Postcards From a Homeland Security Past: Chris Bellavita reflects on the impact of 18 years of CHDS theses on the homeland security field

By Chris Bellavita

(Unless otherwise noted, all quoted material in this essay is taken from the thesis being discussed.)

I used to think a master’s thesis was essentially about demonstrating an understanding of ideas. Doctoral dissertations were mainly about creating new knowledge. In the past 18 years at CHDS, I learned that a master’s thesis could also demonstrate one’s ability to create and to use ideas.

The writing prompt for the Homeland Security Affairs assignment was to select one among more than a thousand theses and then write 200-300 words describing how the selected thesis represents an essential contribution to the development of homeland security as a field of study and practice.

I was unable to select just one thesis. I could not figure out what criteria to use to decide what constituted a significant contribution. However, reviewing the thesis titles reminded me how many have been important to my homeland security understanding.

I began by reviewing research that had been nominated for or selected as an outstanding thesis. I augmented that search by looking at several hundred other titles, triggering my memory of the ones I had read in the past. I selected 65 theses that I know had an impact on me and that I hope had (or will have) an impact on homeland security.

In “The Knowledge Illusion,” Steven Sloman and Philip Fernbach describe “the illusion of explanatory depth,” the belief we understand much more than we can demonstrate we know.¹ The illusion can be less of a problem than it could be if we understand we live within communities of shared knowledge. What we do not know as individuals, we can know as a member of a collective. The more diverse the collective, the better the knowledge.²

I know a lot about homeland security, but most of my knowledge is not very deep. I am fortunate to be a part of a diverse knowledge community that I rely on for the depth I do not have. The brief snapshots - postcards is a better term - of the theses that follow point to some of what I have learned by being part of that community.
I have not reviewed all the theses written at CHDS since 2004. I am sure I missed other outstanding ones. The theses I did select were studies that challenged what I believed, offered me an opportunity to consider a subject differently, or presented an idea that was new to me. They reminded me of homeland security lessons not yet learned, early warnings about issues below the horizon, difficult questions, and ideas that can keep a reader ahead of homeland security’s strategic reality curve.

Figure 1: Timeline of CHDS theses.

2004

**Multi-State Initiatives: Agriculture Security Preparedness**

The 2002 National Homeland Security Strategy gave states significant responsibilities as partners in the war against terrorism. The agriculture industry was one of the domains assumed to be most vulnerable to attack. Ellen Gordon asserted that individual states could not address the threat on their own. Her thesis - the first CHDS thesis I read - made a case for a multi-state preparedness partnership and outlined the organizational, procedural, and network activities needed to build an effective multi-state collaboration to ensure the security of the agriculture industry. Her thesis was used to help obtain a federal grant to establish a multi-state agricultural security partnership.

2005

**Building A Contingency Menu: Using Capabilities-Based Planning for Homeland Defense and Homeland Security**

In homeland security’s early days, military planning logic models played a frame-shaping role in guiding domestic preparedness efforts. Thomas Goss’ thesis describes how capabilities-based defense planning - first introduced in the 2001 Quadrennial Defense Review - could assist homeland security planners. The core assumption of capabilities-based planning (CBP) is the importance of focusing “more on how an adversary might fight rather than specifically whom the adversary might be or where the war might occur.” This perspective drew attention to identifying the appropriate capabilities for a wide range of threats, given resource constraints. Goss concluded his thesis by recommending actions he believed would help the Department of Defense and the Department of Homeland Security plan effectively in “an ambiguous strategic environment.” Capabilities-based planning remains an integral part of FEMA’s preparedness canon. However, the approach has evolved considerably since Goss’ contributions to the early doctrinal development of DHS.
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Homeland Security and Capabilities Based Planning: Improving National Preparedness
Sharon Caudel’s thesis also focused on capabilities-based planning. The intent of her work was more practical than conceptual. She aimed to “help officials better understand [capabilities-based planning] and the factors important to its successful implementation.” She described CBP elements, comparing CBP in both a defense and a homeland security context, and found that “DHS... falls short of the components that the defense community indicate are important to capabilities-based planning implementation success.” Caudel concludes by questioning whether DHS would be able to overcome the substantial barriers to successfully implementing the defense version of capabilities-based planning. She closed her work suggesting how DHS might “rehabilitate capabilities-based planning for the homeland security community.”

Toward A Strategic Approach to Special Events Management in the Post 9/11 World.
This thesis fed into the professional interest I had that drew me to homeland security. I was involved with preparing for the 2002 Winter Olympics when September 11th, 2001, happened. GB Jones’ thesis looked at the impact of 9/11 on major special events, focusing on the systems the DHS and the FBI used to protect those events. Jones’ thesis was one of the earliest efforts to clarify federal agencies’ special event roles and responsibilities and formally identify the risk management principles that should guide preparing for politically charged events like the Olympics. Jones also recommended “a single U.S. government special events rating system.” That recommendation was adopted and today remains “the U.S. government’s model for rating and resourcing special events.”

Command Resiliency: An Adaptive Response Strategy for Complex Incidents
At 8:46 AM on September 11th, 2001, American Airlines Flight 11 crashed into the World Trade Center’s north tower. Joseph Pfeifer - the author of this thesis - was the first senior public safety official to respond. His experience and subsequent research helped him build an argument to caution other organizations and leaders about the danger of wrongly assuming terrorist attacks are predictable and can be managed according to a plan. Agencies need to be prepared to respond to the surprise of the unpredictable. Pfeifer presents and analyzes the story of the initial response to the New York City attacks from the perspective of a responder and a theorist. He recommends developing “command resiliency” - the capacity to perceive and mitigate developing danger, “the ability to adapt to uncertainty before and during an attack.” He describes how organizations can be designed to facilitate the development of command resiliency. This thesis represents the first contribution Pfeifer made to the growing field of crisis leadership. His most recent contribution is Ordinary Heroes: A Memoir of 9/11.

2006
The Federal Role in the Security of Religious Venues in America
This thesis asked whether the federal government had a role in helping places of worship prepare for a terrorist attack. Michael Crockett’s focus in 2006 was an attack by Islamic terrorists. Crockett wanted to know what policies or other actions could be taken to improve security at religious venues. He concluded his research with recommendations supporting federal involvement in security augmentation but noted that “some other federal program budget will have to be... reduced... to support this initiative.” Crockett also recommended layered defense constructed through a collaborative effort among government officials and community and religious leaders as “the only [feasible] solution to the goal of optimal religious venue security.”

Enhancing Homeland Security Efforts by Building Strong Relationships Between the Muslim Community and Local Law Enforcement
Dennis Jensen’s thesis concluded that “the true best [law enforcement] practice to prevent terrorism is
to build trust with the community you are serving.” To reach that conclusion, he asked if the practices that helped the city of St. Paul, MN with its outreach efforts to the city’s African-American community could be used to develop effective relationships with the immigrant Muslim community. The answer he learned was mostly no. What works with one part of a community will not transfer automatically to a different community. Jensen did find two factors from previous successes that could be applied to his police department’s work with the Muslim community: police culture and community culture. Because not all immigrant communities are the same, “the complexity of culture in new immigrant communities requires law enforcement to go beyond the traditional community policing efforts to obtain acceptable levels of cultural competency.”

2007

The Development and Recognition of Homeland Security Law

Michael McDaniel defined homeland security law as “those laws and regulations enacted or promulgated to ensure domestic security from man-made or natural attacks or disaster.” He notes in his research the proliferation of laws, regulations, and legal standards created after September 11th. McDaniels surveyed attorneys practicing what they called “homeland security law” to learn whether there was a justification for considering homeland security a legitimate legal practice area. Based on survey results and interviews, McDaniel concluded that a “substantial majority... found that anti-terrorism laws, emergency management and critical infrastructure resiliency and protection are included within the areas of ‘homeland security law’. His research contributed to the formation of several homeland security programs in law schools across the country.

National Imperative to Establish a Domestic Medical Intelligence Center

“The United States ... does not have a centralized organization tasked with the analysis of medical intelligence from throughout the United States.” Many organizations collected medical intelligence, but in 2007 there was no consistency in defining what medical intelligence was or what to do with it. In his thesis, Nitin Natarajan examined “more than 100 different data points currently collected throughout almost 20 agencies or administrations that need to be integrated into one central domestic medical intelligence center.” Natarajan designed a framework for a domestic medical intelligence center that would collect, integrate, analyze, and disseminate relevant intelligence to public and private sector organizations. Implementing the framework would increase “our nation's... preparedness” about large-scale public health threats.

2008

Deciding Who Lives: Considered Risk Casualty Decisions in Homeland Security

In a disaster, who should live and who should die? The military has a concept called “acceptable loss.” Robert Mahoney’s thesis describes how homeland security leaders who may need to make life or death decisions in their careers can look – before such events happen - to the writing and experiences of philosophers, theologians, ethicists, and the military for ideas about how to consider acceptable loss of life decisions.

Introducing the Future Now: Using Memetics and Popular Culture to Identify the Post 9/11 homeland security Zeitgeist

How did American culture incorporate September 11th, 2001? Judy Boyd looked extensively at the memes in popular culture that marked the emergence of a homeland security zeitgeist comprised of “patriotism, victimization, fear, and absurdity.” That was the zeitgeist in 2008. What are the defining cultural ideas and images of homeland security in 2021?
2009

_Tell Me What I Need to Know: What Mayors and Governors Want from Their Fusion Center_\(^\d\)

Urban area mayors and many governors are not taking advantage of how fusion centers can help prevent, mitigate, and respond to threats and security events. Yi-Ru Chen argues that it is up to fusion centers to improve engagement between the centers and mayors and governors. In my opinion, what Chen wrote about continues to be an open problem in homeland security. Her recommendations about how to improve fusion-center engagement remain relevant.

_No Dark Corners: Defending Against Insider Threats to Critical Infrastructure_\(^\d\)

Nick Catrantzos explores the many ways insider attacks can threaten infrastructure. His research applies lessons from workplace violence prevention and counter espionage to create a defense against insider threats. He uses a flashlight metaphor to illustrate how defending against insider threats requires a broad beam of employee engagement and monitoring at the team level.

2010

_Community Preparedness: Creating A Model for Change_\(^\d\)

Community preparedness and resilience have been an open problem since at least 2001. Data consistently show that communities are not as prepared as they think they are or should be. Nick Campasano’s thesis develops a Community/Individual Integrated Preparedness model. It emphasizes integrating individual and community-based behavioral change strategies to “develop a program that maximizes social relationships” as the key to changing a community’s preparedness profile.

_Making Sense in The Edge of Chaos: A Framework for Effective Initial Response Efforts to Large Scale Incidents._\(^\d\)

Large-scale events often move through the four stages of the Cynefin framework: chaotic, complex, complicated, and simple. Cynthia Renaud argues that the National Incident Management System (NIMS) is a valuable tool for an incident’s complicated and simple elements. However, other approaches are needed to address the initial chaotic phase. She creates a framework for first responders to use to help move an incident away from chaos.

_Where Do I Start? Decision Making in Complex Novel Environments_\(^\d\)

Sarah Diaz created the “exploration and exploitation decision-making model” to help public safety personnel better manage complex incidents. The framework blends complexity theory and recognition primed decision-making with the experiences of law enforcement and fire-rescue professionals. In addition to its scholarly contributions, this thesis remains one of the best examples of using and explaining grounded theory I have seen in homeland security research.

2011

_Freed: Ripples of Convicted and Released Terrorists in America._\(^\d\)

This thesis asks what happens to convicted terrorists in the U.S. once they are released from prison. Michael Brown’s research discovered that the public “knows very little about convicted and released terrorists.” No single agency is responsible for monitoring them. It is unclear what – if any - threats they pose. Brown asks, “How might [their threats] be measured..., by whom, and with what policy consequences?” He looks at sociological theory, sex offender registries, and other existing programs for ideas about “potential tools with which to address this complex and interdisciplinary issue.” As far as I can tell, this topic remains an open problem.
**Management Of the Severely Mentally Ill and Its Effects on Homeland Security.**

I was wrong about Michael Biasotti’s thesis. When I first read it, I thought it was excellent research, but it did not have much to do with homeland security. In those days, homeland security was about terrorism and mega-disasters. It was not about mental illness. Biasotti provided evidence to show that “the deinstitutionalization of severely mentally ill” populations “has become a major consumer of law enforcement resources” across the nation. These resources could be more effectively focused on “traditional” homeland security concerns. As subsequent events demonstrated, Biasotti was correct.

**Aviation Security: A Case for Risked-Based Passenger Screening**

The Transportation Security Administration’s (TSA) original aviation security practices assumed that all passengers were a potential threat. Screening procedures changed almost every time there was a new security incident somewhere in the world. Lines and wait times got longer. The public and politicians got angrier. Kenneth Fletcher questioned the assumptions underlying TSA’s approach to security, that everyone was a possible threat, and demonstrated why a targeted, risk-based screening strategy was a more effective, acceptable, and smarter way to ensure aviation security. His work led to major changes in TSA screening policy.

2012

**The Nation That Cried Lone Wolf: A Data-Driven Analysis of Individual Terrorists in The United States Since 9/11**

We know more about terrorism caused by groups than attacks by individuals. Charles Eby used statistical modeling to analyze the characteristics of lone-wolf terrorists. He found there is “no singular dispositional profile” of unaffiliated solitary offenders. Instead, he concluded that the individual offenders “form a unique ideology that combines personal grievances with common terrorist goals.” Eby’s thesis is an outstanding piece of analysis and a model for future work in terrorism studies.

**Whistleblowing In a Wikileaks World: A Model for Responsible Disclosure in Homeland Security**

Whistleblowers are a part of the democratic system. Sometimes bureaucracies create barriers to people who want to report what they perceive as illegal or unethical practices. On the other hand, organizations have legitimate reasons for protecting security-related information that could cause harm if released. Greg Bernard argues there are technological solutions to allow responsible disclosure of information while also protecting a whistleblower from reprisals. Bernard believes whistleblowers will always be a part of organizational life, but it is possible to create ways to “reduce the number of leaks to unauthorized recipients.”

2013

**The Road Less Traveled: Exploring the Experiences and Successes of Women Leaders in Homeland Security.**

When this thesis was written, women held “an average of 20% of leadership positions” in such professions as “law enforcement, fire, and Emergency Management.” I suspect - hope - that percentage is larger today, but I am guessing. Jonna West interviewed women leaders in federal, state, and local homeland security agencies to identify how they were able to succeed. West’s research may have been the first thesis to focus on women leaders in homeland security. She found tenacity, confidence, experiences, and ability to overcome obstacles among the attributes of these successful women leaders. Her research would be worth replicating.

**Does Homeland Security Constitute an Emerging Academic Discipline?**

Today, I believe the most frequent answer to the question raised by Michael Falkow in his thesis is either yes, or probably. At the end of his research, Falkow asserted that “homeland security has begun its emergence as a formal academic discipline.” He arrived at his conclusion first by developing a framework for exploring the question and then testing what the framework revealed about homeland security.
by comparing his findings against accepted academic disciplines. I disagreed with the author when I first read his research, and I still disagree. Nevertheless, the thesis makes a strong case for considering homeland security as an academic discipline.

**A Practitioner’s Guide to Trust and Legitimacy.** 
This thesis examined the functions trust and legitimacy serve in the relationship “between police and the communities they serve.” It is a common question now. It was less so in 2013. Pat Walsh identified what police agencies could do to rebuild frayed relationships with their communities and how that would contribute to homeland security.

**The Impact of Obesity on National and Homeland Security.**  
This was a boundary-expanding thesis for me. Daniel O’Connor was among the first practitioner-scholars to identify how obesity affected the health and readiness of the military and civilian first responder communities. At one point in our history, he notes, many Americans were undernourished. O’Connor’s research traces how we went from an undernourished nation to one with over 100 million obese people within one generation. He describes the causes of the problem and outlines the human and economic costs of obesity and its multidimensional impacts on homeland security.

**Myth, Metaphor, And Imagination: Framing Homeland Security as Art and Archetype.**  
Can a thesis be a work of art? Can a work of art be a thesis? Veronica Epley sought answers to both questions. In addition to writing an academically solid thesis, she also created three original pieces of art to illustrate her arguments. She maintained that art is “forward leaning and operates in a nonlinear or supra-linear process... [that] expands the universe of possibilities” for understanding homeland security. “The metaphors we choose, consciously or unconsciously, to tell the story of homeland security” influence “what we think..., how we act and how we are perceived.” Epley’s research led to a one-of-a-kind thesis.

**High-Tech, Low-Tech, No-Tech: Communication Strategies During Blackouts.**  
How do you communicate when the power goes out? What if the power is out in your community for a month? Diana Sun Solymossy created a research-based practical guide for emergency managers to have options ready for communicating lifesaving information during extended power outages. She notes that FEMA’s continuity of operations plan (COP) assumes communication systems will be operational within 12 hours of the COP activation. While that assumption may no longer be recognized in 2021, her high, low, and no-tech communication strategies remain relevant to emergency managers.

**What Policy Options Would Harden Vulnerabilities in The Electoral Process and Its Electronic Voting System?**  
This is a thesis idea that was far ahead of its time. What does this topic have to do with homeland security? I remember asking that question in 2012 when Dawn Mehlhaff first proposed her research. She talked about how voting systems should be considered critical infrastructure long before anyone else I know did. She convinced me the subject was worth researching. Sadly, this is a thesis that was never completed. Dawn passed away in her sleep on November 5th, 2013.

2014

**21st-Century Strategies for Policing Protests: What Major Cities’ Responses to The Occupy Movement Tell the U.S. About The Future of Police Responses to Public Protest**  
Does anyone remember how the Occupy movement started and what it was about? I remember it as one of the initial salvos in the current national divisiveness. Max Geron examined how police in Oakland, CA; Portland, OR; New York City; And Dallas, TX responded to social and income inequality Occupy protests. Geron’s research led to recommendations for municipal and police leaders about how sensemaking can be used to engage effectively with the varieties of 21st-century protests.
**Da Vinci’s Children Take Flight: Unmanned Aircraft Systems in the Homeland**

The use of unmanned aircraft systems (UAS) - also called drones - has expanded rapidly over the past decade. In 2014, Jeannie Moore anticipated many of the political, legal, economic, cyber, and related issues created by efforts to integrate UAS into the national airspace. Her thesis generated policy recommendations about effective UAS integration - many still valid. UAS policy remains an increasingly complex open problem in homeland security.

**Opaque Communities: A Framework for Assessing Potential Homeland Security Threats from Voids on The Map**

Opaque communities are “groups of two or more families or cohabitation partnerships that are inaccessible” to outsiders. The communities “gather at... a physical enclave where members have established permanent domicile” and generally restrict access to people who belong to the group. Matthew Speer used case studies of tactical response disasters - Branch Davidian (Waco), MOVE (Philadelphia), and the Fundamentalist Latter-Day Saints, Yearning For Zion (FLDS YFZ - El Dorado Texas) — to identify potential homeland security threats and vulnerabilities that can spring from opaque communities. Speer recommends what government can do to reduce the likelihood of future response disasters involving communities that are not on the map.

**Risk, Politics and Money: The Need for A Value-Based Model for Financing Public Health Preparedness and Response**

This is one of the few public health-related theses in the CHDS collection. The problems Will Pilkington investigated were how to determine how much to invest in public health preparedness and how to assess the impact of those investments. Specifically, he wanted to know if “public health departments that use value-based decision making (VBDM) are more likely to demonstrate... high levels of preparedness competencies.” He found that VBDM may be useful in deciding how to allocate public-health funding. But he did not find “a statistically significant relationship between preparedness and value-based decision-making.” His thesis reminds me that negative findings also add to our homeland security knowledge.

2015

**Learning To See the Opportunities in Crisis and Catastrophe: A Decision Makers Guide to The Issue Attention Cycle**

The issue attention cycle was first identified in 1972. It is one of my top ten frameworks for understanding how and why policy activity happens the way it does within homeland security. Christopher Kimrey’s thesis makes a significant and sophisticated advance in understanding and using this almost 50-year-old idea. Kimrey “examines the emergence of congressional post-crisis attention and uses statistical analysis to identify the... characteristics that influence” whether or not Congress acts after a crisis. Kimrey believes his ideas “may be the key step to creating a culture of controlled, proactive agenda setting” to replace the more frequent randomly reactive policy responses in homeland security.

**How Critical Is Critical Infrastructure?**

Unlike many homeland security terms, critical infrastructure has a statutory definition: “systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters.” David Riedman accepts that definition but challenges the actions taken to select and protect what counts as critical infrastructure. His analysis suggests that “the facilities DHS works to protect from terrorism are not the most likely targets for attacks.” He found flaws in selecting which facilities are determined to be critical. Riedman concludes with ideas about how a risked-base evaluation methodology can help identify infrastructure whose destruction would actually “cause debilitating impacts on the safety and security of the nation.”
Quantifying A Negative: How Homeland Security Adds Value
This was one of the smartest theses I read. For me, the central idea was simple but paradigm-shifting. Fire departments are often measured by loss reduction: “lower dollar losses of... structures and contents” equates to better performance. Eric Saylor found this is the wrong measure because it ignores what could have been damaged or lost but was not “thanks to the suppression action of an effective fire department.” Saylor’s develops a saved ratio metric to capture what he believes is the correct way to measure the value to communities of effective fire suppression.

The Ultramarathoners of Human Smuggling: Defending Forward Against Dark Networks That Can Transport Terrorists Across the American Land Borders
Special interest aliens (SIA) come from “35 countries of interest in the Middle East, North Africa, and Asia.” Todd Bensman used a systems approach to learn how SIA smuggling networks operated. He analyzed “19 U.S. court prosecutions of SIA smugglers.” Based on those and related data, he mapped the smuggling networks, identified “seven leverage points... for likely law enforcement intervention success,” and recommended 15 strategies for using the leverage points. Bensman’s work has influenced policy discussions about security at the U.S. southern border.

2016
The Ethical Imperative of Reason: How Anti-Intellectualism, Denialism, And Apathy Threaten National Security
Anti-intellectualism is an enduring part of American history. Greg Favre’s thesis asked, “What are the potential effects of cultural anti-intellectualism on the construction and execution of national security and homeland security policy?” To answer that question, Favre looked at the role of reason in climate change policy, vaccines (the thesis was written before COVID-19), and in reaction to a U.S. Army training exercise called JADE HELM-15. He concludes his research by reminding the reader about the importance of reason in democracy (written before the 2020 election) and underscoring the “ethical imperative for reason and factual discussions” in shaping the homeland security policy process.

Crowds As Complex Adaptive Systems: Strategic Implications for Law Enforcement
Systems theory in general and complexity theory, in particular, have become important frameworks for understanding homeland security dynamics. Robert Leverone applies those ideas to understand the behavior of unruly crowds. He provides recommendations about law enforcement policy, training, and equipment “to make better-informed decisions related to crowd control.”

Becoming More Than a Digital Bullhorn: Two-Way Engagement on Twitter for Law Enforcement
Twitter began operations on March 21st, 2006. It took almost a decade before homeland security professionals treated Twitter (and other social media) as something more than a time-wasting distraction. Zach Perron’s thesis explored the benefits to law enforcement agencies of using social media during and after a crisis. He looked at the engagement behaviors of three police departments in Silicon Valley. His research demonstrated that engagement pays dividends. He recommends tactics law enforcement can use to increase two-way engagement on Twitter and other social platforms. His ideas offer another path for improving communication and trust between (some) communities and police.

Reducing The Use of Force: De-Escalation Training for Police Officers
Police use of force is another open problem in homeland security. Eric Dayley surveyed “members of the International Association of Directors of Law Enforcement Standards and Training” to learn how much training time was directed toward using firearms and force compared to de-escalation training. His research “showed an 8.9 to 1 ratio of training hours on force versus de-escalation.” Based on reasons
grounded in theory and practice, Dayley suggests how police trainers can “achieve parity in training hours dedicated to force and de-escalation topics.”

**Brand Caliphate and Recruitment Between the Genders**

What role does messaging play in radicalization? This thesis “looks at the recruitment of women” for the Islamic State (I.S.) and asks if their online propaganda “targets females with its messaging, and if so, is that targeting effective?” Brandi Evans studied “six cases of I.S. radicalized females” and concluded that “the recruitment of those women does not appear to be directly attributable to the targeted messaging.” But all the women she studied did look online to learn about the Islamic State. That online presence “identified them as targets for radicalization by I.S. recruiters,” who then communicated directly with the women. “Eventually, a sense of belonging to a community, even if it exists online, served as a more powerful draw to potential recruits than targeted messaging” of Islamic State propaganda.

**Your Criminal FICO Score**

Michelle Tonelli’s thesis looked at the role of big data in predictive policing. Big data is often understood through a four V framework: volume, velocity, variety, and veracity. Tonelli added a fifth V - verification. She looked at what predictive policing could learn from the experience of two other big data predictive programs: a federal flight risk program, and FICO, a credit scoring system. Tonelli concluded that “the hardest Vs for any predictive program [especially policing] to fulfill are veracity and verification.” One of the least significant facts I learned from this important thesis is that “FICO” stands for Fair, Isaac, and Company, the two men who founded the company in 1956.

**Flight Plight: An Examination of Contemporary Humanitarian Immigration from Honduras, Cuba, and Syria to the United States with Consideration for National Security**

Immigration policy is the most complex part of homeland security, at least to me. Catherine Ventura looked at the portion of immigration policy that deals with “refugees, asylum seekers, and those who are forcibly displaced from their homelands.” Her research reviews U.S. humanitarian policies and describes efforts to “balance its identity as a nation of immigrants with its increasing security concerns with forced migrant populations.” She concludes her research suggesting how it is possible to ameliorate the public’s (apparent) fear of immigrants through legislation and a reexamination of national priorities. This thesis helped me to understand the intricacies of immigration policy better.

**2017**

**From Third-Degree to Third-Generation Interrogation Strategies: Putting Science into The Art of Criminal Interviewing**

Most of what I know about interrogation techniques comes from watching trashy television shows. Desmond O’Neill’s thesis notes that most “interviewing strategies” used by law enforcement and the Department of Homeland Security are over 75 years old. They “replaced the brutal interrogation tactics of the” 19th century. O’Neill questions current interviewing techniques’ ethical basis and operational effectiveness and describes a “paradigm shift toward more ethical, effective, and scientifically validated” interrogation tactics. He looks at the advantages of bringing evidence-based approaches into the Department of Homeland Security practices and concludes by outlining an interviewing model that “should be relevant...for...DHS agencies responsible for conducting interrogations as well as for law enforcement agencies nationwide.”

**Unaccompanied Children: Discourse Considerations and Policy Outcomes**

I understand *discourse analysis* to mean a method of studying how people use language within particular social contexts. Louise Byrne’s thesis looked at public discourse around the 2014 increase
in unaccompanied children at the southwest border and its impact on policy outcomes. Making the link between what appeared in newspaper articles and policy proved difficult. Does discourse tend to shape policy debate, or is policy more a reflection of discourse? Byrne’s thesis raises important questions worth further research into the relationships between language, public communication, and homeland security policy.

**The Nevada Family: Political Crisis Leadership and Resilience Narratives in the Silver State**

Crisis leadership is an increasingly important theme in the leadership literature. Caleb Cage makes a distinction between political crisis management and political crisis leadership. From his research, he argues that what leaders do during a crisis is mostly political crisis management. Cage argues that “sensemaking, decision making, meaning-making, terminating” a crisis, learning from a crisis, and avoiding being blamed are the central tasks of political crisis leadership, and that those tasks “must also happen before, during, and after the crisis.” My takeaway from the research Cage presents is that homeland security leadership is always about political crisis leadership.

**New High: A Future Oriented Study of American Drug Policy**

This thesis uses a scenario-based futures research method to explore regulatory and ethical challenges created by the convergence of drugs and technology. Jessica Bress argues the importance of understanding “how these forces might influence the environment of illicit drug use before current regulatory drug frameworks become obsolete.” Based on her research and analysis of potential futures, Bress recommends decriminalizing illicit drugs and moving responsibility for drug policy away from law enforcement. She believes future drug policy should be the domain of “a strengthened public and behavioral health care system.”

**2018**

**E Pluribus Analysis: Applying A “Superforecasting” Methodology to the Detection of Homegrown Violence**

The central idea behind superforecasting is that some people are better at predictions than many experts. James Huse wanted to learn if superforecasting was a more effective way of identifying someone’s potential for violence than the typical decision methods used by investigative agencies. His research found that “regardless of an ... agency’s decision-making process, the outcome [of the study’s Monte Carlo simulations] relies on the randomness of the events.” Huse also put together a group to test a threat analysis technique based on superforecasting. He found “analysis... was accurate for four of five scenarios” presented to the forecasting team. Huse concluded that under identifiable circumstances, “certain threat assessments... distinguish what may be detectable from what is statistically unpredictable... [by using] a collaborative and multidisciplinary method of analysis.”

**Fake News, Conspiracy Theories, and Lies: An Information Laundering Model for Homeland Security**

Some phrases are worth 1000 words. I think “information laundering” is one of those phrases. Samantha Korta’s thesis asks if “the information laundering model... [can] be used to explain how the Internet is exploited to spread fake news, and the resulting threat to the U.S.?” Her answer - after using her research to modify the basic information laundering model - is yes. Korta shows how the internet’s multiple interconnected platforms can be exploited to spread misinformation, disinformation, and mal-information “into the public discourse.” She concludes her work by demonstrating how information laundering “allows adversarial nations, criminals, and malicious actors to increase public discord, undermine democracy, and threaten America’s physical and cognitive security.” Korta’s thesis was the first scholarship I read that showed me the depth and perniciousness of “fake news.”
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Humans have evolved something biologists term a “security motivation system” to aid in survival. Marissa Madrigal used her training as a biologist to explore the role neurobiology might play in what she argued is a tendency for human bias about potential threats to “manipulate us into taking actions that violate our social and moral principles in the name of security.” Madrigal’s research led her to formulate a model describing how possible threats can be securitized through a neurobiological system that will “override [a group’s] ability to cognitively reassess the threat as overblown if new information is presented.” For me, her thesis offered another plausible explanation for the proliferation of threats within homeland security.

**It Takes a Village: Integrating Firehouse Hubs to Encourage Cooperation Among Police, Fire, And the Public**

This thesis argues that firehouses can be an integral element in restoring and maintaining trust between public safety professionals and the communities they serve. Gretta Hurt’s research addressed the growing threats of violence to police and firefighters. “While these agencies strive to protect and serve, they often overlooked each other, failing to recognize what a cooperative front might do to improve public relations.” One can find firehouses in most urban communities. Hurt concludes that these facilities can play an important role as community hubs and serve as “catalysts to encourage police officer foot patrols and to foster better relationships, cooperation, and safety among all groups.”

**A Terrorist Story in Three Acts: Dabiq, Rumiyah, and the Hero’s Journey**

Narrative is an important part of homeland security discourse. Understanding dominant and competing stories can provide a strategic advantage to homeland security professionals. Alexander Capece used the Hero’s Journey monomyth as “an analytical structure to evaluate the direction in which the Islamic State (I.S.) moved its narrative after significant organizational life events.” He found that after losing territory, I.S. shifted its messaging to adapt to its loss. Capece concludes that “a more in depth understanding of...storytelling” using – for example - the Hero’s Journey framework can help create “counter-narratives and counter-messaging strategies on the fly - by telling the better story.”

**Measuring State Resilience: What Actually Makes a Difference?**

Jasper Cooke wanted to know “what drives resilience for states in the United States.” He wanted his research to help practitioners “understand which programs most affect resilience.” He used a combination of literature review, Delphi, and quantitative techniques to create and validate a framework of resilience indicators. At least in my reading, his conclusions were mixed, meaning it was difficult to draw generally applicable conclusions about which indicators do and do not predict resilience. As Cooke phrased it, “For better or worse, this research raised more questions than it answered.” Despite what Cooke acknowledged as limits to his research, I believe anyone who cares about the theory and practice of resilience in homeland security needs to read this research. Following the author’s journey through the resilience literature, listening to his discussion of measurement issues, and watching as he builds the state resilience framework is like attending a master class. However, in my opinion, the crown of the thesis is the 25-page appendix that “outlines each domain, subdomain and indicator for the state resilience index” he proposed. To me, Cooke’s scholarship is remarkable.

**2019**

**Female Genital Mutilation: A Different Kind of Terrorism**

“Give me another example of terrorism.”
“Female genital mutilation.”
“No. That’s not terrorism.”
Thesis topics come from many sources. This one was a result of an in-class discussion about the meaning of terrorism. Kristie Krebs asked whether female genital mutilation could be classified as a terrorist act. Her conclusion - after months of difficult and disturbing research - was “a basic assessment of female genital mutilation against the core characteristics of terrorism reveals that... all the elements commonly accepted by [terrorism] scholars... are found within [the practice and context] of female genital mutilation.” Krebs’ findings contribute to the study of gender-based terrorism.


How will criminals take advantage of artificial intelligence? Kevin Peters’ thesis explores “how transnational criminal organizations and cybercriminals may leverage... A.I. technology to conduct more sophisticated criminal activities.” Peters develops futures scenarios showing how criminals can use autonomous weapons systems, deepfakes, identity theft, and virtual kidnapping. He concludes with recommendations about what homeland security professionals can do “to protect the United States from the malicious use of A.I.”

**Disruptive Emergent Systems in Disaster Response**

The 2017 Atlantic hurricane season was the sixth most active season in history. Kristopher Thornburg studied the disruptive response systems that emerged after four of those hurricanes. Hurricane survivors used social media to ask for help. People unaffected by the storms used social media to organize responses. “These new, disruptive emergent systems displaced, supplemented, or filled gaps in the established, federally mandated responses.” Thornburg describes the features of the emergent system created to “satisfy survivor demands.” His research can be used to understand the role emergent systems will play in responses to future disasters.

**Level The Playing Field: Are Law Enforcement Policies and Practices Rigged Against Women and Mothers**

The answer to the question posed in the title is “yes.” Dione Neely’s thesis asked, “How can law enforcement agencies modernize human resource policies and practices to improve the career paths of women in law enforcement in an effort to ensure retention?” She examined the history of females in law enforcement. She identified the barriers to gender equality in the profession: “law enforcement culture, gender perception, gender role expectations, balancing motherhood [with the job], and a disparity in promotion opportunities.” Neely’s research demonstrated that many women police officers tend to leave policing earlier than necessary, primarily because of agency policies. She describes how those policies can and should change.

**2020**

**The Last Responders: Approaching the Disaster After the Disaster Through Community Led Long Term Recovery Coalitions**

Alana Tornello’s thesis is addressed to “leaders who serve survivors through the long haul of recovery - the last responders.” Her research is drawn from experiences with community-led groups that emerged in response to the long-term recovery needs of people affected by Hurricane Sandy. She argues that traditional top-down emergency management approaches may not be effective in facilitating extended recovery efforts. She found that emergent networks formed by coalitions of local public and private groups effectively understood and addressed the long-term recovery problems that follow catastrophes. Tornello’s thesis contributes both to practitioners and to the academic disaster literature.
Postcards From a Homeland Security Past: Chris Bellavita reflects on the impact of 18 years of CHDS theses on the homeland security field. | By Chris Bellavita

Reverse dreamers are minors who are U.S.-born citizens living in Mexico who spent their early years in the United States. There is little information about them. Kaylee Engle cites estimates that almost 1,000,000 reverse dreamers may be in Mexico, many “who often expressed a strong desire to return to the United States,” but who are “unaware of the challenges they will face upon repatriation.” Her research found that the federal government pays scant attention to this population. She asks what responsibility the government has to support these citizen minors who face substantial political, cultural, organizational, regulatory, and other barriers when they want to return to their homeland. Engle concludes by recommending what can be done to help reverse dreamers. But she notes there also are reverse dreamers in other Latin American and Asian nations, hidden and forgotten with “seemingly no country to call home.”

Disasters, Finances, Nutrients, and Climate Change: A Case for Waterless Sanitation Systems
The Center for Homeland Defense and Security encourages master’s participants to explore the edges of homeland security. Ryan Smith’s research asked, “To what extent would an alternative means of managing human excreta benefit homeland security?” Sanitation systems have been a public health and environmental success story. However, that success is not without its problems. Wastewater systems contribute to greenhouse gases, are deteriorating, and will be costly infrastructure to upgrade. The water that makes up a major part of wastewater treatment systems is becoming scarce and costly. Smith’s research identified container-based sanitation as one feasible alternative to at least some traditional sanitation systems. Container-based sanitation “is a process whereby urine and feces are deposited into a container... and covered with an appropriate material.” Eventually, the container contents can produce usable compost. Smith finds that container-based sanitation can be employed in various emergency management and related contexts where traditional systems are not available: disaster recovery, temporary tent cities, temporary military bases, homeless encampments, and refugee camps. Container-based sanitation can “rapidly scale up or down... which directly applies to disasters that result in large populations without access to safe sanitation.” Smith believes container-based systems represent a sanitation paradigm shift that brings homeland security benefits.

I had not heard of hegemonic masculinity before reading this thesis. The term refers to “a culturally constructed set of norms that values dominance and accomplishment in terms of wealth, heterosexual romantic partners, and control.” Beth Windisch was interested in the difficulty researchers encountered understanding why lone actor terrorists commit acts of violence. She did not discover much gendered analysis in existing terrorism research and wrote her thesis to address that gap. She examined 68 post 9/11 lone-actor terrorists and found “gender-based violence is a significant indicator for lone actor terrorism....” Her analysis demonstrates “a connection between gender-based violence, gender identity, and lone actor terrorism.” She ends her study with suggestions for future research, including a call to explore the possibility that conventional understandings of “what constitutes political violence” - a foundation for terrorism studies - “may be gender-biased.”

The Perfect Storm: Climate Induced Migration to the United States
Our country does not have a stellar record of effectively responding to mass migration events. Climate change and its consequences threatened to bring more of these crises to our shores. Katelin Wright used scenario planning to explore how future climate migration might affect the United States and what can be done to prepare. Wright identifies the importance of having proactive legislation and regional agreements before these events happened. She also argues that “if leveraged correctly, climate migrants can help the United States compete with future emerging economies” and benefit “the future resiliency of the United States well into the mid-century.”
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**Muted Voices: Toward an Understanding of the US Asylum Program at The Southwest Border**

Scholarship about immigration and border security frequently emphasizes policies and regulations. Lier Chen's thesis acknowledges these institutional realities but focuses instead on people. She develops the concept of “muted voices to describe the feelings, perceptions, interpretations - the subjectivity - of the people coexisting in a particular ecosystem.” Framed by the laws, roles, and rules that govern what is supposed to happen within the asylum program, Chen tells the story of what does happen - using narrative devices to illustrate the subjective realities of “a transient community of displaced people, Border Patrol agents, and USCIS officers who populate the U.S. asylum ecosystem; they intermingle, interact, and collide with each other and the natural and human-made structures and systems.” This thesis challenges conventional ideas - whether from the political right or left - about asylum issues. Few people who read this thesis will leave unaffected by Chen's presentation.

**2021**

**Beyond Reform: Better Policing Through Systems Thinking**

Systems theory is a 65-year-old idea that continues to prove useful in understanding complex social problems. Christopher Bagby used that framework to examine contemporary policing reform. Bagby asserts the central problem in reform efforts is to find a way to navigate “the tension between effectively policing society and being part of it.” His research asked whether looking at policing as a system could help accomplish what other reform efforts have largely failed to do. His analysis concludes that a systems thinking perspective offers the promise of “improving policing in ways that traditional ... strategies have not.”

**Policing for the 22nd Century: A Complexity Theory-Based Approach**

Brian Hollan observed that alternatives to what is termed the standard model of policing - random patrols, quick responses to emergencies, adding more police - do not “meaningfully engage with the massive social and technological changes that have occurred since the mid- 20th century.” The U.S. “is transitioning [to] an informational, network-based society increasingly governed by nonlinear, dynamic processes.” Through research grounded in complexity, complex adaptive systems theory, and network theory, Hollan was able to demonstrate that street robberies in Washington DC “can be understood as a complex adaptive system.” His recommendations are as notable as the quality of his research. He describes the cognitive, workforce, and organizational implications of his suggested 22nd-century approach to police reform, describing – in the language of complexity theory - “attractors that could... lead to beneficial patterns cohering.” Holland concludes with a warning I have not read elsewhere: “Crime and societal disorder have embraced complex dynamics and network forms of organizations, while policing continues to insist on linear, hierarchical responses. The profession can choose to embrace change and evolve to match a complex society, or it can continue to cling to a familiar, if outdated worldview.”

**About the Author**

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Notes

2. Ibid., loc 3123.

3. I want to thank Andrea Page for the assistance with references and graphics. I am responsible for any errors in the summary interpretations and paraphrasing of the theses.


32. https://calhoun.nps.edu/handle/10945/37968


39. 42 U.S. Code § 5195c .


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