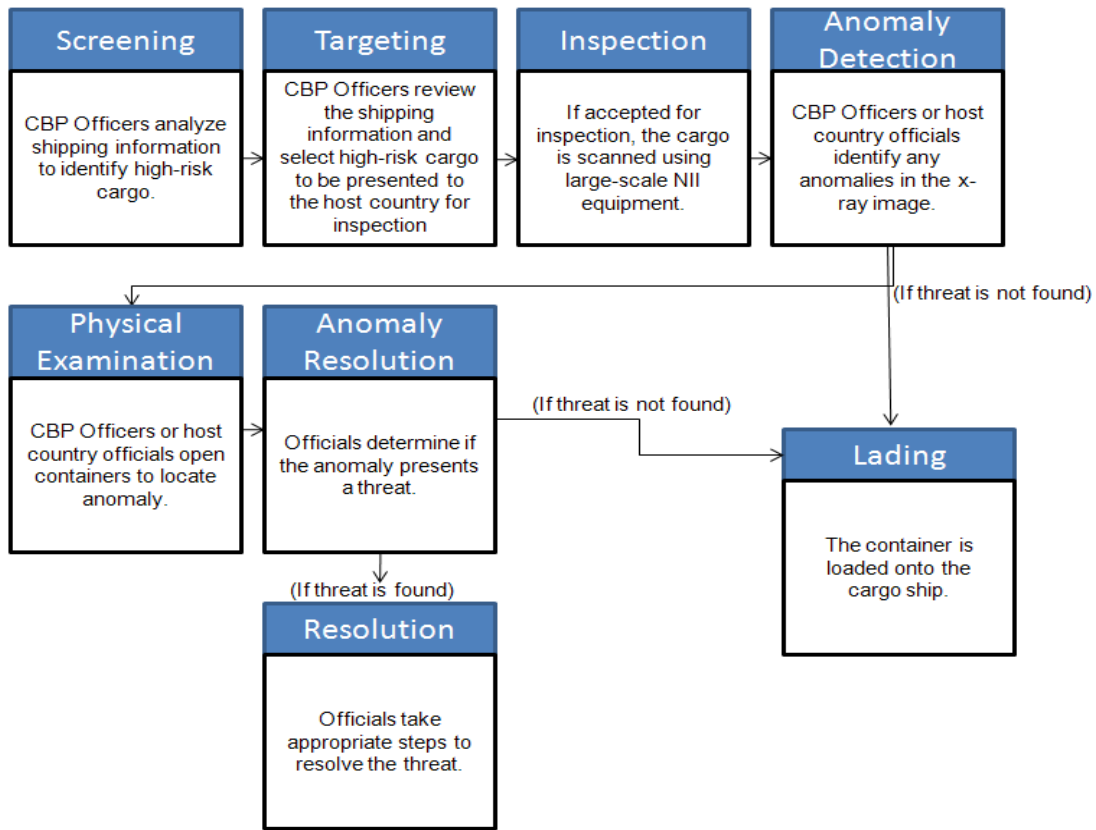
managed proactively through the implementation of SOPs and business practices, and through "specialized teams to control the flow of data to tactical level teams with particular areas of expertise which manages mission creep" (personal communications, June 25, 2010). An established practice within NTC-C is that workload and assignments are managed from most mission critical (national security) to the least mission critical (analysis of seizures), meaning that senior managers (watch commanders) "take appropriate measures to work directly with analytical staff and ensure appropriate individuals are abreast of daily events that are of priority to CSI (national security related)" (personal communications, June 25, 2010).

Analytical workflows and business practices are driven by the level of risk that a particular target presents, therefore daily workloads within the NTC-C are dictated by external threat levels. As a result, "decision-making within NTC-C is based heavily on supporting analytic data and the management of the threat and risk level posed by priority targets. Senior management within NTC-C highlighted that "NTC-C has the autonomy and flexibility to shift resources to address priority threats" (personal communications, June 25, 2010). This practice is a direct example of how CBP management balances the security and trade facilitation dimensions of the program through prioritization. CSI managers understand the priorities and consistently allocate and assign the resources necessary to execute against those priorities. Analysts screen 100 percent of cargo to ensure the "targeting system is functioning at a maximum level to mitigate risk while adjudicating all identified high risk cargo" (personal communications, August 6 and 30, 2010). However, NTC-C analysts make workload trade-offs based on threat and risk level of key targets" (personal communications, August 30, 2010).

In this capacity, the NTC-C first manages and triages the high-risk bills of lading. "The bills of lading have to be reviewed as this is the clear Congressional mandate" (personal communications, August 6, 2010). After working high priority targets, NTC-C staff (watch commanders) conduct other activities such as "managing ad-hoc support programs, developing policy and SOP, or responding to headquarters-level questions" (personal communications, August 30 2010). Figure 4 provides an overview of the standardized cargo screening and targeting process for the CSI program. (Department of Homeland Security Office of Inspector General , 2010, p. 1).[15] This workflow processes ensures that "specialized units are able to proactively mitigate threats at the point of departure" (personal communications, August 5, 2010).

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[15] See United States Government Accountability Office, 2005, p. 9 and 15, for a detailed model of CBP's Domesitc and Overseas Process for Targeting and Inspecting Cargo Containers.

Figure 4: CSI Cargo Screening and Targeting Process (Department of Homeland Security Office of Inspector General, 2010)

Screening	Targeting	Inspection	Anomaly Detection
CBP Officers analyze shipping information to identify high-risk cargo.	CBP Officers review the shipping information and select high-risk cargo to be presented to the host country for inspection	If accepted for inspection, the cargo is scanned using large-scale NII equipment.	CBP Officers or host country officials identify any anomalies in the x-ray image.

(If threat is not found)

Physical Examination	Anomaly Resolution
CBP Officers or host country officials open containers to locate anomaly.	Officials determine if the anomaly presents a threat.

(If threat is not found)

Lading

The container is loaded onto the cargo ship.

(If threat is found)

Resolution

Officials take appropriate steps to resolve the threat.

Functional specialization across CSI teams helps mitigate the implementation pressures introduced above. The nature of the work and broad scope of responsibilities require that officers maintain responsibility for a functional area (national security, trade, agriculture) at the domestic port. As a result, daily workload at the domestic ports is functionally broken down based on an officer's area of responsibility (personal communications, September 20, 2010). For example, the AT-CET/ATU focuses primarily on national security scanning and screening. Another group of officers focus almost exclusively on agriculture exams, and another team focuses primarily on trade-related exams and concerns. Each group has its own high-risk targets that are worked in throughout the course of the day (personal communications, September 20, 2010). Observations revealed a significant level of nuance and specialization within each area.

Overall areas of responsibility are vast, and so specialization among the workforce and across

tasks is a necessity (personal communications, September 20, 2010). Although there is

significant functional specialization among the CSI teams, interviews revealed that support to

port operations remains adaptable as CBP resources are shifted in response to high priority

external threats. An interviewee stated that "officers are often adjusted and shifted in response to

external threats and evolving situations" (personal communications, September 20, 2010). This

example illustrates the balance that CBP officers demonstrate in support of the CSI program by

providing both specialized and general targeting expertise in response to evolving threats.

Although the Congressional mandate presumes to restrain and limit discretion related to

screening practices, the operational reality is such that increased discretion must be exercised as

CSI teams seek to mitigate risk in response to shifting threats while operating within the context

of external constraints, limited resources, and the parameters of technology.

Shape and set national level policy through the use of task forces and working groups to ensure policy is manageable and implementable from an operational perspective
At the domestic port level of the program, task forces and working groups interact with the NTC-

C and CSI-D to help shape and set national policy and standard operating procedures. Interviews

revealed that CBP and CSI-D leadership prioritize the "periodic review of policy and procedures

to ensure that domestic port procedures are updated and coincide with new policy direction,

regulations, and procedures" (personal communications, August 5, 2010). At the domestic port

level, when a national policy is reviewed or revised, personnel at the port engage in a

headquarters-level or Office of Field Operations (OFO)-sponsored working group or task force

to gain insight into the policy revision process. "Domestic ports are very engaged in

headquarters-level sponsored working groups and task forces focused on ensuring policy

direction is implementable at the tactical level," an interviewee said (personal communications,

September 20, 2010). As a proactive management strategy, CBP and CSI-D leadership engage

with the NTC-C and domestic ports to mitigate any "disconnect between component levels

(headquarters and the field) and to help ensure the policy is practical and implementable within

an operational environment" (personal communications, September 20, 2010).

CBP leadership has prioritized the need to ensure the coordinated execution of national policy

through the implementation of SOPs. These SOPs help control individual behaviors and ensure

analytic consistency across the program. Observations across the program revealed that national

policy and standard procedures are instrumental in governing the interaction between the

program's components. Direction from headquarters (Commissioner's Office, CSI-D, and NTC-

C) is very clear and directive in nature, which provides domestic ports the "ability to follow

consistent policies and procedures despite each port having a unique layout and design"

(personal communications, September 20, 2010). Standardization across the program ensures

that "consistent rule sets apply across each domestic port to mitigate confusion in direction and

response to situations" (personal communications, September 20, 2010). Directives are

applicable to all domestic ports and therefore are applied in a uniform manner that promotes and

enables consistency and continuity in program operations. Interviews underscored this finding,

as one individual noted that "policy and guidelines apply the same to all of the domestic ports as

well as to the NTC-C to ensure that there is no inconsistency in the message and the overall

direction of the program" (personal communications, September 20, 2010). Discussions further

highlighted that "due to the nature of the work, it is difficult to deviate outside of accepted

practices and norms" (personal communications, September 20, 2010). For example, "any

national security exam is the primary responsibility of the final port of lading and always

receives priority focus. National security exams are addressed first before any narcotic, agricultural, intellectual property, or commercial exams are investigated and conducted" (personal communications, September 20, 2010). Policy dictates that national security exams "must be mitigated in the CSI port (foreign port) or the first port of arrival in the United States" (personal communications, September 20, 2010). In September 2004, the GAO reported that "1 percent of container referrals we denied by host government officials, generally because they believed the referrals were based on factors not related to security threats, such as drug smuggling" (United States Government Accountability Office, 2005, p. 4). After addressing national security exams, workload assignments vary based on discretion of the officer. Interviews revealed that one port might place a significant emphasis on narcotics, but another might place additional emphasis on commercial matters. The secondary focus is "dependent on the port and what is coming into and going out of a given port" (personal communications, September 20, 2010).

The following section provides further empirical evidence regarding how specific systemic pressures are driving the manifestation of ambiguity and implementation pressures throughout the CSI program. Table 5 elaborates upon each dimension of the conceptual model introduced above and provides subsequent analysis of each dimension.

Table 5: Systemic Pressures, Ambiguity, and Implementation Pressures Associated with Managing the Maturity and Evolution of the CSI Program

Systemic Pressure #2: Managing the maturity and evolution of the CSI program within operational constraints (budget, human resources, analytical support to overseas officers)	**Resulting Program Ambiguity:** Competing interpretations regarding the optimal approach for managing the maturity of the program: o Large overseas presence o Smaller headquarters contingent performing remote targeting
Implementation Pressures — Pressures Distinct to the CSI Components	
CSI-D and NTC-C: Manage the evolution of the program against NTC-C's analytic responsibilities while balancing increasing demands from external stakeholders to expand scope of targeting functions beyond the Congressional mandate and established DOPs.	
NTC-C: Maintaining analytic continuity with overseas CBP officers to provide advance targeting information, in support of overseas CSI responsibilities, as the program transitions from large overseas presence to a more limited overseas role	
Strategic Engagement Process — Engagement by CSI-D and NTC-C Management	
Program Objective: Manage and Facilitate CBP's overseas presence and responsibilities	
Management Strategies	
▪ Establish effective relationships through external and internal coordination strategies to facilitate overseas customs relationships ▪ Manage the flow of data to overseas CBP officers through standardized processes and continual emphasis on process improvement initiatives	

Managing the transition and maturity of the program

CSI operations face the additional systemic pressure of managing the overall maturity and evolution of the program in response to key drivers and policy decisions. As the program has matured and become more established over time, important factors, such as the program's operating budget, have driven decisions regarding the overall direction of the program. Budgetary constraints have forced CBP leadership to reevaluate CBP's physical overseas presence at foreign ports and consider potential efficiencies associated with shifting some targeting functions to headquarters — altering the current operating model of the program. CBP

leadership is challenged to determine whether a physical overseas CBP presence is preferred over a smaller contingent of personnel performing "remote" targeting at headquarters and determining an appropriate balance. Furthermore, "the 100 percent scanning requirement is a departure from several existing container security programs and may hinder the programs' continued operation" (United States Government Accountability Office, 2009, p. 39). The GAO found that implementation of the CSI could be hindered by a reduced "willingness of some foreign governments to work with CBP to identify and examine containers at their ports, and the willingness of some private companies to partner with CBP to improve their internal security programs" (United States Government Accountability Office, 2009, p. 39). The following section develops the ambiguity that has manifested as a result of the key pressure on the program.

Resulting Ambiguity

As the program has matured, competing frameworks have arisen regarding the most effective approach to manage CSI program operations. The program was established through negotiated DOPs, setting a precedent for the presence of CBP officers within foreign ports to perform targeting and screening functions for the CSI. In the process of establishing a strong overseas presence, a high level of personal trust has developed between the respective Customs officials. Furthermore, the daily interaction of Customs officials has been instrumental to CSI operations. Through these relationships, overseas CSI officers have been able to gain valuable insight and information about the global supply chain that might not have been available without a physical CBP presence within a foreign port.

In response to growing budgetary concerns and in attempt to move the program forward, CBP leadership has begun to transition overseas staff back to headquarters. Resources are being transitioned back to NTC-C headquarters in order to perform more remote targeting for the CSI. Such a transition represents an operational and cultural shift for those CBP officers who have supported the program "in country" for many years. Ambiguity arises at the implementation level as targeting functions are shifting out of foreign ports and back to headquarters, introducing more significant limitations on CSI officers in the screening process. This operational transition has the potential to place additional strain on already limited CBP resources supporting the CSI program.

The implications associated with this resource shift are significant. As the program has matured through a physical overseas presence, CBP personnel have established strong personal relationships with foreign counterparts. Resource constraints present tactical complexity to CBP leadership, as the GAO found that "the agency has not been able to place enough staff at some CSI ports" to "review information about all U.S. bound containers at CSI seaports for high risk contents" (United States Government Accountability Office(e), 2007, p. 32). In addition, CBP "faces challenges in ensuring that the optimal numbers of staff are assigned to CSI ports due in part to its reliance on placing staff overseas at CSI port without systemically determining which functions could be performed overseas and which could be performed domestically" (United States Government Accountability Office(e), 2007, p. 32-33). Additional constraints associated with staffing are the result of diplomatic and practical considerations, the GAO discovered. In 2005, the GAO reported that "in terms of diplomatic considerations, the host government may limit the overall number of U.S. government employees to be stationed in a country and may

restrict the size of the CSI team. In terms of practical considerations, the host governments may

not have enough workspace available for CSI staff and may thus restrict the size of the CSI

team" (United States Government Accountability Office, 2005, p. 19). According to 2006

budget data, "the average cost of putting an American position overseas was approximately

$430,000" (United States Government Accountability Office, 2005, p. 19).

The implementation requirements outlined in the SAFE Port Act of 2006, mandating the required

scanning of 100 percent of all U.S.-bound cargo containers, "could generate an increase in the

overall quantity of scan data creating greater staffing challenges because more CBP officers will

be required to review and analyze these data for participating seaports" (United States

Government Accountability Office (a), 2008, p. 4). These requirements could potentially erode

the level of trust that has been established over time via multilateral or bilateral agreements with

foreign partners. The GAO highlights that several foreign governments have expressed concern

that the 100 percent scanning requirement is "being put forth solely by the United States, in

contrast to existing container security programs" and is inconsistent with negotiated agreements

(United States Government Accountability Office, 2009, p. 39).

As the CSI program is built upon "established bilateral partnerships with foreign governments

that allow CBP to place its staff at 58 foreign ports to work with host country customs officials to

identify and scan high-risk cargo before it is shipped to the United States," the continued

operation of the CSI program may be affected "depending on how the 100 percent scanning

requirement is implemented" (GAO United States Government Accountability Office, 2009, p.

40). The GAO also highlights that "the CSI program establishes trust and collegiality, leading to

increased information sharing, as well as more effective targeting and examination of high-risk cargo containers" (United States Government Accountability Office, 2009, p. 41).

Implementation Pressures: Evidence Across 3 Components
The maturity of the program has introduced tactical level pressures for the CSI-D and NTC-C associated with ensuring the appropriate scope and direction of the program while also balancing performance expectations. In its day-to-day functioning, NTC-C faces the key pressure of weighing analytical responsibilities against increasing demands from external actors (Congress, DHS, and CPB HQ) to expand the scope of targeting functions and responsibilities beyond the current Congressional mandate and established CSI DOPs with foreign countries (personal communication, August 6, 2010). At the CSI-D, this pressure also manifests as Congressional leaders and other external entities press for an expansion of responsibilities to include examining containerized cargo for other targets currently outside the scope of Congressionally codified responsibilities. Although interviews across the NTC-C indicated that there are no perceived inconsistencies in mission execution from an anti-terrorism perspective, additional new duties have the potential to "create issues at the tactical level due to an increase in workload and potential confusion about organizational accountability (NTC-C or CSI-D)" (personal communication, August 6, 2010).

At the NTC-C, there is a constant balance between managing the "priorities of the analytical dimension of the program, supported by NTC-C, against the short- and long-term priorities of the program" (personal communication, August 6, 2010). One interviewee indicated that "the CSI is a mature program; however, there has been increasing demand from Congress, the Department, and CBP to increase the scope of CSI targeting responsibilities" (personal communication,

August 6, 2010). NTC-C management places a clear focus on targeting for WMD at overseas

ports. However, increasing the scope of targeting responsibilities introduces potential uncertainty

about what to refer (containers) in certain situations given the pressures to target for additional

items. One interviewee asked, "Why do we have to know about the additional scope? We have

enough to do" (personal communication, August 30, 2010). The NTC-C is tasked with ensuring

a smooth flow of cargo from overseas ports to the United States and other destinations, while

simultaneously applying systematic screening techniques in an efficient and consistent manner.

Therefore, facilitating the flow of trade and ensuring information and data are received in a

timely manner for the information to be "prioritized, analyzed, and acted up upon is critical"

(personal communication, August 6, 2010).

Compounding this matter is a lack of understanding by Congressional leaders regarding how

established DOPs, with other sovereign foreign governments, "dictate and govern the

relationship between the overseas CBP officer and foreign customs officials" (personal

communication, August 5, 2010). For example, established DOPs with foreign governments

clearly define CBP's role at a particular foreign port. The relationship between the United States

and the European Union (EU) is highly structured through the established DOP. For example,

the "EU does not want CBP examining containers for narcotics as this type of activity and action

undermines and weakens the overall relationship" (personal communication, August 5, 2010).

The DOPs limit, restrict, and delineate the scope of overseas CBP officers' authority, as these

individuals are "foreign officers in sovereign countries" (personal communication, August 5,

2010). Furthermore, the DOPs dictate that CSI personnel are located within designated foreign

ports to "perform targeting on containerized cargo for WMD; nothing beyond that scope is

permitted" (personal communication, August 5, 2010). The overseas CBP officer's "jurisdiction

and authority is limited to performing specified targeting functions at the foreign port of lading,"
— in essence, limiting the discretion CBP personnel can exercise within foreign ports (personal
communication, August 5, 2010). Increasing pressure to expand the scope of the CSI
responsibilities creates "political sensitivities, as the DOPs are very clear as to what functions
CSI personnel should be performing within foreign seaport" (personal communication, August 6,
2010).

The need to maintain analytic continuity between the NTC-C and the overseas CBP officers has
introduced pressures associated with providing consistent analytical support and advance
information to overseas CSI operations as the program transitions from a large overseas presence
to a more limited overseas role. To help keep the operating costs of the program within
acceptable limits, CBP leadership decided to incrementally transition personnel from overseas
ports to perform remote targeting functions at headquarters. In response to this decision, one
interviewee at the NTC-C stated, "targeting functions are shifting to NTC-C headquarters from
overseas ports, changing the program's traditional operating model" (personal communication,
August 6, 2010). Historically, "NTC-C targeters have provided specialized targeting expertise
and support to overseas CSI operations; however, as the program is maturing, the need for NTC-
C targeters to have a more general understanding of the gambit of customs functions and
responsibilities has arisen" (personal communication, August 6, 2010). Based on the success of
its targeting capabilities, NTC-C's role has expanded and shifted toward more remote targeting,
and resources are being adjusted to more tactical targeting to increase program efficiency. There
is a competing need to provide both specialized and more general support to CSI overseas
operations. One interviewee noted that "some uncertainty has arisen about roles and
responsibilities at the tactical level, as targeting cargo is very different from other traditional

Customs functions" (personal communication, August 6, 2010). This shift in operational focus represents a transition from a "boots-on-the-ground presence at foreign ports to an increased presence of targeters at NTC-C headquarters" (personal communication, August 6, 2010).

The shift introduces a new trust dynamic. Currently, the level of trust with host countries' Customs and port officials was built upon the physical presence of overseas CBP officers within the ports and their ability to develop a cooperative relationship between partners (personal communication, August 6, 2010). As a result of the transition, there is some "uncertainty among the analytical staff/targeters about whom they ultimately report to and which organizational component (NTC-C or CSI) is ultimately in charge of day-to-day functions of the program" (personal communication, August 6, 2010). As the transition is implemented, CBP will keep one or two personnel at a foreign port to maintain the relationship, but a full cadre of targeters/personnel will not be present, as has traditionally been the case (personal communication, August 6, 2010). As the program evolves and transitions to more headquartered-centric operating model, the CSI-D must continue to provide effective management and oversight to critical administrative functions (staffing and budgeting). One interviewee noted that, "staffing the program with the right individuals can sometimes present a challenge as CSI overseas officers interact with foreign customs officials as well as with other federal law enforcement officials such as Immigration and Customs Enforcement (ICE) or the Drug Enforcement Administration (DEA) based on the issue (drugs, kidnapping, etc.)," therefore finding a multifaceted candidate to manage all of these relationships can be difficult (personal communication, August 5, 2010).

Program Objective: Managing and Facilitating CBP's Overseas Presence and Responsibilities

Interviews across the three components revealed that the CSI program focuses on managing and facilitating CBP's overseas presence to ensure efficient operations. Establishing effective relationships with overseas partners, fostering those relationships, and coordinating regularly with foreign officials to support daily tasks and job responsibilities helps to mitigate the pressure introduced above. "To more effectively implement the components of its layered security strategy, CBP has worked to promote international partnerships to enhance security so that high-risk cargo can be identified before it arrives in the United States" (United States Government Accountability Office, 2008, p. 7). Efficiently managing and facilitating CBP's overseas responsibilities drives the day-to-day execution of the program. CBP officials note, "the strength of the CSI program is the information gained from host government officials that CBP would otherwise not have access to" (United States Government Accountability Office, 2009, p. 41). The GAO reports that the "information host government officials can provide in determining whether a U.S.-bound container is at high risk of containing WMD and should be inspected" is a key dimension of the program (United States Government Accountability Office, 2005, p. 22).

This statement underscores the importance of seamless collaboration between CBP and host government customs officials. CBP leadership has taken direct actions to foster overseas relationships as well as ensure efficiencies in the screening process. For example, CBP established the Evaluations and Assessments Branch (EAB) to "conduct periodic reviews of operational CSI ports, determine the effectiveness of the CSI program, and ensure effective coordination with foreign host governments" (Department of Homeland Security Office of

Inspector General , 2010, p. 2). The following data speaks to the overarching management strategies utilized by CBP personnel to enact this important objective.

Management Strategies: Establish effective relationships through external and internal coordination strategies to facilitate overseas customs relationships
The NTC-C has focused on managing and improving key overseas relationships through the use of internal and external coordination strategies. Maintaining an effective overseas CSI presence is central to NTC-C's relationship management efforts. Interviews with NTC-C indicate that "the overseas CSI relationships are very mature, but a physical presence at the foreign port is critical to the achievement of the CSI mission. The overseas relationships serve as a series of informal networks" (personal communication, August 6, 2010) enabling overseas officers to perform their duties more effectively. The continual facilitation and management of external relationships with overseas customs officials is critical, as DOPs govern and control overseas CBP officials' behaviors (personal communication, August 5, 2010). Overseas CBP officials have "no investigative or arrest authority, therefore a strong working relationship with foreign customs officials is necessary in order to execute against CSI objectives within foreign ports" (personal communication, August 5, 2010).

The maturity of the CSI program is exemplified by the level of trust that has developed between U.S. Customs officials and overseas Customs officials over the past eight years. Collaboration and trust between parties is highly contextual and dependent on the geographic location of the host country port. The GAO noted that "CBP officers cited instances in which host government customs officials would notify them of cargo containers they thought could be high risk so that CBP could take a closer look at the information available in ATS related to the containers" (United States Government Accountability Office, 2009, p. 41). For example, the European

Union and Germany in particular are very cooperative with overseas CBP personnel; however, relationships in other regions are not as strong (personal communication, August 6, 2010). Overseas CBP personnel are in a position to exercise tremendous influence as a result of their "access to intelligence and the cargo itself" (personal communication, August 6, 2010). One interviewee further noted that, "the level of trust with the host country and port is dependent on the level of trust that exists between the partners" (personal communication, August 6, 2010). The transition from accepted risk-based practices (CSI) to the 100 percent container scanning mandate threatens to undermine these established relationships. The GAO found that "implementation of the SFI program at foreign ports could result in reduced collaboration between CBP and host government customs officials" (United States Government Accountability Office, 2009, p. 41).

CBP personnel within CSI-D also place significant emphasis on internal coordination as a primary mechanism to facilitate CBP's overseas presence and responsibilities. Internal to CBP, the Office of International Affairs acts as the conduit to engage on the international level as the Customs attachés fall under its purview (personal communication, June 25, 2010). One interviewee said "the customs attachés are critical to CSI operations, as these individuals serve as the eyes and ears on the ground level and provide very close support to the overseas CSI officers" (personal communication, August 5, 2010). For example, "should an issue arise with CBP personnel overseas, that falls outside of the parameters of the established DOP, the matter is escalated and worked within the Office of International Affairs and then coordinated back to the CSI-D for awareness and resolution" (personal communication, August 5, 2010). An example of an overseas situation that might be escalated to the CSI-D through the Office of International

Affairs would be an issue related to an officer's relationship with the foreign Customs officers. Given the complexity and uniqueness of the relationship between overseas CBP officers and foreign Customs officials, ensuring appropriate awareness of potential issues between both parties is essential for effective operations. The DOPs with sovereign foreign nations strictly govern and regulate the actions of overseas CBP officers, which manages "mission creep as there are clear issues with sovereignty that must be adhered to diligently" (personal communication, August 5, 2010). For example, if an "overseas CBP targeter has a lead on a possible narcotics shipment, then that individual will work with foreign Customs officials to notify or they will coordinate directly with the NTC to stop at the domestic port and make arrests" (personal communication, August 5, 2010).

NTC-C leadership has placed a renewed focus on "increasing the level of coordination between program components (analytical side and the program administration side/country team managers) for increased situational awareness and to mitigate potential disconnect between the program administration and analytical components of the program" (personal communication, August 6, 2010). For example, NTC-C management (Chief Watch Commander) has instituted a bi-weekly meeting with representatives of the CSI-D (country team managers) to help reduce CSI-D (country team manager) workloads as well as increase the connection between teams at the NTC-C and CSI-D (personal communication, August 6, 2010). One interviewee commented that the level of "coordination needs to be improved so both teams know what can and can't be done and what is feasible" (personal communication, August 6, 2010). Furthermore, to better balance and manage both aspects, the NTC-C chief watch commander acts as a liaison between the analytical side (NTC-C) and the program administration side (CSI Division) and focuses on continuous process improvement (personal communication, August 6, 2010). One interviewee

noted that that was a "noticeable disconnect between the program administration side (CSI-D) and that analytical side (NTC-C) of the program" (personal communication, August 6, 2010). As a result, a central focus for NTC-C management was process improvement and defining "what should be done at within the program as overseas presence decreased. The new management team has focused on defining every scenario through planning and development of SOPs s to deal with new situations" (personal communication, August 30, 2010). This approach helps to mitigate issues associated with potential budgetary constraints, as CBP and NTC-C leadership are placing more emphasis on "integrating CBP/CSI resources and promoting the cross training of analysts in order to provide broader support to CSI operations in anticipation of potentially performing more functions with more limited resources" (personal communication, August 6, 2010).

Manage the flow of data to overseas CBP officers through standardized processes and continual emphasis on process improvement initiatives
In support of the CSI, NTC-C has focused on managing the flow of data and information to overseas CBP officers. The NTC-C provides "advance targeting information to overseas ports of lading to ensure the appropriate screening of high-priority cargo shipments destined for the United States based on a comprehensive risk assessment" (personal communication, June 25, 2010). The ATS, 24-hour rule, and the 10+2 advanced information play a critical role in determining risk prior to scanning containers. The GAO highlights that through these tools, CBP "gathers advanced information on U.S. bound cargo containers provided by carriers and importers to make determinations as to the risk level associated with the cargo containers before using imaging equipment to examine containers' contents" (United States Government Accountability Office, 2009.p. 40). Every day, NTC-C analysts review volumes of information and intelligence to support CSI's screening and targeting efforts, and then apply the information

in a strategic and tactical manner to particular problem sets (personal communication, August 6, 2010). NTC-C analysts work to ensure they are "receiving the information in a timely manner in order for the information to be prioritized, analyzed, and acted upon" (personal communication, August 6, 2010). To help manage this process, NTC-C engages in scenario and exercise planning and subsequently develops "SOPs based the exercise results to mitigate complexity, while also creating new SOPs to deal with potentially new or undocumented situations" (personal communication, August 6, 2010). According to NTC-C personnel, "all tasks are broken down into actionable steps given that NTC receives data on all cargo to include maritime, air, and rail, and is responsible for triaging all of this data" (personal communication, June 25, 2010).

Through these processes, the NTC-C is reaching deep into the supply chain. Furthermore, consistently evaluating and examining internal management processes and procedures provides CBP/CSI leadership with a better understanding of program needs and areas of concern — allowing resources to be utilized more effectively to address program needs and priorities. CSI-D management regularly "reviews and evaluates internal processes and standard operating procedures to mitigate and, to the fullest extent possible, eliminate confusion regarding roles and responsibilities throughout the CSI program" (personal communication, August 5, 2010). The CSI evaluation branch is consistently evaluating overseas CBP operations and officers to ensure accountability and consistent implementation of the program across each of the 58 ports. For example, CSI-D responsibilities have shifted to focus more on planning and budgeting for FY11 and FY12 as CSI is facing the threat of potential budget cuts. One interviewee noted that "the potential for budget reductions has been a recent driver for CSI operations. Although the

potential for cuts has yet to affect the program operationally, there has been a "heavy emphasis placed on planning in order to be prepared for potential budget cuts to the program" (personal communication, August 5, 2010). The Office of Management and Budget "is putting budgetary pressure on the DHS, and this is trickling down to CBP and CSI division" (personal communication, August 5, 2010). Recommended approaches to address the need for increased analytic continuity emphasize the comingling of analytical personnel to enable the "cross training of staff to help make more individuals interchangeable" (personal communication, August 6, 2010). As NTC-C leadership is promoting and moving toward the integration and shifting of targeting functions, NTC-C analysts must balance competing priorities and responsibilities. As one individual noted, "the mission set of Customs responsibilities is very complex, which is why focusing on WMD helps focus the scope" (personal communication, August 6, 2010).

Chapter 6: Outcomes and Areas for Future Research

So what do these observations and findings mean from a theoretical and practical perspective, and how is the implementation of the CSI program distinct among other large-scale, highly dispersed, networked public programs? The complexity associated with executing CBP's "twin goals" is clear as seen through the analysis and findings of this study. As described above, the challenge of executing against both priorities presents real pressures and challenges for those CBP officers responsible for the day-to-day execution of the CSI program.

However, the ongoing management tactic utilized by CSI managers is instrumental to the efficient operations of the program. Findings indicate that although the overall goal of the program is clear among staff across the program, an evolving threat picture coupled with an expansion of responsibilities and a shift in operating model requires the program to remain adaptable in order to respond to an evolving operational reality. The CSI program is managed primarily through SOPs and clearly defined business processes; however, the program has a unique ability to quickly respond and adapt to evolving situations. The iterative management approach observed during this study is key to this flexibility and is discussed and developed in greater detail below. The study's findings also support that managers appear to be more adept than previously assumed within existing studies at coping with and managing ambiguity and complexity.

A central takeaway from this research is that scholarship's recurring focus and emphasis on the static nature of public sector organizational goals needs to be challenged and reexamined from a managerial perspective. The assumption that public managers are beholden to inconsistent, ill-

defined, and rigid goals, priorities, and objectives is inconsistent with observed practice in this

instance. The study's findings lend support to the reality that public sector organizational

priorities shift and evolve as internal and external pressures exert influence on different

dimensions of public programs. And bureaucracy and public managers may be more adept in

addressing changing priorities than previously understood. To respond to the fluid nature of

organizational goals and priorities, public managers are constantly and incrementally adjusting

and aligning organizational resources, process, and practices according to shifting priorities.

This study provides evidence that public managers respond to fluid program goals and priorities

because those objectives are consistently re-examined to ensure alignment with broader strategic

outcomes. The process represents management by action and is very proactive in nature. CSI

management works to anticipate change instead of responding to challenges retroactively.

Conceptually, we can understand this process or management tactic as a means to consistently

scrutinize and evaluate program goals, priorities, processes, and practices.[16] The expectation is

that incremental review of these important program components will help to ensure consistent

alignment of each throughout each dimension of the program. Recognition by CSI managers

that priorities and expectations shift and evolve — which creates pressures, both strategic and

tactical — has been instrumental to their ability to adjust program priorities and objectives in

response to key pressures. From a practical perspective, various forces constrain and limit this

management approach, as illustrated by the CSI program. Balancing security concerns with the

demands of facilitating commerce, the dispersed nature of the program, and international

limitations and boundaries all shape and define the extent to which CBP managers can adjust to

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[16] Iterative management is similar conceptually to strategic engagement from the perspective that is very purposeful, direct, and incremental in nature.

an evolving threat picture and changing priorities. However, the important point is the conscious recognition and effort by CBP and CSI management to adjust program practices and processes as the operational picture evolves. Answering the questions, "What are we doing?" "Why are we doing it?" "And, why does it matter?" helps provide the perspective necessary to ensure the program pursues meaningful work while maintaining alignment to broader organizational objectives.

The ability and commitment of CBP and CSI leadership to continuously engage and adjust to changing priorities and external threats typifies the adaptive nature of this bureaucratic entity, challenging classic assumptions in organization theory scholarship. Although the organization is governed primarily through standard processes and procedures, CBP and CSI leaders recognize the importance of a flexible operating model in which resources can be shifted and adjusted to respond to evolving threats and situations. Findings from the study illustrate that the proactive approach taken by CSI management allows it to anticipate change and position staff for to deliberately respond to an evolving operational picture — as opposed to simply reacting. CSI managers can assess, evaluate, and decompose complexity at more strategic levels of the program and translate that complexity to lower levels, where management strategies can be employed to purposefully apply resources toward defined priorities and objectives.

Proactive management allows CSI managers to mitigate organizational and program complexity through advance planning and plays a key role in facilitating the overall execution of the program as priorities and goals shift and evolve. As discussed throughout Chapter 5, CBP leadership is primarily concerned with managing, facilitating, and executing overseas

responsibilities, as well as establishing, communicating, and enforcing national level policy, business rules, and standard operating procedures (SOPs) for overseas and domestic CSI personnel. In response to these key priorities, the CSI program faces distinct implementation pressures that affect each component of program differently. By quickly anticipating and managing program changes in response to evolving threats, expectations, and external and internal pressures, CSI managers can help the program to be adaptable and flexible in defining and executing its overall direction and vision. The following section considers the theoretical and practical implications of this study, and introduces areas for future research in which questions of organization theory and public management could be explored.

Theoretical Implications: Can Public Managers Mitigate Manifest Ambiguity and Complexity?

By identifying theoretical gaps introduced earlier in the study, this research's findings highlight and elaborate upon the important relationship between organization theory and public management research. This study provides empirical detail of key organization theory issues that arise through the day-to-day execution of public programs (i.e., ambiguity and uncertainty) and the management strategies that result in order to manage and mitigate this ambiguity and complexity. This research also captures and describes the ongoing management process that cuts across and decomposes ambiguity. Building upon the research and work of Ingraham, Behn, Moore, Rainey, Kelman, and Feldman, this study provides empirical evidence of public managers who purposefully engage ambiguity and organizational complexity, from a strategic perspective, to set consistent priorities and objectives enabling the alignment and management of organizational and program resources within existing operational constraints. Defining consistent priorities across multiple levels of the program allows for more effective management of organizational resources against those activities most crucial to the overall execution of the

program. This research provides empirical support of moving beyond Behn's concept of "groping along" through direct observation and description of the strategic management approach used by CBP personnel to execute the CSI program. Continued investigation and further analysis of the data might lead to contradictions in the conceptual model.

The evolving nature of this process is critical to ensure public leaders and managers stay attuned to changing pressures that affect the day-to-day implementation of public programs. Specifically, the research observations and findings build upon three key areas within the extant literature. First, this study examines the role that public managers play in engaging organizational ambiguity and complexity by setting and adjusting priorities and objectives and managing to those defined objectives. Next, the research considers the value of consistently and incrementally examining and evaluating key processes and operating procedures to ensure alignment to goals, priorities, and objectives. An ongoing, organic management approach is valuable from the perspective that public sector goals and priorities are very fluid and change in response to key drivers. A management process in which priorities and processes are evaluated incrementally against shifting internal and external drivers is an important takeaway from this research. Finally, this study expands upon the field's understanding of ambiguity and uncertainty by providing further conceptual distinction between these concepts from a management and implementation perspective. Table 6 provides an overview of the study's theoretical contributions.

Table 6: Theoretical Contributions

Role of public management in organizational settings: Primary role of public managers to engage, manage, and mitigate ambiguity and complexity through the setting of	- Setting and driving organizational priorities and direction - Active public managers, not the institution, driving and affecting organizational change

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organizational priorities	and direction (incremental change — Mahoney and Thelen)
Fluidity of organizational goals, both conceptually and practically	▪ Goals and priorities evolve and shift/non-static and the role of management processes to consistently evaluate and adjust program priorities in response to key drivers ▪ Ongoing management processes to ensure management practices enable the goals and priorities of the program ▪ Role of unique organizations (Role of NTC) in managing public programs
Conceptual distinction between ambiguity and uncertainty: Management and implementation focus can bring clarity to both concepts	▪ Role of information in mitigating and controlling uncertainty ▪ Role of public manager to decompose ambiguity and associated complexity
Study is distinct in the analytical level of detail. Research provides an empirical examination of ambiguity and what it looks like in a large scale public organization and program.	▪ Additional focus and clarity from a theoretical and empirical perspective on ambiguity and what it looks like within public organizations by moving beyond Chun and Rainey's characterization of mission comprehension, evaluative, priority, and directive ambiguity ▪ Study is more explicit than previous research studies in exploring how ambiguity actually appears (tangible evidence) within public organizations and then how it is subsequently managed ▪ Study places less emphasis on the theory of ambiguity by accepting the assumption that ambiguity exists and must be dealt with by public managers. Study focuses more on exploring how it is managed after it is manifest within the organization

Findings from the study demonstrate the important role that public managers play in engaging ambiguity and program complexity despite challenging operational environments. Engagement by leadership and management to systemically understand key priorities and activities that drive program operations is instrumental to breaking down ambiguity. Once priorities are defined, public managers have an important role to play in communicating those priorities throughout the

organization to ensure effective implementation across all levels. As ambiguity introduces competing interpretations regarding what is valuable for an organization to be pursuing, it is incumbent upon public managers to define and shape those activities while leading the organization in pursuit of those priorities.

The engagement and mitigation of ambiguity and complexity by public managers is central to reducing uncertainty, allowing organizations to shift and adjust to evolving implementation pressures. Findings from this study support the role of active public managers, not the institution, in driving and affecting organizational change. Although the change is more incremental, there is an important relationship to be explored among active public management, organizational change, and institutional change. As Onoma highlights, "an institution's role can change over time as new interests come into power or as the environment facing old interests is altered" (Onoma 2006 in Mahoney & Thelen, 2010, p. 68). Mahoney and Thelen further underscore that, "ambiguity invites conflict and consternation as actors struggle over meaning, application, and enforcement of formal institutional rules. It is through these conflicts over rules and their meaning that actors can transform the way institutions allocate power and authority" (Mahoney & Thelen, 2010, 169). The influence of public managers in shaping and defining organizational direction and adjusting management practices to drive and enable that direction plays an important role in either establishing or redefining organizational and institutional norms and practices.

The research findings support the management best practice of consistently re-examining key processes, practices, and operating procedures to ensure they address program goals and

objectives. Promoting and facilitating change within bureaucratic settings is challenging, but injecting fresh and new management techniques and practices can be a powerful means to enable bureaucratic change.

CSI-D's and NTC-C's ability to adjust to evolving strategic and implementation pressures is facilitated by a management philosophy that encourages and promotes openness to change. However, management is mindful to not lose perspective on the overarching mission of securing the global supply chain while facilitating the flow of legitimate trade and commerce. Process improvement cannot simply occur for the sake of process improvement. These activities must be deliberate in nature and support mission objectives and priorities. Driving toward tangible and consensus-driven goals and objectives allows CBP managers to apply management strategies against the fluid nature of the CSI program, which mitigates and manages ambiguity and reduces uncertainty throughout the program.

Lastly, this research expands upon the field's current understanding of ambiguity and uncertainty by providing further conceptual distinction between these concepts from a management perspective. As this study illustrates, from an operational and implementation perspective, there is a real difference between ambiguity and uncertainty — which influences how managers approach their daily work activities. An environment dominated by competing perspectives regarding how to approach and execute daily activities creates obvious challenges to the efficient and effective execution of public programs. The final analysis of this study reinforces the need for further conceptual and empirical distinction between ambiguity and uncertainty, which could be central to understanding how managers approach particular problems.

It is important to acknowledge that due to the narrow scope and research approach, this study's

analysis and findings have certain limitations — specifically for expanding the field's current

understanding of uncertainty and ambiguity. The research, analysis, and findings are specific to

the CSI program and therefore inherently more limited than a broader study. However, there are

valuable insights to be gained from more focused case study research and results, which

potentially have broader applicability to enhance the field's understanding of bureaucratic

environments. The extent to which more detailed findings might be generalizable to and inform

broader studies is worth additional exploration.

Application of Theory to Practice: The Role of Public Managers
The findings and observations from this study draw attention to public managers' role in setting

priorities in the face of shifting and evolving pressures and variables. In response to the fluid

nature of organizational goals, CBP managers strategically establish, prioritize, and sequence

those tasks that enable and facilitate the achievement of defined program priorities and

objectives. Evidence from this study indicates that although the prevalence of ambiguity and

distinct implementation pressures affect the day-to-day operations and execution of public

programs, proactively engaging this complexity can serve as a key driver for managing progress

against the achievement of program objectives and outcomes.[17]

Clearly, ambiguity presents challenges to the effective execution of public programs; however,

public managers can play a greater role in managing ambiguity and its associated implications by

constantly and consistently assessing organizational and programmatic goals and objectives to

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[17] This research does not focus on or measure the extent to which CSI objectives and outcomes are achieved. Based on the data and findings, I assume the ongoing engagement of ambiguity and complexity is an important factor in the overall achievement of program objectives and outcomes. Exploration of the extent to which the CSI program is achieving and making progress against it defined goals and objectives is a future area of research.

ensure they are pursuing the right things. As Behn, Feldman, Ingraham, and Kelman urge, public managers can and should be involved in defining and setting program priorities and objectives through more active managerial participation in governance process. Furthermore, as Ingraham, Joyce, and Donahue (2003) note,

> "in any institutional setting, it is necessary to consider the devices and processes that translate leaders' visions and goals into substantive action. This is not magic; it is a process that mandates consistent and predictable support. The institutional bases for continued effectiveness are the management systems that have been embedded within and across governments and agencies (p. 8).

As this study suggests, the ongoing process of evaluating and engaging ambiguity to translate associated complexity into manageable and achievable priorities and objectives assists in executing the CSI priority mandate of targeting/screening inbound cargo while balancing the secondary goal of facilitating the flow of trade and commerce. Consistent communication from CBP managers is instrumental to ensure staff is kept abreast of programmatic shifts and changes, specifically regarding policy changes.

Therefore, managers are more reliant on themselves, and not the institution, to drive and affect program operations. The active engagement by headquarters-level personnel to manage the interface between the strategic and tactical dimensions of the program is essential to ensure key components of the program remain focused on prioritized goals and objectives. Decomposing and translating ambiguity into manageable priorities and objectives, in order to utilize strategies to mitigate tactical level pressures, has enabled CBP/CSI personnel to more efficiently and effectively apply organizational resources against identified program pressures and challenges.

It's important to note the extent to which CBP managers rely on and manage through the implementation and enforcement of SOPs throughout each component of the program. CSI management leverages SOPs in several unique ways, as highlighted throughout Chapter 5. For example, SOPs serve as a primary mechanism to control the actions and behaviors of overseas officers in order to efficiently and effectively execute standardized processes over time. Managers place a clear focus on developing business rules and processes to promote standardization and consistency in CSI operations.

However, the CSI program also utilizes SOPs as a means to promote and enable flexibility in order to respond to evolving threats. This finding is appealing and somewhat counter-intuitive, because it challenges recent scholarship in the area of network governance. Relying on a more traditional bureaucratic procedure challenges the concept that a flexible networked governance model is the most effective means to adapt and respond to change. The way SOPs are regularly developed, across multiple components of the organization, reflects the high value of this process to the CSI program. The use of SOPs throughout each component reinforces the high value of this organic management approach.

The role of NTC-C in the strategic and tactical dimensions of the CSI is another key takeaway from a practical perspective. A central finding is the organization's role in balancing and managing the security obligations of the program against trade and commerce demands, with available resources and within operational boundaries of international agreements. As the program has evolved, NTC-C leadership has exercised an increasing level of discretion and

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autonomy in helping to drive the overall direction of the program. Currently, the relationship

between CSI-D and NTC-C leadership enables the NTC-C to influence the strategic priorities

and direction of the program. NTC-C leadership is reshaping roles and responsibilities of CBP

personnel supporting CSI, while adjusting the CSI operating model to ensure an appropriate level

of functional specialization, but promoting flexibility within the organization through cross-

training and increased exposure to non-traditional Customs functions.

Future Research: Is the Measurement of Management to Program Performance Enough?
Moving forward, research and scholarship in the field of public administration needs to continue

to explore concepts and questions that bridge organization theory and public management. To

that end, this study introduced a series of key questions with implications for future research,

focused on exploring important relationships between both streams of scholarship. This study

highlights a series of key questions that remain the focus of current scholarship and research

within the field of public management. This research reconsiders the value of conventional

research focused on measuring "to what extent does organizational ambiguity detract from

organizational and program effectiveness," as discussed through the extant literature. This

research also considers the question, "Does the prevalence of ambiguity mean less specificity

and more complexity in organizational goals?" Current studies remain too open-ended in their

overall focus of measuring and understanding the effect of ambiguity on organizational

performance, with inadequate examination of how ambiguity is addressed and mitigated by

public managers. Building on this study, future research will explore value associated with

measuring the extent to which ambiguity contributes significantly to negative organizational

consequences, taking into account the role of management and managerial actions in this

process.

As illustrated by this study, bureaucratic agencies and, more importantly, public managers, may be more adept in managing the scope of their responsibilities and responding to manifest ambiguity and organizational complexity. Currently, the extant literature overemphasizes and makes far too many assumptions regarding the negative consequences of ambiguity on organizational results and outcomes without proper empirical consideration of management systems and management behaviors in controlling the influence of ambiguity. Current research does not adequately explore the role that public managers can have in managing ambiguity and reducing uncertainty for more effective program implementation.

Findings from the study support the perspective that public managers do play a key role in managing ambiguity through ongoing management processes. Although there is clear evidence that supports that ambiguity does influence and affect organizational outcomes, both positively and negatively, it is my contention that public managers can play a greater role in managing ambiguity and its associated complexity. As Behn and other management scholars emphasize, public managers can play an important role in driving and setting organizational direction through the management strategies they employ. Purposeful engagement by public managers to understand systemic and implementation-level pressures on public programs (and the implications of those pressures) and incrementally develop and use management strategies to support organizational goals and objectives is central to the management process.

This research is not concerned with measuring the influence or effect of ambiguity on the overall execution of the CSI program. Instead, this research expands upon existing studies that examine

the relationship between organizational ambiguity and performance by exploring how public managers purposefully engage ambiguity and decompose the associated complexity into manageable program objectives and priorities. Moving forward, future research needs to place less emphasis on the measurement of ambiguity and more of a priority on exploring and understanding the role of public managers in engaging and mitigating ambiguity, setting organizational and program priorities, and building organizational and program capacity by developing and using management strategies.

Additional attention should be placed on examining organizations such as the NTC and programs such as the CSI that have a distributed and highly networked implementation and operational model. For the CSI, execution of the program occurs within 58 overseas ports; however, there is an important and less understood domestic element to the program illustrating the program's highly distributed implementation model. Despite this, the program remains largely centralized around the CSI-D and the NTC-C, indicating that strategic direction and operations remain more centralized and aligned to a traditional bureaucratic model. Additional emphasis on these types of programs will draw attention to new research areas within network governance and provide insight into these types of support organizations.

Focus on this research area is important for ensuring managerial accountability within more distributed models. For the CSI program, managerial accountability is maintained through the CSI-D and NTC-C, however, as the boundaries of traditional managerial roles and responsibilities expand in support of the CSI mission set, managerial accountability will require additional attention. As CSI managerial boundaries expand and organizational affiliation and

alignment of the program evolves, a question arises regarding the extent to which CBP managers

will continue to build organizational and program capacity through the development and use of

management strategies and how CBP headquarters will redefine organizational boundaries to

ensure managerial accountability.

Table 7: Legislative Overview of the Formation of the Department of Homeland Security (Department of Homeland Security, 2010)

Date	Event	Overview
11 Sept 2001	United States attacked	
8 Oct 2001	Executive Order 13228 issued establishing the Office of Homeland Security (OHS) and the Homeland Security Council (HSC) within the Executive Office of the President	OHS established to develop and implement a national strategy to coordinate federal, state, and local counter-terrorism efforts to secure the country from and respond to terrorist threats or attacks The HSC established to advise the President on homeland security matters, mirroring the role the National Security Council (NSC) plays in national security
11 Oct 2001	S. 1534, a bill to establish a Department of National Homeland Security, introduced in Senate	Proposal to unite the Federal Emergency Management Agency, the Customs Service, the Border Patrol, the Coast Guard, and agencies responsible for critical infrastructure protection in a Cabinet-level department
Feb 2002	Securing the Homeland, Strengthening the Nation issued	The Federal government's first post-September 11 budget reflects commitment by the Administration to achieving a more secure homeland. The FY 2003 Budget directed $37.7 billion to homeland security, up from $19.5 billion in 2002.
6 Jun 2002	President Bush addresses the nation and proposes the creation of a permanent Cabinet-level Department of Homeland Security	Proposal called for the unification of essential agencies charged with protecting the homeland to include to formation of the following four proposed divisions: ▪ Border and Transportation Security - Control the borders and prevent terrorists and explosives from entering the country ▪ Emergency Preparedness and Response - Work with state and local authorities to respond quickly and effectively to emergencies ▪ Chemical, Biological, Radiological, and Nuclear Countermeasures - Bring together the country's best scientists to develop technologies that detect biological, chemical, and nuclear weapons to best protect citizens ▪ Information Analysis and Infrastructure Protection - Review intelligence and law enforcement information from all agencies of government, and produce a single daily picture of threats against the homeland
18 Jun 2002	President Bush formally submits to Congress his proposal for the Department of Homeland Security, including his proposed text for the Homeland Security Act of 2002	Proposed legislation to establish the Department of Homeland Security
20 Jun 2002	Executive order 13267 issued creating a Transition Planning Office (TPO) within the Office of	Purpose of the TPO was to coordinate, guide, and conduct transition related planning throughout the executive branch of the federal government and aligned with the planned

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	Management and Budget in preparation for establishment of the proposed Department of Homeland Security	directorates and functions of the future department.
July 2002	White House releases the first National Strategy for Homeland Security	National Strategy identified three objectives and provided one of the first post 9/11 definitions of "homeland security." Strategy also provides direction to federal government departments and agencies on homeland security functions and suggests steps that state and local governments, private companies and organizations, and individual Americans could take to improve security. ▪ Prevent terrorist attacks within the United States ▪ Reduce America's vulnerability to terrorism ▪ Minimize the damage and recover from attacks that do occur
26 Jul 2002	H.R. 5005 with amendments passes in the House of Representatives to establish a Department of Homeland Security	Legislation to establish a Department of Homeland Security passes through Congress
19 Nov 2002	Bill passes the Senate to establish a Department of Homeland Security	
25 Nov 2002	Public Law 107-296, Homeland Security Act of 2002, signed into law by President Bush and reorganization plan submitted to Congress	Department of Homeland Security Established and reorganization plan for the new Department submitted to Congress
24 Jan 2003	The Department of Homeland Security becomes operational 60 days after signature of Homeland Security Act	Five directorates established: Border and Transportation Security, Emergency Preparedness and Response, Information Analysis and Infrastructure Protection, Management, and Science and Technology
30 Jan 2003	President Bush submits a modification to the November 2002 reorganization plan that establishes new organizational units in the Border and Transportation Security Directorate	January 2003 plan renames the U.S. Customs Service as the Bureau of Customs and Border Protection (now known as U.S. Customs and Border Protection, or CBP). The new Bureau incorporates the border and ports of entry functions of the Customs Service, inspection responsibilities and the Border Patrol from INS within the Department of Justice, and agricultural inspection functions from the Department of Agriculture
1 March 2003	Official inception date of the Department of Homeland Security and date established for the transfer of existing agencies to the new department	Majority of the previously existing agencies, such as the Federal Emergency Management Agency (FEMA), the Transportation Security Administration (TSA), the Coast Guard, the Customs Service, and the United States Secret Service transferred to the new department.
13 July 2005	Former Secretary Chertoff announces a six-point agenda which includes a reorganization of the department	The reorganization abolishes the Directorates for Border and Transportation Security, Information Analysis and Infrastructure Protection, and Emergency Response and Preparedness. With the abolition of the Border and Transportation Security Directorate, the Commissioner of Customs and Border Protection reports directly to the Secretary
13 Oct 2006	Public Law 109-347, the Security Accountability for Every Port Act or SAFE Port Act of 2006, passes Congress	Legislation mandated the CBP test the feasibility of scanning 100 percent of U.S. –bound cargo containers. The legislation established the CSI program in addition to requiring that the Secure Freight Initiative be initiated to test the feasibility of scanning 100% of U.S.-

		bound cargo containers using nonintrusive imaging equipment and radiation detection equipment at foreign seaports.
7 Aug 2007	Public Law 110-53, Implementing Recommendations of the 9/11 Commission Act of 2007, passes Congress	Established a mandate that by 2012, all U.S.-bound containers would be scanned at foreign seaports prior to shipping to U.S. The legislation also called for annual benchmarks on the percentage of maritime cargo headed for the U.S.; an analysis of how to best incorporate existing maritime security initiatives, including the CSI, and C-TPAT; and an analysis of the scanning equipment, personnel, and technology needed to reach the 100-percent container scanning objective

Table 8: Overview of Agencies Transferred to DHS (Department of Homeland Security (b), 2008)

Original Agency (Department)	Current Agency/Office
The U.S. Customs Service (Treasury)	U.S. Customs and Border Protection - inspection, border and ports of entry responsibilities U.S. Immigration and Customs Enforcement - customs law enforcement responsibilities
The Immigration and Naturalization Service (Justice)	U.S. Customs and Border Protection - inspection functions and the U.S. Border Patrol U.S. Immigration and Customs Enforcement - immigration law enforcement: detention and removal, intelligence, and investigations U.S. Citizenship and Immigration Services - adjudications and benefits programs
The Federal Protective Service	U.S. Immigration and Customs Enforcement
The Transportation Security Administration (Transportation)	Transportation Security Administration
Federal Law Enforcement Training Center (Treasury)	Federal Law Enforcement Training Center
Animal and Plant Health Inspection Service (part)(Agriculture)	U.S. Customs and Border Protection - agricultural imports and entry inspections
Office for Domestic Preparedness (Justice)	Responsibilities distributed within FEMA
The Federal Emergency Management Agency (FEMA)	Federal Emergency Management Agency
Strategic National Stockpile and the National Disaster Medical System (HHS)	Returned to Health and Human Services, July, 2004
Nuclear Incident Response Team (Energy)	Responsibilities distributed within FEMA
Domestic Emergency Support Teams (Justice)	Responsibilities distributed within FEMA
National Domestic Preparedness Office (FBI)	Responsibilities distributed within FEMA
CBRN Countermeasures Programs (Energy)	Science & Technology Directorate
Environmental Measurements Laboratory (Energy)	Science & Technology Directorate
National BW Defense Analysis Center (Defense)	Science & Technology Directorate
Plum Island Animal Disease Center (Agriculture)	Science & Technology Directorate
Federal Computer Incident Response Center (GSA)	US-CERT, Office of Cybersecurity and Communications in the National Programs and Preparedness Directorate
National Communications System (Defense)	Office of Cybersecurity and Communications in the National Programs and Preparedness Directorate
National Infrastructure Protection Center (FBI)	Dispersed throughout the department, including Office of Operations Coordination and Office of Infrastructure Protection
Energy Security and Assurance Program	Integrated into the Office of Infrastructure

(Energy)	Protection
U.S. Coast Guard	U.S. Coast Guard
U.S. Secret Service	U.S. Secret Service

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Appendix I: Acronym Table

Department of Homeland Security	DHS
Automated Targeting System	ATS
Advance Targeting Unit	ATU
Anti-Terrorism Contraband Enforcement Team	AT-CET
Evaluations and Assessments Branch	EAB
Congressional Research Service	CRS
Container Security Initiative-Division	CSI-D
Importer Security Filing	ISF
Declaration of Principle	DOP
Drug Enforcement Administration	DEA
European Union	EU
Container Security Initiative	CSI
Importer Security Filing	10+2
Immigration and Customs Enforcement	ICE
Government Accountability Office	GAO
Office of Field Operations	OFO
Public Law 109-347, the Security Accountability for Every Port Act or SAFE Port Act of 2006	SAFE Port Act of 2006
Standard Operating Procedure	SOP
Customs and Border Protection	CBP
U.S. Commission on National Security/21st Century	Hart/Rudman Commission
National Targeting Center-Cargo	NTC-C
Weapons of Mass Destruction/Effect	WMD/E
World Customs Organization	WCO

Appendix II: Recruitment Letter

I am a Ph.D. student with Virginia Tech's Center for Public Administration and Policy based in Alexandria, VA conducting dissertation research focused on goal setting and goal achievement within Federal organizations. I have spent several years researching, as well as supporting the Department of Homeland Security and the organization's critical mission areas.

Over the past several years, the U.S. Customs and Border Protection (CBP) underwent significant changes and transformation in the area of goal setting prioritization, which I believe other government agencies can learn from and leverage in the future. My interest in CBP focuses on the Container Security Initiative (CSI) and exploring how various CBP entities at the Headquarters and Field levels balance organizational priorities in order to do the work of the CSI? I believe CBP serves as an exemplar for understanding the complexity of goal setting and achievement processes within the Federal government.

I am hopeful that you will be able to participate in an interview to discuss CBP's goal setting and prioritization process and how this process impacts the work you perform. Your experience and expertise in this area will be invaluable to my research effort. Information from the interview will be used only for my academic research. If you choose to participate in the interview process, your input will remain confidential meaning any final documents produced will not reflect any personal identifying characteristics such as your name, position, or title.

The interview will be approximately 30 -45 minutes in length and may be conducted by phone or in person at your convenience. I will follow up this letter with a phone call to your office to answer any questions you may have, directly. I have included my contact information below and encourage you to contact me, as well with any questions or concerns.

Thank you for your attention to this request.

Best regards,
Dustin Mullins

Telephone: 540-250-1536
Email: dumullin@vt.edu

Appendix III: Verbal Consent Form

<u>**Ethical Protections and Study Limitations**</u>
[Consent Script to Be Read at the Beginning of ALL Interviews]

I have selected the Bureau of Customs and Border Protection (CBP) for this study because the organization has undergone significant changes and transformation in the area of goal setting prioritization, which I believe other government agencies can learn from and leverage in the future. My interest in CBP is directed at exploring how the consolidation of mission functions has impacted the organizational goal setting process at the Headquarters and Field levels. I believe CBP serves as an exemplar for understanding the complexity of goal setting and achievement processes within the Federal government.

Confidentiality Option
Your participation in this interview is important for gathering information on the topic introduced above. Your input will remain confidential meaning any final docuements produced will not reflect your name or any personal identifying characteristics such as your name, position or title. Your personal identity will remain anonomyus to everyone except the research team to include myself and Anne Khademian the principal investitgor for this research effort.

Compensation and Freedom to Withdraw
There is no compensation for your participation in this study. Your participation is voluntary. You may choose not to participate at all, or you may refuse to answer certain questions or discontinue your participation at any time.

Your Responsibilities
I want to emphasize that there are no right or wrong answers to the following questions. By voluntarily agreeing to participate in this study, I ask you to answer these questions to the best of your ability.

Your Permission
In this next section I am asking for your permission to conduct this interview. Please respond to the following question:

1. Do you acknowledge that you understand the intentions of this researah and that all of your questions have been answered, and hereby give your voluntary consent?

Appendix IV: Question Set

Interview Question Set

Name:
Title:
Agency or Office:
Date of Interview:

Individual Questions:
1. What are your day-to-day responsibilities and how would you say you spend most of your time at work?
2. Have your responsibilities changed in the last year? If so, what were they before they changed and how has this affected how you do your work?
3. How do you prioritize your daily work and what do you consider while performing your daily functions?
4. What are the principal factors/pressures that influence your daily work behaviors? Do you find that you are required to make trade-offs in order to accomplish work in support of the CSI?
5. Do you experience/perceive differences in expectations for your work in support of CSI? If so, what strategies do you employ to mitigate such differences?
6. Describe and explain the major challenges that confront you, and strategies for overcoming those challenges?

Office Function Questions:
7. How would you describe the function of your office and its role in support of the Container Security Initiative (CSI)?
8. Describe the level of coordination required to enact the mission of the CSI
9. Identify the primary CSI coordination points both internally and externally
10. Has the function of your office and level of support to the CSI changed in the last year? If so, in what ways and how has this affected how you approach your daily work?
11. Describe how goals of your office are enacted through CSI. Are there perceived inconsistencies between the work of the CSI?
12. Describe the working relationship between the headquarters and field level of the Customs and Border Protection with respect to the CSI.
13. Describe how your organization balances the multi-faceted (security & trade) dimensions of the CSI and to what extent do you interact with the trade community?