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BORDER CRACKS: APPROACHING BORDER SECURITY FROM A COMPLEXITY THEORY AND SYSTEMS PERSPECTIVE

by

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December 2012

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Presently, U.S. border security endeavors are compartmentalized, fragmented, and poorly coordinated. Moreover, international collaborations are extremely limited; success hinges on effective international cooperation. This thesis addresses U.S. border security management using complexity theory and a systems approach, incorporating both borders and all associated border security institutions simultaneously. Border security research has rarely viewed all stakeholders as a holistic unit up to this point, nor has border security been thoroughly examined using a systems approach. This research scrutinizes the current U.S. border security paradigm in an attempt to determine the systemic reasons why the system is ineffective in securing U.S. borders. Additionally, the research investigates the current level of international cooperation between the United States, Canada, and Mexico.

This thesis increases awareness and will possibly create dissent among established agencies, which is the first step in instituting needed changes that will ultimately increase North American security. The thesis contends that the establishment of a tri-national—United States, Canadian, and Mexican—border security agency, in addition to legalizing drugs and reestablishing a guest worker program, will be more effective and cost-efficient in securing North American borders.

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BORDER CRACKS: APPROACHING BORDER SECURITY FROM A COMPLEXITY THEORY AND SYSTEMS PERSPECTIVE

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ABSTRACT

Presently, U.S. border security endeavors are compartmentalized, fragmented, and poorly coordinated. Moreover, international collaborations are extremely limited; success hinges on effective international cooperation. This thesis addresses U.S. border security management using complexity theory and a systems approach, incorporating both borders and all associated border security institutions simultaneously. Border security research has rarely viewed all stakeholders as a holistic unit up to this point, nor has border security been thoroughly examined using a systems approach. This research scrutinizes the current U.S. border security paradigm in an attempt to determine the systemic reasons why the system is ineffective in securing U.S. borders. Additionally, the research investigates the current level of international cooperation between the United States, Canada, and Mexico.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACTT	Alliance to Combat Transnational Threats
ATF	Bureau of Alcohol, Tobacco, Firearms, and Explosives
ATU	Alcohol Tax Unit
BEST	Border Enforcement Security Task Force
BLO	Beltran Leyva Organization
BNDD	Bureau of Narcotics and Dangerous Drugs
BOI	Bureau of Immigration
CAS	Complex Adaptive Systems
CBP	Customs and Border Protection
CBSA	Canada Border Services Agency
CCC	Customs Co-operation Council
CIA	Central Intelligence Agency
CRS	Congressional Research Service
CSIS	Canadian Security Intelligence Service
DEA	Drug Enforcement Administration
DHS	Department of Homeland Security
DoD	Department of Defense
DOJ	Department of Justice
DOT	Department of the Treasury
DTO	Drug Trafficking Organization
EPIC	El Paso Intelligence Center
FAA	Federal Aviation Administration
FAST	Free and Secure Trade
FBI	Federal Bureau of Investigation
GAO	Government Accountability Office
HIDTA	High Intensity Drug Trafficking Areas Program
IBET	Integrated Border Enforcement Team
ICE	Immigrations and Customs Enforcement

INS	Immigration and Naturalization Service
IRS	Internal Revenue Service
LFM	*La Familia Michoacana*
NAFTA	North American Free Trade Agreement
NDIC	National Drug Intelligence Center
NORTHCOM	U.S. Northern Command
NSA	National Security Agency
OCDETF	Organized Crime Drug Enforcement Task Force
ODT	Organizational Design Theory
OFO	Office of Field Operations
OIB	Office of Bi-National Intelligence
ONDCP	Office of National Drug Control Policy
PF	Federal Police
PFM	Ministerial Federal Police
PS	Public Safety Canada
RCMP	Royal Canadian Mounted Police
RMD	Revenue Marine Division
SIU	Sensitive Information Unit
SOD	Special Operations Division
SSP	*Secretaria de Seguridad Publica*
SWB	Southwest Border Initiative
SWBICP	Southwest Border Intelligence Collection Plan
TSA	Transportation Security Agency
USBP	U.S. Border Patrol
USCG	U.S. Coast Guard
USCIS	U.S. Citizenship and Immigration Service

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I. INTRODUCTION

A. PROBLEM STATEMENT

Mexico's drug related death toll since 2006 is estimated to be over 45,000. The majority of casualties have been members of criminal organizations, as the cartels fight to secure territory and trafficking routes into the United States. The increased carnage is driven by U.S. consumption of illegal drugs, fueled by the influx of weapons from the United States, and funded by money flowing south. According to Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) statistics, over 90 percent of confiscated weapons in Mexico are of U.S. origin.[1]

Recently, U.S. concerns have focused on the potential of spillover violence from Mexico and terrorists crossing the border illegally. Although, no terrorist has been apprehended attempting to cross the Mexican border into the United States, nor has there been any increase in violent crime along the border. In fact, statistics show crime has actually decreased in border communities.[2]

The current U.S. border security assumption maintains stopping the illegal crossings of drugs, people, guns, and money can solve most of the problems. Some in the United States believe this can be simply accomplished by building a fence, adding more Border Patrol agents, or sending in the National Guard. Terry Goddard, however, contends focusing on the border as a physical barrier is misleading, and the United States must view the border as "a complex, multidimensional interrelationship of immigration laws, cyberspace money transfers, and international business connections."[3]

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[1] Terry Goddard, "How to Fix a Broken Border: Hit the Cartels Where It Hurts, Part I of III," Immigration Policy Center's *Perspectives*, September 2011, 4; Eric L. Olson, Andrew Selee, and David A. Shirk, *Shared Responsibility: U.S.-Mexico Policy Options for Confronting Organized Crime* (Woodrow Wilson International Center for Scholars Mexico Institute and Trans-Border Institute of the University of San Diego, 2010), accessed January 28, 2010, http://www.wilsoncenter.org/mexico, 1–47.

[2] Kristin M. Finklea, Willaim J. Krouse, and Marc R. Rosenblum, "Southwest Border Violence: Issues in Identifying and Measuring Spillover Violence," Congressional Research Service Report R41075, August 25, 2011, 9–23; Goddard, "Broken Border: Part I," 4.

[3] Terry Goddard, "How to Fix a Broken Border: Hit the Cartels Where It Hurts, Part II of III," Immigration Policy Center's *Perspectives*, February 2012, 2.

U.S. border security endeavors are compartmentalized, fragmented, and poorly coordinated. Moreover, international collaborations are extremely limited; success hinges on effective international cooperation. Increasing North American security requires a reexamination of the current border security paradigm through a complexity theory and systems approach. Doing so enables the projection of a new paradigm, which will strengthen North American security and prosperity.

B. MAJOR RESEARCH QUESTIONS

This thesis and associated analysis focuses on addressing the following specific research questions:

- What is the goal of U.S. border security, and how can it be improved to accomplish this goal?
- Would a tri-national—United States, Canadian, and Mexican—border security agency, developed using complexity theory and a systems approach, be more effective and cost-efficient in securing North American borders, and what are the roadblocks for the establishment of such an agency?

C. THESIS OVERVIEW

This thesis is organized into five main chapters following a logical scheme to answer the research questions posed. Chapter II introduces the agencies currently involved in border security, the coordinating organizations established, and determines which, if any, agency has the overall lead in border security. Chapter III examines the goals of U.S. border security, history of border security institutions in the United States, and forces shaping the border security framework. The effectiveness and cost of present border security efforts are examined in Chapter IV.

The previous chapters provide the foundation on which Chapter V builds upon. Chapter V introduces a proposed paradigm shift to increase North American security, namely the establishment of a tri-national border security agency, legalization of drugs, and recruitment of seasonal workers. Additionally, the systemic effects, along with the cost, are explained. Finally, Chapter VI presents bureaucratic, political, cultural, and

international barriers to the implementation of the proposed paradigm, solutions to transcending these barriers, and feasibility of establishing a tri-national border security agency.

D. IMPORTANCE

This thesis addresses U.S. border security management using complexity theory and a systems approach, incorporating both borders and all associated border security institutions simultaneously. Border security research has rarely viewed all stakeholders as a holistic unit up to this point, nor has border security been thoroughly examined using a systems approach. This research scrutinizes the current U.S. border security paradigm in an attempt to determine its effectiveness in securing U.S. borders from Mexican drug trafficking organizations (DTOs), weapons trafficking, drug trafficking, and illegal immigration. Additionally, the research investigates the current level of international cooperation between the United States, Canada, and Mexico.

This thesis increases awareness and will possibly create dissent among established agencies, which is the first step in instituting needed changes that will ultimately increase North American security. The recommendations presented provide U.S., Canadian, and Mexican governmental leaders with a proposal to improve collaboration and effectiveness for border management.

The governments and citizens of all countries have stakes in this objective and must care about addressing the threats to North American security. Specifically, this thesis predominantly concerns the agencies affected and border residents. The difference the thesis makes, if successful, is increased North American security through policies and practices that reduce violence, curtail DTO activities, and limit illegal border crossings that smuggle cash, weapons, and persons. Impacts will be felt by citizens of all three countries, primarily those living along the U.S.-Mexican border who will be able to go about their daily lives without fear of being caught in the current crucible of violence.

E. PROBLEMS AND HYPOTHESES

The research questions raise several important problems. First, establishing a tri-national border security agency introduces a host of problems. Most importantly such a project raises the problems of bureaucratic resistance to change, reciprocal mistrust between countries, cultural stereotypes, and legislative dysfunction. The larger challenge entails overcoming these barriers in a way that is acceptable both internationally and domestically. In this connection, the initial hypothesis is the current highly partisan political environment in all three North American democracies and persistent domestic mistrust present will prohibit the establishment of a true tri-national agency; however, there may be some initiatives, reorganizations, or collaborations that can be implemented, domestically and internationally, to improve North American security. Alternatively, the increase in public awareness of DTO violence may present an opportunity to establish a tri-national, or at least U.S.-Mexican bilateral, border security agency.

Whatever the immediate fate of a tri-national border agency, the second and most fundamental question is: What is the goal of U.S. border security? The complicating factors here include the ability to synergize efforts to accomplish a mission if one is not clearly stated, and the difficulty in measuring the effectiveness of the organization in achieving its objectives. Is the United States trying to stop illegal immigration, terrorists, drugs, migrant workers, or all of the above? The hypothesis is that before 9/11, border security was focused on illegal immigration; it switched to terrorism after 9/11 and now is transitioning to stemming the flow of drugs. It also may be found the United States does not have any one stated, coherent border security goal. Answering this basic question allows the U.S. border security framework to be examined to look for ways to improve its effectiveness.

Two additional questions must be addressed to determine the present shape and effectiveness of border security. First, the current framework of border security must be assessed to describe existing conditions, thence to project a new, improved model. The initial step is to determine which agencies have active roles in border security and how those agencies interact. This assessment brings to the forefront the problem of fragmentation and compartmentalization of border security management. The question

also encompasses coordination problems that arise with having numerous agencies involved in separate, often overlapping, areas of border security and the lack of overall effectiveness that this approach causes. Moreover, this assessment sheds light on what the different actors and stakeholders want to do with their border security policies; bringing to the forefront how divergent, sometimes conflicting, goals lead to confusion. Finally, by observing the system, differences between stated, official objectives and emergent ones will be exposed. The preliminary conclusion is that the proliferation of agencies involved in border security—especially in the absence of a central or coordinating authority—limits U.S. endeavors in combating drug, weapon, immigration, and money laundering. An alternative conclusion, however, is that by having multiple agencies addressing border security through different perspectives actually intensifies the effectiveness of border security by increasing the number of "eyes" looking in different places and limiting groupthink.

The next step in assessing the border security framework is to determine which, if any, agency leads U.S. border security efforts. This question raises the problems of unity of effort, harmonizing the energies of several organizations to work toward a similar objective, and unity of purpose, constancy of goals across organizations. If no one agency has overall control of border security, how are efforts being coordinated to ensure the accomplishment of stated objectives? The initial hypothesis is no single agency has the overall lead in border security and this has led to a disjointed and ineffective approach to border security. Alternatively, it may be found that in fact the United States does have a single agency in charge of border security, most likely the Department of Homeland Security (DHS), which is orchestrating U.S. border security efforts. This alternative, however, raises the problem one departmental agency having oversight of agencies belonging to separate departments.

Second, the level of international cooperation must be examined. This aspect introduces the problem of unilaterally attacking border security without adequate international collaboration. There are two sides to every border, and given the interconnectedness of borders, actions taken on one side affect both sides. Additionally, the question brings to light the issue of the United States treating its borders with Canada

and Mexico as two separate, mutually exclusive entities. Failing to have a unified border security plan leads to confusion, stemming from the inability to synchronize northern and southern border strategies. Exploring the management of both borders can lead to lessons and practices that may be applied to both borders, increasing North American security. The preliminary conclusions are the level of international cooperation has to be increased to provide for more effective border security, and treating the borders as separate entities leads to confusion and a disjointed comprehensive border security plan. On the other hand, it may be found the United States does have the needed international agreements in place, has a productive working relationship with Canada and Mexico, and indeed has an all-encompassing border security plan.

F. LITERATURE REVIEW

The basic premise of this thesis is border security is what Horst Rittel and Melvin Webber define as a "wicked problem."[4] Gregory Treverton describes wicked problems in the following manner:

> Wicked problems are ill-defined, ambiguous and associated with strong moral, political and professional issues. Since they are strongly stakeholder dependent, there is often little consensus about what the problem is, let alone how to resolve it. Furthermore, wicked problems won't keep still: they are sets of complex, interacting issues evolving in a dynamic social context. Often, new forms of wicked problems emerge as a result of trying to understand and solve one of them.[5]

There are no clear solutions to wicked problems, but by involving all the stakeholders, these problems can be tamed. In order to tame this wicked problem, this thesis will integrate a multitude of disciplines. The intent of this literature review is to establish a fundamental level of understanding of the basic concepts that will be used throughout, beginning with a review of recent border security issues brought up from numerous sources.

---

[4] Horst W. J. Rittel and Melvin M. Webber, "Dilemmas in general theory of planning," *Policy Sciences* 4 (1973).

[5] Gregory F. Treverton, "Addressing 'Complexities' in Homeland Security," Chapter 21 in *The Oxford Handbook of National Security Intelligence*, ed. Loch K. Johnson (New York: Oxford University Press, 2010), 346.

The strengths and weaknesses of bureaucracies will be examined, along with Organizational Design Theory (ODT).[6] This discussion will touch further on systems theory, complexity theory, and complex adaptive systems (CAS), incorporating Donella Meadows' work on leverage points—places to intervene in a system.[7]

Following the discussion on systems, this review will analyze the competing schools of thought in strategic planning, culminating with an examination into collaborative rationality.[8] Finally, the Cynefin sense-making framework will be explored to determine which concepts are most appropriate in the realm of border security.[9]

1. Border Security Issues

Lack of coordination, collaboration, and information sharing are reoccurring criticisms of the border security system. In a report on challenges in securing U.S. borders, the Government Accountability Office (GAO) found that information and resource sharing gaps remain in border security efforts, which if improved could enhance security on both borders. Furthermore, the report stated that DHS management oversight has failed to ensure consistent compliance with established agreements. This failure has led to local law enforcement agencies not receiving information from federal agencies. Additionally, the lack of information sharing mechanisms prevents local agencies from reporting suspicious activities because they do not know what information federal agencies are seeking.[10]

In a report on firearms trafficking, the GAO found the ATF and U.S. Immigrations and Customs Enforcement (ICE) do not effectively coordinate efforts

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[6] Henry Mintzberg, *The Structuring of Organizations: A Synthesis of the Research* (Upper Saddle River, NJ: Prentice-Hall, Inc., 1979); Charles Perrow, *Organizational Analysis: A Sociological View* (Belmont, CA: Wadsworth Publishing Company, Inc., 1970).

[7] Donella H. Meadows, "Leverage Points: Places to Intervene in a System," *Sustainability Institute*, December 1999; Donella H. Meadows, *Thinking in Systems* (White River Junction, VT: Chelsea Green Publishing Co., 2008); Judith E. Innes and David E. Booher, *Planning with Complexity* (New York: Routledge, 2010).

[8] Ibid.; Henry Mintzberg, *The Rise and Fall of Strategic Planning* (New York: The Free Press, 1994).

[9] C. F. Kurtz and D. J. Snowden, "The new dynamics of strategy: Sense-makings in a complex and complicated world," *IBM Systems Journal* 42 (2003).

[10] GAO Report, "DHS Progress and Challenges in Securing the U.S. Southwest and Northern Borders," March 30, 2011, 13–16.

because clarity is lacking in roles and responsibilities. The result is a duplication of effort and confusion during operations. Both agencies admit they have inadequate communication during investigations and are unwilling to share information, leading to dysfunctional operations.[11]

A Congressional Research Service (CRS) report on issues confronting law enforcement found U.S. law enforcement remains constrained by interagency disagreements over organizational boundaries, or the notion of "turf." Even with increased collaboration from interagency agreements, task forces, and fusion centers, these turf wars remain.[12]

The same CRS report discovered that the Department of Justice (DOJ) Inspector General observed that ATF does not consistently share intelligence with partner agencies, despite Memoranda of Understanding between agencies. Additionally, the report cited that the GAO found when the number of involved agencies increased the more confusion on roles and responsibilities affected operations; 78 percent of agents reported that interagency disagreements adversely affected investigations.[13]

Additionally, a CRS report on the role of the U.S. Border Patrol (USBP) conveyed that the USBP fails to coordinate activities with other federal agencies operating along the border and neither USBP nor DHS has any plans detailing how interagency coordination should occur. Also in the report, the GAO concluded that the lack of coordination has led to confusion, frustration, and a waste of law enforcement resources, limiting the effectiveness of federal efforts.[14]

The growing numbers of Fusion Centers around the country have been proclaimed as a coordination success by DHS. On the other hand, the CRS reports very little "true fusion" is occurring in these centers. The Markle Foundation found the

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[11] GAO Report, "Firearms Trafficking: U.S. Efforts to Combat Arms Trafficking to Mexico Face Planning and Coordination Challenges," June 2009, 3–29.

[12] Kristin M. Finklea, "The Interplay of Borders, Turf, Cyberspace, and Jurisdiction: Issues Confronting U.S. Law Enforcement," Congressional Research Service Report R41927, July 19, 2011, 1.

[13] Ibid., 21–22.

[14] Chad C. Haddal, "Border Security: The Role of the U.S. Border Patrol," Congressional Research Service Report RL32562, August 11, 2010, 32.

information sharing framework has unfinished business to ensure every agency, including state and local, has the information required for national security. Supporting this criticism, the U.S. Army War College Strategic Studies Institute discovered, despite national effort and resources, unity of effort continues to elude homeland security endeavors.[15]

2. Bureaucratic Development

Most of the above criticisms are grounded in the way bureaucracy's function. It is important to take a look at bureaucratic theory in order to grasp the dynamics before trying to propose solutions. Charles Perrow believes bureaucratization stems from the thrust to limit uncertainty, routinize, increase predictability, and centralize functions and control.[16] Organizations attempt to stabilize environmental influences by establishing rules and policies designed to deal with the environment on a routine and predictable basis.[17]

Bureaucracies developed in the Middle Ages and have evolved continuously since, leading to what Max Weber termed "traditional bureaucracy." Perrow contends all large, complex organizations are bureaucracies to some degree. Critics complain bureaucracies are unadaptive and stifle creativeness, but these traits are exactly what bureaucracies where created for—stability and predictability. One characteristic of bureaucracies that is widely criticized is hierarchy, which is a primary source of delays and stifles the independence and creativity of subordinates. Hierarchy, however, has the benefit of establishing communication routes and levels at which decisions can be made, and no formal organization can function without some established hierarchy.[18]

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[15] Todd Masse and John Rollins, "A Summary of Fusion Centers: Core Issues and Options for Congress," Congressional Research Service Report RL34177, September 19, 2007; *Nation At Risk: Policy Makers Need Better Information to Protect the Country*, The Markle Foundation Task Force on National Security in the Information Age (March 2009): 1–2; H. Steven Blum and Kerry McIntyre, *Enabling Unity of Effort in Homeland Response Operations*, U.S. Army War College Strategic Studies Institute (April 2012): iii.

[16] Perrow, *Organizational Analysis*, 67.

[17] Ibid., 55.

[18] Charles Perrow, *Complex Organizations: A Critical Essay* (New York: McGraw-Hill, Inc., 1986), 3–40.

There are numerous schools of thought on how bureaucracies develop: classical management theory, human relations model, Neo-Weberian model, institutional school, and several economic theories. The most applicable to border security management is the Neo-Weberian model that maintains humans are "intendedly rational." This is similar to the idea of "bounded rationality" developed by Herbert Simon. The concept maintains that people attempt to be rational, but their limited capacities prevent complete rationality because people do not have complete knowledge of the consequences, both intended and unintended, of their actions; they do not have complete knowledge of the alternative courses of action available; and even when several alternatives are available they can not accurately rank them nor be sure which is the most desirable.[19]

One important concept is contained in the Neo-Weberian model—contingency theory. This provides independent leverage in constructing policies because it focuses on tasks and techniques of the organization rather than organizational structure and goals. This type of organization is difficult to bureaucratize because it contains non-routine and reactive tasks; however, it allows the occurrence of unexpected interactions to take place in complex systems, which can facilitate the development of positive synergies.[20]

The Neo-Weberian model looks at organizational requirements in the realms of coupling and interaction. Couplings are either tight or loose; tight coupling is preferred in organizations working within well-defined environments that require highly centralized decision-making and loose coupling is required for organizations dealing with highly unstable environments requiring decentralization. Interactions are either linear or complex; linear interactions are again well established and complex interactions are non-linear. Border security management requires a loose coupling and complex interaction framework to enable creativity and alternative solutions.[21]

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[19] Ibid., 121.

[20] Ibid., 141–47.

[21] Ibid., 150.

3. Organizational Design Theory

ODT has been extensively examined in literature and contains many schools of thought with varying degrees of terminology. Contingency theory is one such school, which is based on the belief no one design is best in all situations and emphases the relationship between design and environmental variables. [22]

The contrast between mechanistic and organic organizations is the core of contingency theory. Mechanistic organizations are highly centralized, formalized, and hierarchical, whereas organic organizations are decentralized, informal, and networked. Organizational forms vary to the degree in which they combine elements of both. Henry Mintzberg identified five basic designs on a continuum, ranging from mechanistic to organic: machine, entrepreneurial, professional, adhocracy, and diversified.[23]

Mechanistic bureaucracies are best associated with stable environments, while organic designs are most appropriate for complex environments containing high levels of uncertainty. Contingency theory requires the creation of an adhocracy structure to adequately address the complex border security environment. The diversified framework, the most purely organic design, does not allow centralized subunit control, which is needed to some degree in border security. Adhocracies, on the other hand, are "organized to carry out expert work in highly dynamic settings, where the experts must work cooperatively in project teams, coordinating the activities by mutual adjustment, in flexible, usually matric forms of structure."[24] They draw together and synergize different experts' complex skills to address issues in complex and dynamic environments.

Treverton contends the traditional mechanistic organizations established in border security are not relevant in the highly complex border security environment. To effectively tame the wicked problems facing border security, Treverton requires organizations to be able to make fast and comprehensive decisions. The adhocracy

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[22] Mintzberg, *Structuring of Organizations*, 11.

[23] Mintzberg, *Rise and Fall*, 397–98.

[24] Ibid., 398.

structure enables this type of decision-making and would be useful in the establishment of a tri-national organization facing the complex environment of border security.[25]

4. Governmental Bureaucratic Adaption

Amy Zegart contends two basic realities make it difficult for government bureaucracies to adapt: nature of organizations and rational self-interests of political officials. Organizational change comes about from two sources—internal and external. ODT explains the internal difficulties, while political science explains external impediments.[26]

The most effective way for organizations to adapt is through internal changes; however, ODT establishes that internal change is hard to achieve. Bounded rationality is the first reason, individuals have cognitive limits and changes that can improve performance are seldom identified or implemented. The bureaucratic structure itself is another impediment. The highly specialized nature of federal government agencies prevents knowledge transfer between agencies and often even within specific agencies themselves. The very structure designed to increase agency efficiency hinders the agency's ability to learn. Finally, time prohibits adaptation. The longer an agency is established the more resistant to change the agency becomes, as routines and norms become firmly entrenched.[27]

Compared to private organizations, government agencies face three additional disadvantages that further limit internal change. First, agencies are not faced with market competition that would force them to adapt. Government organizations are designed from the beginning to be consistent and predictable, and not built to adapt. Second, private firms have creators that want the organization to succeed; whereas, government organizations are often created by politicians who want them to fail for political purposes.

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[25] Treverton, "Complexities," 349–51.

[26] Amy B. Zegart, *Spying Blind* (Princeton, NJ: Princeton University Press, 2007), Kindle edition, 43–49.

[27] Ibid., 51–53.

Finally, governmental agency leaders are bound by legislation and do not have the freedom to change their organizations without going through the complex legislative process.[28]

External change of government agencies comes from either executive branch action or legislative reforms. Rational self-interest describes why external change is difficult. Presidents are reluctant to pursue agency reforms without a crisis occurring in the presence of resistance, and legislators avoid reforms because reforms usually lack any benefit to their constituents; simply put reforms will not help them get re-elected.[29]

5. Systems Theory, Complexity Theory, and Complex Adaptive Systems

Government bureaucracies are forced to address the complex challenges of border security, which literature on systems theory, complexity theory, and CAS can be used to describe. Hugh Miser and Edward Quade state, "systems analysis is the multidisciplinary problem-solving activity that has evolved to deal with complex problems that arise in public and private enterprises and organizations."[30] Systems analysis has to overcome several difficulties: inadequate knowledge, numerous disciplines involved, inadequate existing approaches, unclear goals, pluralistic responsibilities, resistance to change, and complexity.[31]

Meadows defines a system as "an interconnected set of elements that is coherently organized in a way that achieves something…a system must consist of three kinds of things: elements, interconnections, and a function or purpose." [32] Systems tend to produce their own behavior, which is not necessarily explicit. The best way to deduce a system's purpose is through observation. This behavior adapts every time there is a

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[28] Ibid., 54–55.

[29] Ibid., 57

[30] Hugh J. Miser and Edward S. Quade, *Handbook of Systems Analysis* (New York: Elsevier Science Publishing Co., 1985), 15.

[31] Ibid., 14–15.

[32] Meadows, *Thinking in Systems*, 11.

change in its elements, interconnections, or purpose. The most drastic of which occur when a change in interconnections or purpose takes place.[33]

System behavior consists of stocks and flows. Stocks are the foundation, which contain measurable elements. Flows are actions that change stocks over time. Meadows uses a bathtub analogy to explain the relationship of stocks and flows; the water in a bathtub represents the stock and the faucet and drain represent flows. Feedback processes regulate these flows, which can be both negative and positive. Negative feedback processes maintain a stock within a range and positive feedback causes the stock level to either decrease or increase over time. Delays in feedback loops are inherent in any system and cause oscillations over time. This dynamic is key to understanding systems, as stocks change slowly because flows take time to flow.[34]

Changing policies to affect system behavior is relatively easy in simple, linear systems; however, complex systems contain many non-linear relationships that are not intuitive. This circumstance explains situations when policy makers change a system in some way, but the results have the opposite effect intended. Policy makers are constrained by bounded rationality; studying systems allows a wider perspective reducing this constraint.[35]

Moreover, complex systems tend to self-organize and are resilient to change. Jay Forrester calls this principle compensating feedback, "when someone tries to change one part of the system, it pushes back in uncanny ways, first subtly and then ferociously, to maintain its own implicit goals."[36] Forrester also asserts that most of the problems organizations face are the result of their own policies, not problems induced by external actors.[37]

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[33] Ibid., 14–17.

[34] Ibid., 17–30.

[35] Ibid., 91–106.

[36] Lawrence M. Fisher, "The Prophet of Unintended Consequences," *Strategy and Business*, Autumn 2005, 3.

[37] Ibid., 6.

Complexity theory developed in the 1960s with the work of meteorologist Edward Lorenz. Lorenz attempted to use linear equations to approximate non-linear weather phenomenon and found that minor alterations produced drastic changes. This observation prompted the "butterfly effect" theory, which imagined a butterfly flapping its wings in South America affecting the weather in North Dakota. Complexity theory focuses on how non-linear relationships produce unpredictable behavior in systems.[38]

This field of study has merged with systems theory to develop the concept of CAS. John Holland defines CAS as "systems that have a large number of components, often called agents, that interact and adapt or learn."[39] Emergent behavior is an essential characteristic of CAS. Rodrigo Nieto-Gomez describes emergence as "the aggregation of simple behaviors at a local scale, bigger patterns emerge at the system scale, so the system self-organizes without any need of a centralized authority to 'manage' or plan those patterns."[40] This characterization supports Forrester's compensating feedback principle.

6. Controlling CAS

E. Ahmed et al. believe that to understand CAS, the system must be studied as a whole, rather than decompose it into components. They cite two sources of unpredictability in CAS: non-linear agent interaction and open nature of CAS where a perturbation in one system can affect other related systems. Holland, however, offers an opportunity for understanding and controlling CAS: "all CAS that have been studied carefully exhibit lever points—points where a simple intervention causes a lasting, directed effect."[41]

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[38] Innes, *Planning with Complexity*, 30–31.

[39] John H. Holland, "Studying Complex Adaptive Systems," *Journal of Systems Science and Complexity* 19 (2006): 1.

[40] Rodrigo Nieto-Gomez, "Complex adaptive systems and deviant innovation: the case study of the Mexican-American border," (forthcoming): 2.

[41] Holland, "Complex Adaptive Systems," 6; E. Ahmed, A. S. Elgazzar, and A. S. Hegazi, "An Overview of Complex Adaptive Systems," *Mansoura Journal of Math* (2005): 2–3.

Meadows changes the term "lever points" into "leverage points," which she defines as "places within a complex system…where a small shift in one thing can produce big changes in everything."[42] These points are normally not intuitive, and if they are policy makers tend to use them the wrong way making the initial problem worse. Meadows offers twelve leverage points that are inherent in any system (listed in increasing order of effectiveness):

- Constants, parameters, and numbers—Parameters determine how much to change a flow into a system, but overall have little effect. The majority of policy maker's attention goes into changing parameters even though they have relatively little leverage.
- Size of buffers—Buffers are the stabilizing stock in a system. Increasing the buffer size will stabilize a system out of control, but if increased too much the system will become inflexible.
- Structure of stocks and flows and nodes of intersection—Physical structures are critical in systems, but seldom a leverage point because changing the structure is rarely easy.
- Length of delays relative to rate of system change—Feedback delays commonly are the source of oscillations, but delays are often out of a policy makers control and difficult to change.
- Strength of negative feedback loops relative to the impacts they are trying to correct—Negative feedback loops can self-correct system behavior and it is important to ensure these feedback loops have enough strength to overcome the impact they are designed to correct.
- Gain around driving positive feedback loops—If unchecked, positive feedback loops will destroy a system. Reducing the gain accompanied by a positive feedback loop is usually a more powerful leverage point than reinforcing a negative feedback loop.
- Structure of information flows—Adding a new information loop to the system will provide information where it was lacking, changing the behavior of the system.
- Rules of the system—Rules define a system's scope, boundaries, and freedom and can force drastic change into a system.
- Power to add, change, evolve, or self-organize system structure—Allowing a system to adapt over time increases its resilience. Systems that cannot self-evolve are doomed to fail over the long run.

[42] Meadows, "Leverage Points," 1.

- Goals of the system—Changing the system's goals alters all of the above leverage points to conform to the new goal.
- Mindset or paradigm out of which the system arises—Paradigms are the source of systems and everything about a system is directly attributed to the paradigm; however, they are the most difficult system aspect to change.
- Power to transcend paradigms—The ability to stay unattached to a certain paradigm, to be flexible, and to realize no one paradigm is true allows policy makers to choose whatever paradigm will enable the system to achieve its purpose.

Meadows cautions that "the higher the leverage point, the more the system will resist changing it."[43] The concept of leverage points, however, provides valuable insight in how to control a CAS.[44]

7. Strategy Formulation

In *The Rise and Fall of Strategic Planning*, Mintzberg defines planning as "a formalized procedure to produce an articulated result, in the form of an integrated system of decisions."[45] Formalization contains three aspects: to decompose, to articulate, and to rationalize the processes decisions are made and integrated into an organization. He continues by explaining that strategy is both a plan and pattern. Strategies start as intended strategy, evolve into deliberate strategy after portions of the intended strategy become unrealized, and end up as realized strategy when deliberate strategy is combined with emergent strategy, Figure 1.[46]

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[43] Ibid., 19.

[44] Ibid., 2–19.

[45] Mintzberg, *Rise and Fall*, 12.

[46] Ibid., 12–24.

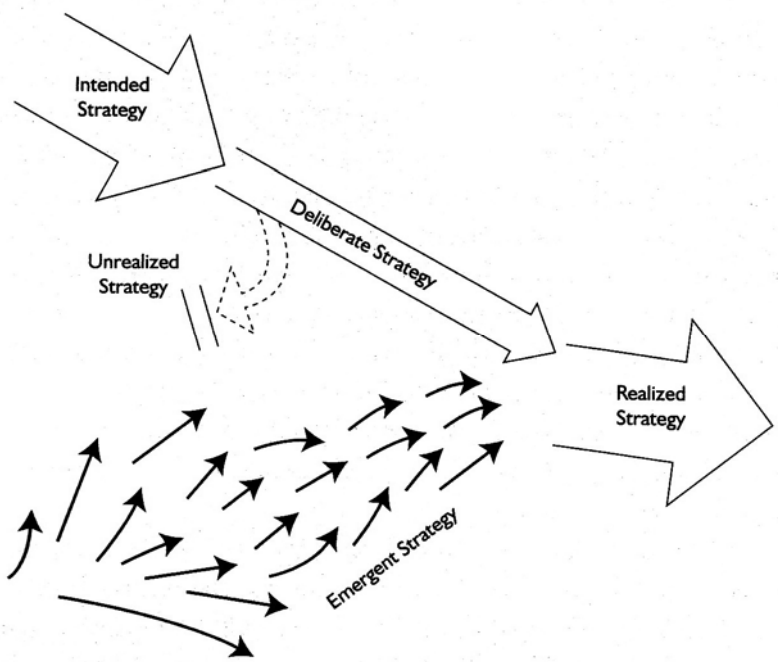

Figure 1. Forms of strategy (After Mintzberg, 1994)

Strategy formulation contains three steps. First, the strategy must be codified by clearly expressing it in terms that enable it to be formally operational. This step entails making assumptions explicit and uncovering and eliminating inconsistencies. Second, the strategy has to be elaborated into specific action plans. Third, the elaborated strategy must be converted into routine operations.[47]

There are many schools of thought that attempt to explain the strategy process. Mintzberg describes ten distinct schools: design, planning, positioning, entrepreneurial, cognitive, learning, power, cultural, environmental, and configuration. The first three are prescriptive schools focused on how strategies should be formulated. The next six describe how strategies are made, and the configuration school combines them all. In the realm of border security, discussion will be limited to the learning, power, and cultural schools.[48]

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[47] Mintzberg, *Rise and Fall*, 337–41.

[48] Henry Mintzberg, Bruce Ahlstrand, and Joseph Lampel, *Strategy Safari* (New York: The Free Press, 1998), 5–6.

The cultural school explains how specific governmental agencies develop strategic plans. Organizations over time develop internal cultures influencing the style of thinking, analysis, and in turn strategies. Cultures also have the negative effect of making organizations resistant to strategic change. Karl Weick states: "A corporation doesn't have a culture. A corporation is a culture. That is why they're so horribly difficult to change."[49]

The power school sees strategy formation "as an overt process of influence, emphasizing the use of power and politics to negotiate strategies favorable to particular interests."[50] Graham Allison's work examining the Cuban missile crisis is a comprehensive review of the dynamics internal politics play on strategy formulation. This school explains how the political process may be required to stimulate governmental agencies to change.[51]

The learning school offers the best framework from the above schools of thought for border security strategy formulation. Mintzberg describes, "According to this school, strategies emerge as people, sometimes acting individually but more often collectively, come to learn about a situation as well as their organization's capability of dealing with it. Eventually they converge on patterns of behavior that work."[52] A learning organization follows the following principles: learn from failure and success; reject the adage "if its not broken, don't fix it;" assume workers closest to the processes know more than their superiors; seek to push information throughout the organization ensuring relevant knowledge is shared with units that need it the most; and spend time looking outside boundaries for knowledge. Mintzberg proclaims:

> Some organizations face perpetual novelty. In other words, their environments are dynamic and unpredictable, which makes it difficult to converge on a clear strategy at all. In this case, the structure tends to take the form of adhocracy, or project organization, and the learning approach becomes almost mandatory—the means to work things out in a flexible

[49] Ibid., 269–70.

[50] Ibid., 234.

[51] Ibid., 234–44.

[52] Ibid., 176.

> manner. At the very least, it allows the organization to do something—to respond to an evolving reality in individual steps instead of having to wait for a fully determined strategy.[53]

This dynamic and unpredictable atmosphere describes the environment border security agencies are forced to deal with on a daily basis.[54]

8. Collaborative Planning

Collaborative planning builds on the basic assumptions of the learning school and is based on the concept of collaborative rationality, which is an alternative to traditional linear models. It emphasizes expert knowledge and reasoning based on argumentation. Collaborative rationality was constructed from ideas created by the Frankfort School of critical theorists; specifically Jurgen Habermas' theory of communicative rationality, which contends results from deliberations can be viewed as rational.[55]

Rational choice theorists also support collaborative rationality. They discovered in certain situations, such as the prisoners' dilemma, cooperation was the most rational choice. John Forester brought the theory of communicative rationality into the realm of planning in his article "Critical theory and planning practice" and was further developed by Patsy Healey and John Dryzek.[56]

Judith Innes believes three conditions must be met in order for collaborative planning to succeed: "These conditions include full diversity of interests among participants, interdependence of the participants, who cannot get their interests met independently, and engagement of all in face to face authentic dialogue."[57] She calls this the DIAD (diversity, interdependence, authentic dialogue) theory of collaborative rationality.[58]

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[53] Ibid., 229.

[54] Ibid., 214–15.

[55] Innes, *Planning with Complexity*, 6–23.

[56] Ibid., 20–25.

[57] Ibid., 35.

[58] Ibid., 35.

Four results often emerge during the collaborative planning process. First, agents discover the reciprocal nature of their interests and learn achieving their goals are predicated on working together, rather than competing. Second, lasting relationships are developed that continue after the process is completed. Third, agents learn new actions and strategies they can use to achieve their objectives and also readdress their initial goals and interests in policy issues. Finally, the process can lead to system adaptations that transcend the agreements made.[59]

Collaborative planning is highly compatible with CAS because it focuses on the larger dynamic system as a whole, rather than simply its parts. Additionally, collaborative planning not only produces effective options for institutions to address problems, but also facilitates individual and collective learning leading to system changes, making institutions more adaptive and resilient.[60]

Susan Hocevar argues border security needs to develop collaborative capacity:

> A capacity for collaboration enhances the probability of mission completion by leveraging dispersed resources. The benefits of developing collaborative capabilities include cost savings through the transfer of smart practices, better decision making as a result of advice and information obtained from colleagues, enhanced capacity for collective action by dispersed units, and innovation through cross-pollination of ideas and recombination of scarce resources.[61]

Hocevar believes collaboration is a way to overcome institutional barriers stemming from conflicting missions by establishing common goals, recognizing interdependence, formalizing relationships, and creating lateral mechanisms. Additionally, William Jenkins contends DHS must create processes that provide incentives and rewards for collaboration.[62]

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[59] Ibid., 37–38.

[60] Ibid., 30–34.

[61] Susan P. Hocevur, Gail F. Thomas, and Erik Jansen, "Building Collaborative Capacity: An Innovative Strategy for Homeland Security Preparedness," in *Innovation through Collaboration*, ed. Michael M. Beyerlein, Susan T. Beyerlein, and Frances A. Kennedy (Emerald Group Publishing Limited, 2006), 257.

[62] Ibid., 272; William O. Jenkins, "Collaboration over Adaption: The Case for Interoperable Communications in Homeland Security," *Public Administration Review* 66 (2006): 321.

9. Cynefin Framework

The Cynefin sense-making framework also supports the implementation of collaborative planning into border security. David Snowden and Cynthia Kurtz, to challenge traditional ODT assumptions of order, rational choice, and intent, developed the Cynefin framework. The framework is designed to enable decision makers "to consider the dynamics of situations, decisions, perspectives, conflicts, and changes in order to come to a consensus for decision-making under uncertainty."[63]

The framework consists of four domains—known, knowable, complex, and chaos—and an area of disorder separating the domains. The known and knowable domains are ordered, consisting of linear cause and effect relationships. While the complex and chaos domains are unordered, containing non-linear relationships. In the known domain, the cause and effect relationships are known, translating into a decision model of sense-categorize-respond and the use of best practices. The knowable domain contains cause and effect relationships that can be determined over time; the decision model for this area is sense-analyze-respond and the use of cooperation. The complex area is the domain of complexity theory where emergent patterns emerge, but cannot be predicted. This leads to the decision model of probe-sense-respond and collaborative planning. In the chaos domain, there are no perceivable patterns and there is limited time to analyze. The decision model for this area is act-sense-respond and use of authoritative methods is most appropriate. Finally, the space between the four domains is an area of disorder where decision makers do not know which domain the situation they are in belongs. Figure 2 depicts the Cynefin framework.[64]

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[63] Kurtz, "Dynamics of strategy," 468.

[64] Ibid., 468–70.

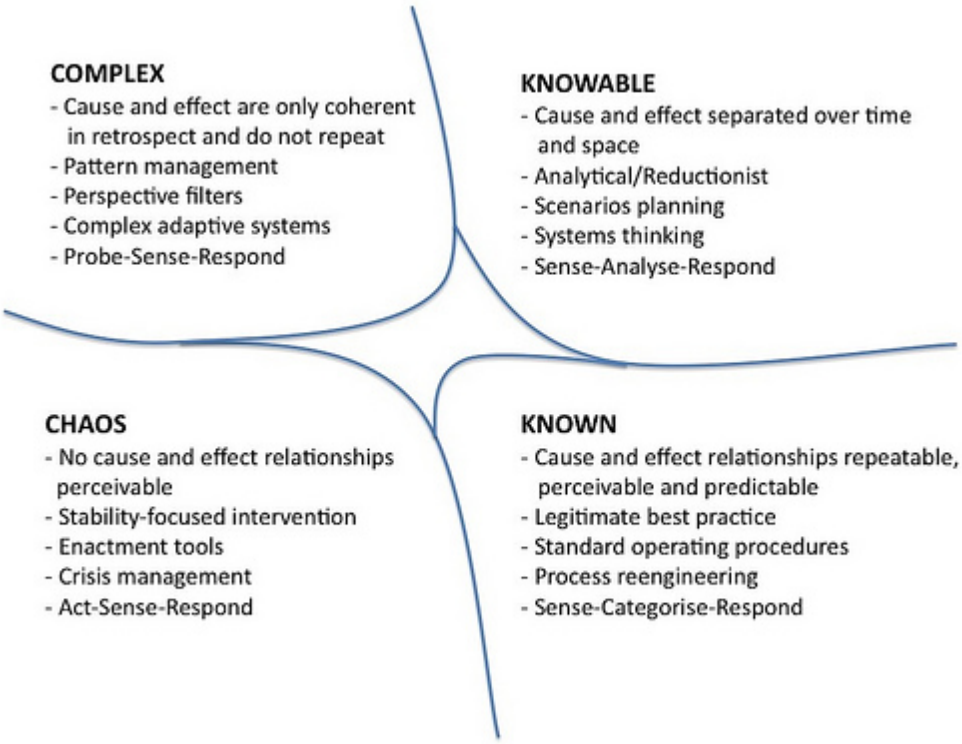

Figure 2. Cynefin framework (After Kurtz and Snowden, 2003)

Christopher Bellavita, applying the Cynefin framework, suggests, "the most significant strategic issues the homeland security community will face in the next ten years are in the unordered domain of complex adaptive systems."[65] These problems are "open" because they will persist and cannot be fully resolved. The use of planning methodologies that work well in the "known" and "knowable" domains are ineffective in a complex "open" environment. Furthermore, Nieto-Gomez states, "the homeland security environment should be understood as a chaotic system where long term planning is very difficult."[66] When put into the context of the Cynefin framework, Nieto-Gomez's use of the term "chaotic" can be translated as "complex."[67]

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[65] Christopher Bellavita, "Changing Homeland Security: Shape Patterns, Not Programs," *Homeland Security Affairs* Vol. II, No. 3 (October 2006): 8.

[66] Rodrigo Nieto-Gomez, "The Power of 'the Few': A Key Strategic Challenge for the Permanently Disrupted High-Tech Homeland Security Environment," *Homeland Security Affairs* 7 (December 2011): 3.

[67] Bellavita, "Changing Homeland Security," 8.

10. Conclusion

The literature clearly shows a lack of coordination and collaboration is hindering border security efforts. This is partly explained by the bureaucratic processes in place. The Neo-Weberian model provides insight on how the border security bureaucracy, in order to become more effective, should transform into an adhocracy. Zegart's work introduced important concepts on the difficulties governmental organizations must overcome to adapt.

Border security needs to be examined from a systems perspective, as its environment contains CAS whose patterns continually evolve. Meadows' leverage points provide effective places to intervene in systems, where small changes can have lasting effects. Finally, the Cynefin framework suggests border security's strategy formulation should be based on the model of collaborative planning, incorporating the tenants of Mintzberg's learning organizations. Doing so will enable border security institutions to move beyond merely sharing information to the realm of jointly creating information.[68]

G. METHODS AND SOURCES

This thesis is a policy analysis using the meta-policy and policy process approaches, integrating multiple disciplines to examine the border security environment. The meta-policy approach explains the political and bureaucratic contextual factors affecting the structure of the border security system. Policy process is used to clarify the role and influence of stakeholders within the policy process itself to identify possible solutions.

This process starts by looking at established border security institutions and the forces shaping their development. The thesis then examines the structure of the border security system in an attempt to provide policy makers suggestions on how better to organize to amplify collaboration and effectiveness, with the overall goal of increasing North American security.

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[68] Treverton, "Complexities," 352.

II. SHAPE OF THE BORDER SECURITY SYSTEM

The majority of research on border security has used a linear approach and limited its scope primarily to the DHS elements assigned to protecting the border: Customs and Border Protection (CBP), Immigration and Customs Enforcement (ICE), and U.S. Coast Guard (USCG). This chapter introduces a number of agencies and institutions not normally associated with performing border security functions; yet through a systems perspective these agencies greatly affect border security and are critical to determine the shape of the system. Defining the shape of the system is the first step in incorporating any change into a system.

Whereas the linear approach in defining border security is too narrow, the most challenging aspect of using a systems approach is determining where to draw system boundaries. The basic premise of systems thinking is that there are no separate systems; everything in the world affects everything else. Meadows describes the nonexistence of boundaries:

> Systems rarely have real boundaries. Everything, as they say, is connected to everything else, and not neatly. There is no clearly determinable boundary between the sea and land, between sociology and anthropology, between an automobile's exhaust and your nose. There are only boundaries of word, thought, perception, and social agreement—artificial, mental-model boundaries. The greatest complexities arise at exact boundaries. There are Czechs on the German side of the border and Germans on the Czech side of the border. Forest species extend beyond the edge of the forest into the field; field species penetrate partway into the forest. Disorderly, mixed-up borders are sources of diversity and creativity.[69]

There is no single correct boundary, and the establishment of any boundary introduces artificial problems. For the scope of this thesis, the boundary is drawn around federal agency and institutional level entities directly influencing border security, along

[69] Meadows, *Thinking in Systems*, 95.

with the major clandestine actors affecting border security. This does limit the range and introduces a resemblance of linearity to this thesis, but is necessary in order to complete the project.[70]

According to Meadows, a system contains three components: elements, interconnections, and a function or purpose. Meadows uses a football analogy to explain:

> A football team is a system with elements such as players, coach, field, and ball. Its interconnections are the rules of the game, the coach's strategy, the players' communication, and the laws of physics that govern the motions of ball and players. The purpose of the team is to win games, or have fun, or get exercise, or make millions of dollars, or all of the above.[71]

This chapter defines the first two components, elements and interconnections, of the border security system and also attempts to determine which, if any, agency has the overall lead in coordinating the system. Chapter III details the system's purpose by observing the system and explaining the forces shaping the system into what it is today.

A. ELEMENTS

Elements are the basic components and most visible parts making up any system. The border security system contains three distinct categories of elements: political, federal, and clandestine. All elements interact with one another either directly or non-directly, and all affect the way the system behaves.

1. Political

The political element is critical to include in a systemic analysis of border security. Border security, in essence, is a political tool. It is through the political element that the shape, priorities, limits, and functions of border security are established with laws, international agreements, oversight, and judicial rulings. The political system contains instituted checks and balances to ensure proper system function.

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[70] Ibid., 97–98.

[71] Ibid., 11.

a. Legislative

Congress creates the laws that border security agencies are charged with enforcing. The various committees and sub-committees perform oversight of agencies to ensure they are fulfilling their roles. More importantly, Congress funds the agencies and determines the bureaucratic structure of the border security apparatus. Additionally, Congress ratifies international agreements pertaining to border security.

b. Executive

The executive branch is charged with executing the laws passed through legislature. The president sets the priorities and policies of the border security system and coordinates agency activities to accomplish their objectives. Furthermore, the president negotiates international agreements and treaties with foreign governments, which is vital to the success or failure of any attempt to secure international borders.

c. Judicial

The judicial system ensures the laws passed, along with the enforcement, are legal and in accordance with the Constitution. Judicial rulings are frequently the definitive point that laws and practices are either continued or stopped.

2. Federal Agencies

Federal agencies are the institutions charged with carrying out the daily activities pertaining to border security. Each institution has its own unique history and culture, and collectively they work together pursuing the political system's agenda.

a. Department of Homeland Security (DHS)

DHS is the main departmental level agency responsible for securing the U.S. border, and controls four separate agencies charged with border security: CBP, ICE, Transportation Security Agency (TSA), and Coast Guard. Additionally, DHS contains the U.S. Citizenship and Immigration Service (USCIS), which oversees lawful immigration to the United States. The DHS website defines its border security mission as:

> Department of Homeland Security prevents and investigates illegal movements across our borders, including the smuggling of people, drugs, cash, and weapons. The Department is working to strengthen security on the southwest border to disrupt the drug, cash, and weapon smuggling that fuels cartel violence in Mexico by adding manpower and technology to the southwest border.[72]

DHS is the focal point of U.S. border security and is the agency that links its subordinate agencies to the political system. Furthermore, DHS has the difficult task of coordinating its agencies activities to collectively accomplish the border security mission.

b. U.S. Customs and Border Protection (CBP)

CBP is the law enforcement arm of DHS providing front line responders to immigration and customs violations. Their mission is to "prevent terrorists and terrorist weapons from entering the country, provide security at U.S. borders and ports of entry, apprehend illegal immigrants, stem the flow of illegal drugs, and protect American agricultural and economic interests."[73] CBP contains two, again separate, agencies that fulfill its mission: U.S. Border Patrol (USBP) and Office of Field Operations (OFO).[74]

CBP is the most visible agency protecting U.S. borders. In addition to its stated mission and objectives, CBP must contend with changing priorities of other agencies, which affect the illegal flow of people, weapons, and drugs across the border.

c. U.S. Border Patrol (USBP)

Border Patrol agents enforce immigration laws between official ports of entry. Their primary mission "is to detect and prevent the entry of terrorists, weapons of mass destruction, unauthorized aliens into the country, and to interdict drug smugglers and other criminals" along 8,000 miles of the U.S. international border. In recent years, USBP has been seen as the most important agency securing U.S. borders and its

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[72] "Border Security," Department of Homeland Security, accessed February 23, 2012, http://www.dhs.gov/files/bordersecurity.shtm.

[73] Chad C. Haddal, "Border Security: Key Agencies and Their Missions," Congressional Research Service Report RS21899, January 26, 2010, 2.

[74] Ibid., 1–2.

appropriations have ballooned from $1.06 billion in 2000 to $3.58 billion in 2011—an increase of 238 percent. Additionally, its manpower has more than tripled over the past decade to over 20,000 agents.[75]

d. Office of Field Operations (OFO)

OFO customs agents are responsible for conducting immigrations, customs, and agricultural inspections at official ports of entry. The agents verify travel documents, collect customs, ensure both imports and exports are in compliance of U.S. laws, inspect for contraband, and confirm that agricultural products comply with animal and plant protection laws. OFO forms the largest component of CBP, with over 28,000 employees and a budget of over $3.5 billion a year. Agents man 20 major field offices, 331 ports of entry, and 70 locations in over 40 countries. Agents are provided a broad range of powers, which includes the ability to inspect all persons, vehicles, merchandise, and baggage entering from foreign countries.[76]

e. U.S. Immigrations and Customs Enforcement (ICE)

ICE performs the investigative and intelligence functions of DHS, whose "mission is to detect and prevent terrorist and criminal acts by targeting the people, money, and materials that support terrorist and criminal networks."[77] A CRS report provides a detailed description of ICE activities:

> Unlike CBP, whose jurisdiction is confined to law enforcement activities along the border, ICE special agents investigate immigrations and customs violations in the interior of the United States. ICE's mandate includes uncovering national security threats such as weapons of mass destruction or potential terrorists, identifying criminal aliens for removal, probing immigration-related document and benefit fraud, investigating work-site immigration violations, exposing alien and contraband smuggling operations, interdicting narcotics shipments, and detaining illegal immigrants and ensuring their departure (or removal) from the United States. ICE is also responsible for the collection, analysis and

[75] Ibid., 2; Haddal, "The Role of the U.S. Border Patrol," 6.

[76] Haddal, "Key Agencies," 2; "Office of Field Operations," Customs and Border Protection, accessed August 17, 2012, http://www.cbp.gov/xp/cgov/about/organization/assist_comm_off/field_operations.xml.

[77] Haddal, "Key Agencies," 3.

> dissemination of strategic and tactical intelligence data pertaining to homeland security, infrastructure protection, and the illegal movement of people, money, and cargo within the United States.[78]

Even though ICE's main focus in on interior enforcement, they are a critical component to the border security network. ICE employs over 20,000 people and is provided $5.44 billion in funding.[79]

f. U.S. Coast Guard (USCG)

The homeland security role of the Coast Guard is to protect U.S. ports from terrorist threats and "maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction." The Coast Guard is a standalone agency within DHS and is the lead agency in maritime law enforcement. It is charged with protecting over 361 ports and 95,000 miles of coastline. Additionally, the Coast Guard performs important intelligence activities within DHS and the national intelligence system. The agency is appropriated over $10 billion annually and contains close to 50,000 military and civilian employees.[80]

g. Department of Justice (DOJ)

DOJ is another department level agency that is intricately involved in border security missions. The Federal Bureau of Investigation (FBI), Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), Drug Enforcement Administration (DEA), and National Drug Intelligence Center (NDIC) are four distinct agencies inside DOJ who all have roles to play. DOJ's mission statement, according to its website, is:

> To enforce the law and defend the interests of the United States according to the law; to ensure public safety against threats foreign and domestic; to provide federal leadership in preventing and controlling crime; to seek just

[78] Ibid., 3.

[79] Ibid., 3.

[80] Ibid., 3–4.

punishment for those guilty of unlawful behavior; and to ensure fair and impartial administration of justice for all Americans.[81]

Although not specifically charged with securing U.S. borders, all of the above DOJ agencies' missions have significant border functions and must coordinate closely with DHS to successfully accomplish their goals.

h. Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF)

ATF was moved to DOJ from DHS in 2003, along with its law enforcement functions formally under the Department of the Treasury. ATF's mission is to "protect our communities from violent criminals, criminal organizations, the illegal use and trafficking of firearms,…[and] acts of terrorism."[82] The ATF is the main agency charged with curtailing the flow of weapons into Mexico, which entails a great level of coordination with CBP.

i. Drug Enforcement Administration (DEA)

DEA's website defines its mission as: "To enforce the controlled substances laws and regulations of the United States and bring to the criminal and civil justice system of the United States…those organizations and principal members…involved in the growing, manufacture, or distribution of controlled substances…destined for illicit traffic in the United States."[83] The primary responsibilities of the DEA include: investigation of major violators of controlled substance laws operating at interstate and international levels; investigation of drug gangs; management of the national drug intelligence program; seizure of assets traceable to drug trafficking; coordination of drug enforcement efforts; and is responsible for all drug enforcement programs in foreign countries.[84]

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[81] "About DOJ," Department of Justice, accessed February 23, 2012, http://www.justice.gov/about/about.html.

[82] "About ATF," Bureau of Alcohol, Tobacco, Firearms, and Explosives, accessed February 23, 2012, http://www.atf.gov/about/.

[83] "DEA Mission Statement," Drug Enforcement Administration, accessed February 23, 2012, http://www.justice.gov/dea/agency/mission.htm.

[84] Ibid.

DEA's involvement in border security has increased in recent years due to the fact the majority of illegal drugs are smuggled across the U.S.-Mexican border. In order to fulfill its mission, the DEA must work closely with CBP agencies to interdict illegal drugs flowing across U.S. borders.

j. Federal Bureau of Investigation (FBI)

The FBI's website defines its mission as:

> As an intelligence-driven and a threat-focused national security and law enforcement organization, the mission of the FBI is to protect and defend the United States against terrorist and foreign intelligence threats, to uphold and enforce the criminal laws of the United States, and to provide leadership and criminal justice services to federal, state, municipal, and international agencies and partners.[85]

Combating transnational criminal organizations and enterprises is included in a list of FBI priorities and is how the organization fits into border security, namely fighting Mexican DTOs. DHS relies on the FBI's investigative abilities, along with its intelligence collection resources to secure U.S. borders.

k. National Drug Intelligence Center (NDIC)

NDIC provides drug-related intelligence to the FBI, DEA, and other agencies. It combines and analyses data obtained from federal, state, and local law enforcement and intelligence agencies in order to reduce the effects of drug trafficking, drug abuse, and other drug-related activities. Additionally, NDIC is involved in reporting the methods drug traffickers use to launder drug proceeds, which is used to enhance money laundering strategies. All border security institutions depend on NDIC intelligence to complete their respective missions.[86]

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[85] "About Us," Federal Bureau of Investigation, accessed February 23, 2012, http://www.fbi.gov/about-us/quick-facts.

[86] "About NDIC," Department of Justice, accessed February 23, 2012, http://www.justice.gov/ndic/about.htm.

l. U.S. Department of the Treasury (DOT)

DOT is an additional department level entity performing a role in border security. DOT combats DTOs by working with other federal agencies to target the financial support networks used by the organizations. DOT has the resources and knowledge needed to attack money laundering, stopping the flow of drug proceeds back to DTOs is critical to the success of any effort in curtailing DTO activities and securing North American borders. DOT must work closely with DHS and DOJ agencies, along with international financial entities, to stem the financing of illegal cross-border activities.[87]

m. Office of National Drug Control Policy (ONDCP)

ONDCP is a component of the Executive Office of the President, created by the Anti-Drug Abuse Act of 1988. ONDCP produces the National Drug Control Strategy and coordinates both drug-control activities and funding across the federal government. ONDCP is an essential link between border security agencies and the political system. The office details the priorities of border security pertaining to drug activities and has substantial control of agency budgets.[88]

n. Mexican Military

In 2006, Mexican President Felipe Calderon stated DTOs were a national security threat and ordered the Mexican military to directly combat DTOs. The military was called into action primarily because of widespread corruption and weakness of Mexican police forces. Their role has continued to increase, and close to 45,000 troops have been deployed throughout the country to fight DTOs. Given DTOs are the primary sources of human and drug smuggling into the United States, the Mexican military's war against DTOs directly influences border security.[89]

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[87] "Role of the Treasury," Department of the Treasury, accessed February 23, 2012, http://www.treasury.gov/about/role-of-treasury/Pages/default.aspx.

[88] "About ONDCP," The White House, accessed August 1, 2012, http://www.whitehouse.gov/ondcp.

[89] Jim Michaels, "U.S. Military Works with Mexico to Fight Drug Traffickers," *USA Today*, April 6, 2010, accessed February 23, 2012, http://www.usatoday.com/news/military/2010-04-06-Mexico_N.htm.

o. Secretaria de Seguridad Publica (SSP)

SSP is part of the Federal Civil Service whose aim is to "preserve freedom, order and public peace, and to safeguard the integrity and rights of the people by preventing the commission of crimes."[90] The SSP contains the Federal Police force, which, along with the Mexican military, has been directly engaged in combating DTOs. As with the Mexican military, SSP's fight against DTOs greatly affects North American security.

p. Federal Police (PF)

PF was created in 1999, replacing the corrupt Federal Preventive Police and is the most prolific police force in Mexico. PF is a nation-wide force with large investigative powers and contains several elite units specifically created to combat DTOs. Their actions against DTOs, again, influence border security institutions in the United States.[91]

q. Ministerial Federal Police (PFM)

PFM performs investigative functions for the Attorney General of Mexico and replaced the corrupt Federal Investigations Agency. PFM can be viewed as the FBI of Mexico, and its intelligence and investigative abilities directly contribute to securing the U.S.-Mexican border.[92]

r. Secretariat of Finance and Public Credit

This agency deploys customs officers at official border crossings to interdict contraband entering Mexico. In order to curtail the flow of illegal weapons into Mexico, *Secretariat* agents need to closely coordinate with the ATF.[93]

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[90] "About the SSP," *Secretaria De Seguridad Publica*, accessed February 24, 2012, http://www.ssp.gob.mx/portalWebApp/wlp.c?__c=7dd.

[91] "Law Enforcement in Mexico," Wikipedia, accessed February 24, 2012, http://en.wikipedia.org/wiki/Law_enforcement_in_Mexico.

[92] Ibid.

[93] Ibid.

s. Bank of Mexico

The Bank of Mexico employs a security division charged with combating money laundering. To be successful, the Bank of Mexico needs to work closely with DOT and NDIC, along with other U.S. and Mexican border security agencies, to stem financing from the illegal drug trade.[94]

t. Canada Border Services Agency (CBSA)

Created in 2003, CBSA combined the interdiction and law enforcement functions of Citizenship and Immigration Canada with the customs function previously performed by Canada Customs and Revenue into a single agency. CBSA is Canada's CBP and is a critical component to the border security apparatus. CBSA works closely with CBP agencies to secure the U.S.-Canadian border on a daily basis.[95]

u. Royal Canadian Mounted Police (RCMP)

RCMP is Canada's national police service, which enforces both federal and provincial law throughout Canada. RCMP has the primary investigative responsibility for terrorism related offenses, in addition to using its intelligence apparatus to investigate organized crime, high-technology crime, and illegal migration. RMCP can be viewed as Canada's FBI, albeit with a much greater span of control. RMCP's intelligence and investigative functions are critical to securing the U.S.-Canadian border and works closely with its U.S. counterparts.[96]

v. Canadian Security Intelligence Service (CSIS)

CSIS is a domestic civilian agency created in 1984 that investigates, analyzes, and advises governmental agencies on activities suspected of constituting threats to Canada's national security. Additionally, CSIS conducts security assessments

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[94] Ibid.

[95] "Canada Border Services Agency," Canadian Intelligence Resource Centre, accessed July 30, 2012, http://circ.jmellon.com/agencies/cbsa/.

[96] "Royal Canadian Mounted Police," Canadian Intelligence Resource Centre, accessed July 30, 2012, http://circ.jmellon.com/agencies/rcmp/.

of all federal government agencies, except RCMP, and vets immigration, citizenship, and refugee applicants referred from CBSA. As with RMCP, CBSA's investigative function is vital to the border security system.[97]

w. Public Safety Canada (PS)

Established in 2003 to facilitate coordination across federal departments and agencies responsible for Canadian national security, PS is essentially Canada's DHS. The Minister of PS has control over CBSA, RCMP, and CSIS. PS's mandate is to keep Canadians safe from risks ranging from natural disasters to crime and terrorism. PS works closely with its U.S. sister agencies to secure North American borders.[98]

3. Clandestine Actors

Clandestine actors greatly affect the function of the system and are essential to include in a systemic analysis of border security. In turn, the official system affects the function of clandestine actors, as they innovate their processes to adapt to the legitimate components of the network. The primary clandestine actors operating in the realm of border security are Mexican DTOs and the emerging role of clandestine networks remains quite pervasive. By their very nature, DTOs are more dynamic than bureaucracies, which allow them to be more adaptive. The names and territorial placement of specific cartels is very fluid and constantly changing; whereas established bureaucracies tend to be permanent. This section introduces the seven most prolific organizations. Figure 3 provides a map of areas of DTO influence in Mexico.

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[97] "Canadian Security Intelligence Service," Canadian Intelligence Resource Centre, accessed July 30, 2012, http://circ.jmellon.com/agencies/csis/.

[98] "About us," Public Safety Canada, accessed 30 July 2012, http://publicsafety.gc.ca.

Figure 3. Areas of DTO influence in Mexico (From DEA, http://www.dea.gov)

a. The Gulf Cartel

The Gulf Cartel is based out of Matamoros in Tamaulipas, directly across the border from Brownsville, Texas. The group started bootlegging in the 1920s and began moving to cocaine during the 1980s with the crackdown of Caribbean smuggling routes. It was considered Mexico's most powerful DTO when it controlled Los Zetas to enforce its smuggling routes. Los Zetas, however, defected in 2009, and the Gulf Cartel is currently battling the new organization for control of smuggling routes in Tamaulipas, Nuevo Leon, and Veracruz.[99]

[99] Peter Chalk, "Profiles of Mexico's Seven Major Drug Trafficking Organizations," *CTC Sentinel*, January 2012, 5; June S. Beittel, "Mexico's Drug Trafficking Organizations: Source and Scope of the Rising Violence," Congressional Research Service Report R41576, June 8, 2012, 13.

b. Los Zetas

Los Zetas was formed when members of an elite airborne special forces unit deserted from the Mexican military between 1996 and 2000. Initially working as assassins for the Gulf Cartel, Los Zetas broke away and became an independent DTO in 2009. Los Zetas has the distinction of being the most violent DTO in Mexico and is engaged with the Gulf Cartel over control of trafficking routes in Tamaulipas. The organization has also expanded its operations to Zacatecas, Veracruz, Tabasco, Campache, Quintana Roo, and Chiapas, in addition to increasing its influence into Guatemala in an effort to control cocaine shipments from Central America to Mexico. Furthermore, Zetas is believed to be the most diversified DTO in Mexico, continually adapting into other criminal activities.[100, 101]

c. La Familia Michoacana (LFM)/Knights Templar (Caballeros Templarios)

LFM's roots trace back to the 1980s, ironically starting out as a vigilante group aimed at eradicating drug use in Mexico, and is based in the state of Michoacán. The organizations founder, Nazario Moreno Gonzalez, required members to carry a "spiritual manual" giving the organization overtones of a religious cult. LFM transformed into a DTO specializing in methamphetamine production and smuggling, gaining notoriety for beheadings of those who fail to conform to its code of conduct. Once aligned with Los Zetas, it is currently in direct confrontation with the organization.[102]

Gonzalez was killed during a shootout with security forces in 2010, and the majority of LFM members have defected into a new organization, *Caballeros*

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[100] Chalk, "Profiles," 6; Beittel, "Mexico's Drug Trafficking Organizations," 13–14.

[101] Recent reports indicate that Los Zetas has split into two rival factions and have begun fighting each other; another example of the fluid nature of clandestine actors, see "Mexico's Zetas drug gang split raises bloodshed fears," British Broadcasting Corporation, accessed September 12, 2012, http://www.bbc.co.uk/news/world-latin-america-19543286.

[102] Chalk, "Profiles," 6; Beittel, "Mexico's Drug Trafficking Organizations," 15–16.

Templarios (Knights Templar). Knights Templar continues to use religious rhetoric, even publishing an ethics booklet, and has been used by the Sinaloa cartel as a proxy to fight against Los Zetas.[103]

d. Sinaloa Cartel

The Sinaloa cartel is the most powerful and influential DTO in Mexico and was established in the mid-1990s in the state of Sinaloa. Billionaire Joaquin "El Chapo" Guzman, the most wanted drug trafficker in Mexico, heads the organization. The Sinaloa cartel moves cocaine from South America into the United States and controls an estimated 45 percent of Mexico's drug trade. Additionally, the cartel is suspected to have a presence in over 50 countries, making it the most powerful mafia organization in the Western Hemisphere and is considered the most cohesive DTO. Sinaloa is currently battling other cartels for control of key smuggling routes along the New Mexico and California borders.[104]

e. Beltran Leyva Organization (BLO)

BLO was initially affiliated with the Sinaloa cartel and controlled border access along Sonora state, however, after the arrest of one of its founding members in 2008, assisted by a reported betrayal from "El Chapo" Guzman, the organization broke away. The organization is believed to have infiltrated the upper echelons of Mexican government and has executed uncooperative officials, most prolifically the acting Federal Police director Edgar Millan Gomez. BLO has secured trafficking routes in Sinaloa, Durango, Sonora, Jalisco, Michoacan, Guerrero, and Morelos and has formed an alliance with Los Zetas to fight against the Gulf, Sinaloa, and La Familia cartels.[105]

f. Juarez Cartel

The Juarez cartel is based in Cuidad Juarez, directly across the border from El Paso, Texas. The cartel was originally part of the Sinaloa federation, but split

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[103] Chalk, "Profiles," 6.

[104] Chalk, "Profiles," 6; Beittel, "Mexico's Drug Trafficking Organizations," 10.

[105] Beittel, "Mexico's Drug Trafficking Organizations," 14–15.

from the organization in 2008. Since then, the cartel, along with its enforcement arm, *La Linea*, largely composed of corrupt police officers, has been engaged in a horrific conflict with the Sinaloans over control of the Cuidad Juarez trafficking corridor. The conflict has claimed the lives of thousands, making the Mexican state of Chihuahua the deadliest in Mexico. The Juarez cartel was responsible for the murder of a U.S. Consulate employee, along with her husband, in 2010. The violence has taken a toll on the Juarez cartel; however, during its height the cartel was assumed to be responsible for half of all the illegal drug traffic between Mexico and the United States.[106]

g. Tijuana Cartel

The Tijuana cartel was created by one of the original founders of modern Mexican DTOs, former police officer Miguel Angel Felix Gallardo. Gallardo was arrested in 1989 for the murder of a DEA agent. The cartel was originally aligned with the Sinaloa cartel and was one of the largest and most violent DTOs in Mexico. In 2008, the organization split from the Sinaloa cartel and has continually diminished since, as the Sinaloa cartel exerts its power taking over trafficking routes into the United States.[107]

B. INTERCONNECTIONS

Systems contain both formal and informal interconnections, which serve as the medium for interaction between elements and hold the elements together. Interconnections also very in form, some are institutional in nature, while others are unofficial. Through these interconnections, system elements affect one another, in addition to overall system behavior. Interconnections are more difficult to determine than elements; however, interconnections are more important to system function than elements. Meadows writes, "A system generally goes on being itself…even with complete substitutions of its elements—as long as its interconnections and purposes remain intact."[108]

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[106] Chalk, "Profiles," 7; Beittel, "Mexico's Drug Trafficking Organizations," 10.

[107] Chalk, "Profiles," 7–8; Beittel, "Mexico's Drug Trafficking Organizations," 9.

[108] Meadows, *Thinking in Systems*, 16.

1. El Paso Intelligence Center (EPIC)

EPIC is a national tactical intelligence center providing law enforcement agents, investigators, and analysts access to participating agencies' databases. It also delivers direct tactical intelligence support to state and local law enforcement agencies. EPIC contains members from: DEA, DHS, CBP, ICE, USCG, FBI, ATF, U.S. Secret Service, NDIC, Internal Revenue Service (IRS), Department of Defense (DoD), Texas Department of Public Safety, Texas Air National Guard, and El Paso County Sheriff's Office.[109]

2. Border Enforcement Security Task Force (BEST)

BEST is an ICE-led task force "designed to increase the flow of information between participating agencies regarding transnational criminal organizations and violent gangs operating along our [U.S.] borders…targeting the underlying source of cross border violence along the SWB: weapons smuggling, narcotics and human smuggling as well as bulk cash smuggling."[110] BEST contains members from: ICE, CBP, U.S. Secret Service, DEA, ATF, FBI, USCG, SSP, and local and state law enforcement agencies. Additionally, BEST units along the northern border contain members from: CBSA, RCMP, and provincial law enforcement agencies. Currently, there are 32 separate BEST units in the United States and Mexico.[111]

3. Integrated Border Enforcement Teams (IBET)

IBETs are U.S. and Canadian bi-national law enforcement teams targeting cross-border criminal activity between official ports of entry. IBETs are comprised of five core

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[109] "El Paso Intelligence Center," Drug Enforcement Administration, accessed February 24, 2012, http://www.justice.gov/dea/programs/epic.htm; *Drug Trafficking Violence in Mexico: Implications for the United States: Hearings Before U.S. Senate Caucus on International Narcotics Control*, May 5, 2010, (statement of Kevin L. Perkins, Assistant Director, Criminal Investigative Division, and Anthony P. Placido, Assistant Administrator for Intelligence Drug Enforcement Agency, Federal Bureau of Investigation), accessed February 23, 2012, http://www.fbi.gov/news/testimony/drug-trafficking-violence-in-mexico-implications-for-the-united-states.

[110] Ibid.

[111] Ibid.; "Border Enforcement Security Task Force," Immigration and Customs Enforcement, accessed August 1, 2012, http://www.ice.gov/best/.

law enforcement partners: CBSA, RCMP, CBP, USCG, and ICE. IBETs currently operate in 15 regions along the U.S.-Canada border. Their goal is to ensure the border stays open to business, but closed to crime.[112]

4. Sensitive Information Unit (SIU)

DEA created the Mexican SIU in 1997, whose mission is to train Mexican counterparts to work in sensitive bilateral investigations. Members undergo training at the DEA Training Academy and perform work on behalf of the DEA.[113] Most of SIU's details are classified and cannot be discussed publicly.

5. High Intensity Drug Trafficking Areas Program (HIDTA)

HIDTA was created by Congress in 1988 and overseen by the Office of National Drug Control Policy. HIDTA provides assistance to federal, state, local, and tribal law enforcement agencies operating in critical drug-trafficking areas. The purpose is to reduce drug trafficking by facilitating cooperation among federal, state, local, and tribal law enforcement agencies, sharing information, and coordinating enforcement activities. Presently, there are 28 HIDTAs in operation throughout the United States. Additionally, 57 Intelligence and Investigative Support Centers assist HIDTAs to identify targets and trends; develop threat assessments; de-conflict targets and events; and manage cases. Members include: DEA, FBI, ICE, local, and state agencies.[114]

6. Alliance to Combat Transnational Threats (ACTT)

ACTT was created in 2009 to combat individuals and criminal organizations posing threats to border communities in both the United States and Mexico. Its aim is to leverage the capabilities and resources of over 60 federal, state, local, and tribal agencies by increasing collaboration to counter the threats of transnational criminal organizations

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[112] "Integrated Border Enforcement Teams," Public Safety Canada, accessed August 1, 2012, http://www.publicsafety.gc.ca/prg/le/bs/ibet-eng.aspx.

[113] "The Drug Enforcement Administration's International Operations," U.S. DOJ Audit Report, February 2007, Public Version, 11.

[114] "High Intensity Drug Trafficking Areas Program," Office of National Drug Control Policy, accessed February 24, 2012, http://www.whitehouse.gov/ondcp/high-intensity-drug-trafficking-areas-program.

operating in the Arizona corridor. Members include: USBP, CBP, ICE, U.S. Attorney's Office, Bureau of Land Management, Pinal County Sheriff's Office, and Gila River Police Department.[115]

7. Organized Crime Drug Enforcement Task Force (OCDETF)

Started in 1982, OCDETF combines federal, state, and local law enforcement efforts to comprehensively attack organized crime and drug traffickers. OCDETF's mission is to reduce the supply of illegal drugs and diminish violence associated with the drug trade. Managed by DOJ's Executive Office for Organized Crime Drug Enforcement Task Forces, OCDETF combines members from: DEA, FBI, ATF, U.S. Marshals Service, IRS, ICE, and USCG. The major functions are: identify and target drug trafficking and money laundering organizations; disrupt and dismantle drug and money laundering organizations; and conduct coordinated investigations against targeted organizations. The OCDETF also operates a separate Fusion Center, which integrates drug and financial information from member agencies.[116]

8. Southwest Border Initiative (SWB)

SWB, started in 1994, is a federal law enforcement operation attacking Mexican DTOs by targeting their communication systems—enabling the tracking of drug flows from Mexico to U.S. streets. Members include: DEA, FBI, CBP, ICE, and U.S. Attorneys' Offices.[117]

9. Southwest Border Intelligence Collection Plan (SWBICP)

SWBICP is a DEA program initiated in 2009 to provide regional intelligence collection supporting Southwest border enforcement operations. The organization's aim is to deliver operational, tactical, strategic, and policy-level intelligence enabling investigations, regional planning, and resource decision-making. Additionally, it collects

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[115] "Fact Sheet: Alliance to Combat Transnational Threats," Customs and Border Protection, accessed February 24, 2012, http://www.cbp.gov/xp/cgov/newsroom/fact_sheets/border/arizona_factsheet.xml.

[116] "Executive Office for Organized Crime Drug Enforcement Task Forces," Department of Justice, accessed February 24, 2012, http://www.justice.gov/jmd/mps/manual/ocdetf.htm.

[117] Perkins, *Drug Trafficking Hearings*.

information to access effectiveness of counterdrug measures along the Mexican border. The information gathered is shared with the intelligence community and other federal, state, and local law enforcement agencies.[118]

10. Special Operations Division (SOD)

SOD is a DEA-led multi-agency whose "mission is to establish seamless law enforcement strategies and operations aimed at dismantling national and international trafficking organizations by attacking the command and control communications."[119] The agency facilitates coordination of overlapping investigations and operations ensuring intelligence sharing and unity of effort. Johnny Dwyer in a *Time* magazine article describes SOD agents as "the Navy SEALS of the DEA."[120] As with the SIU, most of the details of SOD are classified.

11. Covert Operations

Along with the publicly acknowledged institutions, there are mounting reports of several covert U.S. and Mexican bi-national efforts fighting DTOs. The *New York Times* reports Mexican commandos, with DEA assistance, are staging missions from the United States, American Predator and Global Hawk drones flying deep into Mexico, and intelligence outposts, manned by Central Intelligence Agency (CIA) and DEA operatives, on Mexican military bases. Additionally, there are reports of the establishment of an Office of Bi-National Intelligence (OIB) in Mexico, comprising members from the National Security Agency (NSA), FBI, DEA, and ATF.[121]

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[118] Ibid.

[119] Ibid.

[120] Johnny Dwyer, "The DEA's Terrorist Hunters," *Time*, August 8, 2011, accessed February 24, 2012, http://www.time.com/time/world/article/0,8599,2087220,00.html.

[121] Mark Mazzetti and Ginger Thompson, "U.S. Widens Role in Mexican Fight," *NY Times*, August 26, 2011; Jorge Carrasco and Jesus Esquivel, "U.S. Super Intelligence Center Revealed in Mexico," Borderland Beat, accessed February 23, 2012, http://www.borderlandbeat.com/.

12. DTO Alliances

DTOs continually shift alliances and form coalitions fighting each other. Currently, the seven main organizations form two competing blocs. The Sinaloa, Gulf, and La Familia cartels formed a pact, known as the New Federation, in 2010. The other DTOs share a loose connection with one another to counter the New Federation, which continuously evolves.[122]

13. Corruption Networks

Every DTO maintains a vast network of corrupt officials. In 2010, over 3,000 Mexican Federal Police members were fired due to ties to DTOs. The Mexican military has also recently been plagued by corruption; four high-ranking officers—including three generals—in the Mexican army were arrested on corruption charges in 2012.[123]

Corruption has spread across the border, in 2012 the DHS Inspector General had over 370 open cases regarded corruption involving ICE and CBP employees.[124] Additionally, 138 CBP members have been arrested or indicted for corruption acts since 2004, including drug and alien smuggling, money laundering, and conspiracy.[125]

14. Financial Laundering Networks

Mexico's Ministry of Finance estimates Mexican DTOs laundered approximately $10 billion during 2011, with the drug trade accounting for over 40 percent of the proceeds. The U.S. government, however, estimates that between $22 and $29 billion in

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[122] Chalk, "Profiles," 8.

[123] Beittel, "Mexico's Drug Trafficking Organizations," 32.

[124] *Hearing on Department of Homeland Security: An Examination of Ethical Standards, Before the Committee on Homeland Security Subcommittee on Oversight, Investigations, and Management*, (May 17, 2012) (statement of Timothy M. Moynihan, Assistant Director, Office of Professional Responsibility, U.S. Immigration and Customs Enforcement).

[125] *Hearing on Department of Homeland Security: An Examination of Ethical Standards, Before the Committee on Homeland Security Subcommittee on Oversight, Investigations, and Management*, (May 17, 2012) (statement of Thomas Winkowski, Acting Deputy Commissioner, U.S. Customs and Border Protection, U.S. Department of Homeland Security).

drug profits are laundered every year.[126] The United States and Mexico formed the Bilateral Money Laundering Working Group in March 2012 to coordinate the investigation and prosecution of money laundering and bulk cash smuggling.[127]

15. DTOs and Gangs

DTOs have many links to gangs, and as businesses they look for ways to distribute their product in the most cost effective way. DTOs are the major wholesalers of drugs in the United States and have increased their distribution networks through alliances with gangs inside the United States. Currently, DTOs maintain a presence, through surrogate gangs, in over 1,000 U.S. cities. Resulting from the innovation process adapting to legitimate system elements, these interconnections are ever evolving.[128]

16. DTOs and Border Security Entities

DTOs are connected to every border security entity through the "cat and mouse" game they play every day. The border security side wants to catch and incarcerate the clandestine actors who attempt to smuggle drugs, money, weapons, or people across the border. In many ways this link is the most important one in the system; without this link neither border security agencies nor DTOs would be able to define themselves. Each entity depends on the other for its own survival; if no border security agencies existed, smuggling illegal goods would not require DTO sophistication. Moreover, this link forces each organization to continually adapt the way it operates—a process that will continue for as long as the organizations are in existence.

C. LEAD AGENCY

In its current form, the border security system lacks any clear lead agency, Figure 4. There are three distinct departmental agencies preforming border security tasks: DHS, DOJ, and DOT, in addition to the ONDCP contained within the president's executive

[126] Estimates vary depending on the organization reporting; DEA estimates $22 billion, DHS estimates between $19 to $29 billion, and U.S. State Department estimates between $8 to $25 billion, see Beittel, "Mexico's Drug Trafficking Organizations," 35.

[127] Beittel, "Mexico's Drug Trafficking Organizations," 35.

[128] Ibid., 5.

office. Furthermore, within each departmental agency there are numerous separate agencies, with varying missions and goals, charged with executing different aspects of border security. The abundance of domestic and international interconnecting institutions further dilutes and prevents any coherent centralized control of the system.

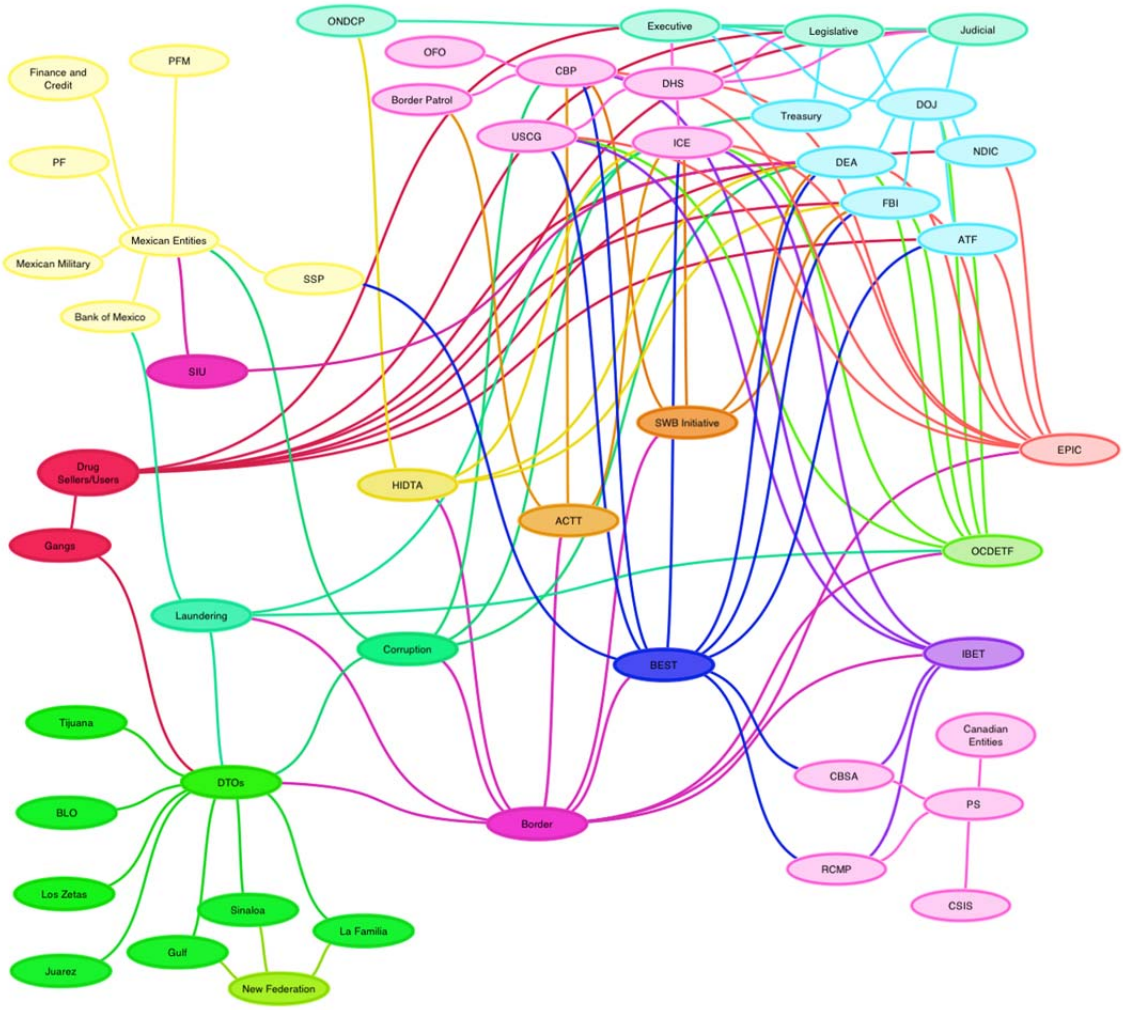

Figure 4. Border security system

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III. EVOLVING GOALS OF BORDER SECURITY

This chapter observes the development of U.S. border security to determine observable patterns and the forces that have shaped the system. Enabling the discovery of system goals—both stated and implied. Meadows writes, "A system's function or purpose is not necessarily spoken, written, or expressed explicitly, except through the operation of the system. The best way to deduce the system's purpose is to watch for a while to see how the system behaves."[129]

The most basic function of a border security system is to safeguard the territorial integrity of a state and enforce a country's immigration and commerce laws. Border security acts as flow management—selective system gates discriminating flows. Border security prevents illegal immigration and the smuggling of both legal and prohibited goods. This function protects the state's territorial integrity. Border security also performs a facilitation function assisting the legal entrance of immigrants and visitors into a country. Additionally, border security facilitates international commerce by collecting tariffs and confirming that goods comply with national agricultural and safety standards.

Border security and the effort to restrict territorial access has always been a core activity of states. Peter Andreas writes, "As territorially demarcated institutions, states have always imposed entry barriers, whether to deter armies, tax trade and protect domestic producers, or keep out perceived 'undesirables.'"[130] These priorities, however, continue to evolve throughout history. Border security began as traditional military defense of territory performed by military entities and has given way to more intensive law enforcement activities aimed at controlling and taxing the flow of persons and goods performed by non-military agencies.[131]

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[129] Meadows, *Thinking in Systems*, 14.

[130] Peter Andreas, "Redrawing the Line," *International Security* Vol. 28, No. 2 (Fall 2003): 78.

[131] Throughout U.S. history border security has been traditionally tasked to non-military agencies; however, during the westward expansion of the United States the military was tasked with territorial protection against hostile Native Americans.

Beginning with the very first acts of Congress, the history of border security institutions and their functions are traced. Followed by a discussion of the forces shaping border security, and a look at how shifting priorities have changed the structure of the federal government. Finally, the current goal of U.S. border security is examined. Chapter IV will ascertain the system's effectiveness in accomplishing its stated and implied goals.

This chapter contends that Congress has traditionally responded to new threats by expanding the role of border security institutions. Once these threats mature, Congress creates new institutions tasked with some aspect of border security while retaining established agencies, along with their border security missions. This expansion leads to a diffuse set of border security goals, some of which are contradictory, and pushes the system into the trap of escalation. Meadows explains that escalation comes from competing actors in a system trying to surpass each other, and if allowed to continue will drive the system to extremes—ending in the ultimate collapse of one of the actors.[132] In the context of border security, escalation arises from separate agencies competing for funds and status, which will be detailed in Chapter IV. Escalation also accounts for the creation of new agencies, as Congress responds to new problems by escalating the scope of border security institutions. Moreover, the prolific increase in agencies tasked with performing border security missions prohibits the effective coordination and accomplishment of stated objectives; currently, there are fifteen separate federal agencies tasked with border security missions spread across three discrete federal departments.[133] Each of these agencies has its own unique history, culture, and bureaucratic agenda, obstructing the ability to establish any coherent overall border security goal.

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[132] Meadows, *Thinking in Systems*, 124–26.

[133] The agencies include Customs and Border Protection, U.S. Border Patrol, Office of Field Operations, Immigration and Customs Enforcement, Transportation Security Agency, Coast Guard, and U.S. Citizenship and Immigration Service within the Department of Homeland Security; Federal Bureau of Investigation, Bureau of Alcohol, Tobacco, Firearms, and Explosives, Drug Enforcement Administration, and National Drug Intelligence Center within the Department of Justice; Department of Treasury; and Office of National Drug Control Policy within the Executive Office of the President.

A. HISTORY OF BORDER SECURITY

1. Financing the Nation: Border Security at the Birth of the Nation

The seeds of U.S. border security were sown on 4 July 1789 with the 2nd Act of Congress, which established a system of tariffs on imported goods. At the conclusion of the Revolutionary War, the United States was highly in debt, and the country had to find a way to fund itself. The threat of invasion from foreign powers was relatively minimal and the significance of borders, along with border security, became associated with collecting tariffs as a source of revenue. The 3rd Act, passing on 20 July 1789, created additional tariffs to be placed on tonnage of ships entering the United States. In order to enforce these tariffs, Congress' 5th Act created 59 customs collection districts and official ports of entry in the 11 states that had ratified the Constitution. The ports of entry were placed under the jurisdiction of a Collector of Customs, which became known as the U.S. Customs Service, establishing the first official border security institution in the United States and firmly cementing the connection between border security and revenue.[134]

Congress quickly expanded the roles and responsibilities of the Collector of Customs to non-revenue activities with the passing of the 9th Act on 7 August 1789. This act established the Lighthouse Service, under the Collector of Customs, to manage the existing 12 colonial lighthouses and oversee construction of new lighthouses for safety and navigation purposes within the United States. The Collector of Customs was no longer tasked solely with the responsibility of gathering tariffs, but now the agency was in charge of managing lighthouses. This increased the span of control of the Collector of Customs into the realm of commerce, signaling the beginning of the dilution of border security agency missions and the first step into the escalation trap.[135]

On 2 September 1789, the Department of Treasury was created with the 11th Act of Congress. The Secretary of Treasury was now responsible for the management of all matters pertaining to collection and protection of U.S. revenue, which up to this point in U.S. history was synonymous to border security. The Department of Treasury managed

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[134] "History of U.S. Customs and Border Protection," Customs and Border Protection, accessed August 6, 2012, http://nemo.cbp.gov/opa/TimeLine_062409.swf.

[135] Ibid.

the revenue of the United States, which was obtained through the collection of custom tariffs by established border security agencies. The U.S. Customs Service would remain under Treasury control until transferred to DHS in 2003.[136]

2. Border Security's Initial Maritime Focus

In 1790, Congress authorized the construction of 10 Customs Revenue Cutters, Figure 5, and the establishment of the U.S. Revenue Marine to serve as crews. The Revenue Marine was the only armed maritime service of the United States until the creation of the U.S. Navy in 1798. Congress authorized the president to utilize the Marine for the nation's defense in 1791, signaling the beginning of the Customs Service's border defense role. Furthermore, Congress ordered the design of a Customs Ensign, Figure 6, to be flown on all cutters to indicate the authority of the U.S. government—the first flag designed specifically for a federal government agency.[137]

Figure 5. USRC *Massachusetts* (From U.S. Coast Guard, http://www.uscg.mil)

[136] Ibid.

[137] Ibid.

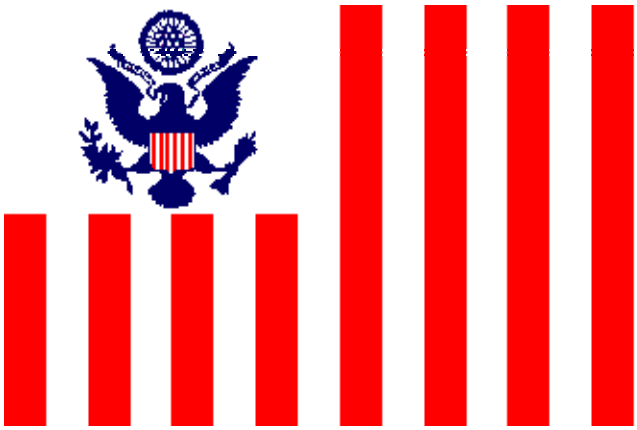

Figure 6. U.S. Customs Ensign (From U.S. Coast Guard, http://www.uscg.mil)

The responsibilities of border security institutions continued to expand in 1796 when Congress tasked the Collectors of Customs to enforce quarantine and health laws, in addition to creating the Marine Hospital Service. Congress established the Life Saving Service under the direction of the Revenue Marine in 1837, further enlarging the realm of the Collectors of Customs' span of supervision and falling deeper into the escalation trap.[138]

The continual expansion of roles placed under the direction of the Collectors of Customs finally led to the first major bureaucratic restructuring in 1871. Congress combined the U.S. Revenue Marine, Life Saving Service, Steamboat Inspection Service, and Marine Hospital Service into one entity—Revenue Marine Division (RMD). The management of RMD was removed from the Collectors of Customs and placed as a separate entity within the Department of Treasury. RMD was later renamed the Revenue Cutter Service in 1894 and eventually became the U.S. Coast Guard on 28 January 1915—contained within the Department of Treasury until transferred to DHS in 2003.[139]

By the mid-1800s, the United States' continual westward expansion was transforming the country from primarily a maritime power into a continental power. This lead to a paradigm shift in border security; the U.S. Customs Border Patrol was established in 1853 when the Secretary of the Treasury authorized the Collectors of

[138] Ibid.

[139] Ibid.

Customs to hire Customs Mounted Inspectors to patrol along U.S. land borders.[140] The purposes of the Mounted Inspectors were to collect customs on goods entering the United States and deter the illegal smuggling of goods. These goals would remain unchanged until the conclusion of the Civil War.[141]

3. Border Security Responds to the Perceived Immigration Threat

States began passing their own immigration laws after the Civil War; the Supreme Court ruled that enforcement of immigration laws was solely a federal responsibility in 1875. In 1882, Congress passed the Chinese Exclusion Act attempting to cut off legal immigration from China and outlawed granting of citizenship to Chinese persons to protect the U.S. market from cheap labor.[142] This forced migrants to attempt illegal entry into the United States. In response to the new threat of illegal immigrants, Congress charged the Collectors of Customs and their Mounted Inspectors with enforcing the law—again succumbing to escalation by increasing the responsibilities of the Collectors of Customs.[143]

The immigration issue led to the next series of bureaucratic restructurings. The first restructuring took place when Congress established the Office of the Superintendent of Immigration under direct supervision of the Treasury Secretary with the Immigration Act of 1891. This office was responsible for admitting, rejecting, and processing every immigrant seeking admission to the United States and implementing national immigration policy. The superintendent hired immigrant inspectors, mainly consisting of former Customs and Chinese inspectors, to man immigration stations at official ports of entry into the United States. In order to fund the Office, Congress passed the Immigration Act of 1882 containing a provision to collect a head tax of fifty cents on

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[140] Mounted Inspectors were essentially armed vigilantes given badges, the agents had to furnish their own weapons and transportation. There were no more than 75 agents patrolling both northern and southern borders at any time, see "History of Customs."

[141] "History of Customs."

[142] The Chinese Exclusion Act forced Chinese immigrants to attempt illegal entry into the United States primarily through Mexico; present day Mexican DTOs can trace their roots back to the smuggling routes and networks developed to transport Chinese into the United States illegally.

[143] "History of Customs."

every immigrant, which was placed into an "immigrant fund." Congress upgraded the Office of Immigration to the Bureau of Immigration (BOI) in 1895, still contained within Treasury.[144]

Initially, the head tax collected by BOI placed the agency within Treasury; however, Congress' primary interested in protecting American workers and wages made immigration a matter of commerce, leading to the next bureaucratic restructuring. In 1903, Congress transferred BOI into the Department of Commerce and Labor. This department was split into two distinct entities, Department of Commerce and Department of Labor, in 1906 with BOI being placed in Labor. The Department of Labor, in 1913, stripped BOI of some of its authority by creating the Bureau of Nationalization as a separate agency. These agencies would remain distinct until 1933 when the two were merged into the U.S. Immigration and Naturalization Service (INS), remaining under the Department of Labor.[145]

The concern over illegal immigration continued to grow during the early twentieth century. Congress, in order to strengthen the enforcement of the Chinese Exclusion Act, authorized the BOI to deploy Immigration Mounted Guards, along with Customs Mounted Inspectors, to patrol borders against illegal immigration and smuggling. Out of an apprehension of a flood of immigrants fleeing war torn Europe, Congress tightened immigration policy in 1917. The Immigration Acts of 1921 and 1924 further constrict legal immigration into the United States. The new restrictions to legal immigration caused a surge in illegal immigration attempts. In 1924, Congress establishes the Immigration Service Border Patrol, which will become known as the U.S. Border Patrol, in the Department of Labor to stem the flow. Descending border security further into the trap of escalation.[146]

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[144] "U.S. Immigration and Naturalization Service-Populating a Nation: A History of Immigration and Naturalization," Customs and Border Protection, accessed August 9, 2012, http://www.cbp.gov/xp/cgov/about/history/legacy/ins_history.xml.

[145] Ibid.

[146] "History of Customs."

4. Prohibition: The Beginning of Border Security as a Law Enforcement Tool

Until this point in U.S. history, border agencies were primarily concerned with revenue and immigration; however, one event would thrust these agencies into the realm of law enforcement—Prohibition. The Eighteenth Amendment took effect on 16 January 1920, which prohibited the importation, transportation, and manufacturing or sale of alcoholic beverages. This created a crisis along the border and the Immigration Services Border Patrol was quickly expanded to 450 officers to help enforce the new laws. Additionally, the Department of Treasury created an independent Bureau of Customs and the U.S. Customs Service Patrol used seized aircraft to provide aerial surveillance and enforcement—the first use of aerial reconnaissance along U.S. borders.[147]

Confusion was rampant along the border during prohibition; five separate federal agencies were charged with protecting U.S. borders: Bureau of Customs, U.S. Customs Border Patrol, U.S. Immigration Services Border Patrol, and Bureau of Prohibition. The Bureau of Prohibition in the Treasury Department was abolished in 1929 over confusion of overlapping enforcement responsibilities; however, another Bureau of Prohibition was created within the Department of Justice in 1930.[148]

With the end of Prohibition, the Bureau of Prohibition was renamed the Alcohol Tax Unit (ATU) and placed back into the Department of Treasury. ATU was later given the responsibility for enforcing federal tobacco laws and renamed the Alcohol and Tobacco Tax Division. In 1968, the Gun Control Act gave the unit responsibility for administering regulatory provisions of the new law and was renamed Alcohol, Tobacco, and Firearms Division (ATF), still within Treasury. The Homeland Security Act of 2002 transferred the ATF and their law enforcement functions into the Department of Justice. The tax and trade functions of ATF, however, would remain within the Treasury Department with a new Alcohol and Tobacco Tax and Trade Bureau.[149]

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[147] Ibid.

[148] Ibid.

[149] "ATF's History," Bureau of Alcohol, Tobacco, Firearms, and Explosives, accessed August 10, 2012, http://www.atf.gov/about/history/.

Between 1920 to the end of Prohibition in 1933, twenty Customs Border Patrol, 4 Immigration Service, and twenty-four Immigration Service Border Patrol officers were killed in the line of duty. The failed experiment with Prohibition, however, thrust the transition of border security agencies from revenue collection entities into a law enforcement apparatus.[150]

5. Immigration Threat Matures into National Security

The end of Prohibition and with war brewing in Europe shifted the priority of border security back to immigration. Additionally, the perception of immigration transformed; immigration was not only a matter of economics, but became a matter of national security indicated by more bureaucratic restructuring. The Bureau of Immigration and Bureau of Naturalization were merged into the U.S. Immigration and Naturalization Service (INS) within the Department of Labor on 10 June 1933. President Franklin D. Roosevelt then moved the INS into the Department of Justice in 1940, with the additional task of securing U.S. borders against enemy aliens during wartime. INS's workforce doubled to 8,000 employees during World War II, along with an increase of 712 Border Patrol agents, to solidify control of U.S. borders against the entry of Axis saboteurs.[151]

During this time, enforcement of immigration was paradoxically both increased and relaxed. U.S. borders were tightened to prevent enemies entering, but at the same time relaxed to allow manual laborers from Mexico replace those entering military service with the Bracero Program. The program began with a signed agreement between the United States and Mexico in 1942 and would continue to be in place until 1964. Mexican agricultural workers were allowed to sign temporary contracts to work in U.S. fields. The program was later expanded to allow unskilled Mexican laborers work on U.S. railroads. More than four million contracts would be signed over the history of the program.[152]

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[150] "History of Customs;" Andreas, "Redrawing the Line," 86.

[151] "History of Customs."

[152] "About," Bracero History Archive, accessed August 10, 2012, http://braceroarchive.org/about.

Public alarm that U.S. immigration policies were too lax and allowing criminal aliens, communists, and organized crime figures to live and work in the United States, however, forces the INS to again strengthen border controls in the mid-1950s. Additionally, the INS launches targeted investigation and deportation programs, most notably Operation Wetback targeting Mexicans in 1954. The operation deported over one million illegal immigrants during its duration.[153]

Following the end of World War II, border security's focus shifts back to commerce. In 1948, the Customs Patrol Service is abolished and Customs leads the creation of the Customs Co-operation Council (CCC) in 1952. CCC is established to ensure the highest degree of harmony and uniformity in worldwide customs. The council facilitates the growth of worldwide commerce and begins the era of globalization.[154]

6. The Birth of Terrorism

A new threat emerges in the early 1960s with an increase in aircraft hijackings—terrorism. Responding to this threat, President John F. Kennedy assigns U.S. Border Patrol agents to protect flights and prevent further hijackings on 10 August 1961. The program is so successful that the operation is closed only two months later on 23 October 1961 and Federal Aviation Administration (FAA) peace officers assume responsibility. Hijacking, however, again becomes a concern in 1970 with a rash of hijackings of U.S. flag carriers. Customs is tasked to establish a Sky Marshal program, which again is so successful it is closed in 1974.[155]

7. Drugs: A New Role for Border Security

As the hijacking threat waned, a new threat appears—drugs. Drugs were introduced into American culture in the 1960s and began taking a toll on the nation. Resulting in significant bureaucratic changes to combat the new threat. The Bureau of Narcotics and Dangerous Drugs (BNDD) was created within the Department of Justice in

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[153] "History of U.S. Customs;" "Operation Wetback," Public Broadcasting Service, accessed August 10, 2012, http://www.pbs.org/kpbs/theborder/history/timeline/20.html.

[154] "History of Customs."

[155] Ibid.

1968, combining the Treasury Department's Bureau of Narcotics and the Department of Health's Bureau of Drug Abuse Control. On 28 July 1973, President Richard Nixon created the Drug Enforcement Administration (DEA) in the Department of Justice, which combined the BNDD and Office of Drug Abuse Law Enforcement "in order to create a single unified command to combat 'an all-out global war on the drug menace.'"[156]

Combating drugs would continue to be the dominant focus of U.S. border security policy throughout the 1980s. President Ronald Reagan, in 1986, increased the anti-drug effort by signing the Anti-Drug Abuse Act. This provided over $25 million to the Customs Service to update its equipment and establish intelligence centers throughout the United States. Additionally, the focus on drugs led to increased bi-national cooperation with Mexico to stem the flow of drugs into the United States.[157]

Commerce was pushed back to the forefront of border security policy in the 1990s. On 8 December 1993, the North American Free Trade Agreement (NAFTA) was signed. NAFTA reduced barriers to commerce and facilitated trade between Canada, Mexico, and the United States. Furthermore, the CCC increased its membership and adopted the name of World Customs Organization, further increasing the ease of worldwide commerce.[158]

8. 9/11: The Beginning of a New Era

All this would change with the attacks of 9/11. Border security was again viewed as a critical instrument of national security in the fight against terrorism. 9/11 ushered in an era of bureaucratic change not seen since World War II. On 19 September 2001, U.S. Customs established the Terrorism Response Task Force to investigate leads regarding the 9/11 attacks. Additionally, the Office For Anti-Terrorism was created in the Office of the Commissioner of Customs, the Customs-Trade Partnership Against Terrorism was established to prevent legitimate commercial shipments from being used to smuggle

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[156] "History," Drug Enforcement Administration, accessed August 10, 2012, http://www.justice.gov/dea/history.htm.

[157] "History of Customs."

[158] Ibid.

drugs and terrorism related materials, and the Port and Maritime Security Passage Act equipped Customs with tools, technology, and information needed to bolster the nation's defenses against terrorism. The Department of Homeland Security was created in 2002. Finally, on 1 March 2003, the Bureau of Customs and Border Protection (CBP) was established within DHS, combining the Department of Justice's INS and the Department of Treasury's Customs Service.[159]

The threat of terrorism continues to be the primary focus of border security; however, by 2007 commerce begins to reemerge. That year CBP launched the National Agricultural Release Program to expedite the inspection and processing of high-volume, low-risk commodities. Additionally, CBP deployed the Automated Commercial Environment, facilitating the processing of nearly 30,000 trucks a day. In 2008, the Electronic System For Travel Authorization was started to allow nationals from Visa Waiver Program countries to receive electronic travel authorization before boarding U.S. bound planes or ships.[160]

Border security institutions have continued to evolve throughout U.S. history, addressing the emerging threats facing the United States. These threats include: the solvency of the U.S. government, immigration, drugs, and currently terrorism. The previous threats remain, but priorities change. The next section details the forces that have shaped and will continue to shape border security in the future.

B. FORCES SHAPING BORDER SECURITY

In the context of systems thinking, the forces shaping border security can be described as "stocks" and the evolution of border security policies and agencies become "feedback mechanisms" designed to regulate the stocks. Meadows writes, "System thinkers see the world as a collection of stocks along with mechanisms for regulating the levels in the stocks by manipulating flows."[161] Through this lens, the border security patterns that emerge are a collection of feedback processes aimed at regulating stocks by

[159] Ibid.

[160] Ibid.

[161] Meadows, *Thinking in Systems*, 25.

affecting flows. Chapter IV will examine how border security has performed as a feedback mechanism regulating the system flows for each of the forces.

1. Revenue

No other force has shaped border security more than revenue throughout U.S. history. Securing a consistent form of revenue was so paramount that five of the first 11 acts passed by Congress were revenue related. Furthermore, every agency assigned to border security can trace its roots back to the Department of Treasury, Figure 7. Explained from a systems perspective, revenue can be viewed as a stock of funds, the accumulation of funds becomes the flow, and border security agency behavior is the feedback mechanism regulating the flow.

Figure 7. Border Security Institutions

At the time, news media declared the Tariff Act of 4 July 1789 as "the second Declaration of Independence."[162] For nearly 125 years, customs revenue funded the entire U.S. government and paid for the nation's early growth and infrastructure: territories of Louisiana, Oregon, Florida, and Alaska; National Road from Maryland to West Virginia; Transcontinental Railroad; lighthouses; U.S. military and naval

[162] "History of Customs."

academies; and the city of Washington, DC. By 1835, revenue from customs alone reduced the national debt to zero. Customs continues to be a major source of revenue for the U.S. government, contributing over $32 billion annually. Revenue has been the most consistent force affecting border security and will continue to shape institutions and goals in the future.[163]

2. Commerce

Commerce is closely related to revenue, but its influence has wavered throughout U.S. history. Commerce's role in shaping border security has shifted priorities from enforcing health and quarantine laws to facilitating worldwide trade. In systems terms, the stock is international trade, the amount of trade becomes the flow, and trade policies are the feedback processes responding to changes in priorities. In times of crisis, commerce's role is surpassed by national security concerns and the feedback processes are tightened, reducing flows. Commerce's position was degraded during World War I and II and most recently after the attacks of 9/11; however, its importance grows during times of peace.[164]

This cycle is apparent after World War II with the creation of the Customs Co-operation Council, increasing the flow of trade. Commerce continued to grow in standing during the 1990s with NAFTA and the expansion of CCC into the World Customs Organization. The attacks of 9/11, however, relegated commerce once again. The significance of commerce, as a force, has since reemerged and continues to gain strength in recent years with the establishment of several CBP initiatives aimed at streamlining worldwide trade. The global financial collapse and associated recovery efforts will cement the prominence of commerce in shaping the future of border security.[165]

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[163] Ibid.

[164] Ibid.

[165] Ibid.

3. National Security

National security, when deemed necessary, is the strongest force shaping border security. The stock for national security is the established defenses to threats, the flow is the amount of resources provided to defense agencies, and the feedback processes are the responses to perceived threats. The first time border security institutions were employed as a national security instrument was the use of the U.S. Revenue Marine for protection of the nation before the Navy was founded. After the Navy was established, national security concerns faded away from border security priorities. In times of conflict, however, national security again becomes the dominant force behind border security, seen with the deployment of U.S. military assets along U.S. borders during the Mexican Revolution and both World Wars. Yet national security anxieties quickly wither when hostilities end.[166]

Trepidations over national security played little role in shaping border security following World War II. The 9/11 Commission Report stated, "In the decade before September 11, 2001, border security…was not seen as a national security matter."[167] The terrorist attacks propelled national security back to the forefront as the primary factor affecting the shape of border security, as border security's role in the fight against terrorism became synonymous with national security. As time goes on without further international terrorist attacks within the United States, national security's preeminence is slowly eroding; nevertheless, national security will remain a powerful force in shaping border security.

4. Immigration

Immigration became a force molding border security in 1882 with the passage of the Chinese Exclusion Act and has remained a consistent influence ever since, albeit with changing priorities. In a systems perspective, the stock for immigration is the number of immigrants in the United States, the flow is the number of people immigrating into the

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[166] Ibid.

[167] *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States*, official government edition (Washington, DC: U.S. Government Printing Office, 2004), 383–84.

United States, and the feedback processes are the immigration policies aimed to either increase or decrease the system's stock. Prior to World War II, the goal was to restrict migration into the United States, but during World War II it was used as a tool to recruit labor from Mexico. The goal again returned to restricting migration following the war and has continued to gain importance with rise in concern over the influx of illegal migrant workers into the United States. Immigration's influence will continue to determine future border security considerations.[168]

5. Law Enforcement

Law enforcement was not seen as a border security function until Prohibition—ushering in a new era. Prohibition transformed border security from a revenue collection and immigration entity into a major law enforcement apparatus. Border security's law enforcement function temporarily waned after Prohibition, but reasserted itself in the fight against drugs. Law enforcement is the feedback mechanism designed to reduce the stock of drugs in the United States by cutting off the flow of illegal drugs into the country. Prior to 9/11, the law enforcement function was the most powerful force shaping border security goals and institutions. The force of law enforcement continues to strengthen as fretfulness swells over possible spillover violence from Mexico's drug war and the fight against illegal drugs reestablishes itself as a priority.

6. Terrorism

Terrorism emerged as a component affecting border security in the 1960s with the rise in aircraft hijackings. It remained a relevant element of border security until 1974 when it nearly evaporated. The terrorist attacks of 9/11 forced terrorism back into the realm of border security, but under the province of national security where it remains today. Terrorism, defined in either national security terms or as its own phenomenon, persists as the number one stated priority of U.S. border security institutions. Put into systems vernacular, terrorism's stock is the number of successful terrorist attacks, the

[168] "History of Customs."

flow becomes terrorists planning or attempting attacks, and border security policies are the feedback processes intended to stop the flow.[169]

C. EVOLVING GOALS AND PURPOSES OF BORDER SECURITY

The first goal of border security was to ensure the solvency of the government, and its institutions were placed in the Department of Treasury. Treasury would retain the institutions responsible for revenue and commerce until the creation of DHS. When immigration appeared as a threat, it was initially placed within Treasury; however, as the threat matured into a risk to U.S. workers, the immigration function was placed into the Department of Labor. Immigration transformed into a national security concern prior to World War II and in response was moved into the Department of Justice.[170]

Similarly, Prohibition thrust border security institutions into the realm of law enforcement. Initially, Customs was tasked with enforcing the new laws, but quickly new institutions were born within the Department of Justice. The same scenario occurred with the rise of illegal drugs. The Bureau of Narcotics, in Treasury, paved the way in drug enforcement until the threat matured, when it was absorbed into the BNDD within the Justice Department.[171]

Terrorism, as well, was first responded to by expanding the role of Treasury. The terrorist threat matured into the most prolific force shaping border security on 9/11, leading to significant bureaucratic restructuring and the creation of DHS. CBP combined both Treasury and Justice border institutions into one agency with the primary goal of preventing another terrorist attack. Terrorism continues to be the primary factor in border security today.[172]

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[169] Ibid.

[170] Ibid.

[171] Ibid.

[172] Ibid.

D. CURRENT GOAL OF BORDER SECURITY

The goals of border security have been a balancing act of several competing forces—revenue, commerce, national security, immigration, law enforcement, and terrorism. When faced with new threats, Congress responds by expanding the role of established border security institutions. Once the threats mature, Congress succumbs to the trap of escalation by creating new institutions while retaining legacy agencies and their previous missions, as shown in the above discussion on the history of border security in the United States. This trend has fueled confusion among border security entities, first becoming a significant problem during Prohibition, and prohibits the establishment of any coherent border security goal. Rather than providing clear guidance to border security agencies, Congress instead expands the mission set of border security institutions. This inhibits the ability to effectively synergize efforts to accomplish established goals, in addition to impeding the ability to measure system effectiveness.

Currently, the preeminent stated border security goal is to protect the United States against terrorism, as seen in CBP's mission statement: "We are the guardians of our Nation's borders. We are America's frontline. We safeguard the American homeland at and beyond our borders. We protect the American public against terrorists and the instruments of terror."[173] Many of the agencies involved in border security, however, have different objectives. These objectives range from stopping the flow of drugs and illegal immigrants into the United States to facilitating international commerce. Border security has morphed into a "catch all" institution used to address varying threats facing the United States. As a result, there are fifteen separate federal agencies tasked with some border security role. This thwarts the ability to establish any lucid overall border security goal.

[173] "CBP Mission Statement," Customs and Border Protection, accessed August 13, 2012, http://www.cbp.gov/xp/cgov/about/mission/guardians.xml.

Additionally, commerce is rematerializing as a foundational component to border security and is also included, albeit after terrorism, in CBP's mission statement: "We steadfastly enforce the laws of the United States while fostering our Nation's economic security through lawful international trade and travel."[174] The current trend of emergent border security policies aimed at facilitating international trade may be foreshadowing a change to the overall goal of border security back to its roots of commerce and revenue.

[174] Ibid.

IV. SYSTEM EFFECTIVENESS

This chapter examines the border security system's effectiveness in achieving the objectives outlined in Chapter III through a systemic perspective. It argues that the current system has succumbed to the following system traps introduced by Meadows: policy resistance, escalation, shifting the burden to the intervener, rule beating, and seeking the wrong goal.[175] Additionally, it is argued that the mechanistic bureaucratic system in place is ineffective at confronting the complexity and complex adaptive systems present along the border.

The chapter first introduces the concept of system traps and discusses the structural factors limiting the effectiveness of border security. This is followed by a study of border security institutions' effectiveness, acting as feedback mechanisms, regulating system flows for each of the forces explained in Chapter III. Finally, the cost of the present system is reviewed. Chapter V projects a new border security paradigm, which, if implemented, will address current limitations and increase North American security.

A. SYSTEM TRAPS

Problems arise when systems are structured to address perceived linear problems that are actually nonlinear and complex, as is the case in the border security environment. Meadows writes, "The world is nonlinear. Trying to make it linear for our mathematical or administrative convenience is not usually a good idea even when feasible, and it is rarely feasible."[176] She uses the term "traps" to describe these problems. Below is a discussion of the system traps the border security system has fallen into.

[175] Meadows, *Thinking in Systems*, 111–41.

[176] Ibid., 111.

1. Policy Resistance

Policy resistance stems from the bounded rationalities of system actors and is prevalent in systems whose actors have differing, mutually exclusive goals. Meadows explains policy resistance the following way:

> When various actors try to pull a system stock toward various goals, the result can be policy resistance. Any new policy, especially if it's effective, just pulls the stock farther from the goals of other actors and produces additional resistance, with a result that no one likes, but that everyone expends considerable effort in maintaining.[177]

Policy resistance is key in understanding DTO innovations in smuggling tactics as a response to the intensification of border security agency activities along the border. Also, this trap is the primary reason why efforts to stop the flow of drugs and illegal immigrants at the border are futile.

2. Escalation

Escalation occurs when competing system actors establish a reinforcing feedback loop trying to get ahead of one another. This trap is not necessarily bad if the competition is towards achieving a desirable goal; however, escalation can become an insidious trap leading to a self-reinforcing arms race when goals are not aligned. In the context of border security, escalation presents itself in the continual competition for funds and prestige among the various border security agencies. Escalation, in part, explains why agencies are hesitant to work with one another and share information.[178]

3. Shifting the Burden to the Intervener

Shifting the burden to the intervener occurs when a system actor performs an action that temporarily reduces a problem's symptoms, but nothing is done to address the problem's root cause. After a while, the original problem reappears and the intervener is required to apply more of the "solution." This results in a system that becomes dependent on the intervener. Meadows describes this trap:

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[177] Ibid., 116.

[178] Ibid., 124.

> Shifting the burden, dependence, and addiction arise when a solution to a systemic problem reduces (or disguises) the symptoms, but does nothing to solve the underlying problem. Whether it is a substance that dulls one's perception or a policy that hides the underlying trouble, the drug of choice interferes with the actions that could solve the real problem. If the intervention designed to correct the problem causes the self-maintaining capacity of the original system to atrophy or erode, then a destructive reinforcing feedback loop is set in motion. The system deteriorates; more and more of the solution is then required. The system will become more and more dependent on the intervention and less and less able to maintain its own desired state.[179]

The trap of shifting the burden is widely prevalent in the realm of border security. The United States has shifted the burden of immigration, drugs, and terrorism to border security agencies, without adequately addressing the root causes of the problems. This has manifested itself into such policies as expanding the amount of border fence and explains the exponential growth of border security agencies—the USBP alone has seen a 518 percent increase in manpower since the 1990s.[180]

4. Rule Beating

Rule beating ensues when system actors behave in a way that looks like they are obeying the rules, yet in actuality are distorting the system's goals. This trap normally occurs at lower levels in a hierarchy and is synonymous, in the context of border security, to corruption.[181] Corruption has plagued Mexican institutions for years, but has recently become an increasing concern for U.S. agencies. David Aguilar, acting CBP commissioner, testified before Congress stating:

> Since October 1, 2004, 141 CBP employees have been arrested or indicted for acts of corruption. Of the 141 arrests, 102 are considered mission compromising acts of corruption, which means the employee's illegal activities were for personal gain and violated, or facilitated the violation of, the laws CBP personnel are charged with enforcing. Examples of mission compromising corruption include such offenses as alien

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[179] Ibid., 135.

[180] Eric L. Olson and Erik Lee, "The State of Security in the U.S.-Mexico Border Region," Border Research Partnership, Woodrow Wilson International Center for Scholars Mexico Institute, August 2012, 3.

[181] Meadows, *Thinking is Systems*, 136–37.

> smuggling, allowing loads of narcotics through a port of entry or checkpoint, providing sensitive information to drug trafficking organizations, selling immigration documents, or circumventing CBP's detection systems.[182]

5. Seeking the Wrong Goal

Seeking the wrong goal arises when goals are poorly defined and are measured with the wrong metrics. Meadows explains:

> System behavior is particularly sensitive to the goals of feedback loops. If the goals—the indicators of satisfaction of the rules—are defined inaccurately or incompletely, the system may obediently work to produce a result that is not really intended or wanted.[183]

The trap reveals itself in border security when effort is confused with results, as is the case in the goal of stopping terrorism. The desired state of the system, concerning terrorism, is to prevent attacks and is primarily measured by the amount of money spent. This leads to a system that produces spending on border security, but in actuality does little to prevent terrorist attacks.

B. STRUCTURAL FACTORS

The bureaucratic and political structure in place limits the effectiveness of border security, along with treating northern and southern borders as distinct entities. Traditional mechanistic bureaucratic agencies cannot complete with the highly adaptive organizations they face, as discussed in the literature review. Furthermore, the political system, which agencies must operate in, fosters competition between agencies and among political actors themselves. The subunit agendas add up to an overall system behavior that is not intended. Meadows explains, "The bounded rationality of each actor in a system—determined by the information, incentives, goals, and constraints—may not lead

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[182] *Hearing on Department of Homeland Security: An Examination of Ethical Standards, Before the Committee on Oversight and Government Reform*, (August 1, 2012) (statement of David V. Aguilar, Acting Commissioner, U.S. Customs and Border Protection, U.S. Department of Homeland Security).

[183] Meadows, *Thinking in Systems*, 140.

to decisions that further the welfare of the system as a whole."[184] This section discusses the bureaucratic, political, and border policy discrepancy impacts on system effectiveness.

1. Bureaucratic Limitations

The border security system has been highly criticized for its lack of coordination, collaboration, and information sharing. The literature review cited just a few of the examples present in the literature. These problems stem from having no less than 15 separate agencies involved in border security. All agencies must compete to secure funding and continuously fight for prestige—pushing the system into the escalation trap. ATF's Operation Fast and Furious is a prime example of the pervious effects escalation can have on a system. John Malcolm writes:

> The FBI and DEA command respect within the law enforcement community, ATF agents often do not. The DEA and the FBI are charged with going after the leaders of drug cartels…while ATF is supposed to keep guns out of the hands of bad guys. At its heart, Operation Fast and Furious appears to have been an attempt by certain individuals within ATF, supported by senior DOJ officials, to play with the "big boys" by targeting kingpins within the Sinaloa drug cartel. In doing so, however, ATF abandoned its most basic mission.[185]

Escalation also explains the pursuing attempt by ATF to cover up its actions. Two days after the death of USBP Agent Brain Terry, an ATF supervisor wrote to another agent: "Maybe Phoenix should start preparing their explanation for the way that they conducted their straw purchases there. They should probably hire a media expert anyway to assist them in explaining the 2000 firearms and the possible connection in the murder of a Border Patrol Agent."[186]

In addition to escalation, having 15 agencies involved in border security presents structural and cultural problems impeding interagency coordination. Rumu Sarkar,

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[184] Ibid., 110.

[185] John G. Malcolm, "Congressional Report on Operation Fast and Furious: The Buck Stops…Well…Somewhere Else," *Heritage Foundation Legal Memorandum* 86 (2012): 2.

[186] Ibid., 6.

addressing the structural problem, writes, "This stove-piping of roles, functions, legal authorities, funding, and Congressional oversight obviously creates problems in achieving a unity of effort."[187] The Goldwater-Nichols legislation forced the armed services to improve interagency cooperation; yet no similar legislation has compelled the fusion of border security agencies.[188]

Each agency has its own culture, reflected in their distinct roles, functions, and history, which act as an additional barrier to coordination. There is no shared language, doctrine, techniques, or procedures between agencies. Furthermore, none of the agencies have institutional cultures of learning or a system of professional education, making sharing lessons learned between agencies nearly impossible. Sarkar writes, "Unlike the military, civilians have no doctrine; no accepted tactics, techniques and procedures; and no clear chain of command, so lessons learned are much more difficult to nest institutionally."[189]

2. Political Limitations

The largest impediment to effective border security is the political system, which establishes the border security system's structure, defines its goals, and performs oversight of the entire system. The primary reason the political system limits border security effectiveness is because the border security system is a result of the political process. Treverton writes:

> Public-sector organizational design is a political process of competition among interest groups. American public bureaucracy is not designed to be effective. The bureaucracy arises out of politics, and its design reflects the interests, strategies, and compromises of those who exercise political power.[190]

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[187] Rumu Sarkar, "Rethinking the Interagency Role in Preventing Conflict in Dealing with Failing or Failed States," *Col. Arthur D. Simons Center for the Study of Interagency Cooperation Interagency Paper*, 9W (2012): 8.

[188] Ibid., 9.

[189] Ibid., 9.

[190] Gregory F. Treverton, *Reorganizing U.S. Domestic Intelligence: Assessing the Options* (Santa Monica, CA: RAND, 2008): 75.

There are four problems embedded within the U.S. political process limiting the effectiveness of border security institutions. First, major legislation normally "contains provisions designed to address a particular problem along with provisions that limit the efficacy of those solutions in the form of exceptions, exemptions, limitations, and cumbersome procedures."[191] This results in legislation that approaches incoherence.[192]

The second problem is the distributive tendency and goal distortion that occurs as legislators attempt to pass a bill. To gain the support needed, legislators need to distribute the associated funds more widely than the problem dictates, leading to goal distortion. Dara Cohen et al. write, "Distributing the funds from a program more widely…breaks the link between the legislative solution and the problem the program is designed to address. Programs regularly distribute funds widely in a way that distorts their purpose."[193]

The third problem is multiple veto points during the legislative process. At least two committees share jurisdiction on any issue, one in each the House and Senate—along with numerous other committees and subcommittees with overlapping jurisdictions. All have veto power over proposed legislation, which results in compromises that affect the goals of the legislation and the means used to address the goals.[194]

The final problem is overlapping congressional oversight jurisdiction. The committees and subcommittees charged with oversight ensure policy implementation, but they also push the direction of policy to pursue their own interests. Cohen et al. explain this problem:

> Because members on the different subcommittees have different interests, they pull policymaking within their domain in different directions. For policies that are completely independent, this is fine, but when the policies interact…the inconsistent views on different subcommittees can create potential problems. Consider a set of bureaus that work on related policies

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[191] Dara Kay Cohen, Mariano-Florentino Cuellar, and Barry R. Weingast, "Crisis Bureaucracy: Homeland Security and the Political Design of Legal Mandates," *Stanford Law Review* 59 (2006): 703.

[192] Ibid., 703.

[193] Ibid., 704.

[194] Ibid., 705.

> but were created by different legislation and are overseen by different subcommittees or committees. They are likely to pursue different goals, in part because the legislation creating them differs and in part because the interests of the members of the relevant subcommittees differ.[195]

This exact problem is widely prevalent in the realm of border security. The overlapping jurisdictions of committees overseeing aspects of border security and decentralized congressional control preserve the non-coordination status quo and sustain the persisting fragmentation that exists in the border security system.

The net result of the above problems is border security legislation that is not designed to succeed in achieving its stated goals. Cohen et al. conclude, "Political competition thus routinely distorts the goals of the legislation. Legislation rarely addresses policy problems directly. Indeed, sometimes it is designed to fail."[196]

3. Northern and Southern Border Discrepancy

The United States has distinct policies and strategies concerning its northern and southern borders. The northern border is over 4,000 miles long, touching 12 states, and consists of mountains, rivers, lakes, and prairies. The northern border experiences heavy snow and bitter cold temperatures in the winter. In contrast, the southern border consists of vast deserts and the Rio Grande, with temperatures exceeding 100 degrees for much of the year. The southern border stretches 2,000 miles across four states.[197]

USBP deploys a varying mix of personnel and resources along the two borders. The primary goal of the Southwest border is to deter illegal immigration. Since 2000, 98.7 percent of alien apprehensions were made along the Southwest border, and 85 percent of USBP manpower is deployed along the Mexican border. This represents the "Prevention Through Deterrence" operational strategy, in place since the 1990s. The

[195] Ibid., 706.

[196] Ibid., 713.

[197] Blas Nunez-Neto, "Border Security: The Role of the U.S. Border Patrol," Congressional Research Service Report RL32562, November 20, 2008, 2.

goal of this strategy is to reroute illegal border traffic from urban areas to less populated, geographically harsher areas.[198]

The northern border strategy focuses on preventing the entry of terrorists and reducing cross-border crime and smuggling, while facilitating commerce. To achieve this goal, USBP works closely with Canadian authorities, through established IBETs, to identify threat areas and uses enhanced intelligence-gathering technologies to monitor cross-border activity. Additionally, Free and Secure Trade (FAST) lanes have been created to speed legitimate commerce across the border.[199]

The disparity between the borders is apparent in the willingness to engage with Canadian authorities, while maintaining anemic U.S.-Mexican cooperation. Treating the borders as separate entities prevents the establishment of any coherent border security goal. This creates confusion among border security agencies; moreover, instilling disparate goals into a system ultimately sets the system up for failure.

C. SYSTEM FLOWS

This section examines the effectiveness of border security agencies regulating system flows for each of the forces introduced in Chapter III. Additionally, system traps the border security system has succumbed to are identified for each of the forces.

1. Revenue and Commerce

Revenue and commerce are closely related and addressed simultaneously. The system flow for revenue and commerce is the amount of revenue produced through international commerce. When system goals allow, border security agencies have had great success in generating revenue—funding the entire nation for over a century. Recently, however, this force has fallen into the trap of seeking the wrong goal at great expense to the North American economy.

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[198] Chad C. Haddal, "Border Security: The Role of the U.S. Border Patrol," Congressional Research Service Report RL32562, August 11, 2010, 13.

[199] Ibid., 21.

The United States and Canada have the world's largest bilateral trading relationship, consisting of almost $500 billion per year. Prior to 9/11, the border was regarded as the longest unguarded border in the world—a source of pride for both countries. Increased border requirements introduced by the United States after 9/11 significantly reduced Canadian exports, some figures show as much as 10 percent, and have cost the United States over $10 billion annually. The United States implemented increased restrictions citing security concerns, yet Peter Andreas contends while these measures may calm the public, they inhibit trade and travel more than prevent terrorist activities—clearly an example of the effects of seeking the wrong goal.[200]

2. National Security

As in the case for revenue and commerce, the border security system has fallen into the trap of seeking the wrong goal concerning national security. National security has no definable metrics that can be used by the border security system to measure success. Moreover, national security is not a task the border security system is designed to accomplish. The military is the institution created specifically for national security; when national security concerns include protection of U.S. borders, as during both World Wars, military assets are deployed, rather than border security agencies.

3. Immigration

Immigration has tumbled into the system traps of policy resistance, shifting the burden to the intervener, and rule beating. Border security attempts to prohibit illegal immigration have rarely worked. The Chinese Exclusion Act did not prevent Chinese from immigrating to the United States and today, according to *Foreign Affairs*, 90 to 98 percent of those who attempt to cross illegally are ultimately successful. Furthermore,

[200] Peter Andreas, "A Tale of Two Borders: The U.S.-Mexico and U.S.-Canada Lines After 9-11," The Center for Comparative Immigration Studies, Working Paper No. 77, May 2003, 7; Deborah W. Meyers, "Does 'Smarter" Lead to Safer? An Assessment of the U.S. Border Accords with Canada and Mexico," *International Migration* 41 (2003): 15.

apprehension rates continue to fall and are currently at their lowest point since 1970. The following system traps, along with economic factors, explain this lack of effectiveness.[201]

The policy resistance trap is the primary reason efforts to stop illegal immigration fail. Policy resistance arises from the increased presence of both technology and manpower patrolling U.S. borders, forcing smugglers to become increasingly innovative. Charles Edwards, acting DHS Inspector General, testified, "Smuggling of drugs and people into the U.S. has generated tens of billions of dollars for the smugglers. As efforts to secure the border meet with increasing success…the smugglers have been forced to become more creative and clever in their illicit activities."[202] This cycle of increased technology being responded to by innovation will continue with smugglers always having the upper hand.

Immigration has also descended into the trap of shifting burden. Rather than addressing the root cause of illegal immigration, the United States has used the border security system as the solution that only temporarily reduces the symptoms. This is evident in the "Prevention Through Deterrence" strategy, which temporary reduces illegal immigration in one area—only to reappear in another. This phenomenon is the "balloon" effect: pressure applied in one area pushes the air into another area of less resistance, but does not reduce the amount of air. The balloon effect is apparent in a CRS report that states, "Increasing enforcement along the Arizona border has begun to shift the pattern of unauthorized migration back to California."[203]

The final trap, rule beating, has further decreased the effectiveness in regulating illegal immigration's flow. Smugglers, as reported by David Aguilar, have corrupted

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[201] Edward Alden and Bryan Roberts, "Are U.S. Borders Secure?" *Foreign Affairs*, July/August 2011; *Hearing on Measuring Border Security: U.S. Border Patrol's New Strategic Plan and the Path Forward, Before the Committee on Homeland Security, Subcommittee on Border and Maritime Security*, (May 8, 2012) (statement of Marc R. Rosenblum, Specialist in Immigration Policy, Congressional Research Service).

[202] *Hearing on Department of Homeland Security: An Examination of Ethical Standards, Before the Committee on Oversight and Government Reform*, (August 1, 2012) (statement of Charles K. Edwards, Acting Inspector General, U.S. Department of Homeland Security).

[203] Haddal, "Border Security: The Role of the U.S. Border Patrol," 16.

increasing numbers of border security employees. Leading to the passage of the Anti-Border Corruption Act of 2010, requiring all CBP applicants to pass a polygraph test before being hired.[204]

4. Law Enforcement

Law enforcement is the feedback mechanism designed to reduce the stock of drugs in the United States by cutting the flow of illegal drugs into the country. The system traps law enforcement has sunk into mirror those of immigration: policy resistance, shifting the burden, and rule beating. Border security has never successfully been able to stop the flow of illegal products into the country, as proved during Prohibition.

Policy resistance is again the primary reason stopping the flow of drugs has failed. Meadows directly uses the analogy of drugs to explain policy resistance:

> If any one actor gains an advantage and moves the system stock (drug supply) in one direction (enforcement agencies manage to cut drug imports at the border), the others double their efforts to pull it back (street prices go up, addicts have to commit more crimes to buy their daily fixes, higher prices bring more profits, suppliers use the profits to buy planes and boats to evade border patrols). Together, the countermoves produce a standoff, the stock is not much different from before, and that is not what anybody wants.[205]

The cycle of increased enforcement being overcome by DTO innovations are collaborated in the congressional testimonies of Charles Edwards, James Dinkins, and

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[204] *Hearing on Department of Homeland Security: An Examination of Ethical Standards, Before the Committee on Oversight and Government Reform*, (August 1, 2012) (statement of David V. Aguilar, Acting Commissioner, U.S. Customs and Border Protection, U.S. Department of Homeland Security).

[205] Meadows, *Thinking in Systems*, 113.

Donna Bucella.[206] Further proof that mechanistic bureaucracies are not able to compete with the complex adaptive systems operating along borders.

The United States has traditionally shifted the burden of its drug problem to the border security system, avoiding the problem's root cause—consumption. This first became evident when President Nixon declared a "war on drugs" in the 1970s. Efforts to stop the flow of drugs into the United States resulted in the initiation of the balloon effect. Beau Kilmar et al. explain, "Until the 1990s, most cocaine shipped from Colombia entered the United States through the Caribbean. However, after increased enforcement pressure in that region, cocaine traffickers began hiring Mexican smugglers to get cocaine into the United States. Over time, the Mexican DTOs played a bigger role in the cocaine trade, and this generated enormous revenues."[207] Furthermore, shifting the burden to reduce the supply of drugs has little effect on consumption. Kilmar et al. write, "Enforcement against suppliers is not a very effective way to reduce the use of drugs that are supplied through well-established markets; interventions in source countries appear to be particularly futile in this regard."[208]

Rule beating, as with immigration, has further decreased the effectiveness of regulating the drug flow into the United States. This trap, in the form of corruption, will continue to plague border security's effectiveness as DTO influence continues to strengthen. Together the three system traps result in a consistent stock of available drugs in the United States, and no technological or institutional advancements aimed at supply reduction will likely have any sustained effect on the system.

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[206] *Hearing on Department of Homeland Security: An Examination of Ethical Standards, Before the Committee on Oversight and Government Reform*, (August 1, 2012) (statement of Charles K. Edwards, Acting Inspector General, U.S. Department of Homeland Security); *Hearing on Border Security Threats to the Homeland: DHS's Response to Innovative Tactics and Techniques, Before the Committee on Homeland Security*, (June 19, 2012) (statement of James A. Dinkins, Executive Associate Director, Homeland Security Investigations, U.S. Department of Homeland Security); *Hearing on Border Security Threats to the Homeland: DHS's Response to Innovative Tactics and Techniques, Before the Committee on Homeland Security*, (June 19, 2012) (statement of Donna Bucella, Assistant Commissioner, Office of Intelligence and Investigative Liaison, U.S. Department of Homeland Security).

[207] Beau Kilmar, Jonathan P. Caulkins, Rosalie Liccardo Pacula, and Peter H. Reuter, *The U.S. Drug Policy Landscape* (Santa Monica, CA: RAND, 2012), 9.

[208] Ibid., 18.

5. Terrorism

The tragedy of 9/11 thrust the border security system into the trap of seeking the wrong goal. Following the attacks, U.S. borders were drawn into the realm of national security. In response, DHS was created representing the largest federal government realignment since World War II. Additionally, CBP was formed with stopping terrorism as its first priority. This reaction was a political necessity to ease American's fears. Yet none of the 9/11 terrorists crossed either border illegally, rather they entered legally on student or immigrant visas.[209]

Terrorism, as with national security, does not have any definitive metrics that border security agencies can measure success. Terrorism is a potential threat and not a realized threat. Only one terrorist has been detained attempting to cross the border, occurring in 1999 before the emphasis on terrorism. Furthermore, the terrorist was apprehended while attempting a legal crossing. There has never been a confirmed case of any terrorist trying to cross either border illegally. Despite terrorism concerns, numerous U.S. governmental agencies have proclaimed "no significant threat to the United States has materialized in Mexico nor penetrated the U.S.-Mexico border since 2001."[210] The same statement can describe the terrorist threat along the U.S.-Canadian border. The consequences of seeking the wrong goal are precious resources being diverted away from more productive endeavors and a huge reduction in international trade.[211]

D. COSTS

The GAO reports that the United States spends close to $12 billion a year on border security, yet DHS estimates achieving operational control of only 13 percent of U.S. borders—50 percent of the U.S.-Mexican and three percent of the U.S.-Canadian. Of that 13 percent, only 12 percent are classified as "controlled," the highest level for detection and interdiction at the border. The remaining 88 percent are classified as

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[209] Olson, "State of Security," 6–8.

[210] Ibid., 8.

[211] Ibid., 8.

"managed," meaning interdictions may be achieved after illegal entry by multi-tiered operations.[212]

The above border security cost estimate does not include the amount spent on drug efforts. ONDCP requested a budget of $26.2 billion for fiscal year 2012—$15.5 billion targeted to supply reduction and the remaining $10.7 billion towards demand. Only the amount spent on supply reduction is included in total system cost.[213]

In addition to the direct expenditures on border security and drug supply reduction, the loss to revenue and commerce has to be included into any calculation. Deborah Meyers estimates that the reduction in trade with Canada alone costs the United States $10 billion annually. Reports on the economic impacts to U.S.-Mexican trade are inconclusive, therefore not included. This puts the total price to over $37.5 billion a year, represented in Table 1, for a system that is marginally effective, at best.[214]

Border Security	$12 billion
Supply Reduction	$15.5 billion
Reduction in Trade	$10 billion
Total System Cost	$37.5 billion

Table 1. Border security system cost

E. SUMMARY

This chapter argued that the current border security system has succumbed to numerous system traps: policy resistance, escalation, shifting the burden, rule beating, and seeking the wrong goal. It also introduced the structural limitations of the present system. The effects of these traps and structural limitations on the border security

[212] GAO Report, "DHS Progress and Challenges in Securing the U.S. Southwest and Northern Borders," March 30, 2011, 1-2; GAO Report, "Border Patrol Strategy: Programs and Challenges in Implementation and Assessment Efforts," May 8, 2012, 12–13.

[213] Lisa N. Sacco and Kristin M. Finklea, "Reauthorizing the Office of National Drug Control Policy: Issues for Consideration," Congressional Research Service Report R41535, October 20, 2011, 9.

[214] Meyers, "Does 'Smarter" Lead to Safer," 15.

regime's ability to regulate system flows was explained through a systemic perspective for each of the forces identified in Chapter III. Chapter V projects a new paradigm that addresses the existing limitations and has the potential to increase North American security.

V. NEW BORDER SECURITY PARADIGM

The border security system operates in an environment containing highly complex adaptive systems. Chapter IV detailed the ineffectiveness of the current system in confronting these systems, along with addressing the wicked problems it faces. This chapter projects a new border security paradigm, which, if implemented, will increase North American security.

According to Meadows, "Paradigms are the sources of systems. From them, from shared social agreements about the nature of reality, come system goals and information flows, feedbacks, stocks, flows, and everything else about systems."[215] Changing a system's paradigm is the second highest leverage point offered by Meadows and if changed will transform the entire border security apparatus. The previous chapters examined the current border security system in order to discover the system's lever points, what Holland describes as "points where a simple intervention causes a lasting, directed effect."[216] It is apparent, from this examination, that the most effective leverage point present in the border security system is to change its paradigm.

The border security paradigm, or mindset, needs to change from stopping terrorism, illegal immigration, and drug interdiction to jointly facilitating the efficient flow of lawful trade, travel, and immigration between North American countries. Accompanying this new paradigm, two significant policy changes are warranted: legalization of drugs and reinstatement of a Bracero type program. This new paradigm, along with the policy changes, will enable the border security system to overcome system traps by changing the current rules, structures, and goals of the entire system.

This chapter explains how the new paradigm, using Meadows' leverage points, will surmount the system traps the border security system has succumbed and projects a new structure to increase effectiveness. The forces affecting border security are examined through the lens of the new paradigm, and a new tri-national border security

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[215] Meadows, *Thinking in Systems*, 163.

[216] Holland, "Complex Adaptive Systems, 6.

agency, based on collaboration, is introduced. Finally, the cost of the new system is addressed. Chapter VI will discuss implementation barriers, how to overcome these barriers, and feasibility of the establishment of the new system.[217]

A. SYSTEM TRAPS

Border security has fallen into the traps of: policy resistance, escalation, shifting the burden to the intervener, rule beating, and seeking the wrong goal. Changing the system's paradigm engages several of Meadows' leverage points simultaneously. This section describes the specific leverage points, unleashed on the system by introducing a paradigm shift, that will allow border security to overcome each of the above traps.[218]

1. Policy Resistance

The lack of success in stemming the flow of illegal immigration and drugs across North American borders is directly attributed to policy resistance. Increased barriers and control measures put in place along the border leads to greater DTO innovation, resulting in no significant change to the system's stocks. Changing the system's paradigm, however, alters the rules of the system—another leverage point—transforming the system's incentives, punishments, and constraints. The new rules, namely the legalization of drugs and reinstatement of a Bracero type program, will allow the system to break out of the policy resistance trap.[219]

2. Escalation

Escalation accounts for the lack of cooperation between border security agencies. In order to overcome this trap, the border security system's structure must be changed. Changing system structure is the fourth highest leverage point offered by Meadows, and transforming the system's paradigm entails changing its structure. The new structure is described in the next section.[220]

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[217] Meadows, *Thinking in Systems*, 147–65.

[218] Ibid., 147–65.

[219] Ibid., 158.

[220] Ibid., 159.

3. Shifting the Burden to the Intervener

Border security agencies have been charged with combating the symptoms of drug use and illegal immigration, yet little has been done to address the root causes of the problems. Changing the system paradigm will directly confront the root causes of the problems, allowing border security to overcome this system trap.[221]

4. Rule Beating

Rule beating, in the form of corruption, is plaguing border security institutions. The leverage point enabling border security to defeat this trap is altering system structure. Revolutionizing the paradigm encompasses system structural transformation; rule beating is specifically addressed in the discussion on revenue and commerce forces.

5. Seeking the Wrong Goal

Border security's goals are poorly defined and measured with the wrong metrics. Implementing a new system paradigm changes the goals of the system—the third highest leverage point. A new, clearly defined, system goal is introduced in the discussion of forces affecting border security.[222]

B. STRUCTURAL RECOMMENDATIONS

Chapter IV detailed the reasons why the current bureaucratic and political structure hampers border security effectiveness, along with treating northern and southern borders as distinct entities. This section addresses the shortcomings of the current system by applying Meadows' leverage point of changing system structure to project a new border security arrangement. Combined with new system goals and rules introduced by a fresh paradigm, these structural changes will increase North American security.

1. Bureaucratic Recommendation

The U.S. border security system contains 15 distinct agencies, contained within three separate departments, competing against each other to secure funding and prestige.

[221] Ibid., 163.

[222] Ibid., 161.

Additionally, there are no less than 10 official interconnection agencies designed to increase coordination between agencies. This structure creates problems in achieving any kind of unity of effort. To correct this obvious flaw, one agency solely responsible for border security is needed.

Establishing one agency will push the border security system out of the escalation trap. Moreover, a single agency will be able to institute shared language, culture, doctrine, techniques, and procedures that enables lessons learned to be quickly nested institutionally. Rather than a traditional mechanistic structure, the new agency should be based on an adhocracy structure. Contingency theory, outlined in the literature review, requires the creation of an adhocracy to adequately address the complexities of the border security environment.

Furthermore, the new agency should base its strategy formulation on Mintzberg's learning school, as described in the literature review. Mintzberg et al. write:

> Some organizations face perpetual novelty. In other words, their environments are dynamic and unpredictable, which makes it difficult to converge on a clear strategy at all. In this case, the structure tends to take the form of adhocracy, or project organization, and the learning approach becomes almost mandatory—the means to work things out in a flexible manner. At the very least, it allows the organization to do something—to respond to an evolving reality in individual steps instead of having to wait for a fully determined strategy.[223]

This dynamic and unpredictable atmosphere describes the border security environment.

Finally, the new agency should be moved out of DHS and into the Department of Commerce. This change is necessary to align the new agency with the paradigm shift of jointly facilitating the efficient flow of lawful trade, travel, and immigration between North American countries.

[223] Mintzberg, *Strategy Safari*, 229.

2. Political Recommendation

The greatest impediment to border security is the political system itself. The border security system relies on the political system to define its structure, goals, and to perform oversight. Chapter IV detailed four problems embedded within the U.S. political process. While two major problems, legislation containing provisions and distributive tendency, cannot be changed without transforming the entire U.S. political system, creating one joint oversight committee can address the other two, multiple veto points and overlapping jurisdiction.

The new agency needs to fall under the jurisdiction of one joint congressional committee. This will reduce the number of veto points during the legislative process, limiting the amount of compromises affecting the goals and means to address problems. Furthermore, having centralized congressional control enables the creation of coherent, consistent system goals.

3. One Continent, One Agency

Currently, the United States has separate policies for each of its borders, which adversely affects the ability to secure either border. The United States works closely with Canadian authorities, while maintaining a defensive posture along the Southwest border. A tri-national border security agency is needed in order to increase North American security. The paradigm shift of jointly facilitating the efficient flow of lawful trade, travel, and immigration between North American countries necessitates the establishment of a tri-national agency, which will synchronize commerce policies between North American countries—increasing the efficiency of trade, travel, and immigration.

The agency's strategy formulation should be based on collaborative planning, outlined in the literature review. Collaborative planning will overcome barriers by establishing common goals, recognizing interdependence, formalizing relationships, and creating lateral mechanisms. Furthermore, applying the Cynefin framework to the complex nature of the border security environment leads to the establishment of collaborative planning. Doing so enables all three countries to move beyond merely

sharing information to jointly creating information. Figures 8, 9, and 10 illustrate the evolution of the current system structure to the one envisioned.[224]

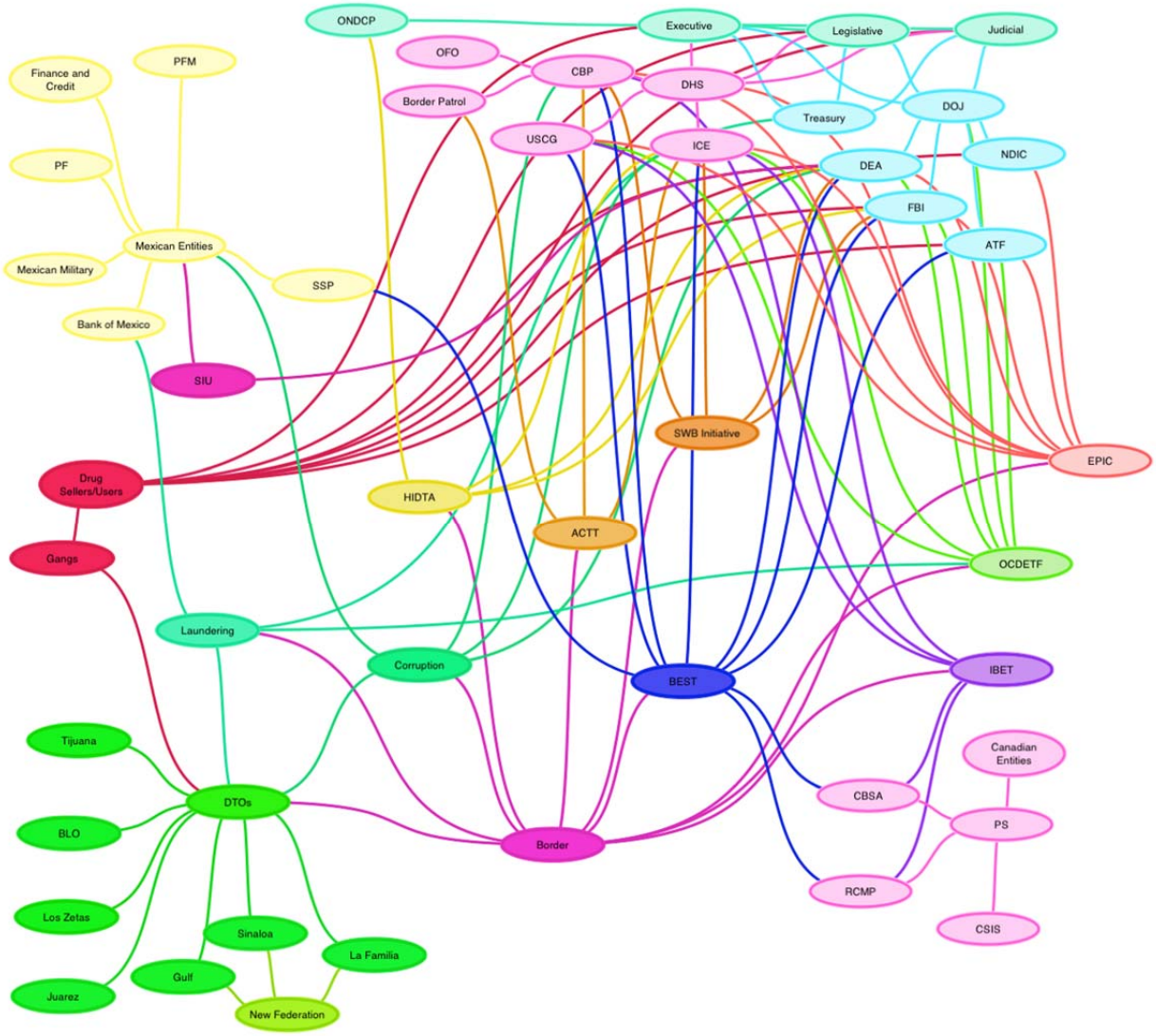

Figure 8. Current border security system

Figure 9 represents the effect on the system by legalizing drugs. This greatly simplifies the system's shape by removing DTOs, gangs, and drug users. The agencies specifically created for drug enforcement—DEA and NDIC—or perform drug related

[224] Hocevar, "Building Collaborative Capacity," 272; Treverton, "Complexities," 352.

activities—FBI, Department of Treasury, Bank of Mexico, and Mexico's Finance and Credit—are also removed, along with the established drug coordination agencies: SIU, HIDTA, OCDETF, and ONDCP. Finally, agencies not directly involved in border activities are removed: CSIS, PF, PFM, and Mexican military.

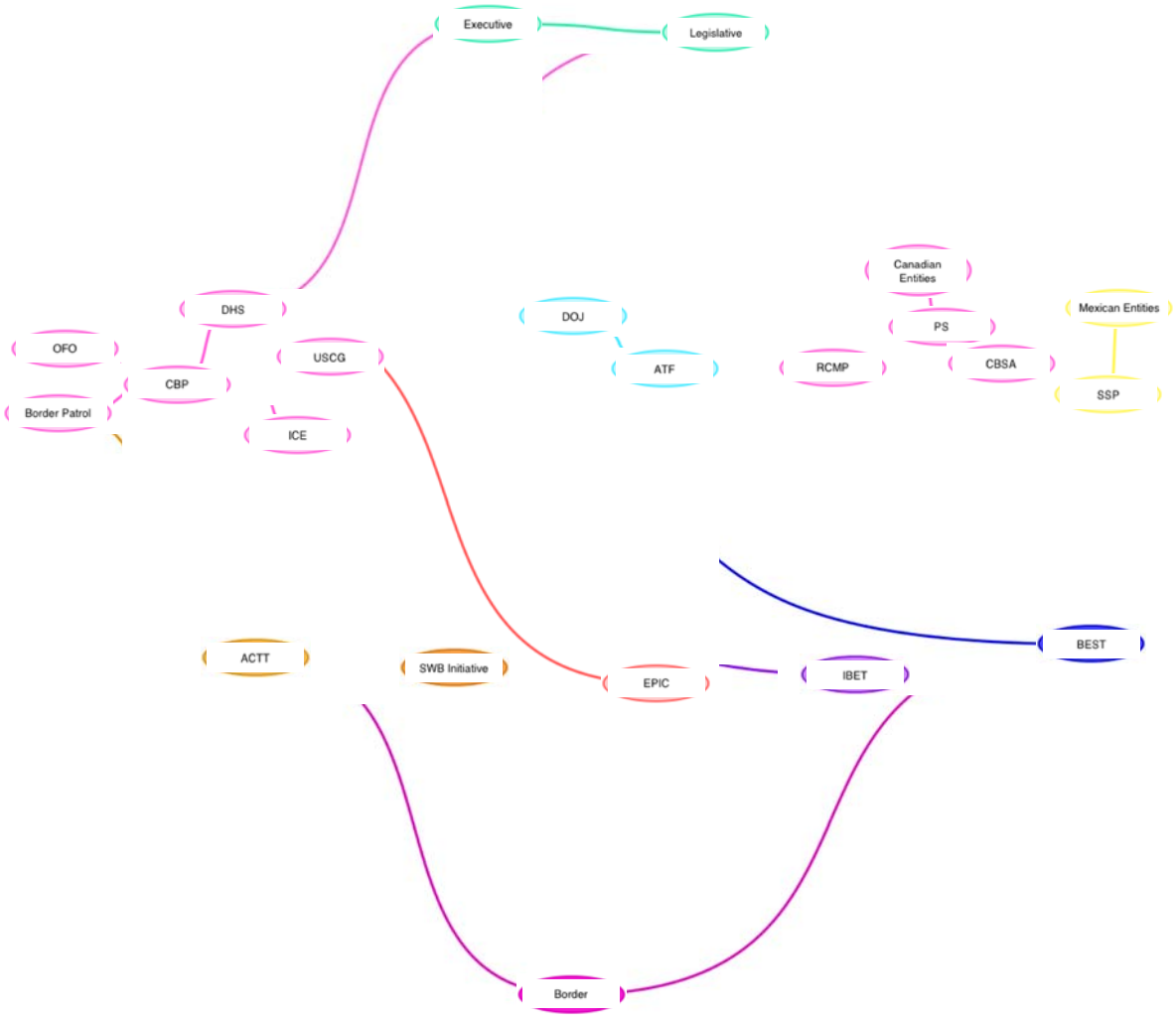

Figure 9. Border security system after the legalization of drugs

This results in a system still containing eight U.S. agencies—DHS, OFO, USBP, CBP, USCG, ICE, DOJ, and ATF—two Canadian agencies—RCMP and CBSA—and

one Mexican agency—SSP. Additionally, five border security coordination agencies remain—ACTT, SWB Initiative, EPIC, IBET, and BEST—of which only two, IBET and BEST, contain international members.

Figure 10 represents the envisioned system transformation with the establishment of a tri-national border security agency. Forming a single U.S. border security agency under the Department of Commerce, alone, replaces five U.S. agencies: OFO, USBP, CBP, ICE, and ATF. DHS, USCG, and DOJ are left outside the system and allowed to perform their respective missions without having to divert manpower to accomplish border security tasks. Furthermore, the internal coordination agencies—ACTT, SWB Initiative, and EPIC—become completely redundant and can be eliminated. Finally, the tri-national border security agency consolidates IBET and BEST coordination agencies into a single entity. The end result is a border security apparatus containing one U.S. agency, one Mexican agency, and two Canadian agencies whose efforts are coordinated through a single institution. This simplified system is vastly superior to the current, almost incomprehensible, border security regime.

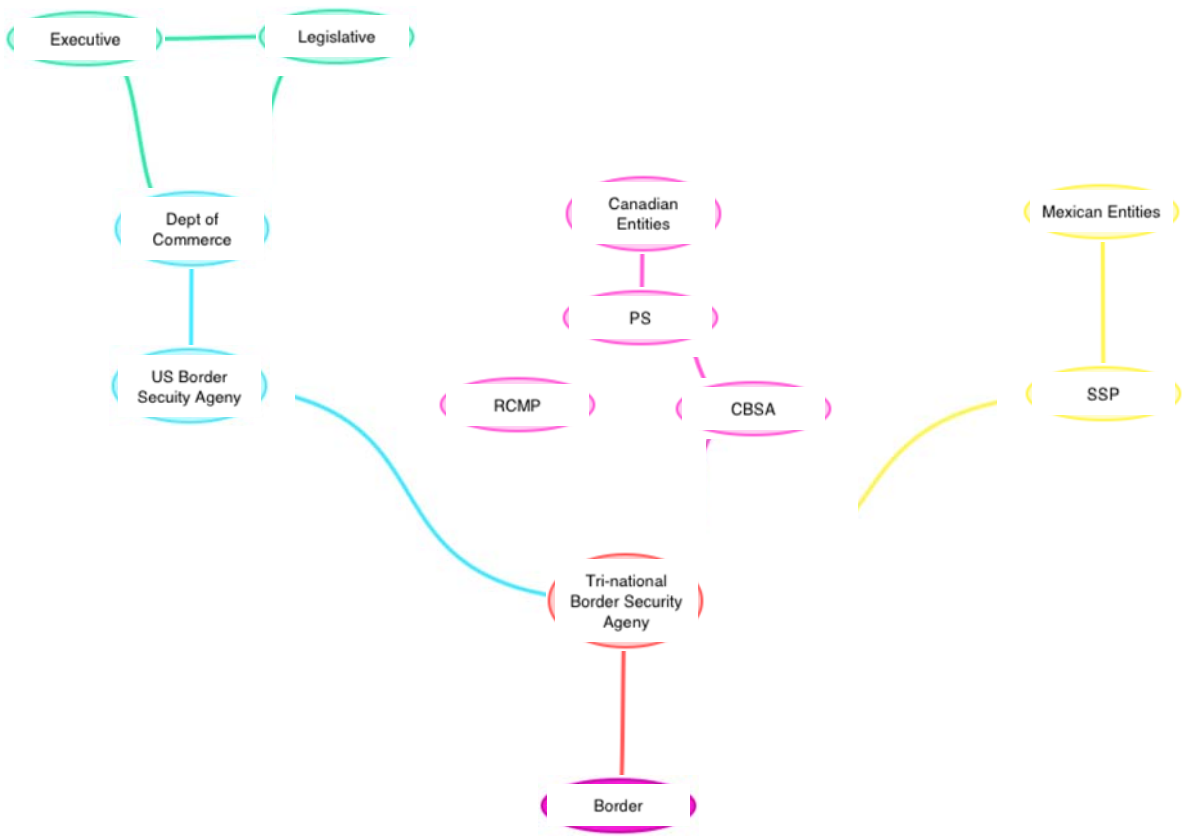

Figure 10. Border security system after establishment of tri-national agency

C. EFFECTS ON SYSTEM FLOWS

This section describes the effects of implementing the new paradigm, policies, and structure on the forces shaping border security. Chapter IV examined the border security system's ineffectiveness in regulating system flows by identifying the system traps each of the forces has succumbed. The border security system's new goal is clear: jointly facilitate the efficient flow of lawful trade, travel, and immigration between North American countries. Each force is re-examined through the lens of this new paradigm and associated innovative drug and immigration policies, specifying how system traps will be overcome.

1. Revenue and Commerce

Revenue and commerce have fallen into the trap of seeking the wrong goal. The new paradigm changes the system's goal to facilitating the efficient flow of lawful trade between North American countries, allowing the system to surmount this system trap. The new goal signals a change back to the root function of border security, which successfully funded the United States for over a century. Increasing the efficiency of trade between North American countries simultaneously strengthens the economy and security of each nation, in addition to North American security.

The creation of a tri-national border security agency entails creating joint border stations, replacing the existing unilateral approach. Establishing joint border stations is not only more cost-efficient, but also increases effectiveness. According to Michel Zarnowiecki, "juxtaposed facilities allow economies of scale, better cooperation, simplified formalities, improved control over fraud, and informal data and intelligence exchanges."[225] Furthermore, Deborah Meyers contends that the United States needs to shift to a multilateral approach from its current unilateral one in order to increase intelligence, which she believes is the key to successful border management.[226]

Creating joint border stations also overcomes the system trap of rule beating. Working side-by-side, U.S., Mexican, and Canadian officers will be less prone to exploitation and corruption given they are constantly observing each other. This will not completely solve the problem of corruption; however, it does make rule beating much more difficult.

Finally, joint borders demonstrate friendship and solidarity between the United States, Canada, and Mexico—strengthening the fragility of Mexico's institutions and, in turn, North American security. Zarnowiecki believes the political effect of joint borders

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[225] Michel Zarnowiecki, "Borders, Their Design, and Their Operation," in *Border Management Modernization*, ed. Gerard McLinden, Enrique Fanta, David Widdowson, and Tom Doyle (The World Bank, Washington, DC, 2011), 65.

[226] Meyers, "Does 'Smarter" Lead to Safer," 28.

can matter more than the operations, and Meyers asserts, "only an intelligent, common approach will help us reach the point where we have a safer continent and mature borders among true and equal partners."[227]

2. National Security

Seeking the wrong goal is the trap the border security system has plunged into concerning national security. In the context of the new paradigm, national security concerns are left to those institutions created specifically for national security—the military, including the Coast Guard. The previous chapters have shown that during periods when borders become a national security concern the military is called on to secure U.S. borders.

Following 9/11, U.S. Northern Command (NORTHCOM) was established to protect the national security of the United States. The new paradigm overcomes the trap of seeking the wrong goal by pushing national security out of the realm of border security institutions and allows NORTHCOM to accomplish this mission.

3. Immigration

Chapter IV detailed how immigration has tumbled into the traps of policy resistance, shifting the burden to the intervener, and rule beating. Reestablishing a Bracero type program, which can be referred to as a guest worker program, changes the system rules. This change allows border security to transcend the above traps. Rather than actively trying to prevent migrant workers illegally entering the United States, a guest worker program recruits those seeking temporary employment. This breaks the policy resistance cycle of increased technology being responded to by deviant innovation. Furthermore, this policy shift directly addresses the root cause of the problem—forcing border security out of the shifting burden trap. The tri-national border security agency's joint border stations address the final trap of ruling beating, as described in the revenue and commerce section.

[227] Ibid., 30; Zarnowiecki, "Borders," 65.

In addition to overcoming system traps, the guest worker program will have profound economic and security second-order effects. Legalizing migrant workers allows the United States to increase its tax revenue. Employers will no longer be forced to pay workers "under the table" because those workers will be working legally, enabling federal and state taxes to be taken from every paycheck. Migrant workers, without the fear of being deported, will be empowered to frequent legitimate businesses, resulting in a net increase in U.S. goods consumed. Permitting Mexican workers to freely flow between the United States and Mexico on a temporary basis will increase Mexican remittances—strengthening the Mexican economy. The new policy will also reduce the number of immigrants who stay in the United States illegally from fears of having to attempt additional illegal border crossings. Finally, facilitating legal immigration not only reduces illegal entrance attempts, but also eases the job of securing North American borders because those attempting to cross illegally are more likely be "bad" actors warranting interdiction.

A CRS report on Mexican migration to the United States supports the reestablishment of a guest worker program:

> A temporary worker program could be designed to target sectors of the U.S. economy in which employers may struggle to recruit legal workers, particularly sectors in which Mexicans are concentrated…and so could address the "jobs magnet" that drives much unauthorized migration to the United States. Some people see the "circular migration" that dominated the Mexico-U.S. migration system prior to the 1980s as a good model, with many Mexicans spending short periods of time in the United States, and then returning to Mexico with new job skills and money to invest in their home communities, rather than settling (often illegally) in the United States.[228]

4. Law Enforcement

Law enforcement, like immigration, has descended into the system traps of policy resistance, shifting the burden, and rule beating. In order to overcome these traps, the United States, Canada, and Mexico need to change the system's rules by legalizing drugs.

[228] Marc R. Rosenblum, William A. Kandel, Clare R. Seelke, and Ruth E. Wasem, "Mexican Migration to the United States: Policy and Trends," Congressional Research Service Report R42560, June 7, 2012, 32.

Prohibition proved border security is unable to stop the flow of illegal products into a country where a demand remains high. Instead of attempting to control the use of drugs by cutting off the supply, North American countries need to change their policies to prevention.

North American countries have unsuccessfully tried to overpower the policy resistance trap. Legalizing drugs, however, offers an alternative solution to the problem, one that has worked before on a similar problem. Meadows writes:

> The alternative to overpowering policy resistance is so counterintuitive that it's usually unthinkable. Let go. Give up ineffective policies. Let the resources and energy spent on both enforcing and resisting be used for more constructive purposes. You won't get your way with the system, but it won't go as far in a bad direction as you think, because much of the action you were trying to correct was in response to your own action. If you calm down, those who are pulling against you will calm down too. This is what happened in 1933 when Prohibition ended in the United States; the alcohol-driven chaos also largely ended.[229]

Legalizing drugs will conquer the insidious policy resistance trap, which has plunged Mexico into the depths of the current DTO war, by changing the rules of the system. Legalizing drugs can single-handedly stop the violence and killing associated with the drug trade, in all three countries, with a simple stroke of a pen. Changing the system's rules will make the drug trade a legitimate enterprise performed by lawful businesses, stripping Mexican DTOs, along with U.S. and Canadian drug gangs, of their primary source of funding. Without funds coming in from the illegal selling and transportation of drugs, DTOs and drug gangs will quickly become extinct. Additionally, legalizing drugs will render rule beating a moot point because the transportation of drugs will be a legal enterprise. All of the above effects occurred with the end of Prohibition and will transpire again by legalizing drugs.

Changing drug policy from supply reduction to prevention drives border security out of the burden shifting system trap by focusing on the problem's root source—consumption. North American countries can institute prevention programs modeled after

[229] Meadows, *Thinking in Systems*, 114.

the successful anti-tobacco campaigns. Furthermore, the narcotics market can be controlled via regulation, just as alcohol and tobacco are currently regulated.

The legalization of drugs, just as the reimplementation of a guest worker program, will have substantial systemic second-order effects. First, drug legalization will enhance federal, state, and local tax revenue by leavening excise taxes on drug sales. The excise tax on cigarette's alone attributed over $15 billion to the federal government and more than $17 billion to state and local coffers in 2011.[230] Additionally, drug legalization will create the establishment of numerous legitimate businesses and provide employment opportunities to thousands. These businesses and employees will pay taxes, further increasing federal, state, and local tax bases.

Secondly, legalizing drugs will reduce prison populations. The Federal Bureau of Prisons estimates that 47.8 percent of the U.S. prison population is incarcerated for drug offenses. Currently, it costs approximately $60,000 to incarcerate one inmate for a year, totaling to over $63 billion a year. Legalizing drugs, by itself, will save the United States close to $30 billion every year.[231]

Thirdly, the regulation of drugs ensures the quality of drugs available. This will prevent users from ingesting drugs that have been "cut" with more harmful substances. Safeguarding the quality of drugs reduces the number of overdoses and, in turn, the overall health care system cost.

Finally, legalizing the drug trade eases the job of securing North American borders for the same reasons as the reestablishment of a guest worker program: reducing illegal cross border attempts and highlighting those attempting to cross as "bad" actors warranting interdiction.

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[230] "National Overview," RJ Reynolds, accessed October 10, 2012, http://www.rjrt.com/nationalmsapayments.aspx.

[231] "Types of Offenses," Federal Bureau of Prisons, accessed October 10, 2012, http://www.bop.gov/news/quick.jsp#4; "The cost of a nation of incarceration," CBS News, accessed October 10, 2012, http://www.cbsnews.com/8301-3445_162-57418495/the-cost-of-a-nation-of-incarceration/.

5. Terrorism

The aftermath of the events of 9/11 propelled border security into the system trap of seeking the wrong goal. The new paradigm drives border security out of this trap by changing system goals. As with national security, terrorism is best left to those organizations specifically created or reorganized to combat terrorism: DHS, CIA, and FBI. Successfully battling terrorism requires an intelligence-based approach. These organizations have the worldwide intelligence capabilities to accomplish the mission, which border security agencies lack. Moreover, this paradigm shift enables those assets diverted away from border security missions to reengage in more productive endeavors—further increasing North American security.

D. COSTS

Chapter IV estimated the current border security system costs U.S. taxpayers over $37.5 billion a year. The cost of the new system will not only by lower, but will have a net positive effect on the overall budget. First, the $15.5 billion targeted for supply reduction can be diverted directly back into federal coffers by legalizing drugs. Second, the diminished trade with Canada caused by the current system will be erased, increasing revenue by at least $10 billion. Even if the United States continues to spend $12 billion annually on the new system, taxpayers will save $25.5 billion every year; however, given the elimination of 13 agencies and coordinating institutions, increased efficiency, and shared cost between the United States, Canada, and Mexico, the system will likely cost American taxpayers well below $12 billion.

In addition to direct system cost savings, the new paradigm's secondary systemic effects simultaneously increases revenue and decreases expenditures. The United States will save approximately $30 billion a year on incarceration alone. The increased revenue gained from additional federal, state, and local taxes collected from emerging businesses created to support the new, legal drug trade and additional tax revenue gained from the reestablishment of a guest worker program is difficult to ascertain without speculation, therefore is excluded. Nevertheless, this amount could conceivably contribute billions to federal, state, and local treasuries every year.

The previous system calculation omitted the $10 billion spent annually towards prevention. This chapter, however, includes money aimed at prevention into its calculus. To cover prevention efforts, the federal government can use excise tax revenue to fund the entire program. Again, saving U.S. taxpayers $10 billion per year. This puts the total amount saved annually to $65.5 billion, depicted in Table 2. The above, conservative, estimate lucidly shows the profound economic effect produced from the new border security paradigm.

Supply Reduction	$15.5 billion
Increase in Trade	$10 billion
Incarceration	$30 billion
Prevention	$10 billion
Total Savings	$65.5 billion

Table 2. Cost savings produced from the advocated border security paradigm

E. SUMMARY

This chapter addressed the border security system's failings by projecting a new paradigm: jointly facilitating the efficient flow of lawful trade, travel, and immigration between North American countries. This paradigm necessitates the creation of a single U.S. border security agency under the jurisdiction one joint congressional committee, establishment of a tri-national border security agency, legalization of drugs, and reestablishment of a guest worker program. The forces affecting border security were examined through the lens of the new paradigm, detailing how the new paradigm will overcome system traps and produce positive systemic effects—increasing North American security and prosperity. Chapter VI will discuss the barriers to implementation, how to overcome these barriers, and feasibility of the establishment of the new system.

VI. BARRIERS TO CHANGE

This chapter provides insight to bureaucratic, political, cultural, and international barriers present in the system, which have to be overcome to implement the new border security paradigm introduced in Chapter V. In the United States, the bureaucratic, political, and cultural levels form a pyramid, Figure 11, and it is argued that each level is dependent on change to occur at the lower level before any transformation can be manifested at the current level. This chapter examines the barriers, how to surmount the barriers, and the feasibility of employing the new paradigm at each level.

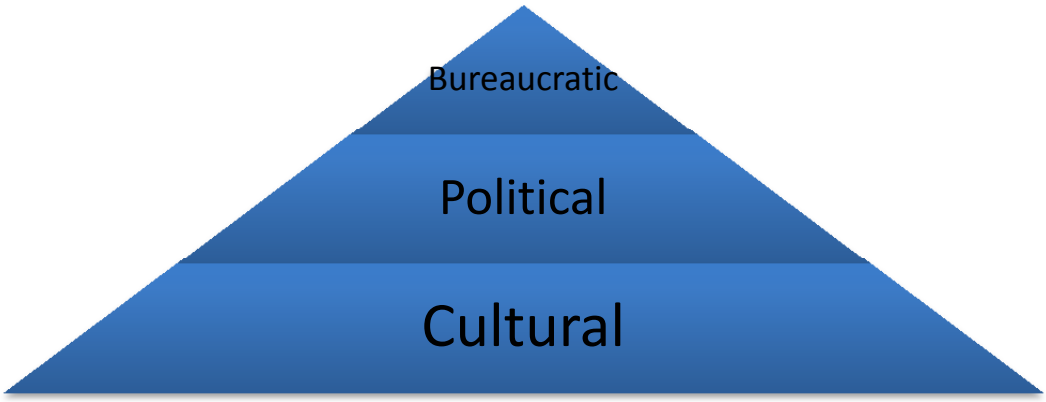

Figure 11. Level pyramid

Furthermore, it is argued that the new border security paradigm must be instituted at all levels in the United States prior to establishing the paradigm internationally with Canada and Mexico. Providing a framework to initiate the formation of a tri-national border security agency, depicted in Figure 12.

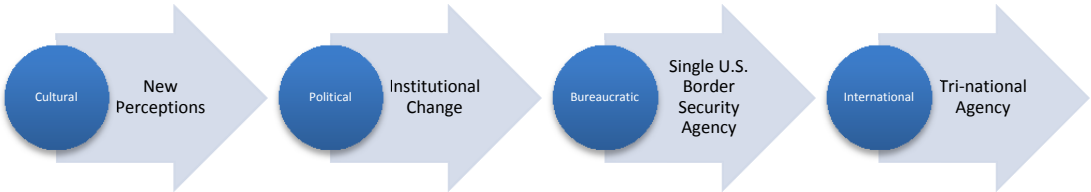

Figure 12. Tri-national border security agency formation framework

A. BUREAUCRATIC

The formation of a single, unified border security agency in the United States will face fierce bureaucratic resistance. Every agency leader will fight for their organization's survival and oppose any sort of restructuring that reduces their agency's scope of responsibility. Simply stated, no agency wants to yield authority or discretion to another in the interdependent environment of the border security system.

1. Bureaucratic Barriers

The most effective way for organizations to adapt is through internal changes; however, organizational design theory establishes that internal change is hard to achieve. Bounded rationality is the first reason, individuals have cognitive limits and changes that can improve performance are seldom identified or implemented. The bureaucratic structure itself is another impediment. The highly specialized nature of federal government agencies prevents transfer of knowledge between agencies and often even within specific agencies themselves. The very structure designed to increase agency efficiency hinders the agency's ability to learn. Finally, time prohibits adaptation. The longer an agency is established the more resistant to change the agency becomes, as routines and norms become firmly entrenched.[232]

Zegart contends that government agencies face three additional disadvantages that limit internal change. First, agencies are not faced with market competition that would force them to adapt. Government organizations are designed from the beginning to be consistent and predictable, not built to adapt. Second, private firms have creators that want the organization to succeed; whereas, government organizations are often created by politicians who want them to fail for political purposes. Finally, governmental agency leaders are bound by legislation and do not have the freedom to change their organizations without going through the complex legislative process.[233]

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[232] Zegart, *Spying Blind*, 51–53.

[233] Ibid., 54–55.

Being bound to the legislative process is by far the most important barrier. Even if the established border security institutions wanted to create a unified agency, legislation must be passed to implement the change. This, however, also presents a way to overcome bureaucratic barriers.

2. Overcoming Bureaucratic Barriers

Organizational change comes from two sources—internal and external. The barriers presented above make it apparent internal forces will not produce the needed reforms to the border security system. System transformation must come from external forces. Zegart writes, "Government agencies are not built to change with the times. Because reform does not generally arise from within, it must be imposed from the outside."[234] Border security agencies are bound by legislation, and this is where system alterations must originate—supported by the pyramid argument.

Congressional statutory reforms are required to overcome the bureaucratic barriers present. Reforms will compel the border security system to implement the new paradigm's structure. Congressional reforms have been successful in transforming similar bureaucratic systems in the United States. The National Security Act of 1947 reorganized the U.S. military and intelligence community, overwhelming intense internal bureaucratic resistance. Additionally, the Goldwater-Nichols Department of Defense Reorganization Act of 1986 induced sweeping changes to the Department of Defense's organization and operation, again surmounting passionate bureaucratic opposition.[235]

3. Feasibility of Bureaucratic Reform

Bureaucratic reform will not occur internally; however, congressionally mandated reform would force system transformation. The feasibility of such reform is dependent on the will of the political system, which must overcome its own barriers in order to institute any systemic change to the border security regime.

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[234] Ibid., 59.

[235] Douglas T. Stuart, *Creating the National Security State* (Princeton, NJ: Princeton University Press, 2008), 8; James R. Locher, *Victory on the Potomac* (College Station, TX: Texas A&M University Press, 2002), 4.

B. POLITICAL

The border security system is dependent on the political system to define its goals, structure, and to perform oversight—each of which must be revolutionized. Chapter V detailed how the political system is the largest impediment to the border security system. Yet the political system also represents the best opportunity to implement the new border security paradigm. New drug and immigration policies must be implemented (goals), a unified border security agency established (structure), and the new agency has to fall under the jurisdiction of one joint congressional committee (oversight). In order to instigate, the political system has to conquer significant barriers for each of the suggested changes.

1. Political Barriers

New drug and immigration policies face the barrier of bounded rationality. Politicians have limited information and make decisions based on this information. Meadows explains bounded rationality:

> Bounded rationality means that people make quite reasonable decisions based on the information they have. But they don't have perfect information, especially about more distant parts of the system. Fishermen don't know how many fish there are, much less how many fish will be caught by other fishermen that same day. We rarely see the full range of possibilities before us. We often don't foresee (or choose to ignore) the impacts of our actions on the whole system. So instead of finding a long-term optimum, we discover within our limited purview a choice we can live with for now, and we stick to it, changing our behavior only when forced to.[236]

The creation of a unified border security agency and the establishment of a single joint congressional committee have to overcome the rational self-interest barrier. The creation of a unified border security agency would mean the elimination of several established agencies. This in itself is a difficult task, as Zegart contends, "Government agencies are notoriously hard to eliminate because there are always interest groups and

[236] Meadows, *Thinking in Systems*, 106.

elected officials who have vested interests at stake."[237] Additionally, self-interest explains why legislators avoid reforms to begin with; reforms rarely benefit a politician's constituents and will not help them get re-elected. Finally, a joint committee entails the restructuring of the entire congressional oversight system. Politicians will have to cede power and influence in areas they have grown accustomed to, which directly conflicts with their self-interest. Zegart explains the difficulties in accomplishing government reform:

> [Reform] rarely happens because all organizational changes, even the best reforms, create winners and losers, and because the political system allows losers multiple opportunities to keep winners from winning completely. Indeed, the greater the proposed change, the stronger the resistance will be. As a result, organizational adaptation almost always meets with defeat, becomes watered down, or gets shelved for another day, when the next crisis erupts.[238]

2. Overcoming Political Barriers

Transcending bounded rationality necessitates politicians stepping outside their limited information and obtaining a greater appreciation for the system. They will have to set aside their established biases and open themselves up to new, seemingly unthinkable, solutions. Doing so provides "the opportunity to look more closely at the feedbacks within the system, to understand the bounded rationality behind them, and to find a way to meet the goals of participants in the system while moving the state of the system in a better direction."[239] Before this occurs, the American populace must change its perceptions towards drugs and immigration—the pyramid argument. If American attitude changes, the demand for policy reforms will incentivize politicians to implement the new policies.

Surmounting the rational self-interest barrier requires active participation by the American public to demand change, the eruption of a crisis, or both. The surprise attack

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[237] Zegart, *Spying Blind*, 46.

[238] Ibid., 59.

[239] Meadows, *Thinking in Systems*, 114.

on Pearl Harbor precipitated the passing of the National Security Act of 1947, and numerous military failures forced the adoption of Goldwater-Nichols.[240]

3. Feasibility of Political Reform

Political reform will not occur until the American public demands it. Policy reforms will likely transpire following a significant cultural shift in American perceptions towards drugs and immigration. Overcoming the political self-interest needed to create a single border security agency and restructure the oversight system, however, will be difficult to achieve in the absence of a profound crisis—even if the American public demands such changes. Moreover, if a crisis does occur, the resulting changes will most likely further complicate the system by creating additional bureaucracies and expanding the quantity of oversight committees, rather than simplifying the system by reducing the number of agencies and streamlining the oversight process. This is precisely how the political system reacted following 9/11.

C. CULTURAL

The cultural level forms the foundation of the pyramid; before any system changes are manifested American public opinion towards immigration and drugs must change. This presents a significant challenge because many Americans' views are deeply entrenched. Furthermore, Americans have to come to understand how dysfunctional the present border security system is before they demand the creation of a unified border security agency or support a tri-national border security agency.

1. Cultural Barriers

American bounded rationality is the most significant barrier to cultural change. The Pew Research Center found 77 percent of Americans believe border security should be tightened to crack down on illegal immigration. American concerns stem from the long-standing beliefs that illegal immigration places additional burden on government services (40 percent) and that illegal immigrants steal American jobs (27 percent).

[240] Stuart, *National Security State*, 2; Locher, *Victory*, 4.

Furthermore, only 46 percent believe immigration is a top policy priority, well behind the economy (87 percent) and jobs (84 percent).[241]

There are few polls gauging American perceptions on the topic of legalizing all drugs; yet the view towards marijuana is changing. Figure 13 represents the shifting American opinion concerning marijuana legalization from 1969 to 2010. Only 52 percent of Americans opposed the general legalization of marijuana in 2010, a significant decrease from the 84 percent who resisted legalization in 1969. American attitude towards the legalization of all drugs, however, is assumed to be much lower.[242]

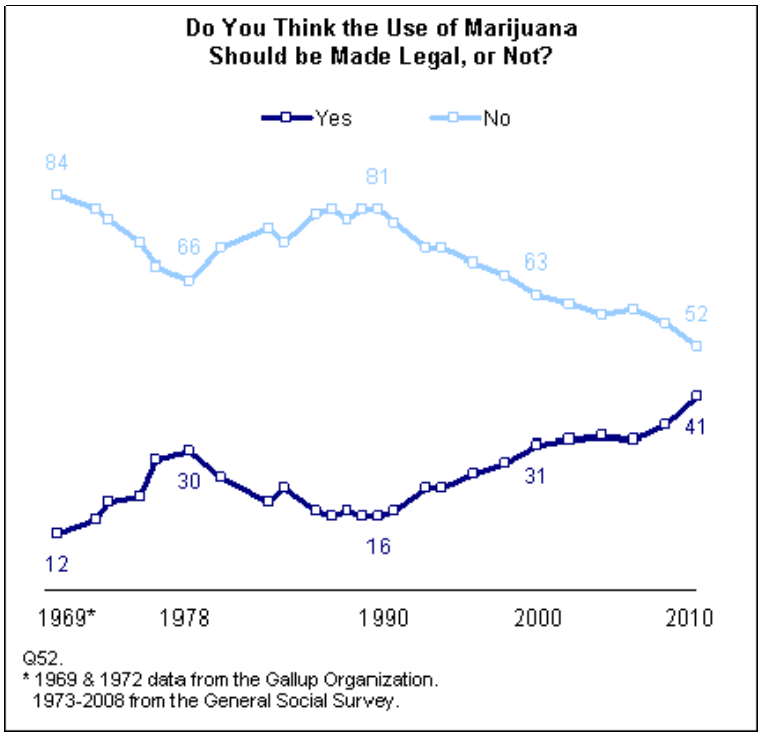

Figure 13. U.S. public opinion of marijuana use (From Pew Research Service, 2010)

241 "Public Favors Tougher Border Controls and Path to Citizenship," Pew Research Center, accessed October 15, 2012, http://pewresearch.org/pubs/1904/poll-illegal-immigration-border-security-path-to-citizenship--birthright-citizenship-arizona-law.

242 "Broad Public Support For Legalizing Medical Marijuana," Pew Research Center, accessed October 15, 2012, http://pewresearch.org/pubs/1548/broad-public-support-for-legalizing-medical-marijuana.

American ignorance on the current dysfunctional state of the border security system is an even greater barrier to institutional change. The only voices supporting increased collaboration and possible structural changes have come from academics, well beyond the scope of average citizens.

2. Overcoming Cultural Barriers

Vanquishing American bounded rationality requires moving public opinion beyond its current 19th century mentality. This mentality insists the answer to immigration is greater enforcement along the border, and stopping the flow of drugs into the United States can solve the drug problem. Looking at these problems through a systems perspective, however, Chapter IV detailed how this mentality actually drives the system further from reaching its goals.

Two possibilities exist, which, if implemented, may make it possible to overcome Americans' bounded rationality: social movement or system changes that alter systemic feedbacks received by the public. The most promising course of action is the creation of a social movement, defined as a group of people sharing a collective identity with a specific view contrasting another view who mobilize to achieve a political goal, aimed at instilling a systemic understanding of immigration and drug issues into the American public's mind. Additionally, this movement must expose the dysfunctional border security apparatus so every American can grasp its failings. This new outlook may enable Americans to see how immigration and drug issues, along with a poorly designed border security apparatus, are interconnected with economic and employment issues, rather than viewing them as distinct problems. Moreover, Americans might be able to comprehend how the proposed unified border security agency and new immigration and drug policies will positively affect the economy and job market. If this occurs, Americans could be driven to demand the system changes introduced in Chapter V.

Social movements have changed the world countless times by driving public discourse, changing perceptions, and increasing knowledge—knowledge is power. The United States has a long history of successful social movements, which forever altered the course of America. The civil rights movement, women's suffrage, and Prohibition

are just a few examples, and it can be argued that the push for American independence from England started out as a social movement. A possible scenario for the creation of such a social movement could begin with a documentary film or YouTube video. If the film, or video, becomes widely discussed in social media, such as Twitter or Facebook, conventional media will report on the issue. This, in turn, creates a positive enforcing feedback loop compelling more people to watch the documentary—further driving public discourse and increasing knowledge.

The other course of action, systemic changes that strike at the root of Americans' belief system, is already occurring. President Barack Obama, in 2012, signed an executive order allowing illegal immigrants who entered the United States as children to remain in the country legally for two years if they apply for "deferred action." The system, however, quickly responded when 10 federal immigration agents filed a lawsuit claiming the directive forces them to violate federal law and is unconstitutional—an example of compensating feedback. The program remains highly controversial, and rather than changing perceptions, both sides have become further entrenched in their beliefs.[243]

Every president since Ronald Reagan has also broached the reestablishment of a guest worker program. Most recently by President Bush who proposed a Mexico specific program in 2001; yet the events of 9/11 and the ensuing border crackdown shattered any hope of such a program being implemented.[244]

3. Feasibility of Cultural Change

In the absence of a social movement or systemic changes, American public opinion towards immigration or the border security system will not change, and Americans will be unable to move beyond their bounded rationality. The likelihood of creating a social movement or implementing lasting systemic changes that can positively

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[243] "Undocumented immigrants line up for relief from deportation," CNN, accessed November 2, 2012, http://www.cnn.com/2012/08/15/us/immigration-deferred-deportation/index.html; "Immigration agents file suit against Napolitano over 'amnesty' program," Fox News, accessed November 2, 2012, http://www.foxnews.com/politics/2012/08/23/immigration-agents-file-suit-against-napolitano-over-amnesty-program/.

[244] "Mexican Migration," 32.

alter feedbacks the public receives, however, are low for three reasons. First, a movement would require a substantial amount of money, time, and effort; there are no established organizations willing to incur this cost. Second, no politician will advocate for such drastic immigration policy changes because of the prevailing attitude regarding immigration. Doing so would greatly reduce the chances for election or reelection. Nor will politicians promote structural changes to the border security system based on their own bounded rationality, self-interest, and American obliviousness to the system's failings. Finally, the established border security agencies rely on the continuance of the status quo for their survival. Introducing a new systemic perspective directly conflicts with their rational self-interest, and they will lash out against any prospective changes—as seen with the lawsuit questioning the constitutional legality of Obama's "deferred action" executive directive. Consequently, the feasibility of the American public demanding structural transformation to the border security system or immigration policy changes is highly doubtful.

Yet, the possibility does exist for the current immigration policy changes to alter American belief systems. If Obama's "deferred action" policy is allowed to continue and the positive economic impacts are clearly proven, American public opinion will slowly change. Though it could take several years before public opinion manifests into a demand for more substantial immigration changes in the form of a guest worker program, and even longer before this demand affects legislation. Even if a majority of Americans do not change their beliefs, vocal minorities in key swing states forcing immigration issues as priority could alter the reward system making legislative changes possible by shifting the balance of power.

Public perception towards drug legalization, however, is shifting—albeit only concerning marijuana. Currently, 18 states and the District of Columbia have legalized medical marijuana use. If this trend continues, it is only a matter of time before medical marijuana is legal throughout the United States, forcing the federal government to reconsider its stance on marijuana.[245]

[245] "Medical Marijuana," ProCon.org, accessed November 7, 2012, http://medicalmarijuana.procon.org/view.resource.php?resourceID=000881.

The next logical step is the complete legalization of marijuana, which has already occurred in Washington and Colorado. Voters in these states overwhelmingly approved complete marijuana legalization during the 2012 election, potentially triggering a constitutional showdown with the federal government. Moreover, California's Proposition 19, which would have legalized marijuana, was narrowly defeated in 2010. It is clear American attitude towards marijuana is shifting.[246]

If the above states prevail over federal protest, the systemic effects discussed in Chapter V will take place. Once these effects occur, numerous other states will pass similar legislation and possibly drive future discourse beyond marijuana to the legalization of all drugs. Therefore, the feasibility of changing drug policy in the United States is promising, at least pertaining to marijuana. But even this is a step in the right direction.

D. INTERNATIONAL

Establishing a tri-national border security agency represents the apex of successful North American border security strategy. Surprisingly, only a few international barriers will have to be surmounted before a tri-national agency is created. Moreover, these barriers present much less of a challenge when compared to the domestic barriers existing in the United States.

1. International Barriers

The most significant international barrier is the need for the United States, Canada, and Mexico to establish parallel immigration and drug policies. Without policy synchronization a tri-national border security agency cannot be created. The United States and Mexico must also move beyond reciprocal mistrust and Mexican concerns over U.S. unilateralism and violations of Mexican sovereignty, which have plagued

[246] "Colorado, Washington pass marijuana legalization; Oregon says no," CNN, accessed November 7, 2012, http://politicalticker.blogs.cnn.com/2012/11/07/colorado-washington-pass-marijuana-legalization-oregon-says-no/; "States Legalizing Marijuana Will Violate Federal Law, Trigger Constitutional Showdown: DEA, Drug Czars," Huffington Post, accessed October 17, 2012, http://www.huffingtonpost.com/2012/10/15/dea-drug-czars-states-leg_n_1967363.html.

bilateral cooperation attempts in the past.[247] Finally, Canadian fears over the impacts of a tri-national border system have to be overcome. Joel Sokolsky and Philippe Lagasse write:

> Ottawa's other motive for resisting a perimeter is the fear that, if a trilateral North American security regime is constructed, the United States will apply uniform policies at the Canada-U.S. and Mexico-U.S. borders…the result of this conflation would be a Mexicanization of the northern border, perhaps leading to a massive increase of American surveillance and inspection efforts along the 49th parallel…the Canadian government is determined to block any development that could accelerate this process.[248]

2. Overcoming International Barriers

Synchronizing U.S., Canadian, and Mexican immigration and drug policies will be relatively easy, assuming the United States changes its policies before attempting to establish a tri-national agency. First, Canada and Mexico already have a proven guest worker program established, which the CRS lauds as a "best-practice model."[249] Second, medical marijuana is already legal throughout Canada and two-thirds of Canadians support complete legalization.[250] Finally, Mexico is even closer to legalizing drugs. Enrique Pena Nieto, Mexico's president-elect, has publicly stated Mexico should discuss legalizing drugs and regulating their sale.[251] Additionally, former Mexican Presidents Vicente Fox and Ernest Zedillo have gone on record supporting the legalization argument.[252] In the near future, drugs may be legal in both Canada and Mexico, even in

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[247] Sigrid Arzt, "U.S.-Mexico Security Collaboration: Intelligence Sharing and Law Enforcement Cooperation" in *Shared Responsibility: U.S.-Mexico Policy Options for Confronting Organized Crime*, ed. Eric L. Olson, Andrew Selee, and David A. Shirk (Woodrow Wilson International Center for Scholars Mexico Institute and Trans-Border Institute of the University of San Diego, 2010), 351–65.

[248] Joel J. Sokolsky and Philippe Lagasse, "Suspenders and a Belt: Perimeter and Border Security in Canada-U.S. Relations," *Canadian Foreign Policy* 12 (2006): 23.

[249] "Mexican Migration to the United States," 32.

[250] "Most Canadians firmly in favour of decriminalizing marijuana," *National Post*, accessed October 17, 2012, http://news.nationalpost.com/2012/07/02/most-canadians-firmly-in-favour-of-decriminalizing-marijuana-poll/.

[251] "Pena Nieto Outlines Agenda on Drug Trafficking, Economic Reforms," PBS.org, accessed October 17, 2012, http://www.pbs.org/newshour/bb/world/july-dec12/mexico_07-03.html.

[252] "Mexico's Ex-President Vicente Fox: Legalize Drugs," *Time*, accessed October 17, 2012, http://www.time.com/time/world/article/0,8599,2040882,00.html.

the face of U.S. pressure to maintain the status quo. If, however, the United States supports legalization, Mexico and Canada will most likely willingly follow suit.

U.S.-Mexican relations are beginning to move beyond the reciprocal mistrust, unilateralism, and sovereignty violation concerns. The *New York Times* reports Mexican commandos are staging missions from the United States, American Predator and Global Hawk drones flying deep into Mexico, and intelligence outposts, manned by CIA and DEA operatives, on Mexican military bases.[253] Furthermore, the Merida Initiative has fostered increased cooperation between the United States and Mexico. Proposing a tri-national border security agency, including joint border stations, will enable Mexicans to view themselves as equal partners with the United States and Canada—crushing the perceptions of mistrust, U.S. unilateralism, and sovereignty violations.

Canadian fears of increased American surveillance and inspection efforts associated with a tri-national border regime will be erased if the new border security paradigm is implemented domestically. Canada is primarily concerned with the economic impacts to any border security change, given nearly ninety percent of Canada's exports go to the United States.[254] The proposed paradigm will facilitate the flow of commerce; therefore, Canada will enthusiastically support the establishment of a tri-national border security agency.

3. Feasibility of a Tri-national Border Security Agency

The fate of a tri-national border security agency rests solely on the ability of the United States to change its view on border security, along with its immigration and drug policies. Both Mexico and Canada already have the immigration policies in place and are close to legalizing drugs. The positive economic effects of the new system, alone, will easily overpower any international trepidation. If the United States can transcend the barriers detailed above, Mexico and Canada will be eager participants in a tri-national border security agency—increasing North American security and prosperity.

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[253] Mark Mazzetti and Ginger Thompson, "U.S. Widens Role in Mexican Fight," *NY Times*, August 26, 2011.

[254] Sokolsky, "Suspenders and a Belt," 19.

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VII. CONCLUSIONS AND RECOMMENDATIONS

This thesis employed meta-policy and policy process approaches, integrating multiple disciplines, to examine the border security environment in order to project a new paradigm that will increase North American security. The meta-policy approach explained the political and bureaucratic factors affecting the border security system's structure, and the policy process approach was used to clarify the role and influence of stakeholders within the policy process.

This chapter summarizes the findings to answer the research questions posed in Chapter I; provides suggested recommendations, which, if implemented, will increase North American security; stipulates the feasibility of applying the recommendations; and finally, proposes several areas of continued research.

A. FINDINGS

This section answers the two primary research questions established in Chapter I, along with the secondary questions presented in the problems and hypotheses section.

1. What is the Goal of U.S. Border Security, and How Can It Be Improved to Accomplish this Goal?

Chapter III examined the evolving goals of border security and discovered six forces that have shaped the system's structure and goals throughout U.S. history—revenue, commerce, national security, immigration, law enforcement, and terrorism. The initial hypothesis was that before 9/11 border security was focused on illegal immigration, switched to terrorism after 9/11, and now is transforming to stemming the flow of drugs. Chapter III, however, found that prior to 9/11 law enforcement, in the form of stopping illegal drugs, was the preeminent goal of border security. Following 9/11, the primary goal was stopping terrorism, which continues to be the priority today. More importantly, it was noticed that commerce, not law enforcement, is slowly reestablishing itself as a priority.

Before projecting a new structure to improve the effectiveness of the border security apparatus in achieving its goals, the current system shape and its effectiveness had to be analyzed. Chapter II assessed the current border security framework and attempted to determine which, if any, agency leads U.S. border security efforts. The preliminary hypotheses were the proliferation of agencies involved in border security limits U.S. endeavors and that no single agency has the overall lead in border security. Chapter II confirmed the initial hypotheses, concluding that the current border security system, represented by Figure 4, lacks any clear lead agency and the abundance of agencies and interconnecting institutions further dilutes and prevents any coherent centralized system control.

The literature review provided numerous examples from research institutions criticizing the border security system for its lack of coordination, collaboration, and information sharing. The U.S. border security establishment was surveyed using complexity theory and a systems approach to determine why the system is ineffective in Chapter IV. The chapter argued border security has succumbed to several system traps: policy resistance, escalation, shifting the burden to the intervener, rule beating, and seeking the wrong goal. Additionally, it was contended that the mechanistic bureaucratic system in place is ineffective at confronting the complexity and complex adaptive systems present along borders. Moreover, it was estimated that it costs U.S. taxpayers over $37.5 billion a year for an ineffective border security system.

Chapter V, applying complexity theory, a systems approach, and the concept of leverage points, projected a new border security paradigm that will enable the border security system to overcome system traps by changing the current system's rules, structures, and goals. Chapter V insisted the border security paradigm, or mindset, needs to change from stopping terrorism, illegal immigration, and drug interdiction to jointly facilitating the efficient flow of lawful trade, travel, and immigration between North American countries. Accompanying this new paradigm, two significant policy changes were argued: legalization of drugs and reinstatement of a guest worker program. Finally, Chapter V estimated the implementation of the new paradigm would save U.S. taxpayers over $65.5 billion annually.

Chapter IV maintained the current bureaucratic and political structure severely hampers border security effectiveness. Chapter V introduced a new structure, which, combined with the new system paradigm, will increase North American security. Addressing the bureaucratic structure, the establishment of a single U.S. border security agency was argued. This new agency should be created using an adhocracy model to adequately address the complexities of the border security environment and base its strategy formulation on Mintzberg's learning school. Finally, it was stated that the agency has to move from DHS into the Department of Commerce to align the new agency with the paradigm shift of jointly facilitating the efficient flow of lawful trade, travel, and immigration between North American countries.

Chapter IV asserted the greatest impediment to border security is the political system itself. Chapter V argues the new agency has to fall under the jurisdiction of one joint congressional committee. This will reduce the number of veto points during the legislative process, limiting the amount of compromises affecting the goals and means to address problems. Furthermore, having centralized congressional control enables the creation of coherent, consistent system goals.

Introducing a new paradigm, along with changing the bureaucratic and political structures, will improve the U.S. border security system's ability to accomplish its goals. Moreover, the new system will save enormous amounts of money, while at the same time increasing North American security.

2. Would a Tri-national—United States, Canadian, and Mexican—Border Security Agency, Developed Using Complexity Theory and a Systems Approach, Be more Effective and Cost-efficient in Securing North American Borders, and What Are the Roadblocks for the Establishment of Such an Agency?

The level of international cooperation had to be examined before answering the question on whether a tri-national agency would be more effective and cost-efficient in securing North American borders. The preliminary hypotheses were the level of international cooperation had to be increased to provide for more effective border security, and the treatment of U.S. northern and southern borders as separate entities has

led to confusion and a disjointed comprehensive border security plan. Chapter IV largely confirmed these hypotheses. While it was found that the United States does have an adequate relationship with Canadian authorities, U.S.-Mexican cooperation remains anemic. Chapter IV concluded that the treatment of the northern and southern borders as separate entities prevents the establishment of any coherent border security goal, creates confusion among border security agencies, and instills disparate goals into the system.

Chapter V argued that the paradigm shift necessitates the establishment of a tri-national agency, which will synchronize commerce policies between North American countries—increasing the efficiency of trade, travel, and immigration. Chapter V also insisted the agency's strategy formulation should be based on collaborative planning, supported by the Cynefin framework. Collaborative planning will overcome barriers by establishing common goals, recognizing interdependence, formalizing relationships, and creating lateral mechanisms. Doing so enables all three countries to move beyond merely sharing information into the realm of jointly creating information.

Chapter V discussed the systemic effects of the establishment of a tri-national border security agency. This discussion lucidly showed that a tri-national border security agency, along with drug legalization and establishment of a guest worker program, would be more effective and cost-efficient in securing North American borders.

Chapter VI explored the roadblocks that must be overcome in order to establish a tri-national border security agency. The initial hypothesis was the current highly partisan political environment in all three North American democracies and persistent domestic mistrust present would prohibit the establishment of a true tri-national agency. Yet it was found that few international barriers are present in the system, and these barriers can be easily overcome if the United States is able to surmount its internal obstacles. The following were the roadblocks discovered: establishment of parallel immigration and drug polices; United States and Mexican reciprocal mistrust; Mexican concerns over U.S. unilateralism and violations of Mexican sovereignty; and Canadian economic fears.

B. RECOMMENDATIONS

Examining the border security system through the lens of complexity theory and a systems approach, this thesis recommends three actions to be implemented that will vastly increase North American security and prosperity.

1. Paradigm Shift

The first recommendation, as well as the most important, is that the border security paradigm needs to change from stopping terrorism, illegal immigration, and drug interdiction to jointly facilitating the efficient flow of lawful trade, travel, and immigration between North American countries. Additionally, two significant policy changes are recommended: legalization of drugs and reinstatement of a guest worker program.

Legalizing drugs, by itself, greatly simplifies the system's shape by removing DTOs, gangs, and drug users from the system. Furthermore, this policy shift forces the following drug enforcement agencies, agencies performing drug related activities, and drug coordination agencies out of the border security system's realm: DEA, NDIC, FBI, Department of Treasury, Bank of Mexico, Mexico's Finance and Credit, SIU, HIDTA, OCDETF, and ONDCP. Figure 9 represents the border security system's shape following the legalization of drugs.

2. Unified U.S. Border Security Agency

The second recommendation is to combine the five remaining border security agencies—OFO, USBP, CBP, ICE, and ATF—into a single, unified border security agency within the Department of Commerce. This enables DHS to focus solely on terrorism, USCG to perform national security activities, and DOJ to concentrate on law enforcement. Additionally, the establishment of a unified agency eliminates redundant internal coordination agencies: ACTT, SWB Initiative, and EPIC. This new agency should be developed using an adhocracy structure and base its strategy formulation on Mintzberg's learning school. Moreover, it is critical that the new agency fall under the jurisdiction of one joint congressional committee.

3. Tri-national Border Security Agency

The final recommendation is the establishment of a tri-national border security agency. The border security system's paradigm shift demands the creation of such an agency to synchronize commerce policies and enforcement between the United States, Canada, and Mexico. This agency, in order to adequately address the complexities of the border security environment, should use collaborative planning methods for its strategy formulation.

A tri-national agency consolidates IBET and BEST coordination agencies into a single entity. The end result, depicted in Figure 10, is a border security apparatus containing one U.S. agency, one Mexican agency, and two Canadian agencies whose efforts are coordinated through a single institution.

C. FEASIBILITY

The fate of a tri-national border security agency rests solely on the ability of the United States to change its view on border security, along with its immigration and drug policies. Both Mexico and Canada already have the immigration policies in place and are close to legalizing drugs. The positive economic effects of the new system, alone, will easily overpower any international trepidation. If the United States can transcend the barriers detailed in Chapter VI, Mexico and Canada will be eager participants in a tri-national border security agency—increasing North American security and prosperity. Yet the likelihood of the United States being able to overcome its bureaucratic, political, and cultural barriers is relatively minuscule; therefore, the feasibility of establishing a tri-national border security agency is improbable at this time.

D. FUTURE RESEARCH

This thesis examined the border security system through a meta-analysis approach. To further the research into the proposed system changes, it is suggested that a microanalysis be initiated on the stocks and flows for each system component. Specifically, a study on the systemic effects of established tobacco companies selling

drugs and using their lobbying tools to influence Congress is warranted. Additionally, a study on the internal framework of a unified U.S. border security agency and tri-national agency should be instigated.

A case study of Europe's Schengen border agreement within the context of the potential effects of a tri-national border security framework will also further the discourse. Furthermore, a case study on the passing of the Goldwater-Nichols Act would shed light on possible approaches to overcome established bureaucratic and political barriers.

It is suggested that a sociological study be commenced to examine the specifics of the creation of a social movement to overcome the cultural barriers introduced in Chapter VI. Finally, a study on the effects of drug legalization concerning drug use, crime, and associated tax revenue would provide additional support to this thesis's recommendations.

E. CONCLUSION

This thesis addressed the U.S. border security system using complexity theory and a systems approach, incorporating both borders and all associated border security institutions simultaneously. Border security research has rarely viewed all stakeholders as a holistic unit up to this point, nor has border security been thoroughly examined using a systems approach. This research scrutinized the current U.S. border security paradigm in an attempt to determine its effectiveness in securing U.S. borders. Additionally, the research investigated the current level of international cooperation between the United States, Canada, and Mexico.

This thesis increases awareness and will possibly create dissent among established agencies, which is the first step in instituting needed changes that will ultimately increase North American security. The recommendations presented provide U.S., Canadian, and Mexican governmental leaders with a proposal to improve collaboration and effectiveness for border security management.

The governments and citizens of all countries have stakes in this objective and must care about addressing the threats to North American security. Specifically, this thesis predominantly concerns the agencies affected and border residents. The difference the thesis makes, if successful, is increased North American security through policies and practices that reduce violence, curtail DTO activities, and limit illegal border crossings that smuggle drugs, cash, weapons, and persons. Impacts will be felt by citizens of all three countries, primarily those living along the U.S.-Mexican border who will be able to go about their daily lives without fear of being caught in the current crucible of violence.

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