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Shapeshift:

The Unsettling Geography of Drug Flows in the Americas

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Geography

by

Heather Agnew

ABSTRACT OF THE DISSERTATION

Shapeshift:

The Unsettling Geography of Drug Flows in the Americas

by

Heather Agnew

Doctor of Philosophy in Geography
University of California, Los Angeles, 2019
Professor John Agnew, Chair

Ideally, supply-side drug control policies intend to create illegal drug scarcities that drive up illegal drug prices, and reduce purity levels to the extent that the price drug consumers pay is either cost prohibitive, or not worth the low purity product they have purchased. It is theorized that drug consumers will either seek treatment for their addiction, or stop using altogether. This theory has never panned out, yet supply side approaches remain the most resilient model of drug control policy in the United States. The American-led war on drugs is consistently framed through a domestic/ foreign polarity that is operationalized though tropes of criminality, suspicious narratives of foreign others, and the 'us vs. them' duality. The United States situates its drug control crusade as a matter of national security, where the expansion of the United States policing role underwrites drug enforcement activities in foreign nations as a regional security imperative. This dissertation is about the effects produced by the barriers of drug enforcement—

the laws that behave as barriers, surveillance as a barrier, and the US-Mexico border fence as a barrier. These barriers produce unintended effects, creating new geographies of risk that emerge where these barriers are sited. Three case studies analyze these barrier effects—the human cost of surveillance practices that ultimately relocate drug supply routes, with devastating consequences; the unintended outcomes of legal mandates limiting access to prescription drugs and the shift toward riskier illicit substitutes; and faith that a border separation barrier will stop illicit flows of migrants and drugs, and the folly of believing these flows are intimately connected. This project is based on interviews with public health and safety stakeholders, document analysis of US federal narcotics court cases, content analysis of government reports, and analysis of United States Drug Enforcement Administration incident, seizure, price and purity data. In my research, I am interested in why path-dependent drug policy approaches are consistently adhered to, despite the inevitable geographic shifts and human consequences these decisions inevitably reproduce.

The dissertation of Heather Robin Agnew is approved.

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Jamie M. Goodwin-White

Genevieve Gonzalez Carpio

John A. Agnew, Committee Chair

University of California, Los Angeles
2019

DEDICATION.

This dissertation is dedicated to my ride-or-die-since-junior-high, Michelle Tuscany, who would have finished this project in half the time.

... and my dear friend

Janessa Christene Mais

who left us far too soon.

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List of Acronyms.

CAFTA Central America Free Trade Agreement
CARSI Central America Regional Security Initiative
CDC Centers for Disease Control and Prevention

DAWN Drug Abuse Warning Network
DEA Drug Enforcement Administration

DOJ Department of Justice

DTO Drug Trafficking Organization

FARC Revolutionary Armed Forces of Colombia

GAO Government Accountability Office
GIS Geographic Information Systems
HIDTA High Intensity Drug Trafficking Areas
IDENT Automated Biometric Identification System

KASPER Kentucky All Schedule Prescription Electronic Reporting

MERCOSUR Southern Common Market

MS-13 Mara Salvatrucha

NAFTA North American Free Trade Agreement

NGO non-governmental organization

NIMBY 'not in my backyard'

NPLEx National Precursor Log Exchange
OARRS Ohio Automated Rx Reporting System
ONDCP Office of National Drug Control Policy

OTC 'over the counter'

PACER Public Access to Court Electronic Records

PAN National Action Party

PDMP Prescription Drug Monitoring Program
PRI Institutional Revolutionary Party

PSE Pseudoephedrine

SENTRI Secure Electronic Network for Travelers Rapid Inspection STRIDE System to Retrieve Information from Drug Evidence

TAR Territory Authority Rights
TEDS Treatment Episode Data Set

TCO Transnational Criminal Organization
UAC Unaccompanied Alien Children

UN United Nations

UNODC United Nations Office on Drugs and Crime

USPS United States Postal Service

WOLA Washington Office on Latin America

Acknowledgements.

To finally have this project in print feels strange and unreal. When I began, someone described the dissertation research and writing process as a marathon—it was long and exhausting, the finish line was far, far away, and the only thing that would carry me there was my own determination. When asked—how did you do it? How did you finish? If I may provide a quote from Haruki Murakami—acclaimed author and experienced marathon runner—I'd say it's something like this: "Pain is inevitable. Suffering is optional. Say you're running and you think, 'Man, this hurts, I can't take it anymore.' The 'hurt' part is an unavoidable reality, but whether or not you can stand anymore is up to the runner himself." Pragmatically this makes sense. However, as some of us know, the more apt description of "how" is—"it takes a village." I want to thank my dissertation committee. Thank you to Adam Moore, for your constructive feedback, and showing me how to look at my work through a new lens. To Jamie Goodwin-White—there are no words for how grateful I am for all of your support and advice through these years. Thank you for everything, you are a godsend. Huge thanks to Genevieve Carpio, for coming into this and reconnecting this project to its initial roots in American Studies, and its direction moving forward. And very special thanks to my chair, John Agnew, for always being supportive, motivating, and available. I would also like to acknowledge my mentor, friend, and colleague, Jonathan Taylor from CSU Fullerton, for reading drafts, and believing in this project before it even began.

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At times the fieldwork process was unrelentingly still and unproductive. I am deeply grateful to those who agreed to chat with me without any benefit to themselves. Thank you to Maj. Neill Franklin, and everyone at the Law Enforcement Action Partnership. The Detroit Police Lieutenants and Sergeants Association, for answering my questions and letting me hang out in your office and drink too many free Diet Cokes. I am grateful for every prescription drug monitoring program analyst, supervisor, and stakeholder who dared to take me seriously and have a meaningful conversation about opioids and drug policy. Thank you to every US Border Patrol officer who wanted to chat with me but couldn't. And thank you again to Michelle Tuscany, for always rounding up potential interviewees on my behalf—even when these were completely inconvenient and impossible. Field research for this project was funded by a UCLA Department of Geography Research and Travel Grant.

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And to Matthew, I wish I could fill this space with otter stickers—primarily because I am an emotional cripple and have trouble expressing my feelings. Since emoji's and stickers are forbidden per the University's dissertation formatting protocol, I will just say thank you for everything. Your love and support mean the world to me, and your unwavering belief in me brings me to tears—the joyful kind. [Here is where I would insert that one otter sticker where the Little Lady otter is patting the Chu otter on the head and there are hearts.] I love you beyond words, my otter.

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- "Beasts of Burden or Empowered Entrepreneurs: Assessing Agency and Gender Performativity of Female Drug Couriers." Presented at the North American Labor History Conference at Wayne State University, Detroit, MI, October 24-25, 2013.

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1. INTRODUCTION.

1.1 Introduction: The Unsettling Geography of Illegal Drugs

"One does not have to look for distress. It is screaming at you ..."
-Samuel Beckett

In August of 2016, the Detroit local news team from Fox2 reported on a series of heroin overdoses in the Detroit metro area that resulted in death. Data evaluating the number of deaths in the vicinity indicated that deaths from heroin overdoses were reaching unprecedented numbers (Kovanis, 2016). Just a year prior, the US Drug Enforcement Administration (DEA) and the Centers for Disease Control and Prevention (CDC) each issued independent statements warning of illicitly manufactured fentanyl making its way into the US drug market (United States Drug Enforcement Administration, 2015; Centers for Disease Control and Prevention, 2015). Heroin was becoming more and more of a focus in studies surrounding the opioid epidemic, shifting attention away from prescription pain medications. It was certainly likely that heroin adulterated with fentanyl could be driving up the death rates. At the time, Los Angeles Times staff writer, Sam Quinones was receiving significant praise for his book, *Dreamland: The True Tale of* America's Opioid Epidemic, which detailed the interplay of the over-prescribing and aggressive marketing of prescription pain pills, and the movement of black tar heroin from Mexico into the American 'heartland'. Every night, more news reports of overdose deaths—people dropping dead after injecting heroin. Every night, the same question running around in my head. Heroin is dangerous, highly addictive. But how does black tar heroin cause so many users to just drop dead? Why would suppliers intentionally spike their product with a deadly cutting agent that had a high likelihood of causing overdoses resulting in death? Quinones must be wrong. This isn't

'just heroin'. This also isn't black tar heroin—it has to be powder heroin cut with something deadly. This wasn't the story I 'should' have been studying.

My days spent at the Detroit Police Lieutenants and Sergeants Association office were productive, and I was offered as many free cans of "pop" as I could stomach. Officers, active and retired, sat through interviews describing their approach to police work, past involvement in narcotics investigations, perceptions about current approaches to drug policy and Detroit's role in the global drug trade. I wanted to understand the challenges of policing in a "crumbling" city, and why Detroit was a destination site for traffickers from Mexico, despite being located one thousand miles away from the US-Mexico border? How does a city mired in bankruptcy and lacking the full range of public safety resources confront drug flows? Do limited resources force collaboration with federal agencies? And if so, at what cost to the public? The interviews were rather upbeat. Officers were all too happy to describe the success of a new community policing program, collaboration with federal agents, and how great the economic recovery of the city was unfolding. These interviews were boring. Everything seemed too on-the-up-and-up. An interview participant's spouse worked for a task force that facilitates regional inter-agency narcotics trafficking investigations. "May I speak with them?" I asked. "No. They won't talk to you," he said definitively with a hearty chuckle. I checked, and no, they wouldn't. At the end of a phone call with an exceptionally cynical, retired detective, he asked, "Why aren't you looking more into this heroin thing? It's all over the place." Indeed. At the end of those days, the local evening news broadcast was the same. More overdose deaths. While packing up to leave the city, and watching Detroit local news, a report aired about how authorities found the reason why 19 people had died from heroin overdoses since July—carfentanil in the heroin supply. Carfentanil is a tranquilizer used to subdue very large mammals. I couldn't ignore this any longer.

What was initially a focus on local conditions, security and drug enforcement protocols in border cities and the US at large, became a focus on contemporary approaches to confronting drug flows in the United States. The leadership transition from Obama to Trump was unanticipated, and cataclysmic. It did force me to alter the scope of my research. For example, regional security programs such as the Central America Regional Security Initiative (CARSI) have been major components of prior administrations' regional drug protocols. The Trump Administration's open hostility toward Central American nations, as well as its assault on collective security agreements and international cooperation in general, puts future support of regional security initiatives, and their very existence, in jeopardy. The revival of nationalist discourses calling for a separation barrier as a common-sense solution that would stop migration and drug flows had to be addressed. The initial anticipated focus on San Diego, Nogales, and El Paso, as a research sites and the intention of examining these areas through the intersecting motivations of security and drug control would have inevitably become chapters on the local effects of the proposed border wall.

The Opioid Crisis, the reports of overdose deaths, the 2016 election, talk of a border wall, immigration, and "bad hombres" were the background noise that eventually became too loud to drown out. Since 2015, several events have reoriented the discussion surrounding drug policy in the US. Toward the end of the Obama Administration, it appeared that the discussion surrounding criminal justice reform and drug control policy were, at the very least, moving in a positive direction. The emerging Opioid Crisis was being met with public health oriented approaches that focused on treatment, as opposed to carceral solutions. Donald Trump's 2016 presidential campaign, and subsequent win, complicated these conversations through its focus on a racially coded concept of "law and order," and using the Opioid Crisis and the ensuing spike in

heroin use and heroin trafficking as justifications for additional border wall construction. Trump's victory means a regressive backslide in approaches to drug control policy. Carceral solutions are favored at the expense of criminal justice reform, as Trump has suggested using the death penalty as punishment for drug dealers (Trump, 2018). The insistence on developing a 'new and improved' border wall is consistently justified by linking illicit flows of migrants with the illicit flow of drugs into the US. It is imagined that the wall will stop drug flows. These approaches fail to move the standard operating response to drug problems in the US beyond the path-dependent boundaries of supply-side methods and carceral solutions. As a result, the same ineffective policies are re-implemented, and increasingly so at the expense of public health and safety.

This dissertation is about the barriers to flows, especially the unsettling effects barriers to drug flows inevitably produce. Common approaches to drug control rely on supply-side methods that operate though the development of barriers to arrest and deter the movement of drug flows from their often-international source locations into the United States. Sometimes drug enforcement itself acts as a barrier. Often one location becomes the target of a drug enforcement surveillance operation. One example is the effort to thwart the international distribution of Colombian cocaine moving across an aerial route over the Caribbean Sea. The area became increasingly surveilled by US law enforcement, and the law enforcement presence acted as a barrier to trafficking organizations' ability to move their product to the United States undetected. The law can be a barrier. Access to over the counter medications and prescription pain pills has become increasingly monitored due to two recent drug epidemics—methamphetamine in the early aughts, and presently, opioid pain medications resulting in addiction. Pharmacists and prescribers are mandated to electronically log and track purchases of drugs containing

pseudoephedrine and prescriptions of Schedule II pain medications (among other types, including benzodiazepines). These mandates have led many prescribers to either stop prescribing opioids altogether, and in the best cases they have become more thoughtful about their prescribing habits and lowered the number of opioids they prescribe. Domestic methamphetamine lab incidents (explosions) also declined because of these mandates. The border is a barrier. The Trump Administration demanded an effective separation wall between the US and Mexico, and part of the rationale is that the separation wall will stop drug flows. Realistically, each of these barriers of drug control have not produced the desired outcomes of reduced supply, and demand correspondingly. When law enforcement surveillance increases in one area, the flow of drugs does not stop—it is relocated. When laws are established to reign in a domestic drug problem, loopholes in those laws are exploited. When a border barrier is erected to block the flow of drugs, the flow will move around the barrier, over it, and under it.

Barriers and limitations produce an adaptation effect. Adaptation strategies create new problems, as relocating drug trafficking and distribution operations into new areas introduces harmful effects. Three case studies examine three common barriers of drug control—surveillance as a barrier, law as a barrier, and the material barrier of the border wall—and reveal the connections among law enforcement actions, drug trafficking operations, morbidity and mortality. This project examines these barriers, the range of adaptation strategies to circumvent them, and their local effects as they have unfolded in the US since the mid-1980s and through the end of 2017. Research questions centered on: 1) What factors enable a location to become a site of drug activity? 2) What local effects are produced as a result of geographic shifts in drug flows? 3) Despite evidence of the failure of supply-side drug control methods, why do

policymakers consistently support supply-side measures? Who is involved in the policy-development process?

The following chapters draw from the theoretical frameworks of van Schendel and Abraham (2005), Castells (1999, 2010), and Friesendorff (2005). Van Schendel and Abraham's (2005) discussion of categories of licit/illicit, legal/illegal situates these concepts as social and political constructs that are unstable and subject to change over time. These categories can shift depending on who wields the authority to define them. Castells' (2010) discussion of the 'network society' looks briefly at the territorial, yet decentralized nature of the drug trade, acknowledging the trade as a type of network with multiple international linkages that maintain "place-based orientations" (2010, p. 445). Castells' (1999) concept of the "space of flows" explains how tertiary infrastructures form the arteries that connect decentralized interactions. These concepts become increasingly important as the definition of what constitutes an illegal drug is coming under scrutiny as a result of the rise of synthetic drugs and research chemicals that mimic the effects of drugs (Taylor, 2015). As the drug trade becomes more decentralized through dark web markets, individuals with access to these chemicals become the new source for illicit substances, bypassing the monopoly on drug production cartels once enjoyed. Frisendorff's (2005) concept of the "balloon effect" shapes the core of the following case studies. The barriers of drug control inevitably fail to stop drug flows, but perpetually succeed in moving them around geographically and producing risk. While Friesendorff looks primarily at law enforcement surveillance as a barrier, and the geographic displacement of flows to other locations, the case can be made that all barriers, even legal barriers, will create the same displacement effect. Further, this displacement effect is not limited to an inevitable geographic shift in drug

trafficking and flows, but also includes the risks associated with drug trafficking and its human effects—including violence, addiction, and death.

The moral geographies literature (Shapiro, 1994; Campbell, 1998; Cresswell, 2005) is useful, as the Trump Administration's characterization of "shithole countries" (Davis, Stolberg and Kaplan, 2018) is evidence of the association between locations, the people who live there, and the perceived negative aspects of those locations. Applying the moral geographies concept to Trump's comment, he believes that people who reside in "shithole countries" contribute to a lack of economic development that leads to crime, poverty, and underdevelopment. This perception underwrites the Administration's immigration policy and becomes linked to drug policy as immigrants are seen as vectors of misery that cannot be allowed the opportunity to affect the public health and safety of the United States.

Case studies were developed using a theoretical approach (Chapter 2), a mixed-methods qualitative approach involving content analysis, interviews with policy stakeholders (Chapter 3), and document analysis of federal court cases involving drug trafficking charges (Chapter 4).

Though the initial intention established in the dissertation proposal for this project stipulated that qualitative interviews with law enforcement officials would be a significant research method, this approach was ultimately bypassed. The time frame for securing interview sources and completing interviews became protracted. In most cases, the interviewee's responses to specific questions regarding cases were evasive. "Well, I can't get into specifics ..." and "that information is confidential..." were common responses to simple questions involving the particulars of a specific policy, a question about drug flows and sources, or particular case that was present in the news. More often than not, stonewalling appeared to be the response to most questions that were easily answerable, yet the interviewee did not want to discuss. Stonewalling

was initially the biggest obstacle to researching chapter 5. I have experience working in the Major Narcotics Unit of the Los Angeles County District Attorney's Office, and know that affidavits in court cases contain a significant amount of detail and information about drug trafficking cases. In some instances, after a less than forthcoming interview, I cross-referenced a case in question through the Public Access to Court Electronic Records (PACER.gov) database, and found all the information that I was looking for. For this chapter, I decided to stop conducting interviews and began solely looking at court cases involving heroin and/ or fentanyl trafficking. While I am certain the interview approach would have yielded some interesting anecdotal insights, the obstacles of this approach were numerous, and would have only netted the twenty sources I was aiming for. By switching the approach to analyzing court documents, I brought the sample size up, from 20 to 100 unique instances of heroin and/ or fentanyl trafficking, found all of the information I was looking for, made connections between sources, locations and related cases to establish the movement of heroin and fentanyl flows into the US between 2013 and 2017.

The geography of illegal drugs focus contributes to related studies ranging from femicide, policy development, migration, and public health. Chapter 2 challenges the theory that a series of female homicides occurred in northern Mexico border cities as a result of implementing the North American Free Trade Agreement (NAFTA) during the early 1990s. I argue that while NAFTA did lower trade barriers and increase the number of low-wage jobs that favored female laborers, the agreement occurred at the same time as major power shifts in the global drug trade. Cartels in Mexico gained control of the trade, as Colombian cartels were undermined by law enforcement operations. The violence associated with drug cartels is relocated alongside the geographic shifts in power dynamics. A recent issue of the *International Journal of Drug Policy*,

"Heroin in Transition" (Ciccarone, 2017), focused entirely on the adulteration heroin with fentanyl as a public health issue with dangerous consequences. Papers in this issue covered topics including heroin substitution, public health outcomes, risk environments, and policy interventions. A piece by Beletsky and Davis (2017) related the augmented risk created by the adulteration of heroin with fentanyl and subsequent policy prescriptives aimed at cutting supply to early twentieth-century alcohol prohibition laws. I argue that prohibitive supply-side measures do mimic the effects of early twentieth century alcohol prohibition laws, but the current opioid prescribing limitations that have reduced the availability of prescription pain medications have more in common with recent efforts to regulate the availability of pseudoephedrine tablets, in order to reduce the number of methamphetamine lab incidents. Recent policy debates and the revival of inflammatory political discourse surrounding immigration have fused drug control and security imperatives, situating migrants as threats to US public health and safety. The recent opioid crisis combined with the Trump Administration's narrative that implies migrants are carrying drugs with them into the US locates migrants as vectors of disease. However, the reality of this narrative is less sinister. Where the term "threat" tends to imply an impending possibility of danger from an outside source, drug flows are internal. They do not halt at the border. The presence of a separation barrier will not stop illicit flows. Drug flows move throughout the nation, past borderlands and into the American 'heartland.'

Chapter two provides an overview of the drug flow literatures. State-based narratives imply that drug flows are a foreign threat, mobilized through transnational criminal organizations (TCO's) from failed and failing states. However, 'approaches from below' highlight the structural inequalities at the root individual decisions to engage in narco-labor, as a form of short-term contract work. This piece argues that instead of conceptualizing drug flows as

adversarial challenges to the territoriality and sovereignty of states by criminal organizations, that these flows are arguably more diffuse and decentralized than state-based narratives recognize. Drug flows are as present in the so-called heartland as they are in the borderlands.

Subsequent chapters examine the 'barriers' of drug control—how drug control policies work to disrupt drug flows by creating distance between drug supplies and the demand source and their effects. Chapter three examines law enforcement operations that situated counternarcotics surveillance in the Caribbean to police the aerial route from Colombia to the southeastern US, which was the main cocaine trafficking artery Colombian traffickers preferred in the 1980s. I argue that the surveillance barrier failed to stop the flow of cocaine into the US, as traffickers simply relocated the route to move overland through Central America and Mexico into the US. Additionally, this drug control operation had the effect of crippling Colombian drug cartels, which created a power shift from Colombia to drug traffickers in Mexico, who assumed control of the drug trade. The connection between the presence of drug trafficking organizations and the violence these organizations are infamous for indicates a possible link between instances of female homicides in Mexico in the early 1990s, and recent instances of femicide in Central America in the early 2010's. The paper argues that the balloon effect of drug enforcement (Friesendorff, 2005) also carries with it the risk of violence that accompanies geographic shifts in drug trafficking power dynamics in the sites where trafficking organizations operate.

Chapter four examines the legal barriers that are created by state and federal regulations aimed at limiting the availability of medications that carry the potential for abuse. Recently, attempts to address the Opioid Crisis through policy interventions appear to be public health oriented. Unfortunately, these interventions primarily aim to reduce the supply of opiates in circulation, and seem to be reproducing the same unintended effects that are characteristic of

supply-side measures. This chapter argues that supply-side measures with good intentions still create geographic shifts in global drug flows, and introduce new risks to the addicted population. It also asks why supply-side strategies are adhered to despite evidence of their inevitable failure.

Chapter five examines the physical border barrier, more specifically the perception that a border wall is the common-sense solution to stop flows of heroin and fentanyl moving through the US. The Trump Administration theorizes that undocumented migrants are crossing into the US, carrying drugs with them, and have affiliations with transnational gang MS-13. The new and improved barrier would stop the flow of immigrants to the US, and simultaneously stop the flow of heroin adulterated with fentanyl that Americans in the heartland are dying from. This chapter examines the relationship between anti-immigrant and public health discourses that are being used to rally public support to deny entry to migrants from Central America and Mexico, and argues that the Trump Administration's perception of immigrants as drug smugglers fails to match the actual profile of heroin and fentanyl smugglers.

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2. Defining Drug War Spaces: A review of approaches to studying drug flows in the Americas

2.1 Introduction.

On October, 21, 2011, Leo Sharp, an 87-year-old World War II veteran and former day lily farmer, was stopped by Michigan state police who subsequently discovered five duffel bags loaded with 104 kilos of cocaine in Sharp's truck-bed. The arrest closed out Sharp's nearly decade-long career as the Sinaloa Cartel's equivalent of a long-haul truck driver, at times smuggling 200 bricks of cocaine per trip from Arizona to Michigan in his luxury Lincoln pick-up truck. Sharp had been under surveillance for months as part of an internal US counternarcotics investigation that also focused on a range of suspects scattered across the country from Florida, North Carolina, Arizona, and California (Dolnik, 2014).

When the drug war is discussed, it is addressed through transnational contexts of source countries, transit zones, and transnational criminal organizations (TCOs) creating a split imaginary where predatory, externalized foreign others infiltrate stable, peaceful developed nations to prey upon their populations. This trope is the bedrock of American drug policy. Externalizing the drug trade by positioning it as a constant threat to the US masks the ways the drug war operates within the US. Studies have revealed that socio-economically marginalized groups excluded from the formal labor market participate in the informal economy, including but not limited to, drug processing distribution, and sale. American policy makers continue to adopt legislation in the name of public health to limit access to precursor chemicals integral to the domestic manufacture of illegal drugs to monitoring access and distribution of certain prescription medications. Much is said about revising current drug laws to reduce the power of 'Mexican drug cartels.' Though well intentioned, these public health oriented laws create the

ideal conditions for illicit supply networks to eliminate local competition and meet the high demand for drugs. One result of these policies is that TCOs have stepped in to reverse the scarcity of methamphetamine and illicit opioids, including heroin, by supplying these goods in the informal market. Recent studies on 'opioid use disorder' and the substitution of prescription pain medications with heroin suggest a possible relationship between economic restructuring and instances of opioid addiction (Case & Deaton, 2015). This implication draws attention to examining what I call, 'globalization in reverse'—flipping the narrative of globalization as a set of hegemonic global economic norms imposed by developed countries on less developed countries with the likelihood of creating uneven economic benefits, towards an approach that examines the negative returns produced in developed economies as a result of disinvestment, relocation, and/ or automation of durable industries (see also Boughton, 2015).

The Sharp investigation reminds us that the drug war is not an external threat poised at the US from 'backward' or 'failing states.' Drug flows move through the US, and relationships between individuals, irrespective of nationality, perpetuate this mobility. The US remains a critical drug war space. I use the term 'drug war space' to describe areas where drugs, as illegal objects, move through and characterize that area—be it though production, transit, distribution, and/ or consumption—as a site of drug activity. I distinguish this from Howard Campbell's (2009) concept of the "drug war zone," which describes the spaces of interaction and contestation between law enforcement and those involved in the movement of drug flows transnationally, to acknowledge that drug war spaces are sometimes purposely unpoliced based on moral geographies of crime and deviance that sometimes allow socially and economically marginalized spaces and individuals to destroy themselves from the inside.

This paper reviews the various approaches to studying drug war spaces in the Americas, and assesses their strengths and limitations. How the drug economy and those who choose to become involved in it are understood based on the author's willingness, or lack-thereof, to question how categories of legal, illegal, and criminal are formed. First, I look at the literature on territory and territoriality to understand how scholars have made room in their analyses to include non-state actors, such as DTOs in studying territorial claims in the contemporary era of globalization. Then, I distinguish between studies that fixate on the challenges that drug trafficking organizations (DTOs) pose to state legitimacy and rule of law, and those that examine the drug trade 'from below' through historical and ethnographic approaches. I assess the different ways these studies theorize how and why individuals choose to become involved in the drug trade. Finally, I discuss how situating the war on drugs as a primarily external threat obscures how drug flows move through the U.S. Throughout, I note the differences between these approaches, specifically the ways in which state-centric approaches and counternarcotics policies favor "carceral paradigms of justice" rather than addressing the structural factors that contribute to making narco-labor an attractive economic alternative.

2.2 Drugs and Territoriality

By the end of the Cold War, trends toward regional economic integration through trade liberalization policies led many to wonder what enduring significance state borders and sovereignty maintained in a period of seemingly fragmented power structures positioned to undermine states' territorial authority. As Agnew states, "Over the past 20 years, territorial states and non-state actors now operate in a world in which state boundaries have become culturally and economically permeable to decisions and flows emanating from networks of power not captured by singularly territorial representations" (Agnew, 1994, p. 72). In the

Americas, these networks of power include the formally recognized international organizations (World Bank, United Nations, World Health Organization), as well as regional trade blocs (NAFTA, CAFTA, MERCOSUR). These new formal power configurations have developed alongside informal networks of non-state actors, such as NGOs, and even DTOs, who at times challenge states by creating competing claims to territory, revealing that although globalization is characterized as a primarily external, states must negotiate with a number of interests with varying digress of authority within their own borders. This section reviews how integrative trends in governance have influenced the way scholars think about territory, territoriality, and sovereignty, in a world where borders have become more complex in regard to multiple relational processes that have developed alongside increasing global interconnectivity, and demonstrates how understandings of deterritorialization, assemblage, and networks can be useful theoretical frameworks for studying drug war spaces.

How exactly do DTOs act as territorial agents? Their practices mimic Sack's theory of territoriality, "the attempt by an individual or group (x) to influence, affect, or control objects, people, and relationships (y) by delimiting and asserting control over a geographic area" (1983, p. 56). Territoriality can be formal or informal, and has three characteristics—classification of places, control of places, and enforcement of place control. By distinguishing between the state's formal authority and the arguably informal authority of drug trafficking organizations, we can separate the two and isolate how DTOs territorialize space "as a means of reifying power" (Sack, 1983, p. 59). The classification of places relates to how DTOs identify high-value locations for the production, transport and sale of illicit commodities. For example, in Mexico, DTOs maintain control of vital transit hubs known as *plazas*. Controlling *plazas* requires that these groups take up space in these areas and communicate their authority. At the local scale, this is

often accomplished through violence, local capital investment, and/ or bribery of local officials. Not only must DTOs assert control of these their immediate environment, they also need to maintain control over space against rival DTOs, who compete for control over vital transit routes. These spaces are constantly in flux through processes of territorialization and reterritorialization, often through violent acts between DTOs, and what Howard Campbell calls "narco-semiotics," the symbolic imagery of public displays of the dead often accompanied by *narcomantas*—banners that claim responsibility for the act, warn of future targets and incidents, and communicate place control (2009, p. 27). Enforcement of place control is accomplished through these acts of violence, extortion and intimidation.

While these practices seek to impose a kind of locational fixity, Sack (1983) shows how territoriality can be impermanent, as relative advantages and disadvantages may shift over time. For example, counter-narcotics enforcement programs in the Caribbean in the mid-1980s led to significant geographic shifts in drug flows away from the aerial Caribbean route from Colombia to the US, and subsequently forced the reterritorialization of these flows overland through Central America and Mexico (Friesendorff, 2005). Additionally, turf wars between trafficking organizations often result in group mergers and fragmentations, altering the geographic distribution of DTO territories. These two instances reveal the spatial impermanence of drug flows, and how territoriality must constantly be reaffirmed over time due to a variety of external and internal pressures. Castells considers the transnational drug trade as "one of the most powerful networks in our society" (2010, p. 444). By briefly discussing the multiple international linkages between the drug trade and its laborers, product suppliers, and consumers, he points out that drug flows as transnational processes certainly have "place-based orientations" (2010, p. 445). Drug flow networks are not necessarily placeless or amorphous, as many depend on and

take advantage of strategic geographic factors—for example, weak state authority, proximity to illicit plants, access to refining chemicals, logistical advantages and infrastructure (Castells, 2010). These factors enable trafficking organizations to territorialize space and perpetuate self-interest, made possible by asserting a kind of limited spatial sovereignty.

Perhaps the deterritorializing effects of increased global interconnectivity within the past few decades have enabled DTOs to become powerful global actors due to the relaxed regulations on flows of goods across borders. Behr (2007) defines deterritorialization simply as the territorial dissolution that occurs as a result of globalization, where the sanctity of borders has been compromised due to the presence of a range of transnational actors unhinged from national and international territorial frameworks. O'Tuathail (1998) describes deterritorialization as a complex set of challenges states face as they confront the implications of these changing relationships as they affect "territorially-embedded understandings of geography, governance and geopolitics" (p. 82). Geopolitically, states must grapple with new integrated power configurations that appear to attenuate territorial sovereignty, presenting the problem of balancing state self-interests with those of the international community (the United Nations, NGOs) and respective regional organizations (European Union, Organization of American States, etc.). Sassen (2005) refers to these as "novel borderings"—new power configurations within state boundaries that result from knitting the national and global scales together. While states may be demarcated by the same external boundaries, new borderings emerge within these states, illustrating the internal dynamics of globalization, a process that is often examined in relation to its more external connotations. Sassen (2007) understands these novel borderings as assemblages of territory, authority, and rights (TAR). The TAR framework examines a variety of power configurations that occur at smaller, localized scales though a "multiplication of partial

systems" that complicate the assumption that state sovereignty translates to territorial control at the national scale (Sassen, 2007, p. 88).

Sassen casually mentions how street gangs in Sao Paolo can be understood through this framework, as they exercise partial territorial authority by assuming a local policing function, and allocate jobs, social services, and public goods—responsibilities that are typically expected to be fulfilled by the state. This is significant as the effects of free trade in drug affected regions have exacerbated vulnerabilities in such a way that DTOs have thrived, and created economic opportunities in unevenly developed areas like Sao Paolo, effectively becoming part of the state. Balvé (2012) reveals how a similar kind of partnerships operate in Urabá, Colombia, where paramilitaries accomplish mercenary land acquisition and silencing the opposition to the development interests of elites and narcos—showing the intersecting territorial interests of states and informal authorities. Similar works demonstrate the cooperation between states and traffickers (McCoy, 1972; Potash, 2015; Reiss, 2014; Webb, 1999) and situate DTOs as shadowy mercenaries that at times act on the state's behalf. Agnew and Oslender (2013) propose the idea of overlapping territorialities, using Colombia as a case study to show the multiple forms of territorial authority exercised by the Revolutionary Armed Forces of Colombia (FARC) and indigenous groups, as each group poses challenges to the idea of absolute state sovereignty. While DTOs objectives may or may not be to seek sovereignty (Behr, 2007), they do exercise a degree of authority, which should be taken into consideration when studying these areas.

By demonstrating the nuanced ways DTOs challenge and/ or become enrolled in state objectives, these texts show the need to move beyond simplistic state-centric approaches that situate DTOs as enemies of the state. State-based approaches tend to exemplify Agnew's (1994) concept of the "territorial trap" reveals how state-centric analyses of territory are often rooted in

a set of three geographical assumptions. First, that states are fixed units of sovereign space though there may be an array of authorities operating within a territory, and even outside of it. Second, that there exists a domestic-foreign polarity—despite centuries of international exchange. Finally, the state as a territorial entity is often perceived as a container of society. References to "American society" or "Mexican society" assume sweeping social cohesion within the territorial bounds of the state, a view that neglects marginalized, separatist, or indigenousautonomous groups, and forecloses upon understanding nuanced territorial and social formations. This framework is useful for examining how drug war spaces are often understood as governance problems, as drug-related violence in Mexico is often referred to as "Mexico's drug war," or cocaine trafficking in Colombia as "Colombia's drug problem." These labels isolate these states as problematic by obscuring the transnational processes that circulate global drug flows, where different locations serve distinct roles as production sites, transit zones, destination sites, and major transit hubs. There is no clear domestic/ foreign polarity in how the drug trade operates. Additionally, the violence associated with the drug trade becomes ascribed to a society as a whole, where violence, corruption of law enforcement and weak institutions are construed as normative social aspects of everyday life.

2.3 State-based Approaches

Despite these 'novel borderings' and overlapping territorialities, many contemporary studies of transnational drug flows take state sovereignty and territorial control for granted.

State-based approaches rest on the assumption of absolute state sovereignty over territory. Illicit drug flows are understood to transgress national borders and challenge rule of law, and DTOs are framed as new forms of opportunistic criminal groups that threaten to destabilize states. Many of these studies discuss the rise of transnational crime as a result of lower trade barriers and

technological advancements in communication and transport technology (Naim, 2005; Gilman, et al., 2011; Naim, 2012, Trumbore, 2014). Similar studies focus on the expanding powers of states to police drug flows domestically and internationally, as the contemporary era of globalization is perceived to necessitate an international security response to domestic policing objectives (Nadelmann, 1993; Andreas and Nadelmann, 2006). These narratives describe drug war spaces as the battlegrounds between states and non-state actors, and shape current domestic and international American counternarcotics policies, by transposing tense moral geographies of crime and criminality that focus on individual moral failings— obscuring the structural factors that allow DTOs to flourish in specific spaces.

Moral geographies operate through the association of space, and practices and behaviors perceived as undesirable, inappropriate, or unacceptable. These disparaging spatial imaginaries rely upon the "idea that certain people, things, and practices belong in certain places, landscapes, and not in the others" (Cresswell, 2005). Drug war spaces are understood through this moral lens at multiple scales, and much of this literature relies upon what Agnew (1998) described as the "modern geopolitical imagination"—an understanding of states as contained spatial units with legal jurisdiction over a bounded territory. This idea could also be scaled down to interior states within a country, as well as the city and neighborhood scale, to describe the assumption that jurisdictional authorities, from legislators, law enforcement officers and even citizens, have a duty to maintain order by enforcing a morally constructed status quo (Driver, 1988; Shapiro 1994; Smith, 1997). Shapiro and Campbell (1999) link citizenship to the reproduction of moral geographies as a spatial practice by defining "moral spaces" as "the bounded locations whose inhabitants acquire the privileges deriving from practices of ethical inclusion" who perpetrate the moral character of spaces by reproducing socially and political constructed perceptions of 'the

other" "at the expense of an ethics of encounter" (Shapiro and Campbell, 1999, ix). Practices that go against the status quo or moral order threaten the social and political order. Campbell argues that the construction of threats does a great deal of cultural and political work as "the ability to represent things as alien, subversive, dirty, or sick has been pivotal to the articulation of danger in the American experience" (Campbell 1998, 3). The threat and danger of illegal drugs has underwritten significant domestic and foreign policies in the US, linking drug use to the decline of American cities, public health crises, and global terrorist threats, discursively shaping what Agnew and Toal (1992) refer to as "practical geopolitical reasoning" in which the geopolitical objectives of states are justified through a series of uncomplicated and generalized spatial assumptions about the character of "places and particular identities" (Agnew and Toal 1992, 194).

State-centric case studies of drug war spaces are prime examples of this kind of practical geopolitical reasoning in action. In addition to utilizing convenient generalizations to support policy objectives, the looming emphasis on 'law and order' includes a significant moral component that frames weak, less-developed states as global threats by linking crime, criminality, and poverty to what could be described as 'immoral places'. Moises Naim describes illicit trade as "trade that breaks the rules—the laws, regulations, taxes, licenses, taxes, embargoes, and all the procedures that nations employ to organize commerce, protect their citizens, and enforce moral codes" (2005, p.2). Naim's assertion that illicit traders are disruptive to more 'legitimate forms' of capital implies a distinct form of moral turpitude inherent to traffickers based on a unique brand of greed, profit motivation, and ability to seize opportunities to exploit the vulnerabilities of states, particularly at borders. Gilman, Goldhammer and Weber (2011) share these moralistic concerns, and develop the concept of "deviant globalization" which

they define as "the unpleasant underside of transnational integration," (p.1). They argue what is "deviant" about these goods and services is the form of illegal economic exchange that occurs is "an affront to mainstream western morality" (2011, p.2). This suggests that economically weak states—with less GDP per capita, less globally integrated—are themselves at risk of producing a criminal population unleashed upon the world through the spread of transnational crime, simply because they are less economically stable.

The economic instability highlighted in this literature suggests that these vulnerabilities predispose particular states to becoming safe havens for morally bankrupt illicit traders, 'narco states' and "mafia states" where criminal organizations and governments become inseparable (Naim, 2012). Gilman, Goldhammer and Weber point to the "degrading" impacts transnational criminal groups have to erode state capacity, deteriorating state legitimacy, and "undermining the foundations of mainstream globalization" (2011, p. 275). Aside from idealizing the economic principles of globalization, these studies focus on the political consequences of the relationships between states and transnational crime organizations, particularly the negative effects these groups impose upon already weak state institutions. A study by Trumbore (2014) sought to determine which characteristics might predispose states to become narcotics transit hubs, concluding that the degree of global economic integration matters—the more integrated states become, the more susceptible they are to playing a role in the global drug trade due to greater opportunities for mobility. Yet, he notices that while state corruption and weak rule of law contribute to the development of states as transit hubs, this predicament is equally possible for politically and economically stable states. For instance, states with stable economies are likely to have updated highway and communications infrastructure that crime networks can take advantage of.

Weak institutions not only compromise political integrity, they also create economic instability through uneven wealth distribution and the inability of the state to allocate public goods. Gilman, Goldhammer and Weber (2011) argue that DTOs wield power in three distinct ways—access to large pools of capital, the use of violence, and the ability to provide an alternative source of public goods. The illicit economy becomes a "welfare displacement entity" (Gilman et al., 2011, p.5) as a response to the failures of development, but only after these organizations have been successful at territorializing these states through their wealth and ability to coerce through violence or corruption. As a result, they can offer employment opportunities, and public works and building projects within communities, providing solutions to slow and resource-poor government channels; a kind of 'narco-philanthropy' where DTOs compensate for the lack of state capacity (Gilman, Goldhammer and Weber, 2011; Naim, 2012). Naim (2012) also relates attenuated state capacity with precarious economics, as he argues that austerity measures have exacerbated already-weak institutions. Yet rather than emphasize the structural inefficiencies of states that arise under structural adjustment and economic crises, Naim argues that unemployed individuals facing economic dire straits are "more easily tempted to break the law" (2012, p.2). For Naim, it is not austerity cuts that produce criminality, but those specific cuts that limit law enforcement funding reduce a state's capacity to police its already criminallyinclined, unemployed population.

State-centric arguments fall into the trap of naturalizing the authority of the state and fail to address the structural factors that make participation in the illicit economy an attractive option. This approach diverts attention from discussing structural and/or redistributive measures that states could utilize to make the illicit economy less attractive, and focuses instead on correcting the behavior of the individual. This logic is what Bernstein (2010) refers to as "carceral"

paradigms of justice," where the criminal behavior of the individual is emphasized at the expense of examining the structural inequalities and inefficiencies of states. For example, a working paper examining illicit crop substitution by farmers in Mexico found that as corn prices and yields increased, farmers were less likely to substitute their corn crops with illicit crops, suggesting that if Mexico could increase its agricultural subsidies, there may be a positive impact on decreasing illicit drug supply (Dube, Garcia Ponce, and Thom, 2014). However, NAFTA has shackled Mexico's capacity to impose tariffs on imports, as it is forced to compete with low-cost agricultural imports from the US, which refuses to lower its farm subsidies, leaving farmers in Mexico with limited alternatives for subsistence, one of them being participation in the illicit economy.

Discursively, the terms 'danger', 'threat', 'risk', and 'security' position these states as requiring intervention to correct issues that may affect neighboring states, especially when that danger is discussed as a threat to national security, but also to save these states from themselves. Corva (2008) writes that the erosion of state capacity in the Americas has facilitated the rise of illiberal governance, which he defines as the use of coercive power by states that see "deviant, oppositional and criminal" individuals and groups as threats to political stability and economic capacity (Corva, 2008, p.177). This is often the result of identifying drug flows at the source to address domestic drug problems. The need to eliminate the source of the drug trade rationalizes an transnational response to a domestic policing problem. Nadelmann (1993) and Corva (2008) explain how this process is not limited to the internal functioning of the state itself, but is evident in how states transfer domestic policies to the realm of international relations. The hegemony of large states is leveraged to coerce 'weaker' states into creating congruent criminal categories and

codes, and internal policing objectives transcend borders—though the term policing itself implies a bounded, local, and limited jurisdiction (Andreas and Nadelmann, 1998).

The US Office of National Drug Control Policy (ONDCP) proves to be an excellent case study of how these concepts merge together in state counternarcotics policies. For example, the ONDCP rationalizes its operations in Central America as follows:

Geographically, the countries in Central America are considered a natural conduit for the illicit activities of transnational criminal organizations (TCO). TCOs and criminal organizations in Central America have grown in size and strength over the last decade, intimidating law enforcement and judicial officials, weakening the states' abilities to maintain public security. All seven Central American countries are actively used by major TCOs to smuggle drugs into the United States, while arms and cash flows move south across our border through Mexico to sustain these criminal organizations. As drugs flow through the region, the user base grows and increases TCO competition along the way. This ultimately increases the rates of drug use and drug-related homicides. (United States, 2015a).

By framing Central America as a "natural conduit" facilitating drug flows based on location, it becomes inevitable that the US would intervene in the name of regional security and public safety. Institutions in all seven Central American countries are vulnerable to intimidation, and have already surrendered their power to TCOs. The US-Mexico border is situated as a site that both justifies US intervention the face of external threats, and its role as a regional policing body. References to drug related violence and homicide appeal broadly to public safety anxieties on both sides of the border. The ONDCP carries its policing objectives even further towards a broader, hemispheric scale with The Western Hemisphere Counterdrug Strategy, encompassing the full extent of the Americas as well as Caribbean nations (United States, 2015a). The implications for states on the receiving end of these policies are aid contingencies in which foreign aid is withheld to coerce compliance with US objectives, and a loss of state sovereignty occurs in regard to internal decision making (Ramharack,1995). In 2008, Mexico's legislature

was infuriated by President Calderon's executive decision to accept 1.6 billion dollars in US aid to fight an increasingly violent drug war. The US government introduced additional federal agents and private military advisors in Mexico, as well as increasing enhanced surveillance technology in the border region (Leon Hernandez, 2011). In 2009, the Bolivian government forced the DEA to withdraw from the nation due to espionage fears (Kraul, 2009). The hegemony of American law enforcement abroad employs paternalistic security discourses to justify intervention, identifying affected states as weak, corrupt, and in need of guidance and resources.

Understanding drug flows through state-centric analytical frameworks perpetuates a logic that situates drug trafficking organizations in opposition to states' values. Categories of crime are unstable and shift over time, yet a state-based approach takes existing laws for granted. Gootenberg (2005) argues that by naturalizing these categories through a top-down approach, scholars find themselves "talking like a state," limiting critique of these categories of illegality. By creating moral geographies based on various locations' roles in illicit commodity chains, these areas are constructed as transgressive spaces in need of intervention. The sovereignty of states is compromised as large states can coerce others to comply with their domestic counternarcotics objectives internationally through the transnational harmonization of crime categories that rely on the belief in a universal moral code. The following section discusses the alternatives to the state-based approaches that examine the social aspects of drug flows, and how they are negotiated in the face of legal frameworks. By questioning these categories of legal and illegal, their purpose, meaning, and politics can be analyzed and challenged.

2.4 Drug Flows from Below

State-centered approaches to studying drug war spaces obsess over transitional crime without offering any insight into the motivations and conditions that make narco-labor attractive; nothing more than poverty as a precursor to a life of criminal behavior that threatens global stability. De-centered approaches that utilize ethnographic methods and archival methods seek to understand drug flows as transnational processes to question state-constructed categories of legal and illegal; to ask why drug flows are located in some places rather than others; to aim to understand the motivations of individuals to engage in this narco-labor by analyzing the structural impositions that either hinder or create agency. These studies problematize global flows, the imposition of borders, economic restructuring, and free trade to show how the effects of these phenomena are felt in everyday life. They uncover how individuals enrolled in the trade are not criminals, or moral deviants, but people operating within a set of limited choices.

To achieve this de-centered approach, scholars question taken-for-granted categories of illegality and legality to analyze the process by which behaviors, commodities, and practices have become illegal by acknowledging that laws and prohibitions are social-political constructs. Van Schendel and Abraham (2005) argue that conventional understandings of organized crime as a threat endorses states' national security discourses, and make state-based security solutions the only alternative to the problem, claiming, "We need a radically different way of conceptualizing 'illegal' transnational linkages, especially if we are to understand the persistence of these flows over time and space," (p. 4). This is accomplished by drawing distinctions between categories of legal and illegal, and licit and illicit, where legal and illegal are categories based on what states consider legitimate (legal) and illegitimate (illegal), and licit and illicit are based on what society deems acceptable (licit) and unacceptable (illicit), showing how individuals and small groups act

in spite of legal categories (van Schendel and Abraham, 2005). The myopic state-based approach treats borders as sacred boundaries and ignores the long-standing cross-border mobilities and practices of those who reside in what have become 'the borderlands' in the sense that borders have been imposed on groups whose daily activities transcend the existence of borders, material or immaterial (van Schendel and Abraham, 2005; Jones, 2012). Additionally, the sanctity of borders imagined as barriers against morally transgressive behaviors assumes the loyalty of border enforcement officers to act in the best interest of the state, but belies the illicit activities of individual border guards to act in their own self-interests. Andreas' (2009) concept of "border games" describes the dealings between law enforcement agents and individual cross-border movements as performative—providing only the outward appearance of control. Andreas draws attention to the Salinas administration's public discussion of drugs as a threat to the Mexican state. The outward appearance of a tough drug policy was undermined by internal corruption and selective enforcement, as extortion, bribery, and other 'pay to look the other way' practices that occurred between smugglers, migrants, and officials.

The borderlands approach considers both sides of a national boundary line that form the margins of a border, and/ or perceives the entire border region as a single interconnected transnational space (Anzuldua, 2012), or what van Schendel calls the 'borderlands society'—"a social cultural system that straddles the border" (van Schendel, 2005, p.44). Campbell (2009) and van Schendel situate borders as a site of convergence for competing authorities. Campbell's (2009) concept of the "drug war zone" specifically refers to the contestations and interactions that occur between law enforcement officials and narco-laborers within the border region, as a result of the war on drugs. For Campbell, the drug war zone appears to be everywhere. It is at once a conflict zone, a state of mind, and subversively deterritorialized third-space of defacto

territorial control of competing authorities, but one that pivots around a seemingly fixed site of convergence—the borderland. The drug war zone is a connective frontier space where smugglers, producers, consumers, and law enforcement subvert and confront formal and informal authority regimes. Rather than looking at these spaces as state regulated, these approaches seek to understand at the ways that state laws and borders are obstacles that are negotiated and transgressed despite legal codes and state claims to territory, primarily due to the fact that these obstacles are impositions to pre-existing flows of people, goods, and networks.

The focus on 'flows,' the movement and/or mobility of people and objects through and within transnational networks, is another de-centered approach which aims to develop a better understanding of "global inequalities and boundaries" (Heyman and Campbell, 2015, p. 131), and how flows create, transform, and reproduce differences between locations (van Schendel, 2005; Gootenberg, 2009; Heyman and Campbell, 2015). Van Schendel argues that "studying illegal flows in the borderlands provides special insights into how territoriality and transnationality are negotiated in everyday practices, and how people scale the world they live in" (2005, p. 49). In doing so, participants' perspectives are revealed, as well as understanding how these individuals are connected to global processes (van Schendel, 2005). A focus on flows traces the path of an object 'from below,' stripping it of state-constructed categories of legal and illegal. Carey states that, "moving away from state-centric views of the flows of goods and ideas helps us to avoid adopting the norms that hegemonic powers attempt to foist on others while ignoring the fact that (states) (and their citizens) engage in the same practices" (2011, p. 3).

Ethnographic work by Campbell (2009) and Muehelmann (2013) examine narco-laborers in the US-Mexico borderlands. Muehlmann found the drug trade to be "a persistent feature of gossip" (2013, p. 4), something that was mundane and quotidian, which revealed how the trade

became central to the lives of those living in her research site. She argues that the costs of free trade were pushed south of the US-Mexico border, through extremely low wages, and how these costs influenced some community members' choices to participate in smuggling as a way to offset marginal incomes. Muehlmann's findings mirror those of Campbell's (2009), whose work on the El Paso-Juárez borderland looks at how residents participate in, and are affected by, narco-culture. These works give weight to a critical point made by van Schendel and Abraham (2005), that the 'organization' of DTOs and TCOs is much more disorganized than commonly believed. Ethnographic accounts reveal that many who participate in the drug trade as 'armchair smugglers' do so as a form of side-work, notably moving in and out of the trade as little or as much as necessary to supplement incomes (Campbell, 2009; Muehlmann, 2013), and should not be considered as a members, full-fledged employees, agents and/ or co-conspirators of transnational crime syndicates (van Schendel and Abraham, 2005). Sporadic engagement with the trade as a loose and informal type of contract labor mirrors involvement on par with the contemporary gig economy, or title of independent contractor. The reality of low-level narcolabor proves to be much less sinister than Naim, Gilman and colleagues would lead readers to believe. Individuals' stories are important in understanding flows of illegal commodities from the perspectives of low-level narco-laborers, as well as their motivations and individual circumstances that make these economic opportunities more attractive than others, and how these may show patterns among various stories that expose the underlying causes of this participation.

Where ethnographic work provides a powerful storytelling component to revealing the nuances of the drug trade, scholars have also examined the trade through the study of objects as they move through the commodity chain—looking at the stages and geographies of production, distribution, and sale, and the lives of those involved in each of these stages. Gootenberg's

(2009) study of global cocaine flows from the Andean region shows how cocaine moves through its life cycle at various stages of development, and different categories of legality depending on its location within the commodity chain. By focusing on the stages of production and distribution, Gootenberg exposes the life cycle of cocaine—who produces it, what its local effects are, who benefits, where it goes, and how it becomes illegal, asking who are the stakeholders, and what are the stakes for individuals, power brokers, states, local authorities, etc.?

In his study of cocaine, Gootenberg (2009) historicizes how indigenous groups have used coca for centuries, the impacts of global trade at its various stages of evolution (pre-colonial era to the modern era), and the geopolitical effects of global prohibition regimes. By incorporating the 'history of things' in this commodity chains approach, he illustrates how the social, cultural, economic, and political status and significance of objects changes over time due to a variety of internal and external forces and contexts (Gootenberg and Campos, 2015). By historicizing drug networks, scholars undermine state-centric claims that the present era of globalization has produced a new class of opportunistic criminals. Historical approaches to studying drug flows show that these networks pre-date national drug laws, looking at global interconnectivity and trade patterns that took place centuries prior to this current phase of globalization. This transnational approach typically examines the entry points of global trade and exchange historically, and as a result lends itself well to the 'borderlands' perspective advocated by van Schendel and Abraham (2005). Carey et al., (2011) and Heyman and Campbell (2015) focus on the North American borderlands, and argue that drug distribution networks have become rooted across these spaces over time. Heyman and Campbell (2015) look to the El Paso-Juárez crossing at the US-Mexico border to show how these networks and flows are "historically rooted and

patterned" (2015, p. 142), and over time have transformed spaces and residents' economic options as a result of their presence. By digging into the histories of these networks, scholars can show the factors that enabled them to become fixed, yet adaptable, within and across spaces over time. This is important as the ability for these flows to take root and sustain themselves in various places has had significant impacts on the "slow and rigid" (Carey & Markel, 2011, p. 5) bureaucratic responses that seek to destroy them. The fact these networks have such lengthy histories means they have had time to territorialize various routes, develop alternative routes, as well as build up the necessary capital required to subvert law enforcement regimes in the process, shedding much needed light upon why law enforcement agencies are constantly trying to catch up with the innovation of traffickers.

Though the borderlands approach does much to further study of the political effects of transnational and global processes on those living in borderlands spaces, borderlands are often articulated as fixed zones themselves bestriding borderlines. And as much as this approach captures the nature and nuance of the range of interactions within the border zone, when it comes to illicit and illegal flows, objects fail to shed their stigma and illegality as they move beyond the so-called borderlands. It is almost as if the borderlands exist separately from the 'heartland,' but the fluid nature of mobility and migration create the inevitability that these two conceptual spaces will inevitably intersect. For example, the present opioid epidemic has led some of the addicted to substitute heroin for the pills that were formerly widely available. The main source of heroin in the U.S. currently comes from Colombia and Mexico, and the main destination are the Midwestern states and states on the east coast. Chemical precursors and adulterants are acquired by DTOs from abroad, as is currently the relationship between traffickers and China, where fentanyl and fentanyl analogs are sourced. Security concerns once perceived to be confined to

the borderlands have moved into the American 'heartland'. The two spaces have intersected. If 'borders are everywhere,' where then are the borders of 'the borderlands'?

The study of global flows and commodity chains can incorporate a borderlands perspective as objects move through contested spaces of overlapping authorities—formal borders in particular—but the emphasis is to tell the story of the object itself, while relating how the object connects individuals involved in moving the object through its product cycle, rather than the spaces it moves through. The drug war spaces concept is an attempt to understand the borderlands in the abstract sense—the boundaries between legal and illegal, formal and informal, inclusion and exclusion. It is an attempt to show how the moral baggage attached to drug use is a perpetually travelling border in and of itself.

2.5 Moving Beyond Borderlands

The arrest of 89 year-old Leo Sharp came on the heels of a months-long, multi-jurisdictional investigation by the US law enforcement officers. Federal-local joint law enforcement task forces tracked Sharp's transit route from Tucson to Detroit, with evidence gained from targeting the national highway and communications infrastructure through wiretaps and surveillance. Though some might be initially shocked that someone of Sharp's age would engage in drug trafficking, smuggling tactics have long relied upon performativity and stereotypes as convenient visual pre-organizers, making the most unlikely suspects the most likely (Campbell, 2009). What is most interesting about this case is Sharp's destination. The Sharp case proves that these flows do, in fact, move through the US and reveals these flows are not confined to the southwestern US borderlands region. Detroit lies just 8 miles south of the US-Canada border at Windsor. Nearby, Chicago serves as an important hub for the Sinaloa Cartel, as revealed during the second capture of longtime fugitive and Sinaloa 'kingpin' El

Chapo Guzman (Smith, 2014). Maps reinforce the idea that the drug war is something external and separate, they also embody how the war on drugs in the US is discussed and addressed differently in than it is in its international context. The maps below, from the US Department of Justice and DEA, indicate that the US government is well aware that the drug flows move through the US. The first visualizes the connections between highway systems in the US and Mexico moving into the U.S. interior. The other representing maps U.S. cities where cartels from Mexico are involved, and the various shares of the drug market they occupy.

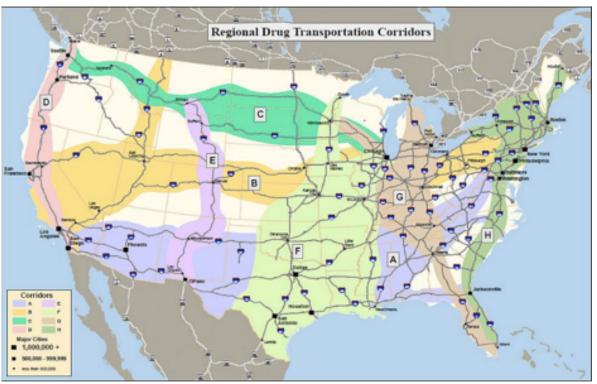


Figure 2.1— Internal highway drug distribution routes.

Source: United States Department of Justice, 2010.



Figure 2.2— Map of US areas with Mexican drug cartel influence.

Source: Drug Enforcement Administration, 2015.

The drug war spaces literature demonstrates two approaches to understanding the dynamics that shape these spaces and common factors between them. State-centered approaches cast weak institutions and individuals' criminal proclivities as the primary reasons for the growth of transnational crime in the contemporary global economy, while decentered approaches 'from below' how the global economy creates the conditions for individuals to seek alternatives within informal networks. These literatures fixate on the transnational context of global drug flows, with state-based approaches examining how globalization has assisted the global drug trade's expansion, and decentered approaches looking at the consequences of free trade policies and the transnationalization of American law enforcement as impositions that negatively impact individuals' everyday lives.

State solutions to the problems created by global drug flows tend to take into account albeit marginally—the need to create sustainable development solutions intended make the drug trade a less attractive economic alternative, acknowledging tacitly the link between economic marginality and individuals' participation in drug networks. The United Nations weakly acknowledges the connection between a lack of economic opportunities and participation in the drug trade as its proposed 'Alternative Development' goals include expanding the power of member states to implement their own alternative development strategies with the explicit purpose that these work specifically to aid in crop eradication, for the most part. The goal of "raising awareness" among non-state actors of the need for alternative development strategies in these regions serves the subsequent goal of attracting the private sector and other civil entities to invest in these regions (UNODC, 2012). Under the bilateral Merida Initiative, US and Mexico pledged to create stronger communities in Mexico by "implementing job creation programs, engaging youth in their communities, expanding social safety nets, and building community confidence in public institutions" (United States, 2015c) with the assistance of US funds. While the majority of counternarcotics strategies utilized by the UN and the US overwhelmingly favor expanding state capacity, the effort to address the economic factors that lure individuals into the trade are nonetheless present here. However, looking at the domestic counter-narcotics goals and strategies within the US these economic development solutions are notably absent, which suggests an unwillingness on the part of the US to frame its domestic drug war through this lens of uneven development. The negative impacts of free trade and structural adjustment particularly the exploitation of low-wage labor in developing states, as well as austerity measures as preconditions for international lending assistance—are inflicted upon the developing world by hegemonic western states such as the US. To understand the drug war in the US, it is possible to

flip this framework on itself, and examine how the experience of economic restructuring and neoliberal policies have manifested similar negative effects in US cities through globalization as a result of greater capital mobility. In other words, instead of examining what happens to developing state because of the imposition of free trade, how can we understand how similar effects are exhibited in parts of developed nations when firms and the state disinvest in certain areas? This approach creates an opportunity to examine how the war on drugs in the US can be understood through the lens of uneven development within its own borders.

Recent scholarly interest in the effects of deindustrialization in predominately white working class communities relates to the current opioid epidemic in the U.S. The long-game of the 2016 U.S. presidential campaign (starting roughly around June 2015) and results of the 2016 election raised questions about Donald Trump's supporters, and how exactly was the campaign successful. Works such as Hillbilly Elegy (Vance, 2016) Strangers in their Own Land (Hochschild, 2016) and White Trash (Issenberg, 2016) fill in the details about Appalachian culture, white working class resentment, as well as the history of class in the US. Some have related these groups' labor experience in heavy industry—manufacturing and mining in the Rust Belt and Appalachian regions—to soaring numbers of unintentional poisonings, and suicide (Case and Deaton, 2015; Massachusetts Department of Public Health, 2016; National Institute for Occupational Safety and Health, 2016). Some note that deindustrialization, unemployment and resulting despair and depression have also contributed to increasing mortality rates of whites in these areas hardest hit by the epidemic (Case and Deaton, 2015; Quinones, 2015; McLean, 2016; Dasgupta and Beletsky, 2018). McLean (2016) relates the depressing material landscape in the former mill town of McKeesport, Pennsylvania, in Allegheny County, to the lack of economic opportunity experienced by its residents, and resident addicts. Interviews with eighteen addicts in recovery revealed that a sense of despair and hopelessness in their post-industrial surroundings was driving their addictions (McLean, 2016). Case and Deaton (2015) examined shifts in mortality rates among whites in the US, primarily in the categories of suicide and unintentional poisonings. Looking at self-reported health data, they indicated increases in self-reported instances of pain, substance use, and depression. The authors suggest that these numbers could be related to the recent 2008 recession, in the sense that this could be a future direction for research. While many have argued that the proximate cause of the opioid epidemic in the US sits primarily in the hands of physicians who over prescribed pain medications, Dasgupta and Beletsky (2018) argue that instances of overprescribing cannot be understood without looking at the ultimate causes, and include "eroding economic opportunity" as one of the ultimate causes. These pieces reveal the importance of examining the drug use in rural areas, and how these might be connected to large geoeconomic processes.

Neil Smith (1982) argues that the tendency towards uneven development in capitalist societies results from the need for firms to consistently harmonize their profit potentials and striving to eliminate the barriers to achieving this goal. As a result, capital must constantly circulate and adapt to the changing conditions of the global market, and through this mobility spatial differentiation becomes visible in the landscape. Smith states that the concept of uneven development takes place at all scales, particularly the urban and regional scales, and not solely the international scale. Smith's concept proves especially useful in understanding how the mobility of capital has impacted urban areas and manufacturing centers in the US, particularly how these places have experienced the period of economic restructuring that occurred during the late 1970s and 1980s. Most of the academic literature focusing on the effects of restructuring and expansion of informal economies in US urban centers was published in the 1990s, with the

general consensus that the period of economic restructuring led to concentrated poverty in urban centers by relocating jobs outside of the city center, moving blue collar manufacturing jobs outside the US, or replacing workers with automated systems (Wilson, 1996; Wacquant, 2008; Sassen, 1994; Portes and Castells, 1989; Venkatesh, 2006).

The effects of this shift were exacerbated by the nearly simultaneous rollback of social welfare policies in the US that further cripple impoverished Americans. Wilson (1996) argues that the lack of a black middle class in urban areas contributed to a culture of poverty among African American urban residents that would come to exacerbate the poor economic conditions created by restructuring. Wacquant (2008) understands the problem as decidedly more structural through his "violence from above" framework—that the retreat from investment urban areas (by the state and firms), as well as the out-migration of individuals of economic means who supported community-based institutions (outreach programs, churches, etc.) transformed impoverished urban areas from communal ghettos to hyperghettos. Additionally, he identifies three main components of structural violence imposed upon the economically marginalized, exacerbating poverty through mass unemployment, "relegation" to resource-poor (public and private) spaces, and the "increased stigmatization" of living in a decrepit surroundings (Wacquant, 2008, pp. 24-25). Wacquant (1998) discussed the alienating effect of public institutions' policing and surveillance functions in terms of monitoring behaviors (welfare programs, law enforcement, public health, education, etc.), conflating pre-existing feelings of distrust between marginalized groups and the state. Despite their disagreement on the role of culture in perpetuating concentrated poverty, Wilson and Wacquant agree that structural shifts have created a limited set of sustainable economic opportunities for impoverished urban

residents, and many find themselves operating in the informal sector in varying degrees and contexts.

The spatial concentration of poverty in urban areas, economic restructuring and the retreat of the state through rolling back social support programs and community investment have created the conditions where precarious labor opportunities and the informal economy work alongside each other to compensate for the uneven distribution of sustainable income opportunities. Scholars have shown that these opportunities sometimes involve illegal activities. Wacquant (2009) makes a similar argument as Bernstein (2010), stating that the perceived cause of crime is "the personal responsibility of the criminal" (Wacquant, 2009, p. xiv). Wacquant argues that punitive solutions to correcting criminal behavior, especially when spatially concentrated, create perceptions of a deserving and undeserving poor. If informal economies can be located within urban areas (Wilson, 1992; Wacquant, 1998; Wacquant, 2008; Wacquant, 2009), and illegal exchanges are part of this economy (Sassen, 1994; Zlolinisky, 1994; Venkatesh, 2006), then a moral geography of urban areas exists based on perceptions of crime, deviance and space, and distinctions between a law-abiding citizenry and a criminal underclass are made visible (Shapiro, 1994). The presence of illegal activity within these spaces creates the conditions for law enforcement intervention, particularly targeted counternarcotics programs that seek to eliminate the drug economy through policing. This is increasingly accomplished through federal-local law enforcement partnerships that reterritorialize spaces through greater mobilization and state capacity, as well as targeting the internal highway and communications infrastructure through greater surveillance tactics.

The vastly understudied High Intensity Drug Trafficking Areas (HIDTA) program is a prime example of the internal political geography of the war on drugs. HIDTA is a multi-

jurisdictional counter-narcotics program that operates at the county-level in the US, with a distinct territorial logic of concentrating federal and local law enforcement resources in nearly all major metropolitan areas, and some rural areas. The program was first developed in 1990, with the objective of facilitating information sharing between law enforcement agencies to achieve the goals established in the 1988 Anti-drug Abuse Act. The HIDTA designation process requires the joint petition of several law enforcement agencies attesting to the fact that "the area is a significant center of illegal drug production, manufacturing, importation, or distribution" (United States Drug Enforcement Administration, 2017), the current use of resources to amend the problem constitutes "a determination to respond aggressively to the problem," (United States Drug Enforcement Administration, 2017), and that additional federal funds are necessary to insure that counternarcotics objectives can be achieved. According to the ONDCP, there are currently 28 HIDTAs encompassing 17.2 percent of all US counties, and over 60 percent of the US population resides within a HIDTA. Five HIDTAs along the US-Mexico border have merged into a monolithic Southwest Border HIDTA that encompasses the entire border region on the US side, while its northern border appears rather unpoliced.

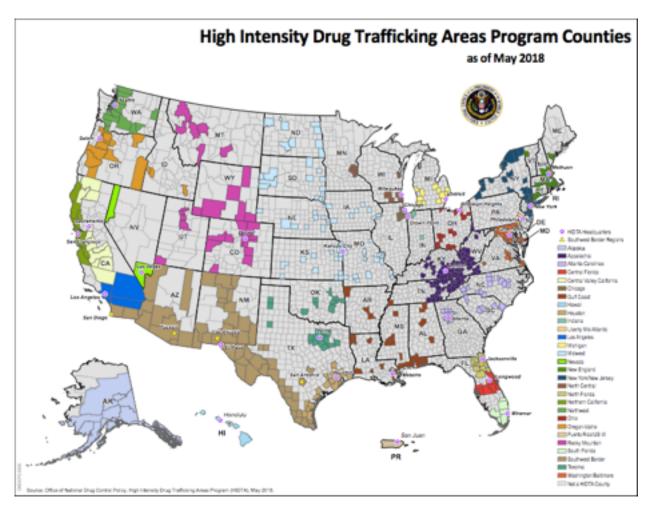


Figure 2.3— Map of High Intensity Drug Trafficking Area Counties. Source: United States Department of Justice, 2018.

The HIDTA program is just one of many recent federal-local law enforcement partnerships, in which the objectives of local police and broad-based federal counternarcotics objectives appear to overlap, and where the pooling of knowledge and resources is perceived as mutually beneficial. Federal agents benefit from local police officers' knowledge, or what Herbert (1996) has called 'geographic intelligence'. Local law enforcement agencies benefit from a surge in federal funds and updated surveillance and weapons technology, and enhanced access to wiretapping (Venkatesh, 2012, Davis, 2006). By identifying specific areas as criminal, and threatening to the state's internal stability, the state imposes a similar form of the 'illiberal governance' used in the Americas upon its own citizenry, with the overarching goal of

eliminating illegal drug production, distribution, sale and consumption (Corva, 2008; Corva, 2014). The territorial logic of the HIDTA program targets each of these aspects of the drug economy by identifying problematic spaces that drug flows move through. As a result, the US highway system and the national telecommunications infrastructures that connect these spaces also become subject to greater surveillance.

Internally, the HIDTA program parallels US international counternarcotics objectives by enhancing local capacity, and harmonizing local and national enforcement goals by recycling the same solutions to the problem. Yet the paltry recognition the US pays to remedying the structural inequalities in its international actions, the economic aspects that perpetuate the informal economy as it operates domestically in the illegal informal economy are not addressed. What is clearly addressed is the need for all federal and local agencies to share information and network nationally to arrest internal drug flows, with a passing consideration to prevention programs that appear to be oriented solely towards rehabilitating drug users (United States, 2015b). The absence of a clear strategy indicates that the solutions HIDTA seeks are through incarceration and rehabilitation, both punitive solutions that emphasize individual responsibility and prime examples of Bernstein's concept of "carceral paradigms of justice" (Bernstein, 2010). While some might argue that preventative methods that aim to reduce drug demand fall outside of carceral paradigms of justice, rehabilitation programs are frequently imposed judicially in drug courts after one has already committed an offence and been arrested. The voluntary choice to enter rehabilitation is much different from a state-mandated program that is required as part of a sentence. Federal-local partnerships such as HIDTA perpetuate these carceral paradigms of justice and fund expanding policing capacity of local law enforcement at the expense of creating sustainable economic development programs in urban areas and eroding the citizenship rights of

individuals through incarceration, revealing an internal political geography of the war on drugs in the US.

2.6 Conclusion

The war on drugs has become increasingly externalized due to a variety of international counternarcotics campaigns that parallel global US security goals. The coupling of drug trafficking and security rhetoric can be traced back to the Nixon administration and Reagan, first to use the term narco-terrorism, accused these two networks of colluding. The aim to control the global drug supply as a matter of national security has yet to lose steam, as is evident in the expanding geographic scope of the US Office of National Drug Control Policy. As Corva (2008) discusses, these security objectives underwrite illiberal governance practices of the US, to identify and correct politically weak states through a kind of militaristic paternalism. In doing so, it is easy to disassociate the war on drugs as it proceeds within the US from its international context, as a similar form of illiberal governance operates internally. By analyzing the literature, it becomes evident which perspectives seek to challenge state-based perspectives, and which adopt nuanced approaches to looking at how categories of crime and criminality are shaped and perpetuated through frameworks of legality and illegality.

Focusing on the 'borderlands' suggests that drug war spaces only exist on the margins of the US, and are not part of its internal geography. The borderlands approach is valuable in the way it shows borders as sites of convergence. As this relates to drug flows, it appears to recycle the perspective that drugs are external illegal objects brought through the US-Mexico border from a foreign source. This is clearly not always the case, as methamphetamine labs and the transformation of cocaine into crack cocaine are processes that take place within the US. It also ignores the fact that sites within the US have been drug war spaces for over a century, and that

over time production and distribution networks have developed alongside major changes in social attitudes toward various illegal drugs and shifts in legal categories of various substances. Networks of US citizens, residents and foreign nationals work together to bring illegal drugs into the US, and have for over a century.

Finally, while many studies that examine the contemporary state of globalization look at the impacts of developed nations imposition of free trade on precarious developing economies, it is important to remember that internally, the US itself has its own socially and economically marginalized groups that have experienced similar negative effects due to disinvestment.

Gootenberg (2008) poses a critical question in his study of the cocaine commodity chain, as he asks, how might the socially and economically marginalized populations participating in the cocaine trade be linked together throughout the Americas? His study of cocaine, its history and geography, ends at about the 1970s. Leaving a gap in the knowledge of how the period of deindustrialization and economic restructuring, the rollback of social welfare, and even the advent of crack cocaine, might be revealing sources of information through which to answer that question. By examining the internal operations of the war on drugs within the US, it is possible to help address that gap.

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3. Reframing "Femicide": Making room for the balloon effect of drug war violence In studying female homicides in Mexico and Central America

3.1 Introduction

Since 1993, the shocking discoveries of the tortured corpses of young women in Ciudad Juárez have caused a sensation. Bodies have been discovered in remote locations just outside of the city center, some of them clad in revealing clothing. Indications of sexual violence prior to death led some Mexican officials to reason that the women had been prostitutes or drug addicts—in other words, they concluded these women asked for it (Fregoso, 2000). In the femicide literature, it is duly noted, repetitiously, that the majority of victims are young, female factory workers from impoverished backgrounds who migrated from Mexico's rural areas to seek employment opportunities for female workers in Juárez's maquiladoras. These women are said to live on the outskirts of the city in shantytowns, and with few alternatives for safe passage they were forced to rely on company-supplied bus transportation to and from work, or to the extent these routes would take them as close to home as possible. Those living beyond the operating routes of these busses frequently had to make the final leg of their journey home on foot, at night, unprotected and alone. It is believed that many of the dead and disappeared met their fate on this particular portion of their trek, where they were most vulnerable (Bowden, 1996). Though scholars have pointed out that the number of female homicides exhibiting signs of sexual violence are not necessarily characteristic of the majority of "femicides," the term femicide when used in the context of the Ciudad Juárez's female homicides relies upon this trope of sexual violence and dehumanization through the image of discarded female remains, equating the term femicide with this image of ultraviolence (Fragoso, 2003). The reproduction of this specific image as femicide, as well as the term itself as a call to arms and invocation of crisis, is tied to the expansion of maguiladoras along the US-Mexico border in 1993 as part of the North

American Free Trade Agreement (NAFTA) (Haley, 2001; Livingston, 2004; de Alba and Guzman, 2010). This link between the murders and the *maquiladoras* is presently being questioned in regard to the actual cause of the femicide, as well as whether or not a crisis-level slaughter of young women is or was actually occurring. While it is true that instances of female homicide coincided with the expansion of free trade at the border through NAFTA, these events also occurred alongside major shifts in drug flow patterns, leading to the emergence of powerful drug trafficking organizations in Mexico, particularly along the US-Mexico border.

The geopolitics of the war on drugs during the mid-1980s through the early 1990s has significantly impacted the geography of drug flows and created noticeable shifts in drug trafficking organizations' power structures, production sites, and distribution routes. The socalled "balloon effect" of drug enforcement operations in Colombia during the early 1990s contributed to displacing and reterritorializing drug war power configurations in Mexico. I argue that a geopolitical framework emphasizing the balloon effect, as articulated by Corva (2014) and Friesendorff (2005), provides a more plausible explanation of the female homicides, than does the idea that they are directly tied to NAFTA and *maguiladora* labor practices, by more coherently linking these murders to the violence associated with the changing power dynamics inherent to the shifting geographies of illicit drug flows. The following discussion maps out the major assumptions of the femicide framework, questions the timeline of events that underpin these assumptions, and addresses recent quantitative analyses of femicide that argue the phenomenon is a myth. I argue that the balloon effect of drug war geopolitics more clearly connects acts of gendered violence in the US-Mexico border region to the displacement and reterritorialization of drug trafficking flows in Mexico during the 1990s, and Central America since 2008.

3.2 The Femicide Framework

"Femicide"—as scholars have termed the phenomenon—is defined generally as the murder of women for simply being women (Wright, 1999). The fact that some Juárez victims' bodies exhibited signs of sexual violence— and in the absence of a clearly distinguishable motive—suggests that gender played a significant role in the murders. Media and scholarly interest in the crimes further suggests that the female homicides appear to be an aberration, indicating a shift toward a more hostile attitude toward women in Juárez. The most widely cited scholar contributing to a better understanding of femicide is Melissa Wright, who has published a considerable body of work examining the murders and frequently points to the North American Free Trade Agreement, and its impact on perceptions of the value of women's labor as the root of the violence. While Wright is not alone in arguing that these murders are driven by changes in capital, her work provides the most clearly argued representation of the femicide framework as it cogently examines, through a feminist political-economy perspective, how the presence of industrial capital on the border translates into negative attitudes toward laboring females over time. I focus on Wright's work as a model for understanding the feminist political-economy perspective of the femicide phenomenon.

Wright identifies two distinct yet interrelated phenomena which she argues have contributed to incidents of femicide. She examines the development of socio-cultural perceptions of female laborers as transgressing conventional Mexican gender norms through the concept of "public women" (Wright, 2006). Additionally, she argues that the implementation of NAFTA led to a regressive shift in how Mexican society came to devalue female laborers as human capital, and this idea transcended the economic sphere and became internalized culturally (Wright, 1999).

"Public women" are defined as those who work outside of the home and, through this act, transgress normatively gendered spaces by spending work and/ or leisure time in areas that are typically deemed male spaces—bars, for example (Wright, 1999). Wright cites the emergence of the *maquila* system in 1964 as the earliest example of shifting gender dynamics within Ciudad Juárez specifically. Juárez has a history of being a playground of sorts for Americans seeking to transgress American social taboos by crossing the US-Mexico border for activities that are or have been illegal in the US (St. John, 2011). She argues that this legacy of vice was revived in 1964 as a result of the US-led Border Industrialization Program, as US corporations established *maquiladoras* in border cities as a means to create jobs for migrant workers displaced as a result of the termination of the Bracero Program (Wright, 2001). Wright claims that women's economic advancement—due to firms expanding these new labor opportunities to women rather than men—symbolized empowerment that produced friction between cultural gender norms that dictated women's pursuits and spatial orientations be primarily domestic in nature. She attempts to make the link between the presence of industrialized labor and deepening gender tensions.

She then applies this line of reasoning to the implementation of NAFTA in 1994, emphasizing a causal link between hyper-industrialization and the first reports of the female homicides. The evidence that ties these types of sexual female homicides to the presence of factories comes from an incident in which a thirteen-year-old female worker was on her way home, and the last one off the bus. She was abducted, raped and left for dead on the Juárez periphery but survived and identified her attacker as the bus driver (Wright, 1999, p. 557). This raised the issue of the culpability of corporations in regard to a perceived surge of female homicides. Wright (2006) examines how corporations and business associations employed the discourse of public women in order to deflect any responsibility they may have had—especially

with regard to bus driver hiring policies—onto the women themselves. She cites an interview with a representative of the Ciudad Juárez Maquiladora Association that appeared on the popular American news magazine program 20/20 in 1999. "When asked why the violence was occurring, the spokesperson responded: 'Where were these young ladies when they were last seen?' he queried. 'Were they drinking? Were they partying? Were they on a dark street?" (p. 686). Wright argues that the reproduction of this narrative of public women underwrites the devaluation of women at large, and perpetuates the idea of women as disposable.

The second part of her argument rests upon examining corporate attitudes toward female workers through "the tale of turnover that is told by *maquila* administrators," as "the Mexican woman takes shape in the model of variable capital whose worth fluctuates from a status of value to one of waste" (Wright, 1999, p. 454). She focuses on high turnover rates among female factory workers to illustrate how this diminishing value takes shape. The continuous reproduction of turnover creates the perception that female laborers lack commitment to work and that any training that is invested in their development as employees will ultimately be wasted. In this context, devaluation is born as workers are now characterized as a waste of significant investment, in addition to being unreliable, disposable and replaceable (Wright 1999).

These assumptions raise many questions that necessitate further examination. First, the timeline that explains the emergence of the *maquila* system in 1964, and the confluence of NAFTA and the first reported instances of femicide in 1993, needs to be addressed. Secondly, the term femicide itself proves to be hazy in relation to its generality, and recent research suggests the sensation it has produced may in fact be a myth when one examines the available statistical data (Albuquerque and Vemala, 2014; Hooks, 2014). Though superficially convincing, the quantitative studies fail to capture critical aspects of gendered violence, notably motive and

context, which are unique in each instance. Overall, the argument set forth by femicide scholars requires an uncomfortable leap of faith to bridge acts of violence and geo-economic processes, which seems a bit disjointed.

3.3 The Wright Timeline

In order to link the emergence of femicide to the *maquiladora* system, Wright situates her timeline to reveal the extended history of how the system first developed in 1964 to address the labor surplus that was anticipated in Mexico as the US brought the Bracero Program to an end. In 1964, the US Border Industrialization Program established the first *maquiladoras* in border cities. She considers this moment to be pivotal in setting the stage for expanded economic opportunities for women as they were perceived to be the ideal laborers due to perceptions that they were "dexterous, attention-oriented, patient, and docile" (Wright, 1999, p. 466). She contextualizes this as a critical part of the further expansion of the *maquila* system in 1982 under Mexico's structural adjustment obligations as a result of the Mexican debt crisis (Wright, 2006). The *maquila* system grew exponentially as a result of NAFTA in 1994.

According to this timeline, these factories have been a presence on the US-Mexico border for some thirty years prior to the earliest reported incidents of femicide in 1993. Wright's assertion that the femicides are the direct result of trade liberalization and the erosion of women's labor value begs the question, why did the *maquiladora* system persist for three decades without such incidents of violence? It seems counterintuitive to claim that over a thirty-year period with the accretion of women's presence in the labor force that the social tolerance of expanding labor opportunities to women deteriorated to such a degree as to result in serial murder. Scholars Kathleen Staudt and Howard Campbell (2008) address this gap as they state:

In the 40 years of industrial production on the border, gender anxieties, threats and some male backlash have emerged in response to women's greater earning power, however

modest, in the formal workforce. The local media have sometimes expressed hostility toward the *maquiladora* women, most notably in the 1980s and 1990s. ... However, by the late 1990s, the border media reflected massive outrage and soul searching within the city (p. 18).

Staudt and Campbell agree that the gender hostilities femicide scholars attest to were in fact present, however they disagree on the extent to which these hostilities have led to murder. The 'massive outrage' to which they refer to evokes a sense of universal disgust among both the men and women of Juárez regarding the murders. What is unclear is how much of the gender hostility that femicide scholars rely upon to frame the idea of hostility toward public women was or is actually at play in regard to the Juárez female homicides.

In Mexico, the cultural gender ideals of *machismo* and *marianismo* are believed to shape negative attitudes toward women in the labor force, with *machismo* being associated with the ideal masculine role of patriarch, provider, and protector of the family, and *marianismo* as the ideal feminine traits of passivity, nurturing, and vulnerability. The preference for female labor that Wright describes most certainly upsets these gender dynamics, turning the female into the breadwinner, with the male struggling to support his family on his own.

Just as Wright's (2006) timeline produces a hazy thirty-year gap between the emergence of the *maquiladora* system and the first incidents of femicide, she makes statements that suggest that women were significant participants in public affairs between 1964 and 1994 and had measurable social and political effects.

Since the early 1980s, the state of Chihuahua had taken a lead in as a state with strong political opposition to the PRI Party, which had governed the country autocratically since 1929. Women in Ciudad Juárez and Chihuahua City were especially active in the democratization movement, monitoring polls and calling for an international media presence during elections through the 1980s and 1990s. Through such efforts, northern Mexico became a base for the opposition PAN Party, which in 2000 successfully dethroned the PRI (p. 692).

This places women as active members of the national public sphere, and demands further examination, as the political realm is commonly perceived as a characteristically male enterprise. By claiming that women were "especially active" in politics and had the means to draw "an international media presence" during elections gives women more agency than Wrights's main argument affords them. If one is to follow the perception of public women being perceived as a disruptive social force that breeds gender hostility, revealing more than two decades of women's political participation raises questions as to which specific forms of public participation were provocative and which were not. It is probable that women's wage labor threatened to destabilize men's breadwinner status, while women's participation in the political sphere—particularly in PAN party politics— was often aligned with broad-based political goals shared by men and women alike (Venegas, 1998). In some cases women's participation mostly focused on agitating for social welfare issues that primarily impacted women, children, and the family (Camp, 1998). Lilia Venegas (1998) writes that women's participation in PAN politics alongside men was accepted, if not encouraged, yet mostly occupied a supportive role within these groups—"'ellos toman decisions; ellas hacen los tortas' (men make decisions; women make sandwiches)" (p. 215). In this sense women's political participation directly benefitted men's political ambitions while simultaneously being an important means for women to have a voice and actively participate in the public sphere by challenging the political status quo. The absence of femicide between 1964 and 1993 suggests that, while at times a source of social tension, women's labor and political engagement were, at the very least, tolerated without provoking instances of serial violence.

3.4 Questioning 'Femicide'

It is hard to escape the impression that the term femicide relates specifically to the serial sexual homicides of an estimated 400 women. The common narrative of the phenomenon begins by describing the most shocking and sensational crime scenes of the numerous instances of femicide. Yet, this appears not to be the case for all femicides. The term is often applied generally and encompasses all forms of female homicide, including those that result from instances of intimate partner violence. This requires some unpacking and context-specific examination that both separates the more sensational acts of violence from those that fail to attract as much attention, as well as examining instances of female homicide in Juárez comparatively to other cities in Mexico in order to test these claims that the serial murder of women in Juárez is actually occurring.

Recently the narrative aspects of the Ciudad Juárez femicides have been subject to scrutiny, with scholars questioning whether or not there exists a crisis-level problem to the extent that it is portrayed in academic and journalistic sources. Two studies in particular stand out on the basis of methodology, with the goal of pointing out popular distortions in the number of female homicides, particularly in the case of a purported "600 percent increase" (Hooks, 2014) in femicides between 1994- 1997. Molly Molloy, a research librarian at New Mexico State University, has amassed a vast range of sources related to US-Mexico border politics, and recently gave an interview in which she regarded the Ciudad Juárez femicide phenomenon as a myth (Hooks, 2014). Scholars Albuquerque and Vemala (2014) come to the same conclusion as Molloy. What is significant about these two pieces is that each provides a statistical analysis of Ciudad Juárez homicides, a method that qualitative studies of the topic have failed to execute.

Molloy claims that "Female murder victims have never comprised more than 18 percent of the overall number of murder victims in Ciudad Juárez, and in the last two decades that figure averages at less than 10 percent. That's less than the United States, where about 20 to 25 percent of the people who are murdered in a given year are women" (Hooks, 2014). When faced with these percentages, with 18 percent being on the high end of female homicides, that means the percent share of male homicides—at this high-point—was 82 percent; a shockingly high number. Molloy asks, if the male homicide rate is in the 80 to 90 percent range, why then is nobody focused on these male victims? She further argues,

If 300 people are killed and 30 of them are women, but the women's murders are the ones that get all of the attention, I find that to be absolutely mistaken and wrong. There are so many other victims and people are killed for many different reasons. Not every woman victim is killed for some sexual reason, or simply because she's a woman. Sometimes people say to me, well, the women are innocent, the men that are killed are narcos and criminals. That's such an oversimplification, and it is a statement made with absolutely no evidence (Hooks, 2014).

Albuquerque and Vemala (2014) address the lack of quantitative analyses by looking at whether the presence of the *maquilas* in Juárez contributed to changes in female homicide rates between 1990 and 2012, using statistical evidence from coroner reports in Mexico. They compare US and Mexican border cities, Mexican non-border cities, and Houston and Los Angeles, in order to determine if Juárez is exceptional in relation to purported higher-than-average, crisis level incidents of femicide. They conclude that Juárez is not exceptional, and in fact, the number of available jobs in the region for women may actually be a factor that contributed to a lower than average percent share of female homicides in Juárez (9.7%) between 1998-2003, compared to non-border cities in Mexico where populations are significantly lower, yet femicide rates tend to be higher (for example, Reynosa (15%) and Matamoros (12%) in Tamaulipas, a border state and known drug war space). Additionally, between 1994 and 2012,

the percent share of female homicides in the US cities of Los Angeles and Houston were, respectively, 13% and 17% (p. 16).

The authors question the narrative of the typical female homicide victim by examining coroner reports of the victims' profiles. Where the narrative follows that the victim is a young woman between the ages of 15 and 24, the authors found that this profile was somewhat applicable (37%), yet complicated by the fact that 32 percent of victims were between the ages of 25 and 44, which is equally significant. Examining marital status, they show that while the majority of victims were single (39%), a nearly equal number were married or cohabitating (34%) (p. 18). They also analyzed the victims' employment status and found that while femicide scholars focus on the female laborers in the *maquilas* as the main victims, the statistics show that between 1998 and 2003, the majority of victims were "not employed," while only 10 percent of victims were employed in manufacturing. Statistics for the year 2010, a particularly violent year, reveal the number of victims employed in manufacturing shrunk to just 3 percent (p. 17).

While these statistics suggest distortions of fact made by femicide scholars, it is critical to keep in mind that the raw numbers in the Albuquerque and Vemala piece fail to capture the manner in which women are killed—for example, serial sexual violence, instances of humiliation and torture, drug-related violence, robbery—and tend to assume a homogenous cause of death, "homicide," rather than exploring the unique contexts of the murders themselves as isolated incidents that are comprised of different actors, different motivations, and different circumstances and victims' identities. Also, by focusing on body counts, quantitative analyses cannot account for the number of disappeared women whose fates are unknown. Though quantifying the dead is important in assessing the scope of the problem, this conveniently bypasses another significant part of the story. How does one quantify the disappeared? While the

numbers and statistics reveal differences in regard to the common conception of victim's profiles and hint at a sensationalized crisis, it would be difficult to argue that gender not is operating in some way in these female murders. This raises the question, if not a crisis, then what do the Juárez femicides reveal to us about how gender and what Wright (2011) has called "necropolitics," referring to the biopolitics of the dead, are operating in this particular place through the reproduction of death? What kind of gender "necropolitics" do these female homicides create? These are the questions we should be asking.

3.5 Making Room for the "Balloon Effect"

Where femicide scholars emphasize the expansion of free trade to contextualize these female homicides, I propose that a different timeline be examined, one that more coherently links the core aspects of violence, political corruption, and impunity. The femicide literature looks at major geo-economic shifts that occurred in 1993 to explain the shock of femicide, but major shifts in drug war geopolitics during this exact same period warrant greater attention and analysis. The progression of Mexican drug cartel influence and power in Juárez grew significantly between the mid-1980s and early 1990s as the result of the balloon effect—the theory that law enforcement pressure on one drug market or route will push drug flows and operations into other areas. Friesendorff (2005) argues against a simplistic understanding of the balloon effect as relocation in and of itself, as the geographic shifts of drug flows result from a cluster of factors that contribute to displacement. Dominic Corva (2014) adapts this concept by adding the critical aspects of territorialization and reterritorialization to take into account the "complex network of social relations" (p. 76) that shape the nature of drug flows. This is essential in revealing how trafficking groups become rooted in certain places through the use of violence and bribery as territorial strategies. The following discussion integrates these two

understandings of the balloon effect by analyzing US and Colombian counternarcotics operations and NAFTA as factors contributing to the shift in drug flows away from the Caribbean route and toward Mexico. I also examine the territorial processes that accompanied these shifts between the late 1980s and early 1990s. Additionally, I argue that a similar balloon effect is taking place in the Northern Triangle countries—El Salvador, Guatemala, and Honduras—that shows similar patterns of gender violence as a result of shifting drug flows in the region.

In 1981, an article in *Time Magazine* exposed the proliferation of cocaine use in the US (Demarest, 1981). This was followed by another article that examined a string of drug-related homicides taking place in Miami, known in the press as the 'Cocaine Cowboys murders' (Kelly, 1981). As a result of the violence and increased consumption of cocaine among Americans, American drug enforcement agencies joined Colombian officials to both stem the supply of cocaine flowing into the US through interdiction, and target Colombian drug 'kingpins' in the Medellín and Cali cartels—the dominant trafficking organizations supplying cocaine to US drug markets. By the mid-1980s, officials successfully shut down the Caribbean drug corridor through greater aerial surveillance in the Gulf of Mexico. Success was measured by the decreased number of drug seizures along this route (which had dwindled to nearly zero), and the perception that less drug supply in the US would create cost-prohibitive prices for drug consumers, lowering demand overall. While patrols noted little activity along the route, informal inquiries into street-level dealing and pricing failed to materialize the higher prices law enforcement officials anticipated (Jehl, 1989).

By 1989, major newspapers began running articles discussing the increased number of seizures along the US-Mexico border—a noticeable shift away from the Caribbean route (Berkes, 1989). An article in the *New York Times* noted that even Canadian authorities had

1,100 pounds of cocaine. Over time, Colombian cocaine traffickers had established several land-based transit routes through Central America, making Mexico a critical point between Colombia as a production site, and the US as a destination. Preexisting alternative transit routes demonstrate the highly adaptable nature of drug trafficking, which enabled these groups to easily circumvent the fixed nature of localized enforcement operations (Friesendorff, 2005, p. 57-58). According to an article in the *Los Angeles Times*, the shift was the result of, "In Mexico's case, a massive US interdiction program throughout the Caribbean in recent years has increasingly shifted traffickers away from their usual routes to south Florida and made this country a growing transshipment point for South American cocaine headed for the US" (Miller, 1989). These articles locate Mexico as a new hub for drug trafficking operations as a direct result of greater surveillance over the Caribbean route, and pay particular attention to the importance of the balloon effect.

It is critical to note that by 1991, trafficking organizations in Mexico had not yet gained any sort of power from this change in flows. They served as intermediaries, providing secure passage of narcotics by bribing local officials. Even though the Caribbean drug route had been effectively destroyed, there was still the matter of capturing Colombian cartel leaders (Livingstone, 2004). The US government's Andean Strategy favored military interventions in Colombia to curb the supply of drugs and eliminate cartels. In 1991, a briefing paper published by the Washington Office on Latin America expressed concerns over the effects of this militarization, as it too emphasized the balloon effect, with more importance being placed upon how counternarcotics enforcement policies would actually "undermine human rights, democratization, and political stability" (US Congress, 1991). Human rights violations and

increased violence were assumed to be byproducts of efforts to militarize the drug war in Latin American nations that already experienced high incidents of corruption among law enforcement. "Rape by members of the security forces is reported to be so frequent that 'such abuse can be considered common practice, condoned—or at least ignored—by the military leadership" (US Congress, 1991). This point provides evidence of the link between drug war violence and violence against women, but draws attention to acts of violence perpetuated by authorities. It also foreshadows another type of balloon effect—one that takes into account that as drug flows shift to other locales, so does the violence that accompanies such an enterprise, and that which results from counternarcotics enforcement.

By 1993, the cooperative efforts of the American Drug Enforcement Administration,
Delta Force, and Colombian authorities and paramilitaries had contributed to a massive
restructuring of the Colombian cocaine industry. Mexican traffickers who aided in distribution
for Colombian cartels early on began to fill the void left by these organizations and dominated
the industry within Mexico. The timing could not have been more auspicious. Not only did the
Mexican cartels thrive as a result of the unanticipated effects of American-led transnational
counternarcotics policies, they also benefited serendipitously from the effects of free trade. The
confluence of these factors enabled trafficking organizations to assert their dominance
territorially through capital investment, violence and corruption.

In 1994, NAFTA sought to limit trade barriers by enabling a greater free-flow of goods between Canada, Mexico and the US. Public debate in the US regarding NAFTA was tense, with concerns regarding the loss of American jobs, increased illegal immigration, and drug trafficking—each focusing on the changing economic relationship between Mexico and the US specifically. In order to mollify public anxieties toward NAFTA, then Attorney General Janet

Reno addressed these issues in a series of speaking engagements. In regard to the pressing fears over drug trafficking, Reno stated, "With NAFTA in place, I can work more effectively with my Mexican counterparts to ensure tough, honest enforcement of our anti-drug laws. Cooperation with Mexico is good for American law enforcement; it will help us do our jobs. That is why we need NAFTA" (White House, 1993). Despite Reno's assertions that US hegemony in the region would provide even greater oversight, an article in the Washington Post stated that some "drug lords" were already purchasing *maquiladora* companies, and "establishing trucking subsidiaries of the firms, ostensibly to ship the goods they produce" (Raab, 1993). This article also expressed anxieties regarding increased incidents of violent shootouts by Mexican cartels, and the deteriorating effect that "the epidemic of drug-induced corruption has left the Mexican judicial system in shambles" (Raab, 1993). By 1998, a confidential document "Drug Trafficking, Commercial Trade and NAFTA," written by Operation Alliance— a concerned consortium of drug enforcement agents—began to circulate amongst government officials. According to an article in the Wall Street Journal, this report verified the ways in which drug trafficking organizations were investing in legitimate businesses in order to facilitate the transport of narcotics, some even going so far as to use consultants in order to determine the best means to accomplish this (Hays and Allen, 1998). In many ways NAFTA can be understood as an attractive pull factor for the emerging reterritorialization of the drug trade by Mexican traffickers, as favorable cross-border transport conditions became fixed in the US-Mexico border landscape. Traffickers' investment in legitimate transport businesses in the border region functions as a territorial strategy to circumvent border controls and law enforcement under the new free trade imperative.

Since the mid-1990s, trafficking organizations in Mexico have fought amongst themselves in order to maintain control of vital transit routes. As a result, corruption of police forces and government officials became rampant. The extent of the corruption, and the likelihood of being brought to justice for any crimes of drug trafficking, murder, extortion, kidnapping, or other acts known to be carried out by cartels, was and remains low. This impunity is defined as "The code word for inept, incompetent and/or complicit law enforcement personnel and institutions at the municipal and state levels of Mexican society," and the low likelihood of being prosecuted for one's crimes (Staudt and Campbell, 2008, p. 17). In this context, violence, corruption and impunity work concurrently as territorial practices that reveal the relationships and interactions between trafficking organizations and their locations.

Though the female homicides have not been linked to a single contributing factor,

Howard Campbell has made the link between drug trafficking and the Juárez female homicides:

"From 1993 onward Amado Carrillo Fuentes, an innovator in jet-transporting cocaine from south

America to northern Mexico, substantially increased the volume of cross-border drug trafficking,

homicides, including a substantial number of killings of women that were labeled 'femicides'

increased correspondingly" (2011, p. 20). Some have also noted that hyper-masculinity, and

disrespect of females is a considerable component of the drug trafficking sub-culture. Women

have been used as symbols of male dominance, and many have been raped as part of gang

initiation rituals (Carlsen, 2008). If one considers these instances in light of previous

explanations of corruption and impunity, examining these specific acts of violence against

women—within the world of cartels—does more to reveal the source of violence, corruption and
impunity than an analysis that favors free trade and *maquiladora* labor practices as the most
significant causes. If the balloon effect of drug policy were taken with greater weight, incidents

of violence against women would be more coherently defined and understood as consequences of international drug policies, much more so than arguing the cause of such violence is the presence of global industrial labor practices.

In 2011, two articles appeared in *The Economist*, drawing attention to the presence of Mexican drug traffickers in Central America. One piece explained the problem rather succinctly: "Now violence is escalating once more in Central America, for a new reason. Two decades ago the United States Coast Guard shut down the Caribbean cocaine route, so the trade shifted to Mexico. Mexico has started to fight back; and its continuing offensive against drugs mafias has pushed them down into Central America" ("Central America's Woes," 2011). Another article explained,

The impact has been lethal. Guatemala's murder rate has doubled in the past decade. In both Guatemala and El Salvador, the rate of killing is higher now than during their civil wars. Guatemala's government reckons that about two-fifths of the murders are linked to the drugs business. Even Panama, much richer than many Central American countries ... has seen its murder rate almost double in the past three years. ("Central America," 2011)

Clearly the balloon effect is evident in these examples, and the link between increased homicide rates and the presence of cartels is being established. If these events are compared to the emergence of powerful drug cartels along the US-Mexico border in the early 1990s, and if female homicides are to be properly considered as a consequence of the balloon effect, one would expect to find a similar, observable pattern of gender violence occurring presently in Central America.

The area of Central America in which this new balloon effect is occurring presently is known as the Northern Triangle. InSight Crime, a global journalism and consulting firm focused on crime in the Americas, published a report attesting to an alarming increase in the number of femicides in these nations (Fox, 2012). Statistics compiled from Honduran, Salvadorian, and

Guatemalan officials—as accurate as these records may or may not be—indicate that Honduras has experienced the most significant increase in the number of female homicides, more than doubling from nearly 300 to 600 between 2007 and 2012. Female homicides in El Salvador jumped dramatically between 2008 and 2011, from 400 to just over 600 (Fox, 2012; UNODC 2013b). Overall, Guatemala also demonstrated an increase in female homicides, however, the current trends suggest these instances are on the decline (Fox, 2012; Boche, 2012).

According to data provided by the United Nations Office on Drugs and Crime (UNODC 2013a; 2013b; 2013c), the Honduras National Commission on Human Rights (CONADEH, 2013), and Amnesty International (2013), it is clear that the number of female homicides in these nations certainly increased between 2008 and 2011. Yet claims that this increase in female homicides is part of a broader femicide creates a one-sided representation that suffers from the same issues raised by Molloy, Albuquerque and Vemala. Visualizing this data based on the raw numbers of female homicides only—rather than a percent share, a median average, or rate per 100,000—gives the false impression of a crisis.

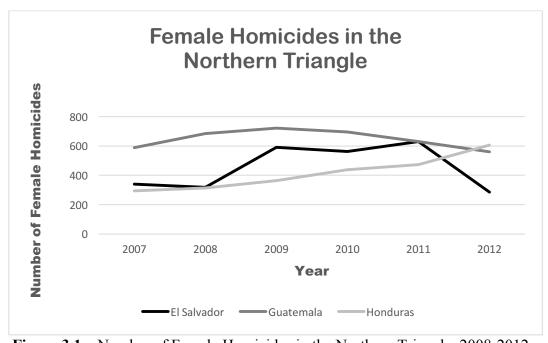


Figure 3.1—Number of Female Homicides in the Northern Triangle, 2008-2012.

Using these same data sets, looking specifically the percentages of male and female homicides by country, it is equally evident the number of male homicides jumps significantly in comparison to the number of female homicides.

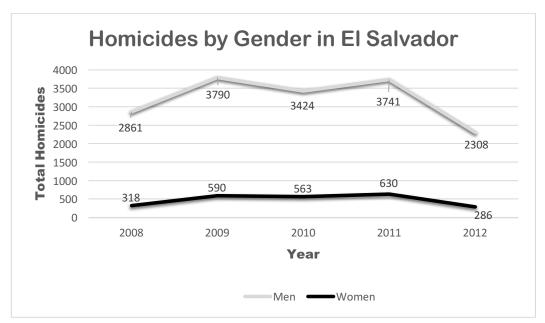


Figure 3.2—Homicides by gender in El Salvador, 2008-2012.

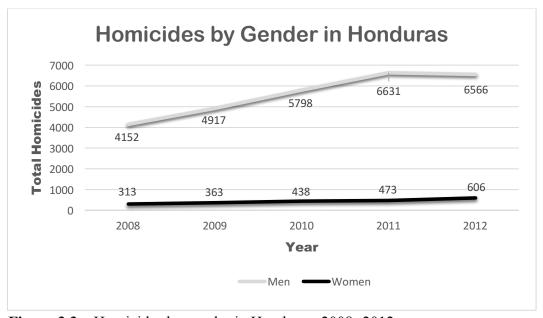


Figure 3.3—Homicides by gender in Honduras, 2008-2012.

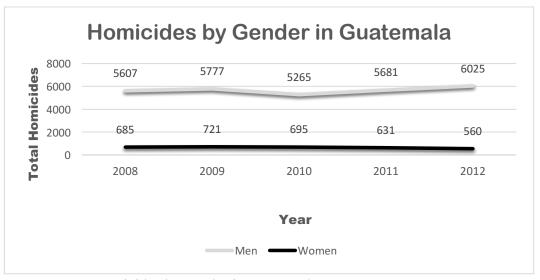


Figure 3.4—Homicides by gender in Guatemala, 2008-2012.

In comparing homicide counts by sex in Central America, the percent share of female homicides never rose above 15 percent between 2008 and 2012, a time when US funding for the Merida Initiative had been allocated to counternarcotics programs in drug war spaces in Mexico, and southward migratory shifts in drug trafficking patterns began to flow into Central America. The highest share of 14.4 percent occurred in 2009 in El Salvador. This points to another flaw in femicide quantitative data representations—the inability to tease out those murders of women that were truly motivated by aggression toward women because of gender, and those that were motivated by other violent acts in more place-specific contexts—such as drug violence, civil wars and military coups, spontaneous violent acts or those directed at indigenous groups. In these cases, this statistical data in terms of body counts does not capture the unique contexts and complexities inherent to homicide cases, and obscures the presence or absence of gendered motivations in each particular instance. Hence, it is not the number of dead that matter, but rather the motive and context of each homicide.

It is important to explain the different reasons that are being put forth in order to explain these murders as they occur in this region. Discussing female homicides in Central America

specifically, the dominant causes are weak political institutions, violence, and "systematic indifference of police" (Kelly, 2013). This rationale stands out against past analyses of femicide that have focused primarily on global industrial capital by explicitly acknowledging the significant role drug trafficking organizations have played in creating the present conditions under which female homicides proliferate in this region. A report by the Guatemalan Human Rights Commission (2011) stated, "Drug related violence in Guatemala has become increasingly savage since 2006, as powerful Mexican cartels battle each other and Guatemalan traffickers for control over what has become a key link in the cocaine route from Colombia to the US" (p. 55). Another report released by a cooperative of NGOs notes that in regard to femicide, "There are direct and indirect links to the drug trade, as well as gang activity, but the lines are not often clear. In depth research on the circumstances of female killings is needed, and the indirect links to drugs and gang activity must be investigated" (Path *et al.*, 2009, p. 55).

While some rationales point to drug traffickers themselves as the perpetrators, others look toward the police and military as another source of violence against women. A report by the Nobel Women's Initiative (2012) explained that the hyper-militarization of the drug war has led to a dramatic increase in violence against women at the hands of these officials, who perceive themselves to be above the law. The report explains how the presence of violence, corruption and impunity perpetuates this sort of behavior among officials to the extent that it becomes normative. Additionally, female homicides have also been carried out as "vengeance killings" to send a message to the victim's male family members who might owe drug debts to gangs and organized crime (p. 19). Even the female family members of police officers have been known to be victimized in a similar way, as the author notes that "gang attacks on cops are often avenged by cops on the female family members of gang members" (p. 19). This illustrates how

interactions between these groups reproduce gendered forms of violence, where gender operates as a symbol of dominance. These explanations coherently connect the event of female homicides directly to the factors of corruption, impunity and violence, and establish that some form of gendering is present in relation to victimization.

If these female homicides are to be understood as consequences of the balloon effect, it is probable that instances that occurred in Ciudad Juárez in the early 1990s and early 2000s are being reproduced in Central America in a similar way. As the balloon effect itself explains the movement of drug flows, looking at Corva's (2014) inclusion of the territorializing effect of these changing flows is critical because the spread of violence accompanies this process, and these violent acts can be understood as territorial strategies trafficking organizations utilize to control space. If the location of the next balloon effect can be predicted, then so might the consequence of violence against women, which opens up new research questions that could further explore the negative externalities of international counternarcotics operations through militaristic solutions that disproportionately affect women.

3.6 Conclusion

It is possible that we may never know precisely what contributes to these female homicides in Juárez. One interesting theory of note involves speculation that the Juárez female homicides may be the work of a serial murderer. The trial of Manuel "El Meny" Vital Anguiano, and five others charged with murder and human trafficking, which commenced in April of 2015, suggests there may be some credence to this theory, though the eleven murders these men stand accused of would account for a small portion of the Juárez female homicides overall. Based on the defendants' purported links to organized crime and the drug trade, this case demonstrates that the presence and augmented power of criminal organizations in the region functions as a

mechanism for increased gender violence (Patterson, 2015). Scholars invested in examining these cases are left to grapple with assessing the most probable causes due to a lack of diligent casework at the scene, corruption of law enforcement, and incomplete data sets; what Friesendorff (2005) would consider empirical black boxes, "since a specific examination cannot be excluded or proven beyond any doubt" (p. 61). I have argued that a geopolitical framework that examines the balloon effect of drug flow displacement more clearly connects the factors of violence, impunity, and corruption to territorial strategies of drug traffickers, as opposed to the feminist political-economy framework that emphasizes the negative social impacts of free trade and *maquiladora* labor practices.

The emergence of the *maquiladoras* in 1964 and the first known incidents of femicide in 1993 occur too far apart to offer a convincing claim that points to the industrial labor economy as a driving force behind an increase in the number of female homicides in Ciudad Juárez in the late 1990s and early 2000s. Much of the femicide literature rests upon a three-legged stool in which the murders have been carried out as a result of the confluence of violence, political corruption and impunity. Yet, these aspects are often taken for granted. The reader is to believe that they have always maintained a presence; as if in Mexico corruption, impunity and violence simply exist outright, as does a healthy disrespect for women. A specific Latin male machismo is perceived as the cause, and is thus a cultural flaw. Staudt and Campbell (2008) argue that machismo is used as "an oversimplified term that Latinizes the gender power relational changes all over the world" (pp. 17-18). Universalizing machismo as a cultural attribute maps this as a value endemic to Mexican culture, as if machismo were homogeneous among Latino males—an attribute that may or may not be shared among individuals, or present in certain subcultures, but should not be ascribed to culture as a whole. Femicide scholars would agree that cultural

explanations of violence are dangerous because they have the potential to become naturalized and appear essential to Mexican culture, yet it is hard to escape that this line of thinking is a key component of this rationale. In this sense, the general definition of femicide becomes problematic, as "the murder of women because they are women" takes machismo for granted. Feminist scholars would argue that a distinct form of gender oppression operates on an insidious level in most societies, yet rather than universalizing machismo, we might look at how this specific quality manifests with greater intensity in certain subcultures—for example, organized crime groups— more so than others.

Furthermore, criticism of the femicide narrative through the use of statistical analysis demonstrates though female homicides have increased, male homicides have increased correspondingly. At the height, female homicides garnered an 18 percent share of all homicides, but that only means that male homicides remained much higher. Yet these quantitative studies must be taken with a grain of salt as, despite the hard numbers, the nature of female homicides in a place-specific context must be studied according to each crime's unique characteristics—something that cannot be understood from looking at statistics alone.

It is not clear that the presence of global industrial capital or free-trade in the US-Mexico borderlands is directly connected to female homicides. It is as if one is forced to make a leap of faith by assuming that the presence of industrial capital along the border has suddenly caused preexisting and precarious gender fault lines of Mexican society to rupture to such a degree as to result in such violent serial homicides, because society was leaning that way already. If so, why would the femicide phenomenon suddenly appear during the tail end of the twentieth century, after nearly thirty years of transnational economic integration at the US-Mexico border? If

violence, impunity, and corruption are the main factors contributing to female homicides, this rationale leaves no room for these aspects to be reasonably discussed.

The success of US and Colombian cooperation in destroying the Medellín and Cali cartels, as well as greater surveillance and seizures along the Caribbean route pushed drug flows in new directions, creating a 'balloon effect.' A direct consequence of the relative success of the US-Colombian partnership was that it created a power vacuum, which enabled Mexican drug traffickers to assume control of the hemispheric drug market. Considering the increase in gendered acts of sexual violence it is quite probable that drug trafficking organizations played a role in escalating violence in Ciudad Juárez, and that the simultaneity of NAFTA may have augmented the power of cartels by facilitating greater movement of drug flows into the US.

Any analysis of gender-based homicides that does not examine the balloon effect in regard to instances of escalating violence in place-specific contexts forecloses opportunities to discuss the human effects of international drug policies. As journalists and some scholars have shown, a new balloon effect is occurring in Central America and is being accompanied by increased incidents of femicide. By looking toward global industrial capital as the source of this violence other more probable reasons and contributing factors become obscured, and an opportunity to critically examine drug policies is lost.

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4. "The best that we can do." Policies of Good Intention and the New Geographies of Risk

4.1 Introduction

It is well documented that deaths from drug overdoses in the United States continue to rise, as a result of what public health and safety stakeholders have broadly labeled "the opioid epidemic." In their studies of mortality in the U.S., Case and Deaton (2015) found instances of drug poisonings, suicides, and self-reported declines in overall health, including depression, chronic pain, and reduced liver function, were highest among the mid-life, non-Hispanic white population (Case & Deaton, 2015: 10,580). A significant component of their analysis elucidated upon the likely causes of these phenomena— the seeming co-occurrence of the latent effects of deindustrialization, prolonged unemployment, increasing rates of income inequality, and changes in the medical approaches to treating pain (Case & Deaton, 2015). It is also said that pain medication development, the emergence of the hospice movement, the inclusion of pain as "the fifth vital sign," and the apparent link between instances of depression and physical pain, contributed to an overwhelming trend of overprescribing (Quinones, 2015). Additionally, aggressive sales and marketing practices of pharmaceutical companies—notably, Purdue Pharma—relied upon under-developed medical research that grossly underestimated the potential for addiction inherent to opioid pain medications (Quinones, 2015). Measures have been taken to modify the physical structure of pills with abuse deterrent formulations, and many state boards of pharmacy have introduced data-based solutions aimed at tracking and reducing the supply of opioids in circulation through mandated prescription drug monitoring programs (PDMPs). Though these non-punitive drug control strategies aim to prevent overdose deaths in the long run, in most cases the results are falling short of expectations. A recent Centers for Disease Control and Prevention (CDC) press release concluded that "America's overdose

epidemic is spreading geographically and increasing across demographic groups" (Centers for Disease Control, 2018a: 1).

PDMP mandates have been described as a public health approach to regulating prescription drugs, a departure from a conventional carceral approach centered around law enforcement. This is still a supply side approach aimed at reducing the number of opioid doses per capita circulating among a population. The geographic impact PDMP effects are two-fold. First, because PDMP laws are established on a state by state basis, differences among states' policies have meant that state borders have become problematic liminal spaces complicating efforts to curtail the problem. This is visible in the Appalachian region, where state borders cluster and form a kind of "hot zone" of drug overdoses at the intersection of southern Ohio, western West Virginia, and eastern Kentucky (Jalal, Buchanich, Roberts, Balmert, Zhang, and Burke, 2018).

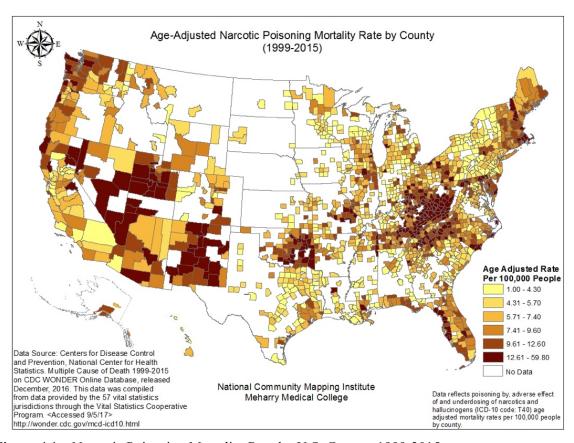


Figure 4.1—Narcotic Poisoning Mortality Rate by U.S. County, 1999-2015. Source: Professor Wansoo Im, National Community Mapping Institute, 2018. Used with permission.

Secondly, the imposition of PDMP laws alters the geography of illegal drugs and introduces additional risks to the addicted population--who have begun substituting heroin for prescription pills (Coplan, Kale, Sandstrom, Landau, & Chilcoat, 2013; Cicero & Ellis, 2015). It is likely that the driving force behind the unabating number of overdose deaths is the presence of fentanyl, and fentanyl analogs such as carfentanil, in the illicit heroin supply. Heroin substitution has become a form of outsourcing where drug trafficking organizations step in to fill the demand for opiates formerly met by prescribers. As addictive and dangerous as prescription pain pills have proven to be, the fentanyl present in the illicit heroin supply has exacerbated the risk of overdose and death for the addicted population, and aggravated public health issues such as the spread of

blood borne illnesses like HIV and Hepatitis C ("Rural counties across the US becoming a powder keg for HIV outbreak," 2016; United States Food and Drug Administration, 2017).

Similar unintended outcomes can be observed from previously implemented, and equally well-intentioned, restrictions on purchases of formerly over-the-counter cold medicines containing pseudoephedrine (PSE) during the early 2000's, intended to curb the number of lab explosions associated with the clandestine home production of methamphetamine. As home production of methamphetamine declined, authorities noted the number of domestic clandestine lab incidents plummeted. Yet, drug trafficking organizations resolved the scarcity of home-baked methamphetamine with a new supply of highly potent and addictive crystal methamphetamine (Franco, 2007; Shukla & Bartgis, 2011; Van Haaften, 2006; VanderWaal, Young, McBride, Chriqui, & Terry-McElrath, 2013). In both cases, PSE and PDMP controls appear to increase risk for the addicted population, alter geographies of illegal drug supply, and lead to larger public health crises than they were intended to address. The barriers posed by current public health oriented drug policies, aimed at restricting but not prohibiting access altogether, fail to divert from conventional supply-side solutions as these approaches reproduce the same undesirable and unintended consequences.

The problem with supply side drug policies is the fact that while the specific goals to cut supply may be achieved, these policies regularly create other undesirable effects. As patterns emerge, the question arises—why are these same ineffective approaches implemented repeatedly? It is as if no thought is paid to the tendency for illicit traffickers to address high drug demand, and remedy the scarcities supply side approaches create. The composition of substitutes themselves appear to introduce greater risk to the addicted and the public at large. PDMPs situate state boards of pharmacy on the frontline of regulating the availability and supply

of prescription pain medications rather than law enforcement—developing a patient-centered approach to managing addiction, and reducing the punitive effects that law enforcement-centered approaches to controlling supply would introduce. One common critique of supply-side approaches is the likelihood of creating a Balloon Effect, a theory that suggests first, that drug markets are resilient, highly adaptive, and demand inelastic (Cunningham & Finlay, 2016) and second, that applying pressure on one aspect of the drug market inevitably creates geographic shifts in trafficking routes, suppliers, and production (Agnew, 2015; Corva, 2014; Frisendorf, 2006). If supply side outcomes are as predictable and inevitable as past interventions demonstrate, why do path dependent supply-side strategies remain the go-to approach to achieve productive outcomes? When an intervention approach is decided upon, who makes that decision? Why the continued reliance on policies that have not proved to achieve meaningful results for the addicted, and drug affected communities?

This paper explores the intersection of drug policy formation and drug control enforcement outcomes. Why do well-intentioned policies fall short of expectations, despite aims to achieve improved public health and safety outcomes. Specifically, do policy makers take into consideration the tendency for supply side measures to create a balloon effect? How do these considerations impact the expectations of whether a policy is successful or not? The stubborn adherence to supply-side approaches appears to be less of a problem of states responding to drug control with ineffective protocols, and more often the result of the limits of governmental bureaucratic processes and procedures being at odds with the highly adaptive capacity of drug trafficking organizations, where state responses are not timely enough to address problems as they arise. First, an overview of PDMPs—mainly their development and intentions—is provided. Then, a comparison is drawn between current PDMP mandates and recent measures to reign in

methamphetamine production in the early 2000's. This comparison reveals how laws restricting access to medications affiliated with drug addiction have produced adaptation strategies among cartels and small-scale producers to circumvent these restrictions. These adaptation strategies initially involve shifting the geography of illegal drug production toward international suppliers, resulting in a new supply of illicit drugs that is more potent and carries more public health risk than the drugs these new formulations replaced. Interviews with stakeholders, including PDMP analysts, program managers, and law enforcement officers, provide insight into the process of policy development and enforcement outcomes—which appears to be a difficult balance of weighing costs and benefits, and learning how to respond quickly when new challenges arise.

4.2 PDMP Background and Overview

Prescription Drug Monitoring Programs (PDMPs) are databases designed to track the prescribing practices of physicians and the use patterns of patients. Presently, 49 US states and 2 jurisdictions (Washington, D.C. and St. Louis County, Missouri) have fully-operational programs, 37 of which require mandated use by prescribers. The operational timeline of PDMPs has varied due to the patchy implementation of these programs by individual states over time. The current use of PDMPs to track prescription drugs occurred in response to the exponential increase in prescriptions for opiate pain medications beginning in the early 2000s, with the majority of registries tasked with tracking prescribing habits occurring in the mid aughts (Centers for Disease Control and Prevention, 2017; Muhuri, Gfroerer, & Davies, 2013; Seth, Scholl, Rudd, & Bacon, 2018).

Prescription Drug Monitoring Programs respond to the growing concern of prescription drug dependence among medical and non-medical users of Schedule II drugs. Schedule II drugs are medications with approved medical use, but carry the potential for abuse; the majority of

drugs listed under the category are opiates, with a few stimulants (including cocaine and methamphetamine) and barbiturates. On a scale from I- V, from most to least potential for abuse, and least to most acceptable medical use, Schedule II drugs sit between schedule I drugs, which are the illicit street variety (marijuana, heroin, LSD, psychedelic mushrooms, etc), and schedule III drugs which hold moderate potential for abuse (codeine-based cough suppressants and pain relievers, testosterone, anabolic steroids, etc.). Some PDMPs only account for schedules II and III, while others encompass II through V (United States Drug Enforcement Administration, n.d.).

The overall intention is to reduce the potential for diversion and abuse of prescription medications. Diversion refers the practice of patients selling their legally obtained prescription medications to other users for illicit consumption. Patients with verified prescriptions strategize to secure greater quantities of pills than they need, then sell the excess pills illicitly to nonmedical users for a profit. Non-medical users are identified as those who use prescription medications recreationally and may lack a medical purpose for consumption. Profits from illicit sale provide funds for the purchase of more prescriptions and other expenses. To secure a surplus pill supply, patients have been known to engage in "doctor shopping"— when a patient visits multiple physicians and pharmacies with the goal of securing more prescription medications. By tracking the number of prescriptions a patient attempts to fill within a certain time frame, and across various pharmacies, PDMPs facilitate investigation into this practice, and may also identify providers who over-prescribe consistently, aiding in the investigation of "pill mills" clinics operating under the guise of "pain management." By providing greater oversight of prescribing practices, PDMPs are effective in aiding investigations that shut down pill mills, have significantly reduced instances of doctor shopping, and reduced the amount of prescription drugs in circulation—limiting the potential for prescription drug abuse (Freeman, Goodin,

Troske, & Talbert, 2015; National Alliance for Model State Drug Laws, 2017; Reifler, Droz, Bailey, Schnoll, Fant, Dart, & Bucher-Bartleson, 2012; Schierholt, 2017; Worley, 2012).

PDMP's are most successful in states that are proactive in their approach to understanding various patterns of addiction, prescribing habits and public health outcomes by analyzing available data (including Treatment Episode Data Set (TEDS), Drug Abuse Warning Network (DAWN), in-state PDMP data, etc.) as it is received, tracking changes over time, and examining the spatialization of these changes. Where are certain variables (overdose rates, average morphine equivalent doses in circulation, prescribing data by county) occurring, and how, if at all, they are they changing (Finkela, Sacco, & Bagalman, 2014; Simeone & Holland, 2006; Worley, 2012)? For example, the Ohio Automated Rx Reporting System (OARRS) and Kentucky All Schedule Prescription Electronic Reporting (KASPER) programs publish quarterly county-level maps revealing the extent specific areas are either improving, worsening, or revealing little to no change in variables. States with "reactive" approaches to their PDMP data tend to examine problems after the fact, doing little with the information they have until a problem has already occurred (Finkela, Sacco, & Bagalman, 2014; Simeone & Holland, 2006).

PDMP's are evocative of a seemingly new approach to addiction that can be construed as a less punitive drug control strategy that is oriented toward public health, as this model situates pharmacists and physicians on the frontlines of supply control, and relegates law enforcement to an investigatory role. The overall goal of PDMPs is to reduce the amount of prescription drug supply in circulation—but it remains a predominately supply-side approach, which carries with it similar pitfalls and outcomes of conventional supply-side approaches (Cameron McNamme, personal communication, July 25, 2018). The implementation of PDMPs, and programs like them, has created unintended consequences, including changes in physicians' prescribing habits,

uneven geographic implementation, and altering drug consumption patterns among the addicted population. The implementation chronology of PDMP's coincides with other reactive policies—the formulation of abuse deterrent OxyContin and strategic law enforcement operations aimed at reducing the illicit supply of prescription opiates. The effects of these measures raise the question of whether some of the addicted have substituted heroin in place of prescription opiates, contributing to a spike in overdose deaths. While the epidemic itself cannot be isolated into a single cause, PDMPs must be considered as contributing factor in the sense that policies aimed at curtailing supply appear to be reproduce the same patterned outcomes as other supply-side approaches; notably, a shift in the geography of illegal drug flows, and offsetting the loss of one substance with a riskier, illicitly-manufactured substitute.

4.3 Literature Review

Much of the discussion surrounding the opiate epidemic fixates on the seemingly unrelenting number of overdoses, and overdoses resulting in death. In May of 2016 the *New York Times* reported that while prescriptions for opiates declined between 2013 and 2015, this failed translate into fewer overdose deaths (Goodnough & Tavernise, 2016). In 2018, the National Center for Health Statistics reported some reversals in overdose rates in certain states, but noted increases across the US overall (National Center for Health Statistics, 2018). This paradox is the outcome of a series of co-occurring interventions that have effectively reduced the supply of prescription drugs, leading to the "initiation" of heroin use among a percentage of those afflicted with what is being called "opioid use disorder" (Participant PC, personal communication, August 3, 2018). Recent studies explore whether a relationship exists between the "initiation" of heroin use among the addicted population and the emergence of PDMPs, and Purdue Pharma's structural reformulation of OxyContin tablets in 2010. In each of these studies the term

"initiation" describes the shift in drug consumption patterns away from pharmaceutical-produced opiate pain medications to illicit heroin. The term substitution is a more apt term, as studies show that many of the addicted have made the conscious choice to switch substances due to product changes, scarcities and price differences—an indication that a substitution effect is occurring (Jalal, et. al., 2018).

A related factor that appears to have accelerated the recent rise in heroin substitution is a change in physical structure of OxyContin and Opana tablets in 2010. Tamper resistant tablets were designed to be difficult to crush and abuse, where the standard formulation was more easily ground into a powder and consumed through any number of administration routes. Cicero, Ellis, and Surratt (2012) found that of 2,566 opioid dependent individuals surveyed in Q3 of 2010, 35.6% of respondents indicated Oxycodone as their primary drug of choice. By Q1 of 2012, this percentage dropped to 12.8% (Cicero, Ellis, & Surratt, 2012, p. 188-189). Qualitative interviews revealed that 66% of those surveyed had switched to heroin due to its low cost and easier administration, while 24% had found a way to deconstruct the tamper-proof tablets (Cicero, Ellis & Surratt, 2012, p. 189). A related study by Coplan and colleagues, funded by Purdue Pharma, investigated changes in the number of calls reported to the National Poison Data System and report that incidents involving abuse exposures OxyContin had declined by 36% after the introduction of the tamper-resistant formulation, yet exposures involving the standard oxycodone tablets had increased by 20%. Accidental exposures had declined 39% since the introduction of the abuse deterrent formulation, and while this may have been lauded as an achievement in the fight against abuse, Coplan et. al. note in the same breath that abuse exposures involving heroin had jumped to 42%, and accidental heroin exposures had increased by 21% (Coplan, Kale, Sandstrom, Landau, & Chilcoat, 2013, p. 1276). Authors conclude that while exposures

involving abuse deterrent OxyContin declined, the new formula would not prevent users from "switching" to other opioids or heroin (Coplan et al., 2013).

While restructured OxyContin tablets may have shifted user preferences, the change is acknowledged as having an observed effect on increasing rates of self-reported heroin use but cannot be determined to be the ultimate cause of this shift. Multiple co-occurring factors need to be considered alongside law enforcement operations and the development of individual state PDMPs, which may prove equally significant in producing sharp reductions in the available supply and subsequent abuse of prescribed pain medications. Studies show that restrictions on the availability of opioids—either through reformulation, prescriber and patient monitoring, and increased number of investigations—have been successful at reducing the general supply of opioids in circulation, and instances of diversion correspondingly, but that the substitution of heroin may be an inevitable byproduct, specifically among non-medical users (Compton, Jones, & Baldwin, 2016; Coplan et al., 2013; Dart, Surratt, Cicero, Parrino, Severtson, Bucher-Bartleson, & Green, 2015; Delcher, Wagenaar, Goldberger, Cook, & Maldonado-Molina, 2015; Jalal et al., 2018; Muhuri, Gfroerer, & Davies, 2013;).

The literature reveals that PDMPs have achieved many of their initial stated objectives—so long as these stated objectives are taken at face value. For example, in 1999, the state of Kentucky established its PDMP, KASPER, to "provide a tool for use by health care officials and law enforcement officials to fight abuse and diversion of prescription drugs" (Cabinet for Health and Family Services, 2006: 12). In 2004, the state of Ohio passed House Bill 377 (effective March, 2005), to allow "the state Board of Pharmacy to establish and maintain a drug database to monitor the misuse and diversion of controlled substances and other dangerous drugs ..." (47 Ohio Rev. Code. § 4729.75, 2004). In this sense, for PDMPs to be successful they need to show

1) a reduction in the number of prescriptions, and 2) more investigations into the prescriber and patient practices and behaviors to crackdown on the number of patient doctor shopping incidents (to prevent diversion), and the number of pill mills in operation. Research indicates that these programs have been successful in achieving these specific aims. Many note that PDMPs have reduced the supply of prescription pain pills in circulation (Gugelmann & Perrone, 2011; National Association for Model State Drug Laws, 2017; Perrone & Nelson, 2012), reduced incidents of doctor shopping (Worley, 2012), and produced a positive effect on the number of the addicted seeking treatment (Reifler, et al., 2012; Reissman, Shenoy, Atherly, & Flowers, 2009; Worley, 2012).

To evaluate the success of PDMPs against the stated intentions simply involves reviewing each variable (the number of opiates prescribed, number of investigations and prosecutions of doctor shoppers and pill mill operators) and comparing these numbers annually, or quarterly for some, and observing the trends that unfold. However, this approach does not require an examination of the full range of unintended—yet predictable—outcomes that appear to inevitably occur as a result of supply reduction, the most obvious of which is the rising number of overdoses despite the imposed barriers to access which seems to scream of an alternative supply source circumventing these controls. A study by Paulozzi, and colleagues (2011) found that PDMPs showed little if any impact on the number of overdose mortality incidents, as well as marginal effects on consumption.

Compton, Jones, and Baldwin's (2016) study sought to understand whether policies designed to restrict access to prescription pain pills have stimulated demand for illicit heroin. They reject the belief that the implementation of PDMPs has contributed to the initiation of heroin use as a result of reduced availability of opiate pain medications, concluding that the

timing the "recent policy focus" on opioid prescribing and abuse—which they suggest is around 2009— is incongruous with changes in patterns of heroin use nationally, which began to increase as early as 2006, well before these 'policy-based interventions' were implemented (Compton, Jones, & Baldwin, 2016, p. 159). The authors over-generalize the timeline of PDMP implementation, which is uneven at best due to the fact that the state PDMP laws, even if one primarily focuses on the year the system becomes operational (which lags behind initial PDMP legislation that sets the intention to establish a PDMP and provider and pharmacy compliance) varies greatly among states. Years of implementation range from 1973 in New York, to Kentucky in 1998, Vermont in 2006, and New Hampshire in 2012 (Prescription Drug Monitoring Program Training and Assistance Center, 2018).

The authors draw from 5 quantitative studies examining the transition from opioid prescription use toward heroin, arguing selectively that each piece supports the argument that policy based interventions have not produced a substitution effect. A study by Dasgupta and colleagues (2014) concluded that heroin use in North Carolina is on the rise. Compton and colleagues note that in this study the increase in heroin use begins in 2009, pre-dating the reformulation of OxyContin tablets, but fail to apply the other side of the policy intervention coin—that North Carolina's PDMP was enacted in 2005, with the system becoming fully operational in 2007. This leaves room for the prescribers in North Carolina to cut the supply of prescription opioids to possibly create a scarcity, inadvertently increasing demand for heroin as a substitute. Two studies on Florida are cited. One examines declining diversion rates as a result of anti-pill mill legislation interventions to eliminate pill mills, and police enforcement of these laws (Surratt, O'Grady, Kurtz, Stivers, Cicero, Dart, & Chen, 2014). Johnson and colleagues (2014) focus on declining overdose deaths between 2010 and 2012 (Johnson, Paulozzi,

Poruncznik, Mack, & Herter, 2014), within which the analysis could be hindered by the timeline of specific legislative and law enforcement interventions from 2011 as their data is bound to 2012, leaving little to no room to account for the 'lag period' in which drug markets tend to adapt to these changes (Cunningham & Finlay, 2016). They do cite an increase of 60 heroin deaths in the state of Florida between 2010 and 2012, yet this figure was not significant enough for the authors of this study to determine that substitution effect was occurring, but did not rule this out entirely. Instead, they suggest that this increase could be attributed fluctuation in the heroin market generally. Paone and colleagues (2015) examine the effects of locally specific interventions on Staten Island that appeared to lower both prescription drug overdoses and the local morphine equivalent dose in prescriptions received within the area between 2010 and 2013. The study compares Staten Island, New York City, and surrounding boroughs to reveal that these locally specific interventions (including, but not limited to, city-wide prescribing guidelines, airing city-targeted public service announcements, and town hall meetings) reduced the number of overdoses and prescriptions within the area (Panoe et al., 2015: 1). Yet, for some reason, Compton and colleagues overlook the fact that there was nearly a 39 percent increase in heroin use in Staten Island, higher than that of New York City and surrounding boroughs (Compton, Jones, & Baldwin, 2016, p. 160; Panoe, et al., 2015, p. 5).

While the links to heroin initiation in the aforementioned studies could be related to policy interventions, some reach ambiguous conclusions regarding what is driving heroin use. Compton et al. cite a study of heroin overdoses in Wisconsin between 2003 and 2012 (Meiman, Tomosallo, & Paulozzi, 2015), and argue that this study reveals that heroin use has increased independent of policy interventions. Meiman and colleagues show a noticeable increase in heroin-related fatalities on the rise since 2007, with a rapid increase in both heroin-related

fatalities and emergency room visits occurring in 2010. They acknowledge the change in OxyContin tablets as a possible cause, and point out that heroin seizures along the southern US border had increased four times from 2008 to 2012—as drug supply and abuse rates tend to be positively related (Meiman, Tomosallo, & Paulozzi, 2015; United States Drug Enforcement Administration, 2013). However, this study does not mention that Wisconsin's PDMP legislation was enacted that year, but was not fully operational until 2013, and therefore its effects cannot be studied sufficiently within the given timeframe. Using geographic hotspot mapping, Jalal and colleagues (2018) reveal an alarming spike in heroin use after 2011, between 2012 and 2016, with Wisconsin being just one of several states affected (Jalal, et. al., 2018, p. 4). A broad study of 28 states published by the CDC in 2014 concludes that rising heroin-related fatalities were not related correspondingly to a decline in opioid related fatalities. It noted two critical limitations of the study design—heroin deaths tend to be underreported overall, and the degree of variance among states in responding to the problem with interventions, or not (Rudd et al., 2104). Jalal and colleagues (2018) found a trajectory of exponential growth in unintentional overdose deaths, which they argue could be driven by a series of "subepidemics" (p. 1) that vary among affected populations, geographic location, and timing. The patchy implementation and timeline of drug control interventions on a state-by-state basis cannot be used to indicate efficacy of the PDMP, nor to determine any generalizable national trends in and of themselves without taking into account co-occurring interventions and shifts in multiple drug markets.

4.4 Déjà vu all over again

The substitution of heroin in the absence of once widely available prescription opioids should not come as a surprise. The unfoldment of outcomes resulting from similar efforts targeting drug production precursors to address illicit methamphetamine production in the US in

the 1970s and 1980s reveals that, when faced with restricted access to supply inputs, illicit drug producers (large and small) simply changed their inputs to a comparable substitute and resumed production. Adaptations to these restrictions include crossing state borders into states lacking similar laws; staying within the law by accessing the maximum allowed quantities but shopping multiple establishments (i.e., doctor shopping and "smurfing"); and for drug trafficking organizations specifically, accessing precursor chemicals in bulk from international suppliers to circumvent US law entirely.

The policy side of the response to the current opioid crisis in the United States exhibits similar unintended outcomes, arguably on a grander scale, to the recent national methamphetamine crisis in the early 2000's. Both policy approaches share a connection to monitoring and restricting patient access to medications. The differences lie in the fact that the two substances (methamphetamine and opiates) produce different experiences of intoxication, and different modalities of dependency—opioids notably produce physiological dependence when taken for a period of time. The primary concern surrounding the opioid crisis remains the high number of deaths attributed to opioid abuse, and the substitution of heroin among opioid users, and recently, the introduction of heroin adulterated with fentanyl, and fentanyl analogs. Methamphetamine use generally lacks the physiological dependence response produced by opioids, yet the policy decisions made to regulate methamphetamine production precursors ephedrine and pseudoephedrine (PSE) are useful to reflect upon as it is becoming evident that precursor policies regulating PSE and the implementation of PDMPs are revealing similar effects. First, both sets of laws aimed to reduce the available supply of these medications in circulation, and are both supply side approaches—regardless of their public health leanings. Next, both utilize computer databases to track and tally the distribution of medications. The

uneven implementation of these laws from state to state led many users and producers to exploit state borders to circumvent these regulations. Finally, since these policies have succeeded in creating scarcities in the available supply of medications, illicit suppliers have stepped in to fill the void of access to pseudoephedrine and opioids. Illicit suppliers offer alternatives, creating a substitution effect, and the substitutes offered create greater risk for the addicted, as well as greater public health risks at large through the shift from producing methamphetamine to crystal methamphetamine, and currently, from heroin to heroin adulterated with fentanyl and fentanyl analogs.

Examining state and federal attempts to regulate ephedrine and pseudoephedrine (PSE) reveals the tension between the slow-moving bureaucracy involved in policy making, and the highly adaptive capacity of trafficking organizations. The behind the counter laws that emerged in 2005—requiring purchase of PSE based medications directly from a pharmacist and in limited quantities— were the result of decades of policy and law enforcement efforts to clamp down on methamphetamine production since the 1960s and 70s among west coast motorcycle gangs, who initially utilized ephedrine in their production process. In 1988, Congress passed the Chemical Diversion and Trafficking Act, requiring chemical producers making ephedrine and pseudoephedrine to track their imports and sales (Chemical Diversion and Trafficking Act of 1988, 1994). Facing aggressive resistance from pharmaceutical companies desperate to thwart any hindrance from public accessibility of their products, a compromise created a loophole that exempted from any reporting requirements firms that converted bulk powder chemicals into legal over the counter pills. In response, traffickers exploited this loophole by purchasing bulk quantities of unregulated ephedrine-based pills, and made connections with foreign ephedrine

manufacturers in Europe, Asia, and India to buy bulk quantities of ephedrine powder (McKinley & Fink, 2006).

Once primarily a west coast drug phenomenon, the presence of methamphetamine in US communities moved east into the 'heartland' during the mid-1990s. As the problem spread, regulatory efforts to rein in precursors and domestic production were met with efforts by individuals and traffickers to subvert new laws. In 1993, Congress passed the Domestic Chemical Diversion and Control Act, removing finished ephedrine-based pills from the previous exemption under the Chemical Diversion and Control Act, and requiring retailers to register with the DEA, track sales of ephedrine and report suspicious consumer behaviors; the loophole remained for finished pseudoephedrine based pills (Domestic Chemical Diversion and Control Act of 1993, 1994). Meth users and traffickers responded to these restrictions in predictable ways. The scarcity of ephedrine led to the shift to using primarily finished, still-accessible, pseudoephedrine pills for domestic illicit meth production. And, in 1994, a major drug bust uncovered 3.4 tons of ephedrine powder moving from Switzerland to Mexico via plane, indicating that to bypass regulations, traffickers developed ties with international ephedrine producers directly (Suo, 2004; U.S. Department of Justice, 1996). The U.S. pushed back by putting pressure on international producers to stop supplying bulk ephedrine powder to trafficking organizations, and this resulted in a greater scarcity of ephedrine. In 1996, Congress passed the Comprehensive Methamphetamine Control Act, requiring wholesale distributors of over the counter pills to obtain a license and register with the DEA (Comprehensive Methamphetamine Control Act, 1996, 2000). The DEA was overwhelmed with requests for licenses from sham companies, and allocated temporary licenses that inadvertently allowed bogus companies to supply pseudoephedrine to large-scale 'superlabs.' When this scam was

uncovered, it was revealed that cartels sourced from phony Canadian suppliers of pseudoephedrine (Suo, 2004; U.S. Department of Justice, 1996).

At each stage of federal intervention, the purity of methamphetamine fluctuated, initially less pure just prior to and immediately following imposed regulations, and recovering to higher purity within a six to twelve-month period (Cunningham & Finlay, 2016). Supply-side interventions follow the logic that drug prices are elastic, scarcities inflate prices, and compromise purity to the degree that the utility provided to the drug user would diminish to such an extent that the user would enter treatment or stop using, thereby producing an overall reduction in demand. Cunningham and Finlay (2016) reveal that drug prices are generally inelastic. Following these interventions, Treatment Episode Data Set (TEDS) data reveals a surge in the number of treatment admissions for methamphetamine, yet this drops off around 6-12 months post-intervention (Cunningham & Finlay, 2016, p. 13). Price data from the Drug Enforcement Administration's STRIDE database show that prices increased immediately following the intervention, but rose to pre-intervention levels following the 6-12 month lag time (Cunningham & Finlay, 2016, p. 6). This lag period demonstrates that when faced with disruptions in production inputs, producers mobilize to locate substitutes or relocate operations to spaces with less regulatory oversight. Though it takes a short-term hit, the drug market rebounds rather quickly.

In the early 2000's, state legislatures took a proactive approach recognizing the growing effects of methamphetamine by developing state laws restricting access meth precursors.

Oklahoma and Oregon were particularly impacted by the methamphetamine phenomenon, as meth users in these states began to produce methamphetamine in home-based clandestine labs.

Due to the volatile chemical production process to extract pseudoephedrine from blister packs,

this practice led to a surge in the number of meth lab explosions impacting residential neighborhoods. As a result, increased burdens on property owners, and state resources in general were evident in the cost of lab clean-up (ranging between several hundred to several thousand dollars in state fees, not including contractor fees involved in rehabbing affected structures) (Oklahoma Bureau of Narcotics and Dangerous Drugs, 2011), and increased pressure on social services, particularly child welfare and foster care agencies (Generations United, 2006). In 2004, the Oklahoma and Oregon state legislatures responded to the problem by prohibiting in-store sales of cold medicines containing pseudoephedrine—mandating that these medications be sold in pharmacies from behind the counter. The immediate effect appeared to be an abrupt decline in the number of meth lab incidents in response to the interventions. Following the intervention, in Oregon there were 24 reported lab incidents in January 2005, down from 40 incidents a year prior. In May of 2004, there were 59 reported incidents, and the following May of 2005, there were 26. In Oklahoma, similar immediate results were evident yet evidence from the DEA National Clandestine Laboratory Register Data, incidents in Oklahoma had been declining since peaking in 2003 (379 incidents) down to 201 incidents in 2004, to 68 in 2005 (Drug Enforcement Administration, 2018).

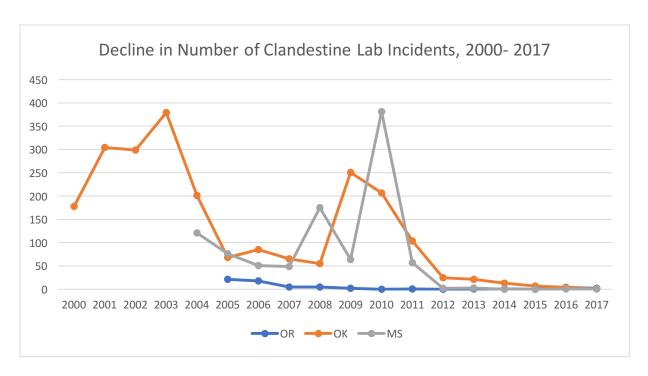


Figure 4.2—Changes in Number of Clandestine Laboratory Incidents in U.S., 2000-2017 Source: United States Drug Enforcement Administration, National Clandestine Laboratory Register Data

Though initially these measures appeared successful, borders between US states soon became sites for small-scale meth producers to exploit the boundaries of precursor legality by purchasing large quantities of PSE-containing medications in neighboring states lacking these laws. A study by Dobkin and colleagues (2014) concluded that when a neighboring state did not have a comparable law in place to restrict access to PSE, the counties bordering these states lacking behind the counter laws revealed weaker intervention results than in non-border counties, indicating that a "spatial spillover" effect was occurring (Dobkin, Nicosia, & Weinberg, 2014). In 2005, 35 other states passed similar PSE legislation, and within the same year Congress passed the Combat Methamphetamine Epidemic Act (2005), providing a federal mandate for relocating pseudoephedrine-based products behind the counter, or placing the items under lock and key, and restricting individual purchases of precursor containing medications to 3.6 grams per 30-day period (Combat Methamphetamine Epidemic Act, 2005, 2006).

The loophole created by the new mandate capped individual purchases with no way of tracking these transactions. Small batch producers were quick to notice, and responded by enrolling groups of individuals to purchase small quantities of OTC medications at multiple pharmacies, a practice known colloquially as "smurfing." Small batch production processes called the "one pot," or "shake and bake," method became more widespread as precursor-containing medications were more difficult to acquire in large quantities. The one-pot method began to drive up the number of reported small toxic lab incidents (McBride, Terry-McElrath, Chriqui, O'Connor, VanderWaal & Mattson, 2011; Reed, 2009).

The Smurfing problem required a solution, and the two available were: 1) adopt a monitoring system, such as NPLEx (National Precursor Log Exchange), an electronic database and tracking system that monitors sales of medications that contain drug precursors including ephedrine and pseudoephedrine; or 2) make precursor-containing pills available by prescription only. Debating between the two options, states considered the costs and benefits: How would a prescription only law impact law-abiding state residents? Would they face increased costs and inconvenience to obtain formerly legal cold and allergy medications? (Devaraj, Hicks, & Balaji, 2015; Mattson & Anderson, 2013).

Oregon's prescription only laws revealed little change in lab incidents from 2007 to 2008, and may have exhibited a "floor effect"—as the intervention came quite quickly on the heels of the state's behind the counter laws, during which time lab incidents were already in steep decline. Mississippi's prescription only law did show a decline in lab incidents, which may be attributed to the geographic location of Mississippi as outside the initial geographic presence of trafficking organizations from Mexico into the state (Cunningham, Callaghan, Tong, Liu, Li, & Lattyak, 2012). Many states adopted the NPLEx system. Currently, 33 states require the use of

electronic logbooks to track the sale of pseudoephedrine (Kentucky Office of Drug Control Policy, 2018).

The intention behind the mandated use of NPLEx is similar to that of PDMPs—as NPLEx is used to track precursor chemicals, the system functions as a means to manage and monitor the amount of precursor containing medications in circulation, with the goal of limiting the supply available for 1) diversion (reduce smurfing practices), and 2) the illicit production of methamphetamine. The system has only modestly curbed precursor diversion. In Tennessee and Indiana, for example, the NPLEx system is credited with tamping down on diversion by stopping sale of around 3-4% of behind the counter sales. Analysts conclude the system has not led to any significant decrease in the number of lab incidents (Devaraj, Hicks, & Balaji, 2015; Mattson & Anderson, 2013) as further studies reveal monitoring through NPLEx has not stopped smurfing practices, nor led to fewer lab incidents (Shukla & Bartgis, 2011; VanderWaal, Young, McBride, Chriqui, & Terry-McElrath, 2013).

Small scale lab incidents increased again after state and federal precursor laws were implemented. Methamphetamine demand also failed to slow after these interventions. Precursor laws were successful temporarily, and ineffective in the long term. The one-pot method remained a form of small scale production, but only accounted for a small percentage of methamphetamine supply (United States Department of Justice, 2010). Domestic producers were limited in their efforts to acquire meth precursor, but large scale drug trafficking organizations had the resources to acquire bulk quantities of pseudoephedrine from international producers once more. The fatal flaw of precursor laws is that without equal emphasis on reducing demand, the best result the policy can arrive at is meeting its explicitly stated intentions of reducing the circulating supply of these medications. What they fail to account for is the long-standing smuggling partnerships that

have existed between individuals in North American countries for over a century. Demand has been, and will continue to be, met by illicit markets and international suppliers, as it was notably done during the early 1900's, especially during the Prohibition movement (Beletsky & Davis, 2017).

4.5 The Geopolitics of Precursors

Though lab incidents had initially declined, failure to notice a meaningful reduction in the availability of methamphetamine following pseudoephedrine laws led law enforcement and policy analysts to conclude that international suppliers were shoring up the scarcities these laws were anticipated to generate (McKetin, 2011; Owen, 2007; Reed, 2009). Methamphetamine began spreading east due to traffickers from Mexico expanding their reach into the American heartland (U.S. Department of Justice, 2005; 2010). According to the 2005 National Drug Threat Assessment, meth production in Mexico had been on the rise since 2002. DTOs found ways to bypass precursor regulations and pseudoephedrine restrictions by making direct connection with chemical producers in Canada (U.S. Department of Justice, 2005), and later purchased bulk pseudoephedrine powder by the ton from chemical firms in China using phony businesses as a front, or stealing from legitimate pharmacies' imports at ports of entry (Carney, 2007). Firms and individuals in China, India, and the Philippines played significant roles in the movement of pseudoephedrine powder to cartels with "superlabs" operating in Mexico and the United States, but primarily in California (U.S. Department of Justice, 2010). The balloon effect is evident here as both the spatial routing of drug flows and the center of production were relocated. The regulatory effect of reducing the supply of precursor chemicals in circulation stimulated the illicit drug market by creating a scarcity of a critical supply input, where at the time few individual producers had access to tons of bulk powder. Trafficking organizations were

adaptable enough to get around this obstacle, shifting the geography of drug flows away from US-based inputs toward globally outsourced suppliers, and shifting the production advantage to traffickers in Mexico.

The US laid blame for the methamphetamine problem on Mexico. International pressure led to reforms in Mexico. In 2005, "no notice" inspections of pseudoephedrine imports were announced, as well as a national database for tracking pseudoephedrine imports (Carney, 2007, p. 126). In 2008, Mexico banned both ephedrine and pseudoephedrine imports, and in 2009 made these chemicals illegal (U.S. Department of Justice, 2010). As previous patterns predict, traffickers and cartels would again bypass these regulations by receiving conveniently mislabeled shipments designed to move swiftly through inspection; finding longer and more complex supply routes through central Africa, Europe, and South America. Once again changing supply inputs to non-restricted chemicals or reviving the earlier methamphetamine production process favored by west coast motorcycle gangs in the 1970's, the phenyl-to-propanone (P2P) method, which involves accessing phenylacetic acid and methalymine and converting these into an identical methamphetamine compound (Maxwell & Brecht, 2011). Everything comes full circle. Anecdotal evidence from users suggests that the texture and residue of methamphetamine has undergone a significant change (Participant TM, Personal Communication, April, 2017) and according to Maxwell and Brecht, 69 percent of methamphetamine samples tested by the DEA Special Testing Lab in Q4 of 2010 were produced using P2P (2011, p. 3).

With every barrier imposed through legislation, there has been a corresponding adaptation by traffickers and producers to bypass restrictive legislation. The relationship between precursor laws that track purchases and limit access to pseudoephedrine and ephedrine, and the PDMPs that aim to reduce diversion of opioid prescription pain pills and doctor shopping, is that

both strategies fail to reduce demand or include wrap-around services to address what appears to be the inevitable adaptation and innovation of producers and traffickers to bypass these "checks" (Cameron McNamme, Personal Communication, July 25, 2018) and resume production as usual within a few months (Cunningham & Findlay, 2016). Domestic drug producers initially adapted by transgressing state borders to find less restricted access, then modifying production practices taking into account smaller batch yields due the reduced legally allowed amounts, utilizing the "one pot" or "shake and bake" methods. The implementation of PDMPs is one factor that has led to a scarcity of available pills, and the outcomes follow along a strikingly similar pattern to that of PSE laws, where regulation of supply exists, adaptation has followed.

4.6 New Geographies of Risk

It is critical to note that the similarities in policy approaches do not end with the conclusion that cartels are more adaptive than state and local governments and law enforcement. In each case, these policies have led to riskier outcomes for the addicted population, and communities at large, as more addictive and potent drug formulations were introduced after policy guidelines and mandates were established. Though "correlation does not imply causation," it is a curious occurrence that the proliferation of highly potent and addictive crystal methamphetamine, and the deadly cocktail of heroin adulterated with fentanyl and/ or fentanyl analogs both emerged widely following similar interventions.

Following PSE regulations, methamphetamine and its highly potent variant crystal methamphetamine began to spread further eastward. In 2002, primarily in the western U.S., crystal meth was the most widely available form of methamphetamine, as producers shifted from the standard powder-based product to crystal meth, or "ice," a more pure, higher priced, and highly addictive version of run-of-the-mill methamphetamine that is said to produce a more

intense high (Buxton & Dove, 2008). The greater intensity for the user is also said to result in a deeper crash, psychologically and physically, when coming down from the drug, leading users to seek more of the drug to mitigate withdrawal effects (Buxton & Dove, 2008). Prolonged use may lead to severe episodes of psychosis, violent behavior, and paranoia (Buxton & Dove, 2008, p. 1537).

One consequence of removing or restricting access to the elements of "amateur" (Franco, 2007, p. 28) home-based and domestic production through precursor laws is that the addicted population become both vulnerable to and dependent upon foreign suppliers, who may provide alternatives that could negatively impact the user. Experts have suggested that enhanced detection methods and economies of scale dictate that concentrated, highly potent drugs can be sold in smaller quantities at a higher cost and provide a more intense experience. Smaller quantities are also easier to transport (Participant PC, Personal Communication, August 3, 2018). The spread of highly potent methamphetamine from west to east can be attributed to the geographic shifts in drug market control from domestic US producers to Mexican DTOs that is the unintended outcome of PSE laws, and other co-occurring interventions including increased attention on methamphetamine seizures by law enforcement. For the addicted, families, and the community at large, all are exposed to the instability that changes in drug markets can cause among the addicted, and are left to cope with the outcomes. The outcome of precursor legislation aimed at reigning in the number of toxic lab incidents failed to cut into the steady demand for methamphetamine. Global suppliers stepped in to fill the scarcity of domestically produced meth, and spread eastward across the continental US bringing more potent and risky alternatives that were introduced along with their negative effects.

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¹ This is not to equate meth withdrawal symptoms with those experienced by those suffering opioid use disorder or heroin withdrawal, but to acknowledge that crystal meth also produces unpleasant physical withdrawal symptoms.

Precursor laws and PDMPs each make up one part of a host of strategies and interventions introduced in the effort to reduce the amount of medications available for possible misuse and diversion, relative to the specific "epidemics" they have corresponded to. Law enforcement drug seizures are another example of approaches to reduce supply. Rarely is one intervention without a complementary helping hand through a related approach. As a result, it is difficult to determine the effects of PDMPs, in isolation, on heroin initiation, or the number of overdose deaths in majorly affected states.

The opioid problem in the U.S. has moved beyond the substitution of pills with heroin to the concerning adulteration of heroin with fentanyl and fentanyl analogs, and the illicit manufacture of counterfeit fentanyl pills. In his sweeping examination of the roots and human toll of opioid use in the American Midwest, Sam Quinones' *Dreamland* focused on the movement of black tar heroin from Nayarit, Mexico into southern Ohio. Quinones intricately weaves the stories of individuals caught up in and affected by the epidemic (the Xalisco Boys traffickers, health care workers, researchers, families, and so on) with the events that shaped the public health crisis of individuals substituting heroin for prescription pills (the post-industrial city, globalization, attitudes toward pain, changing practices for prescribing pain medications, the arrival of OxyContin and then abuse deterrent OxyContin, aggressive pharmaceutical sales practices, etc.) (Quinones, 2015). While Quinones does not spend a lot of time discussing the impact of PDMPs in reducing the available supply of prescription opiates, he tacitly suggests they are evidence of how invested a state is in reigning in the problem (Quinones, 2015, p. 242-246). His emphasis on black tar reveals the geographic movement of heroin and the presence of Mexican traffickers moving from west to east, and black tar replacing China White, the form of powder heroin once most widely available east of the Mississippi river. Quinones also suggests

traffickers were tapping local drug users in US cities as sources for informal market research that helped traffickers quickly respond to trends in the market's consumers (Quinones, 2015, p. 65-66).

Quinones' rationale made sense for a while, until the number of overdose deaths began to climb. Researchers began to examine the role of heroin substitution in the number of overdose deaths. But this failed to answer the deeper question, what was suddenly making black tar heroin suddenly so deadly? Over time, the answer has become obvious. Black tar heroin was replaced with the brown-tinted powder formulation, and fentanyl powder was mixed into the brown powder. The introduction of fentanyl and fentanyl analogs into the illicit heroin supply by producers, traffickers, and/ or sellers—depending on which stage in the supply chain the chemical is introduced—has increased the risk of death for those addicted to heroin. Fentanyl and fentanyl analogs are commonly found in powder heroin, and not black tar. According to the CDC, fentanyl adulterants in the heroin supply were first identified by the DEA in March of 2015, prompting the CDC to issue a public health advisory notice in October of 2015 warning of illicitly manufactured counterfeit fentanyl and fentanyl analog pills (Centers for Disease Control and Prevention, 2018a, p. 1). The increase in the number of overdose deaths is visible in the following maps from the CDC, which show what many public health and law enforcement officials believe to be the impact of heroin adulterated with fentanyl on overdose rates across the US. Looking at the rates from 2014 to 2016, a significant spike is evident.

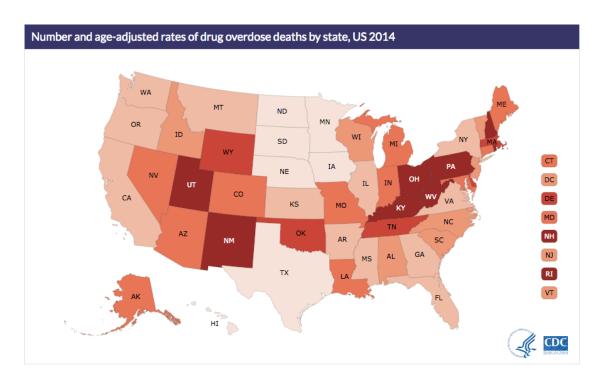


Figure 4.3—Map of Drug Overdose Deaths by State, 2014 Source: Centers for Disease Control and Prevention, 2017

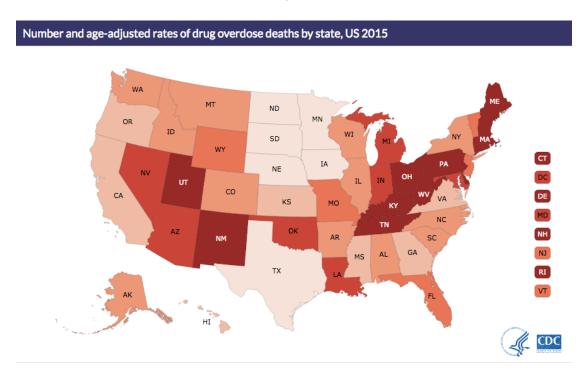


Figure 4.4—Map of Drug Overdose Deaths by State, 2015 Source: Centers for Disease Control and Prevention, 2017

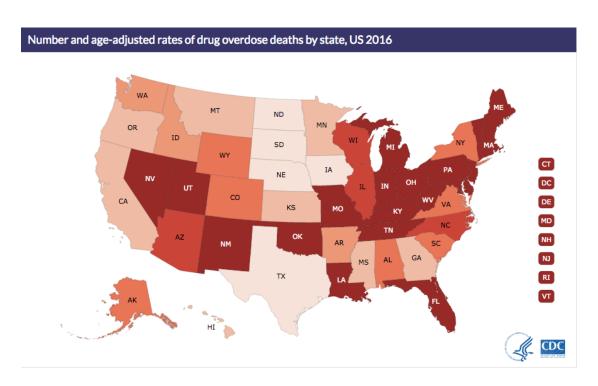


Figure 4.5—Map of Drug Overdose Deaths by State, 2016 Source: Centers for Disease Control and Prevention, 2017

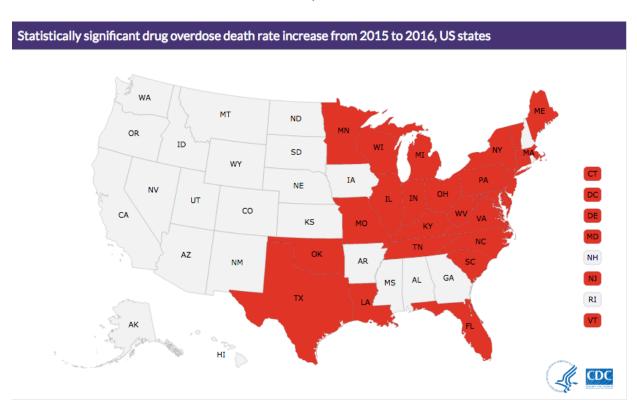


Figure 4.6—Map of US States revealing statistically significant increases in overdose death rates from 2015 to 2016, likely attributed to presence of illicit fentanyl. Source: Centers for Disease Control and Prevention, 2017

The CDC reported that between July of 2016 and July of 2017, 50 percent of all overdose deaths in major opioid affected states (Kentucky, Maine, Massachusetts, New Hampshire, New Mexico, Ohio, Oklahoma, Rhode Island, West Virginia, and Wisconsin) involved fentanyl (CDC, 2018b, p. 2). While the balloon effect reveals that supply side policies create predictable shifts in the geography of drug flows, as well as changes in production inputs, it increasingly is accompanied by the introduction of greater risk to the addicted. So why is it that policies such as these continue to be implemented if these results can be predicted? Did residents of drug affected states inherit another 'failure on arrival' drug policy approach?

4.7 Methods

Interviews with PDMP stake holders sought to determine why, despite evidence of supply-side drug policy failures, another supply-side policy was being pursued. Participants in this study were selected due to their position as an analyst working for, or on the behalf of, a fully functioning Prescription Drug Monitoring Program, or as a member of a state or local law enforcement that is a stakeholder in assessing the outcomes of the PDMP. Names were selected using the Prescription Drug Monitoring Training and Technical Assistance Center website, developed by the Heller School for Social Policy and Management, at Brandeis University.

Participants were selected with the following additional criteria: 1) the PDMP is located within a drug-affected state—one that experiences a high number of overdoses and overdose deaths; 2) analysis of PDMP data is done "in house" and not subcontracted out to a third-party (such as Appriss Health); 3) it is clear that the PDMP is at least somewhat institutionally developed—studies on previous years' data are available, contact information is available and easy to access; 4) it is clear there is a proactive, ongoing interest by the state to address the issue through data-driven solutions.

In total, 12 participants ranging from PDMP program managers, analysts, and law enforcement officials were surveyed. Participants represented the states of Kentucky, Massachusetts, New Hampshire, North Dakota, Ohio, Oklahoma, Pennsylvania, Tennessee and Vermont. The sample size was limited due to a range of factors. First, many states are in the process of either revamping their PDMP's to meet current conditions, or are just getting them started. Second, upon contact with a PDMP source, if it appeared that the office itself was disorganized, mainly due to an inability to contact a program manager, inaccurate listing of phone numbers, or an obviously dated website that appeared to not display current information, a decision was made to bypass that state. Third, in many instances, university faculty and researchers (particularly in Kentucky and Florida)—many of whom are cited in this study's literature review—were listed as state PDMP analysts. These sources were also bypassed and other contacts were established. Finally, Appriss Health is a company that provides data-based solutions that monitor "patient safety and substance misuse potential" (Appriss Health, 2018). The company develops the programs that many states utilize for their PDMP. It appears that in addition to providing the PDMP software and programing, Appriss Health also performs the data analysis for the 30 states it serves. It is obvious that a machine is processing the data, but who within Appriss is looking at the data to understand what is at stake? The states that merely offered the Appriss Health data as the only form of data analysis were bypassed. The rationale for this is the goal of this study is to study the relationship between path-dependent decision making favoring supply-side approaches with weak outcomes, and the likelihood that implementing such policies could create undesirable outcomes. Conversations with the stakeholders themselves were required to get a sense of the challenges of drug policy

development, and whether or not the undesirable outcomes these policies might produce were foreseeable.

Participants were asked about their experience in policy analysis and evaluation in their current position, and related positions. Participants were asked to assess—from an informed perspective—root causes of the opioid crisis; successes and limitations of PDMPs; specific unintended consequences (heroin use, effect on local families and communities, etc.) that have cropped up; the extent to which PDMPs are cutting prescription drug supplies among users, etc. Most importantly, the study sought to understand how closely, or not, policy makers and analysts worked with law enforcement officers, and took seriously the experience of law enforcement officers in understanding the unintended effects of supply side policies. Mainly, did the policy developers and analysts understand the potential for heroin substitution to occur after implementing a PDMP mandate for prescribers? If so, why continue supporting policies that create public health and safety risk?

4.8 Findings

Interviews with "proactive" PDMP program managers and analysts reveal the problem from the perspective of those who pour over-prescribing trends and drug overdose data. Overwhelmingly, stakeholders revealed their understandings of root causes, the effects of PDMPs on the crisis as a whole, and the challenges they face as one part a much larger, interagency effort to curtail the problem. Respondents pinpointed the "cultural shift" (Jessica Mcguire, Personal Communication, September 7, 2018) in attitudes toward treating patients with chronic pain as a significant, if not the most significant, factor in the development of the opioid crisis over time. Though not intentional, this shift toward a philosophy that pain could be managed safely, and without risk of addiction, inadvertently led to "tons of pills in circulation"

(Cameron McNamme, Personal Communication, July 25, 2018). Combine this new approach to pain with additional, regionally specific factors such as deindustrialization, an increase in work related injuries in the heavy industrial job sector in the Rust Belt and Appalachia, deceptive pharmaceutical sales and marketing practices, and a growing "masculinity crisis" (Participant PC, Personal Communication, August 3, 2018) and you have "an unfortunate series of events" (Participant PC, Personal Communication, August 3, 2018) that created the conditions for the prescription drug misuse to spiral out of control.

While some researchers have fixated on these background factors as the root of diseases of despair, neither deindustrialization nor the recent recession in 2008 were raised as significant factors in the development of the crisis—though the distinction between the proximate and ultimate causes was not made clear. For example, exactly what led patients to seek pain treatment in the first place? Program managers and analysts did note that factors such as deindustrialization and heavy industry related injuries were partially contributing factors, mainly in the Rust Belt and Appalachia, but they maintained that the root of the issue lies in the changing attitudes toward pain treatment, noting that the overprescribing of pain medication was rising well before the 2008 recession.

All stakeholders felt that PDMPs should be credited for reducing incidents of doctor shopping, as well as providing tools to care providers to take a proactive approach to both pain management and the propensity for addiction among patients. Overall, it is noted that PDMPs provided a much needed tool for accountability, and one that "cut the funnel" of overprescribing, as PDMPs enable greater capacity to track the supply of prescription opioids in circulation.

Monitoring was described as "an upstream solution" (Participant PC, Personal Communication, August 3, 2018) that allows public health and safety workers to get out in front of the effects of

overprescribing, and shady manufacturers' sales and marketing practices (Participant PC, Personal Communication, August 3, 2018). Another achievement noted is the increase in the number of providers and pharmacists using PDMP tools. As PDMP engagement has increased, prescriptions have declined correspondingly. It is important to note that some respondents confirmed that a "chill effect" has occurred among a subset of prescribers who became wary of prescribing opioids at all, possibly due to prescribing limits imposed by state boards and the CDC (Jessica Mcguire, Personal Communication, Sept. 7, 2018; Michelle Ricco Jonas, Personal Communication, Sept. 5, 2018). Several respondents lamented that, for all the successes PDMPs have been able to achieve with tracking and monitoring, the systems cannot measure what is happening in the illicit market, which frustrates their ability to make proactive changes in addressing current problems.

When asked whether PDMPs led to the addicted substituting prescription opioids with illicit substitutes responses were mixed. Some alleged that yes, the PDMP was designed to cut the supply of prescription opioids in circulation. According to one respondent, "It's a fact. Programs are contributing to a reduction in supply," (David Hopkins, Personal Communication, August 1, 2018) and some users were resorting to illegal drugs. Another was more cautious, stating that a connection was likely, and at the very least a possibility (Cameron McNamme, Personal Communication, July 25, 2018). As PDMPs enable increased surveillance of prescriber practices, respondents noted that a chill effect combined with the increased oversight, was enough to turn patients and the addicted to illicit sources for counterfeit pills and heroin, a cheaper alternative. Respondents noted that heroin is not a recent problem, but one that had been lurking in the shadows all the while. One respondent, referring to Compton, Jones, and Baldwin (2016) noted heroin had become an issue around 2010, following the structural changes in

OxyContin and Opana tablets. Because the majority of PDMP regulations did not kick in until 2010 or recently thereafter for the majority of states (Prescription Drug Monitoring Program Training and Assistance Center, 2018), these interviews suggest that heroin substitution has not occurred out of the blue as a response to a sudden shortage of prescription opioid supply, but that the presence of widely available heroin made the drug a convenient, eventual substitute that would inevitably become problematic. The recent shift in emphasis, primarily in the mainstream press, has moved the discussion away from the initial focus on prescription opioids toward heroin use-- specifically heroin adulterated with fentanyl and fentanyl analogs.

Law enforcement is well aware of the balloon effect, insofar as it can be predicted. Did policymakers and stakeholders see the substitution of heroin in the absence of prescription drugs to be an inevitable outcome of multiple efforts, including but not limited to prescribing limits, increased enforcement and interdiction, and PDMPs? The answer appears to be yes. As one analyst put it, "Anecdotally, law enforcement saw this coming," (Participant PC, Personal Communication, August 3, 2018). Law enforcement at state, federal and local levels, often coordinated through the High Intensity Drug Trafficking Areas program and other interagency task-forces, are routinely identified as stakeholders, and policymakers do consult with law enforcement as they shape and evaluate these very policies. The preexisting presence of heroin in opioid-affected regions indicates that illicit heroin was a foreseeable substitute. However, the introduction of fentanyl into the heroin supply was something that nobody saw coming, and "caught everyone off guard" (Cameron McNamme, Personal Communication, July 25, 2018). Respondents indicated they initially perceived the introduction of fentanyl to be counterintuitive to the drug trade at large—why would cartels and/ or dealers want to introduce such risk to their consumer to the extent that they would essentially be killing them off? Yet in multiple interviews the change was attributed to "economies of scale" (Participant PC, Personal Communication, August 3, 2018). Presumably the introduction of fentanyl was meant to maximize the effect of heroin, while also reducing bulk during transport. Yet, this theory is entirely dependent upon the stage at which fentanyl is added to the heroin supply—which could occur during production, or further up the supply chain as dealers could also have access to bulk fentanyl powder (via the dark web suppliers, and/ or traffickers) to increase the cost of their product and extend their supply by introducing additives (Participant IV, Personal Communication, August 1, 2018). Respondents noted fentanyl represents a change in the nature of drug production, as illicit street drugs were once primarily derived from plant-based materials that had growing seasons and cycles, were sensitive to weather patterns, and could be eradicated by authorities to a degree. Fentanyl represents a shift toward synthetic substances that can be produced in chemical labs with the appropriate sets of chemical precursors that may or may not be regulated or deemed illegal. As one respondent put it, because the chemical makeup of synthetics is perpetually changing, "Who knows what we're going to get next?" (Participant IV, Personal Communication, August 1, 2018).

The biggest source of heroin and fentanyl was identified as coming from the southern U.S. border with strong connections to Mexico and Central America. Some acknowledged that parcels containing illicitly procured fentanyl, fentanyl analogs, and even fentanyl precursors were moving through the U.S. postal delivery services. Though black tar heroin was once the major type of heroin seized by authorities, law enforcement respondents acknowledged that what is being seized right now is "Mexican brown" heroin (Participant IV, Personal Communication, August 1, 2018).

4.9 "The best that we can do."

It is clear that proactive PDMP stakeholders understand the challenges they face in developing long term, effective solutions to addressing the effects and unintended outcomes related to the opioid crisis in the US. PDMPs appear to be yet another supply-side intervention that contributes to predictable shifts in the drug market, but to understand these policies as a continuation of path-dependent, ineffective methods of interdiction designed to disrupt drug market supply and demand dynamics to affect price, purity and ultimately drug demand, would be to miss the point entirely. The bureaucratic processes of law making, budgeting, and access to technology move at a glacial pace, and involve the input of a number of stakeholders in public health, public safety, and governance. Interviews with stakeholders revealed the difficulty in "catching up" (Michelle Ricco Jonas, Personal Communication, Sept. 5, 2018) with the rapidly changing nature of the illicit drug market. As they focused on one resolving one aspect, another adaptation of the initial problem would present itself. When attempting to get the prescription opioid problem under control, heroin became a problem, then fentanyl. While a few interviews expressed frustration with the constant metamorphosis within drug markets, others perceived the problem as one to be expected. While the programs have limitations and short comings, Participants often stated, they "did what they could" (Cameron McNamme, Personal Communication, July 25, 2018), "we're doing the best we can" (Participant BDT, Personal Communication, Sept. 8, 2018). For the most proactive PDMPs, there is an ongoing practice of monitoring the data, and adjusting responses to meet new challenges that arise, and an awareness that "you don't solve the problem in one day" (Participant IV, Personal Communication, August 1, 2018). By monitoring the data and using this to present challenges and proposals for solutions to interagency taskforces, and human services agencies stakeholders can also propose wraparound treatment solutions such as advocating for a local methadone clinic, needle exchange programs, expanding Naloxone availability and training programs to confront any unintended consequences that pop up. This requires a considerable amount of 'getting honest' about the efficacy of programs at the state and local levels, where failures occur and why. Proactive stakeholders held the philosophy of, "we can't afford to turn our noses at anything" (Participant IV, personal communication, August 1, 2018). Overall, stakeholders expressed they had dug in for a 'long game' strategy.

4.10 Conclusions and Directions for Future Research

It is said that you can predict almost any outcome by paying close attention to patterns. The shift toward heroin as a prescription opioid substitute was certainly anticipated by those in law enforcement, likely due to examining patterns and effects of enforcement. By paying attention to "the balloon effect" theory as it emerges, previous experiences become cautionary tales. Examining the methamphetamine problem that emerged nationwide in the late 1990s and early 2000's opens the possibility that more potent and riskier alternatives to run-of-the-mill street drugs could also have been anticipated. It is possible that the emergence of crystal meth as a more pervasive form of methamphetamine across the U.S. was a harbinger of a new pattern in drug production and distribution; perhaps, where a market becomes increasingly active, the introduction of alternatives that concentrate a drug's potency are likely to emerge. The geographic dynamics of drug markets prove exceptionally relevant as adaptation to riskier alternatives could be the result of cartels and traffickers testing the market with new formulations in locations where these substances have been increasingly pervasive. For example, methamphetamine was at one time a widespread drug in the western United States, yet over time crystal meth became ubiquitous in this region. A similar effect could be occurring in parts of the

Midwest and northeast, particularly the Rust Belt, as the introduction of fentanyl, carfentanil and other adulterants designed to maximize the drug's effect first emerged in this region.

Provisional CDC data for opioid overdose deaths from February 2017 to February 2018 shows overdose death rates in northeastern states such as Massachusetts, Rhode Island, and Vermont were on the decline. Reversals are also promising in the west in the more rural states, among Oklahoma, Kansas, the Dakotas, Idaho, Wyoming, Utah, with declines in Montana and Wyoming, down 22.4 and 30 percent respectively. The Rust Belt remains heavily impacted by overdose deaths, yet Kentucky exhibited a modest 3.8 percent decline in the number of overdose deaths. Analysts were cautious as to whether these trends would hold (Leonard Young, Personal Communication, September 28, 2018). All other states reveal continued increases (National Center for Health Statistics, 2018). Some of these reversals could be due to changes in the discourse surrounding addiction and treatment. One respondent stated that the sheer volume of individuals affected by opioid dependency, by themselves or through experiences with friends and/ or family members, has shifted attitudes regarding the punishment of addiction by authorities, and access to treatment options. Stakeholders noted frequently, "we can't arrest ourselves out of this problem" (Cameron McNamme, Personal Communication, July 25, 2018), indicating that more must be done to address demand, and alternatives to carceral solutions should be pursued. One respondent noted less NIMBY-esque resistance to the presence of methadone clinics in impacted rural areas—as most clinics were primarily located in urban metros. This was attributed to the pervasive experience of addiction, its effects on families and communities by extension (Participant PC, Personal Communication, August 3, 2018).

While this is all well and good, one of the main concerns arising out of the changing discourse of addiction is the question of race. The elephant in the room becomes the question of,

what would the available treatment options and discourses surrounding addiction look like if the main impacted population were non-white? Few articles explore the racial disparities in addiction discourses, and those that do address the sensation accompanied by the rise of crack cocaine in communities of color during the late 1980s and early 1990s, and the expansion of drug enforcement that occurred alongside it, commenting that race plays a significant role in the range of policy and related treatment options that are acceptable and possible. In the past, "arresting our way out of" the problem was the preferred approach. Much is said about the effects of neoliberal economic policies and disinvestment in the American Rust Belt, "diseases from despair," and a predominately rural white population that has been 'left behind' (Case & Deaton, 2015)—conveying a sense of abandonment by American firms. However, a better approach might be to examine what could be termed 'geographies of abandonment and despair,' to examine communities that experience significant divestment and neglect (either by the state or corporations) and risks to health outcomes that emerge within these locations. One seriously neglected aspect is the lack of study as to how the opioid crisis unfolded across the US in equally, if not more, neglected locations, specifically Native American reservations. In Oklahoma, the native American population has been particularly impacted, and tribal leaders have moved forward with lawsuits against pharmaceutical manufactures (Jessica Mcguire, Personal Communication, September 27, 2018). Elsewhere tribal leaders promote a holistic, spiritual approaches to treatment among their addicted population (Morales, 2015). Connecting these locations based on their shared experiences of disconnection and neglect adds dimension to the study and development of the geography of illegal drugs.

4.11 References

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5. "In the interest of public health and safety" Migrant scapegoating and the Geography of Illegal Drug Flows

5.1 Introduction

Policy experts argue that the opioid epidemic in the United States began as a problem of doctors overprescribing prescription pain medications, underestimating the potential for addiction. Since 2013, concerns surrounding the problem have expanded—how to reign in the supply and availability of prescription drugs? What of the externalities of supply-side approaches, including the substitution of heroin in place of prescription drugs? The introduction of fentanyl to the illicit heroin supply has caused already high overdose rates to skyrocket. In 2016 alone, 63,632 deaths were attributed to drug overdoses (Centers for Disease Control and Prevention, 2018). In 2017, that number climbed to 70,237 deaths (Hedegaard, Miniño, & Warner, 2018). The Trump Administration's assertion that a border wall will prevent the flow of illegal drugs into the United States is rooted in a specific logic that implies mobile migrants crossing the US-Mexico border through the barren deserts of the southwest are carrying illegal drugs with them.

In addressing the opioid epidemic in the US, a noticeable shift in the discourse surrounding drug addiction moves away from talk of drug addiction as a personal moral failing or criminal behavior, toward an empathetic, human-centered understanding of how opioid addiction operates as a disease. The present narrative situates individuals suffering from "opioid use disorder"—replacing the terms "addicts" and "junkies"—as a victims of aggressive pharmaceutical industry marketing practices. Pharmaceutical companies are cast as having preyed upon chronic pain sufferers, and those injured on the job or in accidents, at a moment in which the medical community began to address patient-reported pain with greater seriousness. The hospice movement, the AIDS crisis, and a general consensus among patients that their

reports of pain were dismissed by medical professionals, contributed to this shift (Quinones, 2015; Case and Deaton, 2015). The CDC and the National Institutes of Health have become leading reporters and researchers on the frontlines of understanding the scope of the issue, replacing the conventional law enforcement spokespersons who have in the past been the major sources informing the public about drug use trends and drug supply. This public health approach may be a welcome shift for some, however, the discourse of public health can be manipulated to vilify and target populations implicated in these narratives.

Scholars Alexandra Stern and Natalia Molina have studied the intersection of public health discourses and biopolitics to show how the 'threat of disease' is a powerful rhetorical device that mobilizes state efforts targeting the bodies of foreigners as the source of disease (Molina, 2016; Stern, 2016). By asserting that immigrants carry illegal drugs, and linking this to the current opioid crisis, the Trump Administration connects the current opioid crisis—its soaring numbers of overdose deaths, and the presence of heroin and fentanyl adulterated heroin—to a foreign source: the bodies of migrants become situated as vectors of disease. Following this logic, the border wall becomes a public health imperative. This slippery analysis fails to clearly identify the actual sources of illegal drugs coming into the United States. It is acknowledged that a significant amount of illegal drugs flows across the US-Mexico border, yet major interdictions and drug seizures have occurred primarily at ports of entry (US Department of Justice Drug Enforcement Administration, 2017, p. 47). These ports of entry facilitate the movement of legitimate cross-border commerce and trade, and would not be subject to partition.

There also appears to be a fundamental misunderstanding about the geographic source of the drugs themselves. Reports reveal China is a source country providing bulk quantities of fentanyl, fentanyl precursor, and fentanyl analogue powders to major drug cartels and illicit pill producers in the US. So-called "Dark Web" marketplaces provide unlimited opportunities to purchase chemicals and illicit drugs for those who access it (US Department of Justice Drug Enforcement Administration, 2017, p. 62). Also at question, is how the administration understands the movement of drug flows. The proposal of a border wall, and frequent references to the wall as a cornerstone of the administrations' drug control strategy implies that officials perceive the nature of drug flows as primarily land based. Tunnels, drones, catapults, even the US postal service, have been used to circumvent the barrier to mobility posed by the existing border fence (Shields, 2017; U.S. Customs and Border Protection, 2017).

5.2 Background

"The opportunities for smugglings are many and the practice is renumerative when successful. To put a stop to smuggling, the two governments have joined forces in the building of a fence ...

The fence is of barbed wire, strung on cooked mesquite posts. Any determined man can break through, but will leave traces behind that are apt to lead to his being run down, especially if smuggling is a habit of his."

--Horace J. Stevens, Los Angeles Times, 1903

Though the Trump Administration's calls for a border wall are seen by many as outrageous, this is not the first time that the idea that a physical barrier would be an effective blockade against illicit flows has been introduced in the name of national security and public health and safety. Several iterations of border barriers echo through American history. At times, local officials took it upon themselves to erect fences in the southern border region (Ainsworth, 1962). Early chain link fences appear to have been unevenly developed, and incomplete in the sense that they did not span the international boundary's entirety. Yet, the stated purpose of these barriers remains the same as they are mainly constructed to stop flows of Mexican nationals into the U.S. based on concerns ranging from rapid population growth in border cities and smuggling (Stevens, 1903; Ainsworth, 1962).

Since the late 1800s, there have been increasing instances of drug smuggling along the US-Mexico boundary. The boundary was not the sole source of early international drug flows. Since the nation's inception, U.S. port cities and border regions have served as sites of trade, and some of this trade included the smuggling of illicit drugs (Campos, 2012; Tchen, 2001). Much of this was the result of expanding trade agreements with foreign nations during the late nineteenth and early twentieth centuries, infrastructure developments (notably the Panama Canal) and advancements in transportation technology that expedited the movement of goods internationally. Anti-drug crusader, and fear-mongering marijuana mythmaker, Harry Anslinger had long-been aware of the connections between marijuana flows originating from Mexico moving into the US, as well as the partnerships between US-based organized crime organizations and smugglers from Mexico during the Prohibition Era (Musto, 1973). During the Cold War era, marijuana use was tied to ideas about subversive behaviors, the vulnerability of American minds, and the stability of the nation at large, to communist indoctrination (Schlosser, 2004). It was not unexpected that staunch anti-communist, and longtime holdover from the Eisenhower administration, Richard Nixon became first to declare a 'war on drugs.' President Nixon's preoccupation with disrupting so-called counterculture movements emphasized ridding the US of marijuana. Implementing Operation Intercept in 1969, Nixon focused attention on the US-Mexico boundary by nearly shutting down cross-border traffic into the U.S., so that every vehicle could be inspected for drugs, primarily marijuana. The operation was abandoned 20 days after it began, because cross-border trade grinded to a halt.

Support for the fortification of the U.S.-Mexico boundary picked up steam from the late 1970s onward due to shifts in US immigration policies, and blowback from U.S. interference in Central America. Existing chain link fences were riddled with holes, and in 1977 Congress

approved funds to replace these spans with sheets of corrugated steel, concrete, and steel bollards. The construction of the "Tortilla Curtain" in California was rife with debate about the humaneness of the structures themselves, after the contractor tapped to reconstruct the barrier near Houston boasted that the design features of his wall would "sever the toes of anyone trying to scale it" (Sinclair, 1978). By 1993, surplus U.S. Air Force landing mats became a common material that served as physical barrier between the two nations, and as acknowledged by the Office of the Inspector General, "Although not a great impediment to persons wishing to climb over (the panels contain horizontal grooves which provide easy toe and hand grips for climbers) the fencing serves two important functions: it provides a barrier to vehicles crossing the border with aliens and/or drugs, and it defines a clear line of demarcation between the two countries" (Office of the Investigator General, 1998). The other objective intended through erecting these sections of fence was specifically to shift the geography of flows—migrants and smuggling away from densely populated areas (where authorities' visibility was diminished) toward rural sections where visibility would be increased. The Office of the Inspector General acknowledged that these changes were not intended to enable Border Patrol officers to increase the number of migrant apprehensions, but to instead deter entry and lower the number of apprehensions (Office of the Investigator General, 1998).

In 1994, as part of the trinity of Operations Gatekeeper (California), Hold the Line (Texas), and Safeguard (Arizona), the U.S. government increased funding for the US Border Patrol to hire more officers, procured more funds to extend the border fence, built additional inland border checkpoints, and began to modernize the management of border flows through increased investments in surveillance technology (OIG, 1994; Nevins, 2009). The Secure Electronic Network Travelers' Rapid Inspection (SENTRI) and Automated Biometric

Identification System (IDENT) programs were two technological outcomes of these measures. Similar to TSA pre-check programs, SENTRI expedited border flows for individuals who could pass a background check (Gilbert, 2007; Department of Homeland Security, 2017). IDENT intended to keep repeat offenders out of the US through biometrics.

The trend toward building barriers and expanding of the use of biometrics continued in 2006 with the authorization of the Secure Fence Act, with the specific goal of establishing "operational control over the international land and maritime borders of the United States" (Secure Fence Act of 2006, 2006, p. 1). In 2017, a Government Accountability Office (GAO) report concluded that between 2007 and 2015, the extension of existing border barriers cost 2.3 billion dollars, not accounting for the future cost of ongoing maintenance (environmental impacts, wear and tear, damage, etc.) (GAO, 2017, p. 36). In 2007, the authorization of the bilateral Merida Initiative between the US and Mexico also included provisions "to create a 21st century US-Mexico border"—including funding for enhancing Mexico's southern border, but mainly the expansion of risk-management strategies relying upon data and "smart border" technologies that focused on maintaining 'legitimate' low risk flows of commerce and people, while distinguishing from riskier, illicit flows (Deloitte, 2014; Olson, 2017).

The promise of a border wall, and its elusive benefits, have become the central project of the Trump Administration. Over 40 years of measures to stop illicit cross-border flows through the construction of barriers, it appears none have worked. President Trump alleged that this was because in several locations the border fence remains incomplete.

Considering the isolationist leanings of the Trump Administration, and the populist horse it rode in on, the impulse to fortify is a product of current oppositional philosophies and approaches to the effects of globalization—the tension between embracing a cosmopolitanism

agenda of openness, global trade and cooperation, and the bombastic nationalist populism that favors closed borders and isolationism. During the 2016 US election cycle, Hillary Clinton's campaign highlighted the positive aspects of global trade and immigration, while Trump's campaign emphasized the antithesis. The Trump administration's immigration policies are rooted in a racialized imaginary of non-white migrant bodies as direct, mobile threats to US political and economic stability, and public health and safety. Trump has sensationally characterized Mexican and central American migrants as "murderers" "criminals" and "rapists;" that migrants are "bringing drugs," and "bringing crime;" and even disease (Trump, 2015). Each of these characterizations fits easily into an agenda that prescribes the border barrier as the only common sense 'spatial fix' to address the flow of migrants into the U.S. The barrier is believed to simultaneously insulate the nation and exclude foreign bodies, foreign objects, and external threats. This rationale ignores that the United States and its citizens and residents are critical actors in the global drug trade—stimulating the demand for substances and also facilitating their movement throughout the country.

5.3 Literature Review

It can be said that the present anxiety surrounding the southern U.S. border is rooted in fear—fear about national security in a post 9/11 context; fear surrounding the nature of American identity; and fear related to the changing shape of the American economy. Policies aimed at "securing America's borders" are often driven by direct appeals to these fears, in which external foreign others are situated as threats to American prosperity and overall wellbeing. Topics affecting the U.S., such as global migrations, the loss of manufacturing jobs, the effects of a supposed demographic shift, and even the current opioid crisis, each circle back to a common conclusion—that the United States has been taken advantage of as a global power, and the

solution to each of these issues is to be less open, and less involved in broad global agendas. This is the cornerstone of the Trump administration's foreign policy, "America First," and the general rationale shaping support for a durable border wall along the U.S.-Mexico border (Teague Beckwith, 2016). Border and immigration policy approaches within the Trump Administration rely on hyperbolic rhetoric about "broken borders" and the threat posed by incoming migrants. Trump's rationales rest upon creating a narrative of migrants as threats to the health and safety of Americans. This section reviews the relevant borders literature to contextualize the roots of the Administration's political ideology, with a focus on the discursive aspects of bordering, followed by a review of the literature on the use of public health as a discourse to exclude immigrants by constructing them as biological threats.

The fall of the Soviet Union, and the literal destruction of the Berlin Wall, symbolized what many perceived as the coming of a 'Borderless World,'—a world where boundaries between nations were perceived as increasingly irrelevant, contributing to what Oommen (1995) referred to as a series of "endisms" each predicting 'the end of geography', 'the end of history', and 'the end of the nation state' (Fukuyama, 1989; Ohame, 1990; Obrien, 1992; Ohame, 1995; Guehenno, 1995). Scholars examining the effects of globalization on state sovereignty argue that the information economy, democratization of global politics, growth of NGOs and non-state actors, and trends toward privatization and deregulation, are shifting the geopolitical landscape toward more collaborative forms of international governance; where power is shared and negotiated between state and non-state entities (Mendelovitz and Walker, 1991; Sassen, 1996; Elden, 2006). This perspective strikes at the heart of deeply held fears surrounding what appears to be a link between embracing globalization, and the loss of national sovereignty. Far-right leaning political figures of speak of "globalists"—a pejorative label that, conventionally, for

those thought to favor a transition away from the individual nation-state formation, and toward a form of supra-national global governance, in which a collective of states holds ultimate decision-making power, and individual nations would inevitably lose theirs.

Within the border studies literature, borders are understood as human constructs. They are subject to change due to a variety of social, political, and economic factors that evolve over time. As a result, they are not fixed, or even natural, but constantly in flux. Borders are also symbolic of power relationships between the state and society, in that borders have effects and impact everyday life (Newman and Paasi, 1998; Newman, 2006b; Rumford, 2006; Agnew, 2008; Paasi, 2009; Diener and Hagen, 2010). Critical to this specific study, borders are understood as "processes" and "practices" that are discursive, in the sense that borders shape identities through narratives of belonging by appealing to a range of actors and interests. Borders facilitate the sorting of who is "in" and who is "out," who is included, and who is excluded; who belongs and who is an outsider (Newman, and Paasi, 1998; Lee, 2003; Newman, 2006a; Newman 2006b; Rumford, 2006; Agnew 2007; Paasi, 2009).

Scholars examine how processes of inclusion and exclusion maintain and reproduce boundaries in terms of othering. Campbell and Shapiro argue the discursive aspect of bordering is accomplished through appeals to national identity articulated through national myths, symbols, narratives and foreign policy (Campbell, 1992; Shapiro, 1994; Campbell and Shapiro, 1999). According to Campbell (1992) national foreign policy objectives are communicated through the construction of threats and danger that are foreign in nature and antithetical to a nation's values and morality. Campbell sees the Cold War and the war on drugs as events through which the US shaped its foreign policy objectives through an 'us versus them' duality that created a moral geography of foreign spaces as threatening and dangerous. Shapiro furthers this concept of moral

geographies, defining them as "a set of silent ethical assertions that preorganize explicit ethicopolitical discourses" (1994, p. 482). The concept examines how certain spaces are characterized
as either moral or immoral based on preconceived ideas of socio-spatial identity which become
dominant over time though the repetition of narratives in which difference and othering create
"us versus them" characterizations. Such narratives continue to play a powerful role in how
foreign policy goals gain popular support, as this is most evident presently in the robust support
the Trump Administration's border wall proposal enjoys among his base, and the Republican
party at large (Cochrane, 2018).

Scholars writing on border issues have highlighted both the federal and local role of immigration policy development. Though national governments tend to articulate large scale border policy controls that span multiple states, it is critical to keep in mind that individual states (California, and Arizona especially) have also attempted to enact their own immigration control policies. Coleman (2005) argues that border policies are often the outcome of 'non-local' executive decision-making. He states that the contradictory interests of controlling migration and maintaining the flow of transnational trade clash when put into practice in border regions due to the failure of policy makers to understand the complex social, political and economic dynamics of the border region itself. The construction of separation barriers is just one state solution to manage unauthorized migration. Andreas (2000) argues that these border walls demarcate the line between legality and illegality, in which sanctioned flows of goods are regulated (legal), and the informal flows of individuals is criminalized (illegal).

It is important to draw attention to how these examples take for granted states roles in regulating trade and migration flows (Abraham and van Schendel, 2005). They highlight what Nevins (2010) and Lee (2003) refer to as the "gatekeeping role" of borders, which is to sanction

flows of goods and people, and manage and police unregulated and unauthorized flows. The development of the US government's turn toward a 'gatekeeping' ideology was executed by creating categories of 'desirable' and 'undesirable' by establishing standards of selection and grounds for the inclusion and exclusion of migrants through categories of race, class, national identity, as well as the institutional development of policing strategies and border regimes to enforce national policies (Lee, 2003; Nevins, 2010). Nevins (2010) argues that border immigration controls are ongoing state and territorial processes that bridge the social and political spheres by establishing social boundaries that distinguish between 'us' and 'the other' through hierarchies and practices. The policies gain social support through appeals to identity and security (Campbell, 1992; Ackleson, 2005; Nevins 2010).

The discursive function of bordering that Newman and Paasi discuss is evident in border security practices. Andreas (2008) has argued that border policing is a symbolic act that reaffirms state authority by situating the border as "a political stage" where the security function is visible and performative. Symbolic acts and rhetoric appeal to public support of these broadbased political projects by materializing the flows of illicit/ illegal flows of migrants or drugs ('threats') through media coverage of immigrant apprehensions, large-scale drug busts or smuggling rings. Like Campbell (1992), Ackleson claims that these projects work by appealing to national identity, power relationships, law and order, and fear (Campbell, 1992; Ackleson, 2005). Andreas was highlighting the performativity of border security as "an act," where the optics of apprehensions and drug seizures give the impression that authorities are taking action, and that situations are being managed, yet suggests that the individuals performing these acts are well aware that their efforts were merely symbolic, and the actions had little effect on diminishing flows of migrants or drugs. The Trump administration's intention to punish these

unsanctioned mobilities is part of a larger state project aimed at stopping all migrants from seeking asylum and refuge in the US, and relies on the optics of migrant caravans, unsanctioned crossings, and images of crime and violence linked to immigrants to instill fear into his loyal base. The optics serve his own interests—as imagery focuses on the absence of enforcement and the mobility of migrants to reinforce fear—and his administration's very existence.

To achieve its immigration policy goals, the Trump Administration has consistently relied upon tropes of migrants from Central America and Mexico as criminal, burdensome, and diseased. Kingsolver (2010) examines how the discourse of "broken borders" is coded language for describing what conservative talking head Lou Dobbs once referred to as "an army of invaders" (Kingsolver, 2010, p. 123)—the perception that the very act of immigration implies the U.S. is under attack from a hostile foreign enemy. Kingsolver also notes that the broken borders rhetoric is directly tied to discussions surrounding jobs and economic security; where immigrants are described as direct threats to prosperity. She describes the U.S. as having an "obsession with enclosure" that can be traced back to the early colonial period. The image of the "stone wall" is a metaphor of keeping a 'problem' out, selectively. Kingsolver uses the term "selective racialization" to highlight the fact that the southern U.S. border is the only of its two shared borders that is fortified and militarized (Kingsolver, 2010).

The racialization of immigrant bodies has served an additional discursive function that furthers the 'us vs. them' divide in a way that focuses on biology and biological differences. Scholars have studied the development of immigration policies in the U.S., highlighting early discourses about immigration that situate the bodies of migrants as threats to the bodies of US citizens, and by extension the 'body' of the US. The mere existence of categories of medical exclusion designed to weed out 'the weak' and the diseased, quarantine periods, as well as

mandatory medical inspections designed to judge immigrants' fitness for citizenship, created the public perception that immigrants were extensions of their homeland-- rather than, in most cases, experiencing the effects of prolonged travel in crowded accommodations (Markel & Stern, 2002). This is not to mention the large hospital infrastructures that migrants moved through on arrival (Angel and Ellis islands), and the border disinfection plants where Mexicans crossing to and from the U.S. were subjected to humiliating inspections and delousing for years following a typhus outbreak in Mexico (Stern, 1999). These practices, and the material structures where they occurred, create an association between immigrants and disease. Markel and Stern note that the immigrant/ disease connection is one that often swings easily between "hysteria and hyperbole" (2002, p. 757). Studies focused on the creation of the United States Public Health Service in 1889 (Kraut, 1994; Markel & Stern, 1999) examine the way the development of public health as a discourse rested on tropes of immigrant bodies as biological threats, especially during the Progressive Era in the US, which was saturated with eugenicist ideologies—treating instances of criminal behavior, poverty, intelligence, etc. as hereditary. Public health officials were tasked with establishing standards of medical fitness, and sorting through the bodies that did not fit these standards. Markel and Stern state that the term 'public health' became "one of the most insidious and powerful rationales for restricting immigration" (Markel & Stern, 1999, p. 1314). Public health became a rationale that undergirded representations of Chinese, Jewish, Japanese and Mexican immigrants in the early to mid twentieth century (Markel and Stern, 1999; Flores, 2003; Molina, 2006). The mass deportation of Mexicans and Mexican-Americans during the Depression era tied public health related concerns surrounding tuberculosis, typhus and syphilis as justification for their removal. Even into the latter part of the century, following immigration shifts in 1965, Mexicans were cast as "hyperbreeders," and physicians used public health and the rhetoric of population control to justify the forced and coerced sterilizations of scores of Latinas (Stern, 2005; Molina 2006).

These discourses endure. Scholars examine the persistent connection between public health and perceptions of immigrants as diseased focus on contemporary developments in immigration policy (as these have played out first on the local, state-based scale), and how the effects of these discourses feed into large-scale federal approaches to immigration restriction. One such instance was the attempt to pass Proposition 187 in California in 1994. The proposition supported denying public services to undocumented migrants living in California, including public education and health care. Oddly enough, opponents of Proposition 187 used the concept of public health as a backhanded rebuttal—arguing that a health crisis would result if in fact immigrants were denied access to health care, so better to maintain their benefits, or else! (Ono & Sloop, 2002). Though not the primary intention of the argument, it tacitly reinforces negative stereotypes of immigrants carrying diseases. In the most offensive cases, scholars show how public debate surrounding Proposition 187 situated the state of California as an aggrieved and burdened body in and of itself, where immigrants were characterized as parasites feeding off a 'host' nation (Ana, 1999). The only way to get rid of the parasite, it was believed, was to kill the disease (Ana, 1999; Inda, 2000). Any of the 'social ills' the state experienced were traced back to the presence of immigrants (Inda, 2000).

In 1996, immigration and welfare reform were two prominent federal policy issues following hot on the heels of Proposition 187, along with the implementation of the North American Free Trade Agreement (NAFTA) and the contemporary nature of discussions surrounding Globalization and its possible effects on sovereignty and borders. Fluid borders aroused fears of immigrants carrying diseases, but on a global scale—no longer fears

surrounding Mexican and Central American migrants carrying communicable diseases, but Haitians possibly carrying HIV (Schneider, 1998). Fears surrounding the Globalization had primarily been economic in nature—fear about the fate of American jobs, and the economy at large. The discourse of disease at this point tied the economic health of the nation to the 'pain and suffering' experienced by American families, suggesting declining emotional and mental health among Americans. Welfare reform also came to mean 'immigrant welfare reform'—as the 'cure' for the nation's economic ills (Fujiwara, 2005). In 2010, Arizona Senate Bill 1070, used the discourse of crime and the threat of spillover violence from violent drug war turf battles in Mexico to justify a mandate that required foreign nationals—primarily Latino—to, at all times, carry proof of documentation of their right to be in the US. Cisneros argues that the "Mexican-Latina/o- brown- Illegal- Immigrant body" was targeted as "fearful and threatening," in the sense that illegality naturally arose from the bodies of suspected migrants (Cisneros, 2012, p. 146). A more recent study looking at the wave of migration from Central American countries, occurring in the summer of 2014, mainly unaccompanied minors, shows how the rhetoric of disease was also at play. Looking mainly at the content of Fox News coverage, and commentary provided by Fox News program hosts and commentators, Campbell (2014) reveals the discussion in this forum mainly focused on how the release of unaccompanied minors in the U.S. interior would create a public health and safety crisis—due to the potential for criminal behavior (gang affiliations were thought to be rampant). The unaccompanied minors were perceived by Fox News hosts and commentators to be disease ridden, carrying Scabies and Chagas (Campbell, 2014).

The trinity of immigrants, crime, and disease undergirds the Trump Administration's border policies, particularly the construction of a barrier that would stop these flows. These

policies deal directly with approaches to drug control and immigration control. If one is to follow the logic of the Trump Administration, the current Opioid Crisis in the U.S. is the direct result of drug flows and immigration flows—the two flows are perceived to be nearly inseparable. The Administration commonly posits two scenarios to rationalize its agenda. First, immigrants are carrying drugs as they cross rural deserts and enter into the US unlawfully, and not at an established port of entry. The second scenario states that migrants are carrying drugs as they cross rural deserts and enter into the US unlawfully through their associations with transnational gang, MS-13. Along the journey, the story goes, gang members have coerced migrants to carry drugs. Because the majority of illicit narcotics flow across the southern border into the U.S., the resulting large scale public health and safety outcomes are perceived to be consequences of this illicit movement and are blamed squarely on migrants. The overdoses, the overdoses resulting in death, the aggrieved families, the strain on public services and first responders, the lack of space in county morgues, the rise in blood borne illnesses—all of which are acknowledged to be affecting primarily non-hispanic whites, in the heartland of the U.S.—all of these factors are blamed on immigrants in order to justify the sealing of the U.S.-Mexico border, as a measure of drug control as well as immigration control. The Administration's connection between migrant bodies as vectors of disease (what has come to be referred to in public health circles as "opioid use disorder") and the deteriorating condition of the white working class cannot be overstated. The border barrier is situated as the common-sense solution to solving these issues.

5.4 Methods

This study draws from case files in 100 US federal court cases entered between January 1, 2013, and December 31, 2017, involving alleged instances of trafficking, distribution, and possession of heroin, fentanyl, and/ or fentanyl analogs, such as carfentanil. These cases were

located using the ProQuest database, as well as Google News, searching for articles appearing in local and national news publications that documented an instance of interdiction by law enforcement, with the goal of accumulating a sample of about 20-25 cases per year. News reports frequently name the accused, and those names were cross-referenced in the Public Access to Court Electronic Records (PACER.gov) database, which provides access to court records and documents from US District Court cases, all falling under federal jurisdiction. Cases were located in PACER by matching the name of the accused, the date of arrest, and the arrest location. Data was located within the appropriate case files. The documents therein including the Statement of Facts, formal indictments, transcripts, plea agreements, and mainly formal complaints that included an accompanying affidavit, were analyzed. Affidavits are sworn written statements submitted as evidence to the court. In these cases, the affidavits are forthcoming regarding the alleged details in specific cases, providing meticulously descriptive information about the individuals involved, locations where drug activity takes place, the unfoldment of events during a period of surveillance, evidence gathered as the result of wire-taps, and provide preliminary conclusions by the investigating officers regarding the behavior of suspects under surveillance.

Where formal qualitative interviews with law enforcement officers involved in these cases can be frustrating, as the officer often states they "cannot get into details" or "cannot discuss specific cases," examining court records bypasses these roadblocks. Affidavits provide a summary of events—as the investigating officer(s) interpret them—regarding the intent of the accused and their involvement in other networked drug distribution activities. The information found within these affidavits is valuable to the study of the geography of illegal drugs. Location information is detailed and reveals the movement of illegal drugs into and within the United

States, and provides the opportunity to map this movement. Documents also reveal information about the accused themselves, including prior convictions, possible connections to traffickers and source locations, and legal status within the US. This approach also facilitates a look at the variety of source and destination locations for drug flows coming into the US, the distribution methods traffickers are utilizing, and the investigation methods utilized by law enforcement.

The statements of officers as recorded in the affidavit are informed perceptions, yet also speculative and unproven. Sworn affidavits are required by law enforcement officers seeking search warrants to establish probable cause. The structure of a standard narcotics affidavit follows a format wherein the officer establishes their position, rank, and involvement with the case as a member of a particular agency or task force involved in the investigation. They describe their experience in detailing narcotics cases, including their educational background and any specialized law enforcement training in narcotics investigations. In certain cases, sworn affidavits of United States Postal Inspectors were uncovered and included—as the United States Postal Service (USPS) is tacitly enrolled in the global drug trade through parcel transfer and delivery. Postal Inspectors' affidavits are similarly structured—establishing position, rank and involvement in the case; describing their understanding of drug flows moving through the USPS, and discussing experience and specialized training in narcotics investigations. Included in every affidavit is an acknowledgement of the limitations of the officers' understanding of all facets of the case, and the limitations of the affidavit itself as evidence—it exists for the purpose of establishing probable cause by providing a sworn description of a series of observations and experiences. Examples are as follows:

"I have participated in the below-described investigation since June 2016. I am familiar with the facts and circumstances of this investigation based on the information I have received from a variety of sources, including other law enforcement officers and agents, confidential sources, cooperating witnesses, public records, financial records, physical

and video surveillance, telephone toll records, and court authorized wire intercepts. This affidavit is submitted for the limited purpose of setting forth some broad overview favors that apply to the detention hearings in these cases. I anticipate that for specific defendants for whom detention hearings are held, there will be additional evidence presented at that time." (Case: 1:17-cr-10141-DPW)

"The facts contained in this affidavit are offered for the limited purpose of establishing probable cause. This affidavit does not contain all facts known about this case. The affiant knows these facts either from direct knowledge, from reviewing documents or evidence, or from receiving this information from other agents or law enforcement officers." (Case: 3:17-cr-00043-TMR)

A series of observational facts follows this statement with regard to the investigation being described, mainly the preliminary details of the case to ascertain whether or not a case can be made. A search warrant is commonly requested, as the observable evidence investigators have gathered raises the possibility that additional evidence exists in private spaces accessible only through a warrant. Instances where the details of these case were obscured through redacting, sealed documents or documents unavailable to the public, press releases by the Justice Department on behalf of the prosecuting district court have served to fill in the gaps when available and necessary. These Department of Justice (DOJ) press releases provide detailed information about cases, yet commonly include the caveat: "The charges in the indictment and complaints are merely allegations, and the defendants are presumed innocent unless and until proven guilty." Keeping this in mind, though evidence gathering techniques in investigations at the preliminary stages are often predicated on extended surveillance and monitoring of subjects, both visibly and electronically, the caveats apply to the affidavit in such a way that situates the Affiant's testimony as a form of thick gossip—extremely detailed, often repetitive interactions and observations, yet ultimately uncertain and unconfirmed information that often relies upon speculative reasoning based on pattern recognition and previous experiences. The caveat of limited knowledge is to say, 'I don't know everything, but here's what I saw/ heard/ interpret.'

The majority of affidavits examined in this study contained detailed descriptions of surveillance, with only one standing out as suspiciously under-informed—a possible case of racial profiling with little probable cause.

Data from cases was logged using an Excel spreadsheet identifying: 1) date of court document 2) defendant(s) names; 3) arrest location, 4) state, 5) federal court district, 6) case number; 7) formal charges, 8) distribution location; 9) source location; 10) whether or not the case involved fentanyl and fentanyl analogs, and 11) miscellaneous notes detailing case specifics (gang affiliations; methods of transport; nationality and residency status of defendant, where appropriate; connections between cases, if any; connections between sites, including possible connections). Data gathered was used to identify the movement of illegal drugs between locations, and in some instances where the information was available, more detail about the traffickers, dealers, and drug purchasers. The basics of 'who, what, where, and how' were established in a general sense, as a sample size of 100 cases can provide a glimpse into the movement of illegal drugs into and within the United States and a general sense of how the heroin and illicit opioid markets operate, but this cannot describe the full picture in significant detail. This is due to the limited access of court records—many of which are sealed to protect the integrity of the case, as well as the indicted—and the shadowy nature of studying illicit flows of any kind.

GIS has become an important tool for understanding the unfoldment of the Opioid Epidemic in the US. Maps developed by the Centers for Disease Control and Prevention (CDC) revealed the intensity of the Opioid Crisis and its human toll through often reproduced maps of overdose deaths in US states since 2000. State-based public health and safety workers utilize GIS to map trends in opioid prescribing, to identify where the problem is worsening or improving,

and generally to understand the 'big picture' that emerges through mapping various data sets (DAWN, TEDS, and data from state-based prescription drug monitoring programs (PDMPs)). Harm reduction organizations also utilize GIS to target interventions (treatment opportunities, clean needle exchanges, naloxone distribution, methadone clinics, etc.) through hotspot mapping. Mapping the flows of heroin and fentanyl moving into the United States facilitates an understanding of the relationships between source locations, distribution hubs, and sales locations. In some cases this has led to the arrest of individuals accused of selling heroin cut with fentanyl, and its more potent analog carfentanil. When multiple overdoses occur within a specific location, mapping these flows and looking for recurring patterns can eventually lead to uncovering the source. At this particular moment, mapping drug flows of heroin and fentanyl using court documents reveals the actors involved; how local drug trafficking organizations operate in their own communities; and how these factors are linked to the global drug trade, or not. This is a method that can reveal who is involved in the trade, where they are operating and how—which can help to provide evidence to disprove adversarial political rhetoric rooted in unfounded generalizations about migrants and their connections to the drug trade.

5.5 Results

In the contemporary rhetoric supporting further construction of the border wall at the US-Mexico border, it is assumed that foreign nationals carrying dangerous illegal drugs are determined to infiltrate the US border by crossing non-barricaded rural sections of the desert borderland. Based on the sample of 100 US federal court cases, only six allege that migrants crossed the border engaging in drug trafficking—none occurred in rural areas, but at established points of entry. Two of these occurred in Arizona at Nogales; one at a crossing near Tucson. All three defendants crossed on foot at these entry points. The other three cases involved defendants

who were discovered to have crossed the southern border 24 hours prior to their arrests. Two of these occurred in Dayton, Ohio, where two men were arrested for concealing heroin internally—the defendants had swallowed heroin pellets wrapped in plastic and passed them through the digestive tract to be recovered and distributed for sale in Ohio and surrounding areas. The remaining internal concealment case occurred near Tucson, and involved a woman who had internally concealed heroin pellets vaginally. In each migrant crossing case the defendants were promised payment for successful crossing and recovery ranging from \$500 to \$6,000 dollars.

Eleven other foreign nationals were expressly named in these cases. Five of these were citizens of the Dominican Republic, four were from Mexico. In two other cases specifically involving transactions via the 'dark web'—one case involved a citizen of the Netherlands, and the other is a citizen of China. The Dutch national was arrested at Miami International Airport. The Chinese national was indicted in late 2017 as a foreign supplier of fentanyl and fentanyl analogs to dealers in the US, whose products resulted in death or great bodily injury following use by a drug consumer. For the purposes of this study, all other indicted and indicted coconspirators who were not specifically identified within case documents as foreign nationals are considered to be either citizens or legal residents of the United States.

While the Trump administration has repeatedly asserted that the transnational gang MS-13 is responsible for trafficking heroin throughout the United States, none of the 100 cases examined expressly identified any members MS-13 as suppliers or co-conspirators. Three cases involved street gangs. In two of these, the Los Solidos street gang was mentioned directly in relation to drug sales in Hartford, Connecticut. In another, the Latin Kings were identified as a gang trafficking heroin and crack cocaine in York, Pennsylvania. Applying the FBI definition of 'gang'—drug trafficking organizations are excluded from the gang label as they fall under the

category of "international organized crime" (National Gang Intelligence Center, 2015, p. 4).

Gang involvement was noted as distinct from normative DTO operations and interests.

Among 100 cases, 24 states were represented in the sample (Table 1). Cases from Massachusetts (n=10) and Ohio (n=18) were over-represented, followed by cases from Connecticut (n=7), and Illinois (n=7). Within these states, major cities marked the sites where defendants were arrested and charged. Some case files directly indicate international connections between the accused, drug trafficking charges, and the supply source. Twenty-three instances were logged where the Affiant or case file document (commonly found in an Affidavit, Statement of Facts, or Plea Agreement) identified a foreign supply source—these included Canada (n=1), Dominican Republic (n=1), Netherlands (n=1), China (n=4), and Mexico (n=14). In other instances, based on the details of the affidavit, though not expressly identified, there was evidence that implied a connection to a foreign supply source—these implied connections were Mexico (n=7), and the Dominican Republic (n=5) (Figure 5.1).



Figure 5.1—Source locations tied to suppliers (International- Purple tabs, US-based—green tabs). In other cases where an ultimate foreign supply source is not expressly identified or implied, interstate and local intrastate connections are established between the arrest location and a

regional supply source. For example, a link between Chicago, Illinois and Cincinnati, Ohio; Brooklyn, New York and Baltimore, Maryland; Akron, Ohio, and Huntington, West Virginia. In most cases, these linkages are marked by connections between large urban cities and small outlying rural cities.



Figure 5.2— Major Drug Transfer Hubs (red tabs).



Figure 5.3—Map of Drug Trafficking Destination Cities/ Arrest locations (black tabs).



Figure 5.4—Major Flow Sites: Sources (Purple and Green tabs), Hubs (Red tabs), Destinations (black tabs)

Movement is commonly facilitated over the interstate and international highway system in cars or commercial busses (n=2). Highway transport typically involved the concealment of heroin or fentanyl in a duffle bag or backpack (n=2), and more complicated methods involving vehicle modifications (n=2) and trucking operations involving concealment within legitimate transported goods (vegetables, newly manufactured automobiles) (n=2). Within the sample, rare instances indicate the alleged trafficker(s) travelled between source and destination locations via airplane (n=2). In most cases, vehicle surveillance was the key component of investigations, and Affiants detail, extensively, hours of tailing suspects' movements in cars—giving the impression that in most cases heroin, fentanyl and fentanyl analogs are being transported in vehicles over highways, bound for U.S. cities from larger U.S. cities by a range of actors, and not migrants.

5.6 Discussion

Given the connections, between individuals, mobilities, and sources of supply, recursive and patterned relationships exist between drug-affected places. These 100 court cases establish that there are large-scale connections between international sources, hub cities, and distribution

sites. California is a large source location for the entire nation. Those moving drugs across the U.S.-Mexico border near San Diego have ties primarily to Ontario, San Bernardino, and Fontana, in southern California. These cities are a short drive from Los Angeles, where it is evident that high volume heroin and fentanyl packages are prepared for transport. These packages are not yet broken down, and many still in 'bricks'. These packages are bound for distributors in regional hub cities and not yet prepared for street sale. Auto body shops are sites where secondary modifications to vehicles, creating concealed compartments to attempt to transport heroin and fentanyl packages without detection. This has also occurred in Phoenix, another major city in the state of Arizona within a few hours' drive of popular border crossings at Nogales and Tucson, southern border cities also experiencing several instances of smuggling within the sample of cases. As these source sites are identified, they are often connected with international sources in the region, primarily Mexico, but ties Guatemala were also represented in the sample, but weakly so. It is widely known that Mexico appears to occupy the most significant role in supplying heroin to the U.S. The argument in favor of building the southern border wall relies on this as a rationale that if a wall were present—or assuming, a wall more acceptable to the Trump Administration that the existing wall—the drugs would cease to flow into the U.S. from that source. Though this is a fallacy and there are numerous problems with this line of reasoning, under this rationale, Mexico is treated as the only source of heroin supply in the US. These 100 cases reveal that the Dominican Republic is another frequently mentioned international supply source—one located in an island nation, and one that flows from this location would not be hindered by a southern border barrier. In the case that Puerto Rico was implicated as a source site, it appears to be a site supplied by traffickers from the Dominican Republic and acts as a waystation between the Dominican Republic and the US mainland.

Heroin and Fentanyl are ultimately bound for cities near the east coast, and in the transport process it is evident that verifiable hub cities are internal supply sources, serving as waystations and secondary distribution sites (second in relation to the source site being the first site of distribution). Hub cities are the locations where drug distributors/ or drug traffickers retrieve packages of illegal drugs. These packages are picked up in these major hub cities by couriers coming in from further flung, yet regionally located cities, and transported back to their regionally located DTOs. It is evident that Nashville, Chicago and New York City are important hub cities where heroin and fentanyl are being supplied by couriers doing the work or large scale cartels and international drug suppliers (Figure 5.2). Chicago and Nashville appear to be the main hub cities supplied through Mexico, while New York City appears to be respectively split between Dominican and Mexican suppliers.



Figure 5.5—Cumulative Map of Source, Hub, and Destination Sites, with Source Flows Identified.

High volume packages of heroin and fentanyl are then transported to distribution cities, where the drugs are unpacked and repackaged into smaller quantities, often by the gram (Figure

3). Members of regionally located DTOs will attempt to extend the supply of heroin with cutting agents, that either dilute the purity of the drug, or increase its potency by adding a powerful adulterant such as fentanyl. Cutting the purity of heroin with a common cutting agent such as Sleepinal, for example, enables suppliers to add volume to their existing supply, maximizing the potential for profit. Sleepinal is an over-the-counter sedative that contains diphenhydramine, the active ingredient found in many antihistamines that tends to cause drowsiness, an effect similar to heroin. The recent, and increasingly common, practice of cutting heroin with fentanyl, and fentanyl analogs, reduces the amount of the drug required to produce a potent and powerful high. Volume can be reduced, and more doses can be produced with existing supplies. It appears that this stage of the process, where the fentanyl is added in, is most common at this second phase of distribution—by local suppliers, or local DTOs, who prepare and package drugs for street sales, rather than the initial supply direct from international sources.

It is interesting that none of these 100 cases identifies the western US region as a destination for traffickers. In what could be a limitation of this approach, the majority of cases originated in the east. This could be due to several factors. First, it is probable that upon an overdose resulting in death the subsequent death investigation could yield specific information gleaned from the location where the death occurred, including access to the deceased's personal effects—including phone records, computer hard drives, etc. Affidavits indicate that this information is commonly surrendered to authorities by immediate family members, close friends and associates. The investigation then turns to the local supplier or source of the substance that led to the overdose resulting in death. The local dealer is then charged, and commonly 'rolls over' offering information on their supplier higher up in the chain. This is how large scale trafficking networks are uncovered. In this sense, the increased number of overdoses resulting in

death in a particular region would likely produce a disproportionate increase in the number of drug trafficking cases. Another probable reason for the lack of trafficking destinations in the west could be related to the design of this study. Fentanyl, as a heroin adulterant and counterfeit pill component, has been more present in Midwest states and eastern US. However, the flow appears to be moving into western markets due to demand (Vestal, 2019). By seeking out cases involving heroin and heroin adulterated with fentanyl trafficking this may: 1) disproportionately highlight the regions and areas most affected by the phenomenon; 2) disproportionately emphasize the regions where drug control operations against these substances are more intense due to the extent of the problem in those areas, than in the western US—the logic being that if this one problem is rigorously investigated, it is likely that efforts to eradicate it will produce visible results; and 3) may be due to differences in regional drug markets in a general sense—preferences, supply and demand appear to be regionally uneven (Monnat, 2018; Rigg, Monnat, & Chavez, 2018).

Arguments that support the further construction of a border wall as a physical barrier to drug flows, as a matter of public health and safety rely on links between the risk of overdose present in the adulterated heroin supply, and Mexico as the source location, assuming that fentanyl-adulterated heroin arrives that way in the US. Suppliers in Mexico, it is believed, are producing a deadly product that white Americans are dying from. Most of the time, this is not the case. It appears that packages of heroin and fentanyl are shipped separately, and that the risk associated with heroin-adulterated with fentanyl is primarily created at the mixing and preparation stage of the distribution process. The precarious mixture of fentanyl and heroin, appears to be carried out at the discretion of local drug traffickers. Mixtures are often prepared in individual homes or rented motel rooms, but only after bulk quantities in separate packages are

received. Though it cannot be ignored that supplies of fentanyl are primarily moving through the southern border from Mexico, it should not be assumed that the suppliers themselves are involved in the mixing of substances in preparation for sale. Another way of looking at the issue is that American residents and citizens involved in the drug trade are the ones responsible for mixing these substances—substances they acquire from suppliers in Mexico—and the level of risk produced by this practice is situated primarily with local distributors.

Local distributors are not always the same as street level dealers. Sometimes the local distributors are in direct association with an organized hierarchy of participants, of which street dealers are typically at the bottom tier. This close association is considered a Drug Trafficking Organization (DTO). When referring directly to a named DTO, the name is usually labeled by attaching the last name of the individual who appears to be the person in charge of the operation. For example, the Jones DTO, or the Smith DTO. However, there are other instances where street level dealers are more decentralized, and appear to acquire supply from a locally or regionally available source, and then sell, or "work," on their own while maintaining their own network of clients for direct sales. In these cases, suppliers simply supply product to a network of individuals, and that network of individuals that is then redistributed.

One of the premises of the argument in favor of a southern border barrier to stop drug flows—on the grounds of public health and safety—is the perception that those involved in drug distribution are primarily transnational gang members, specifically the gang Mara Salvatrucha (MS-13). MS-13 is a transnational gang prominent in the so-called Northern Triangle countries of Honduras, El Salvador and Guatemala. It is believed that the gang is operating in tandem with drug cartels operating in the region, moving heroin and fentanyl through the U.S. And while the gang does have members and operations in U.S. cities, the sample of court cases examined failed

to reveal any direct evidence that MS-13 was involved in any of these alleged incidents. The gang is not mentioned at all. The only gangs that were mentioned directly by name were the Latin Kings, and the Los Solidos gang—the Latin Kings operating in York, Pennsylvania and New York City, and Los Solidos primarily operating in Hartford, Connecticut. Both gangs were being supplied by drug distributors with ties to the Dominican Republic—not Mexico. This supports the findings by the Washington Office on Latin America (WOLA) stating that gangs such as MS-13 and Barrio 18 are primarily involved in street-level crime and violence, including extortion and street drug sales. WOLA examines the distinction between street gangs and transnational criminal organizations, the latter of which tends to be involved in large-scale drug transshipment and has less interest in local territorial disputes and petty crime (Washington Office on Latin America, 2017).

Not all who are involved in the drug trade do so in association with a large-scale group, as if they were part of a massive criminal operation. In most interactions between dealers and suppliers, the need for anonymity between suppliers, transporters, distributers, and dealers is done for the sole purpose that if one of these individuals should get caught, they would not be able to provide incriminating information about other individuals involved. Despite arguments that assert that drug trafficking organizations are highly organized at all levels, some aspects of the trade remain intentionally decentralized. In specific cases where a drug supplier was not mentioned, nor was an affiliation or knowledge of the source of the drugs, it could be assumed that a form of plausible deniability was at play to protect various actors. Cases that involved so-called "drug mules" are appropriate examples of this tendency. I define the term "drug mule" specifically as those who transport illegal drugs intentionally— on a one-time basis, or on multiple but separate occasions—as an independent actor, under conditions of a one-time lump

payment, with or out the possibility of future opportunities to repeat the act. The practices of these actors support studies that conclude that individual involvement in the global drug trade is similar to temporary, but often renewable, contract labor (Campbell, 2009; Muehlmann, 2013). The primary characteristic is that, despite assertions to the contrary, people who are involved in the drug trade are often disassociated from transnational criminal networks and cartels, in the sense that the opportunity to become involved in the drug trade can often be a chance to make fast, supplemental income, in an almost mercenary sense, at varying degrees of risk being caught, or risk to one's person. The six court cases that involved Mexican nationals crossing the border with drugs concealed internally or in their belongings involved such a practice. Each case revealed these similar motivations, the same story that shaped the plot for the film Maria Full of Grace. In the sworn affidavits, the practice was described as a common method of drug trafficking that individuals engaged in as a means to make money. Each of the movements described in each case occurred at legal ports of entry—not rural crossings in the desert. Additionally, it was not clear that the defendants intended to settle in for an extended stay in the US. It was clear, however, that the defendants described in these affidavits were not part of a transnational drug gang or drug conspiracy—just people who were putting themselves at risk, just trying to get by.

The emergence of the dark web and cryptomarkets are factors contributing to the decentralization of the transnational drug trade. Drug cartels are primarily territorial, vying to control vital source locations, transit routes, and distribution sites. This is also shifting, for example, the illicit manufacture of prescription pills, the recent addition of fentanyl into the heroin supply, and the ongoing production of methamphetamine—which remains a lucrative and popular drug--shows that the drug trade is evolving to include more man-made chemicals. These

chemicals are created laboratories, as opposed to illegal drugs that were predominantly agriculture in nature and subject to grow cycles, sensitive to changes in climate, and even vulnerable to counter-narcotics strategies focused on crop eradication through pesticide spraying—such as coca plants, marijuana and opium poppies. The majority of synthetic chemicals that form the base of opioid pain medications are produced in large-scale labs in China. Cartels in Mexico purchase these chemicals in bulk from manufacturers in China, and then transport them to the U.S. for use on their own, or as cutting agents. Individuals unaffiliated with the drug trade, and any trafficking source or organization, can now bypass informal channels of gaining access to drugs of their choice by purchasing from illicit retailers selling drugs on the dark web, and paying for these transactions through cryptocurrencies such as Bitcoin. Six cases out of 100 involved the dark web, and in another related case the defendant purchased fentanyl through the conventional internet or the "clear web."



Figure 5.6—Internal U.S. Dark Web Sources (light blue tabs) and Destination Sites (blue tabs).

In these cases, the United States Postal Service (USPS) was the primary route of distribution for packages shipped between the source and the recipient. These technologically based transactions

circumvent interactions with cartels, who previously had a monopoly on the drug trade, and are reminiscent of Manuel Castells' concept of the "space of flows"—where interactions that are not territorially linked contiguously are facilitated through the use of tertiary infrastructures, such as transportation systems, and telecommunications infrastructures (Castells, 1999). It cannot be ignored that technology has overcome distance, and led to greater access to a range of goods including illegal drugs. As this phenomenon evolves, a physical barrier located at the U.S.-Mexico boundary line would do nothing to stop the flow of illegal drugs into the United States from these decentralized sources.

5.7 Implications and Conclusions

Due to the shadowy nature of illicit markets, it is often difficult to gauge how exactly illicit industries adapt to outmaneuver coming changes in counterdrug strategies. What is obvious in these cases is that the narrative of rouge migrants traveling to the U.S. across barren deserts with drugs strapped to their bodies is not accurate. What is notably absent in these cases, are any reference to subversive tactics beyond body concealment, and vehicle modifications designed to conceal varying amounts of drugs. There are no mentions of Panga boats, tunneling, submarines, private aircraft, drones or catapults. Though these are methods of transport are not mentioned in any of the cases does not mean they aren't frequently used. These are methods that a wall could not stop.

The growth of the dark web as a decentralized illicit market is another phenomenon that a wall could not control. People utilize cryptocurrencies to purchase illegal drugs from these marketplaces and have them shipped directly. Though steps are being taken to provide greater oversight of illicit items moving through USPS, it seems that when faced with a barrier, human ingenuity will always find a way around it. Advancements in drug detection as well as chemical

engineering has meant that synthetic alternatives to illegal drugs are also in development, and another problem that will require solutions. It is widely known that chemical compounds that mimic the effects of marijuana and cocaine, for example, are consistently produced and reproduced. The synthetic marijuana known as "Spice" is one such example. As new synthetic compounds are developed, then subsequently banned through legislation, new synthetic compounds are developed that are structurally distinct enough to be able to mimic the effects, but escape the explicit nature of illegality based on a new chemical design (Taylor, 2015). This process is recursive, and similar new chemical iterations of fentanyl analogs are continually being developed. In this case, a wall proves to be an irrelevant, backward solution considering new drug control challenges that are emerging.

Various iterations of border barriers along the U.S. southern border have consistently failed to stop the flow of migrants into the U.S. The new border barrier does not move though lawful ports of entry, which would remain an open site for crossing. Researchers agree that one effect the wall would have is increasing the risk inherent to migrant crossings. As crossing becomes more difficult, migrants face greater struggles in their efforts to get to the U.S., including increasing costs to pay for guides to assist them pass through (Prieto, 2018). Health outcomes for migrants attempting multiple unsuccessful crossings are worse than those in the U.S. already (Cheong and Massey, 2018). With increased fortification, multiple unsuccessful attempts could be more likely to occur, resulting in deteriorating health (Gushulak and MacPherson, 2004).

The profile of the phantom smugglers crossing the rural areas of the southern U.S. border, strapped with kilos of dangerous drugs bound for the U.S. never fully materialized in the data analysis stage of this study. There were no apprehensions in rural sectors of the border.

When migrants were implicated in trafficking instances, these occurred at sanctioned ports of entry—which would not be partitioned. A new border wall as a drug control barrier may not be warranted at all, as these trends suggest. American citizens and legal residents' are heavily involved in facilitating flows of illegal drugs throughout the US. Partnerships exist, as they always have, between Americans and international drug traffickers. To implicate one side, the 'other' side, only addresses half of the story. Though it is likely by design that these direct rhetorical attacks on migrants as vectors of disease and criminality are hasty generalizations and slippery slopes—they are convenient ways to not have to think about the issue in any depth or specific detail. A convenient scapegoat is identified. The drug problem itself is one that serves the interests of the Administration's quest to ban undocumented migrants in the US. The priority appears to be to reduce immigration, the existence of a severe drug epidemic merely supports the false assumptions that immigrants are vectors of drug addiction—a condition that is increasingly defined in terms of disease. Carrying this thread a bit further, those suffering from the disease of addiction can be understood as victims of "broken borders."

The Trump Administration's immigration policies are rooted in a palpable and visceral xenophobia, with an accompanying moral projection about Mexico and Central America as places that are crime infested, drug ridden, unproductive and irredeemable. Rather than focusing on the structural aspects that produce challenges in the region, or nurturing viable solutions implemented in the region which are producing results, the citizens and residents of these regions are perceived to be the cause of long-standing political, economic and social problems—much of which are the result of US interference in the region. Spatial imaginaries of both Central America and Mexico situate the region as a veritable hornet's nest, and the US as the passive, unwitting recipient of perceived spillover effects. This trope drives the Administration's drug and

immigration policies. Fears surrounding crime rates in US cities, rampant addiction among its white population, staggering overdose rates among white Americans—at a time when the proportion of Hispanic Americans is projected to climb—shape the impulse to keep threatening foreign bodies out by creating a physical barrier. The rationales that underpin the theory that a border wall is a common-sense solution that will stop drug flows from the southern end of the U.S. Mexico border are rooted in appeals to fear, and hasty generalizations. These 100 court cases reveal that the actors and practices behind drug flows moving into the United States from the southern border cannot be generalized to a single population, a single source country or region, or a transnational conspiracy to infiltrate and destabilize the U.S. There are verifiable patterns that reveal a network of actors and locations, and the intentional and strategic movement between these sites, however that network is often decentralized and individual actors often act autonomously—in varying degrees. The introduction of fentanyl in the heroin supply is not indicative of a grand scheme to kill off white heroin addicts—but rather a new, often deadly cutting agent added to the local drug supply further down the supply chain by local suppliers. Those who do not want to interface with local drug dealers now have the option of purchasing drugs through cryptomarkets on the dark web. Cartels in Mexico no longer have a monopoly on the global drug supply. For these reasons, it is clear that the Trump Administration is pursuing a misguided policy, where the threat of drugs and the ravages of addiction add to fears about foreign others, the state of the American economy, and the body politic.

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6. Conclusion.

6.1 Introduction to the Conclusion.

The movement of illicit drug flows remains a complex problem that requires cooperation between multiple local, state, and federal agencies and stakeholders. Over time there have been slight shifts in how drug enforcement officials have addressed substance misuse in the United States. The Drug Enforcement Administration, for example, is heavily involved in transnational counter-narcotics operations intended to disrupt the movement of illegal drugs into the United States. Recent policies developed by various state agencies to address substance misuse and its community effects at the local and regional scales appear to be increasingly focused on public health outcomes. Many of these initiatives, including the development of electronic databases and mandated reporting by pharmacists and prescribers, have been adopted by the federal government in an effort to standardize best practices to address the issue.

Despite the best of intentions, approaches at each scale have inevitably led to unintended outcomes with significant local effects. Efforts to disrupt the aerial Caribbean transit route favored by Colombian cocaine traffickers were successful—yet, these flows were merely relocated to an overland route. Eventually, as operations in Colombia persisted, US and Colombian law enforcement officials succeeded at taking down Colombian drug cartels—which created a vacuum in the trade that overland traffickers in Mexico filled. As a result, the presence of drug cartels and traffickers in Mexico developed *plazas*—territorializing their authority in the region, and claiming space through narco-violence. The presence of cartel coincides with the development of the North American Free Trade Agreement (NAFTA), and a startling number of serial female homicides in Mexican border cities. The femicides can likely be connected to the new power dynamics of the drug trade, and its inherent violence, and NAFTA certainly

contributed to the development and reproduction of cross-border drug flows. Recently, the movement of cocaine into the US gave way to methamphetamine, then black tar heroin, then powder heroin, now heroin adulterated with fentanyl. Federal, and state/ local efforts to address the problem and its effect on communities, respectively, target border and port mobilities (including everyday trade flows, but especially the mobility of migrants), and restrict access to prescription pain medications. Creating additional barriers to access, and barriers to entry, have proven to be the most common approaches to disrupt illicit drug supply chains and flows. These practices raise questions regarding how to best address drug flows, and the unintended effects of various approaches to drug control. Each issue confronts geographic realities in the United States, ranging from the effects of global trade relations, economic restructuring and deindustrialization, late capitalism, migration, and regional disparities in mortality rates.

6.2 Findings.

Responding to the first research question—what factors enable a location to become a site of drug activity— this study supports findings by Trumbore (2014), who sought to determine the characteristics that contributed to a country's likelihood of becoming a transit hub for drug traffickers. Trumbore found that the more economically integrated a country became, the transnational linkages and greater mobility created by global flows opens states up to the movement of illicit flows. Chapter three challenges the narrative that NAFTA opened Mexico up to predatory firms that drew young women from rural parts of Mexico into border cities where *maquilas* offered low wage manufacturing work. However, the findings in this chapter do not discount the globalizing and integrative effects that NAFTA had on the border region that made the site attractive for drug trafficking organizations in Mexico, just as those same trafficking organizations were ascending to control the hemispheric drug trade following the decline of

Colombia-based cartels. Trumbore looks primarily at states, but the findings in chapter four of this study suggest that, internal to the United States, large urban centers also act as transit hubs. This model can also be applied to large cities in the US that act as transit hubs, as major border cities at both the northern and southern US boundaries—and those located along coastlines—and large urban centers, particularly Chicago, serve vital roles as major American economic engines. These cities tend to have developed communications and transportation infrastructures that, Trumbore argued, facilitate the movement of illicit flows. On the flipside, Trumbore argues that weak institutions and rule of law predispose a country to the influence of transnational criminal organizations who may offer economic opportunities that weak states cannot provide. Breaking this down to the urban/city scale, there is some relationship between economic disinvestment in the former US manufacturing belt and the development of the Opioid Crisis in this region. While the majority of experts attribute the growth of the crisis to overprescribing, this is the proximate cause of phenomenon. Some speculated that the ultimate cause of the crisis is the outcome of the physical effects of repetitive heavy industrial labor on the body, resulting in injuries or chronic pain in blue collar workers; the decline of the breadwinner role among men and resulting depression. When asked to speculate on ultimate causes of the crisis, the role of economic restructuring in the US primarily affecting the manufacturing core was consistently included as a possible ultimate cause. While this region did not become a transit hub, the weakening of these locations through disinvestment may be a contributing factor to these locations becoming destination sites for drug traffickers peddling heroin and synthetic opioids to satisfy demand. Speculation on the role of economic restructuring in opioid addiction is also evident in studies by Case and Deaton (2015), Jalal and colleagues (2018), McLean (2016), Monnat (2018), and Monnat and Rigg (2018).

Research question two asks, what local effects are produced by geographic shifts in the global drug trade? Findings in these studies support research by Friesendorff (2005) who developed the concept of 'the balloon effect.' According to Friesendorff, the balloon effect creates a geographic displacement effect that relocates drug flows, and occurs as a result of greater law enforcement surveillance on one area in an effort to interdict drug supplies. Case studies support and add to this theory. Chapter three uses the balloon effect theory to show the simultaneity of major geographic shifts in drug flows, the shift in drug trade power dynamics from Colombia to Mexico, and the development of the North American Free Trade Agreement. It is possible that a series of female homicides that occurred in Mexico's northern border cities is related to the presence of drug traffickers in these cities—as it is noted that cartels in Mexico did take advantage of lower trade barriers to move drugs into the US. The chapter postulates that where drug cartels operate, the violence that is intrinsic to drug turf wars and revenge killings travels alongside them. If Friesendorff's theory is correct, then it should also be true that as drug flows are relocated so is the violence that is characteristic to their operations.

Chapter four looks at the effects of legislative forms of drug enforcement, and the development of a substitution effect. Legal mandates that pharmacists and prescribers log purchases and prescriptions of addictive pain pills, and pseudoephedrine pills that could be transformed into illicit methamphetamine, have reduced access and supply. This reduction in supply and access to medications created an opportunity for drug traffickers to offer methamphetamine, heroin and illicitly manufactured opioids as substitutes to meet demand. Prohibitive methods of enforcement curtailed the domestic illicit production operations, yet created a market for substitutes that are riskier than the previous substances these laws were designed to restrict. Crystal methamphetamine became widespread across the US in the early

2000's as efforts increased to regulate access to pseudoephedrine and prevent dangerous methamphetamine lab explosions at the hands of home-based producers. Crystal meth is known to be more addictive and potent than the average run-of-the-mill methamphetamine. Recently, the presence of heroin adulterated with fentanyl has caused the number of instances of overdose deaths to skyrocket. In both examples, the initial problems of methamphetamine and prescription pain pill addiction were problems that needed to be addressed. The unintended effects of pharmacist and prescriber mandated reporting contributed to a reduction in supply that opened the door for increased danger to the addicted population through the presence of riskier illicit substitutes to meet demand. As drug flows are relocated, they are accompanied by increased risk to the addicted.

Greater risk is also the effect of material barriers to flows. Chapter five looks at the assumption that a border wall will stop illicit drug flows moving into the United States from its southern border. Findings challenge the narrative promoted by the Trump Administration—that undocumented migrants bound for the US, some of them MS-13 gang members, are crossing into the country from its southern border while carrying drugs with them. A new and improved border barrier is offered as the common sense solution to stop both the flows of migrants and the illegal drugs they are carrying. A border wall would mainly impact rural crossings, yet the majority of drugs seized along the southern border come through legal ports of entry that would ultimately not be fortified by a wall, in the interest of maintaining cross border flows of legitimate goods. Findings reveal that the narrative of the rural migrant smuggler is false. The border wall would, however, increase risk to migrants who would be forced to find alternative routes and methods to gain entry that may expose them to increased danger.

The final research question asks, why do policymakers continue to support supply-side drug control methods, despite evidence of their failure? Who is involved in the policy-making process? Chapter four looks at the recent turn toward well-intentioned public health oriented policies that situate prescribers and pharmacists on the frontlines of drug control in the Opioid Crisis. Research for this chapter involved interviewing analysts, program managers, and public safety stakeholders involved in evaluating the efficacy of Prescription Drug Monitoring Programs (PDMPs)—their unintended effects, achievements and limitations. The core of these interviews addresses whether stakeholders perceived PDMPs to be a form of supply-side drug control policy, and what role PDMPs play in the recent heroin-substitution phenomenon. The majority of stakeholders believed that PDMPs were ultimately designed to reduce prescription drug supply in an effort to curb diversion, and demand by consequence. Responding to the question of whether these programs played a role in the emerging incidents of heroin substitution, the majority of stakeholders agreed that the reduced availability as a result of several implications of PDMPs—a 'chill effect' among prescribers, and reluctance on the part of some physicians to continue prescribing opioid pain medications altogether—had some impact on the shift toward heroin substitution. However, PDMPs were cited as one of several cooccurring interventions that led to local and regional shortages in the prescription drug supply among these, legal prohibitions for "pill mill" operators, increased attention and surveillance of "doctor shoppers." Stakeholders revealed that the shift toward heroin substitution was one that law enforcement stakeholders were able to predict as an unintended outcome of PDMP implementation. Law enforcement officers, along with public health experts were consulted, and are included in the policy development and evaluation process. When asked why the policy unfolded in spite of law enforcement warnings of a probable substitution effect, responses

revealed that these measures were the best that could be expected—that something had to be done. Unintended effects are monitored and reported in ongoing evaluations of PDMPs, and these outcomes are addressed through public health and harm reduction approaches as needed—including increased availability and access to Naloxone, treatment programs, methadone clinics, and clean needle exchange services, to name a few.

This study contributes to the geographic literatures in political geography, geopolitics, feminist geography, border studies, and the emerging field of 'geographies of despair.' Chapter two reviews the literature and draws connections between disparate geographic assumptions that distinguish between the 'borderlands' and the 'heartland.' As long as regional trade agreements, lower barriers to trade, and the presence and demand for foreign workers in the US proceeds, these processes decentralize the borderlands concept. The evolution of the dark web complicates theories and perceptions of borderlands as sites of illicit mobility—as these mobilities are increasingly becoming more spatially diffuse. Chapter three, "Reframing Femicide" (Agnew, 2015), currently has four citations excluding the original journal publication overviews, and is featured among the femicide literatures curated by the Canadian Femicide Observatory for Justice and Accountability. This study contributes to recent research looking at whether local conditions influence instances of femicide in the Americas (Murillo, Chica-Olmo, and Rodríguez, 2018), and the relationship between illicit drugs and state formation (Su, 2018). Chapter four is a start at creating a dialogue about the possibilities and limitations of developing drug policies that limit unintended effects. This piece also addresses the difficulty posed by the adaptive capacity of drug cartels, and the limited ability for policy makers and law enforcement to be proactive due to the glacial pace of the bureaucracy involved in implementing preemptive solutions. Chapter five challenges anti-immigrant narratives that portray Central American and

Mexican migrants as drug smugglers threatening US public health and safety. The typical smuggler profile is uncovered as a well-connected American citizen or legal resident who facilitates the movement of drugs into and around the American heartland. It adds weight to the moral geographies literature, and contributes to the existing literature surrounding the use of 'public health' as a rationale for immigrant exclusion.

6.3 Directions for future research.

This dissertation paves the way for future research in related fields and topics. Theoretically, the borderlands literature could be broadened by moving away from a concept that fixates on single site and examines international boundaries and the dynamics of their margins. Future research could locate the 'borderlands' in so-called 'heartland' areas that participate in transnational processes that link the global and the local—including drug flows, but also instances of economic restructuring, the disinvestment of firms in the American manufacturing core, and the demand for temporary foreign labor in rural areas. Chapter five should be developed into a methods paper that provides a framework for conducting research on drug flows when law enforcement sources are less than forthcoming. The Public Access to Court Electronic Records (PACER.gov) database contains a wealth of case files that can provide answers at the ready for questions law enforcement officers claim to be unable to respond to. Chapters three, four, and five could be used to further develop the concept of geographies of risk, and risk environments that are created as a result of supply-side drug policies. This project also lays the groundwork for further examination of the turn toward public health oriented drug control approaches. What would these policies look like if the affected rural, white population were urban communities of color? Maps revealing areas significantly affected by the Opioid Crisis indicate the strong probability that many of these areas are Native American reservations. This

revelation sets the stage for a larger comparative study that looks at the parallel narratives of abandonment—the perceptions of the American white working class as 'left behind,' and the legacies of broken treaties, the reservation system and cultural annihilation of indigenous groups—through a new concept of geographies of abandonment, and the related literature on comorbidities and deaths from despair (Case and Deaton, 2015).

6.4 References

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7. Appendix: Interview Protocols

7.1 Interview Protocols for Policy Stakeholders

Heather Agnew, from the Department of Geography at the University of California, Los Angeles (UCLA) is conducting a research study. You were selected as a potential participant in this study because of your position as a policy analyst, law enforcement officer, or expert in the area of implementing, enforcing, evaluating or researching policy-based solutions related to drug control. Your participation in this research study would be voluntary.

Why is this study being done?

At large, this study is designed to understand how illicit drug flows adapt and operate within the United States. Specifically, the chapter you would contribute to examines the multiple stakeholders invested in addressing the opioid epidemic in the US, and how drug trafficking organizations adapt to various shifts in drug control policies. This study hopes to illuminate the challenges policy makers and law enforcement officers encounter in the face of highly adaptive drug trafficking networks.

What will happen if I take part in this research study?

If you volunteer to participate in this study, the researcher will ask you to: Participate in an interview ranging from 20 to 30 minutes regarding your role and experiences analyzing policy effects, implementing community-based solutions, or enforcing drug control policies.

How long will I be in the research study?

Participation in an interview will take a total of about 20- 30 minutes, or if you find there is more to discuss we may extend as long as you see fit. Your sustained engagement will not be required from you for the entire duration of the research.

Are there any potential risks or discomforts that I can expect from this study?

There are no anticipated risks or discomforts to your person. Any risk you face from breaches of confidentiality will be addressed through the researcher's secure storage of private identifying information. If you are concerned about confidentiality, you may request anonymity, and no identifying information, audio or video will be recorded

Will information about me, and my participation be kept confidential?

Yes. Any information that is obtained in connection with this study and that can identify You will remain confidential. Confidentiality will be maintained by means of:

- The secure storage of your identifying information with codes and pseudonyms, in the care of the researcher.
- The secure storage of your responses, linked to the codes, in the care of the researcher.
- Use of a locked, secure storage space for notes gathered.
- Interviews will not be voice or video recorded.
- Field notes, write-ups, and recordings (if applicable) will be made available to you at your request.
- Upon transcription, any field notes will be destroyed.

• Data will not be shared with others.

What are my rights if I take part in this study?

You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time. Whatever decision you make, there will be no penalty to you, and no loss of benefits to which you were otherwise entitled. You may refuse to answer any questions that you do not want to answer and still remain in the study.

Are there any potential benefits if I participate?

You will not receive any benefits from your participation in this study. The results of the research may benefit society by developing a dialogue and understanding how drug policies have geographic effects, and how these are mitigated in the face of a national emergency.

Who can I contact if I have questions about this study?

If you have any questions or concerns about the research, please contact:

Heather Agnew, PhD Candidate

+1 (562) 319-9391

heatheragnew@ucla.edu

Dr. John Agnew, Professor (Advisor) *[No relation]

+1 (310) 825-1713

jagnew@geog.ucla.edu

UCLA Office of the Human Research Protection Program:

If you have any questions about your rights while taking part in this study, or you have concerns or suggestions and you want to talk to someone other than the researcher about the study, please call the OHRPP at (310) 825-7122, or write to:

UCLA Office of the Human Research Protection Program

11000 Kinross Avenue, Suite 211, Box 951694 Los Angeles, CA 90095-1694

You will be given a copy of this information to keep for your records.

SIGNATURE OF STUDY PARTICIPANT I give consent to be interviewed (initial) I consent to be interviewed but wish to remain anonymous	(initial)	
Name or Initials of Participant		
Signature of Participant	Date	

7.2 Interview Questions for Policy Stakeholders

- 1) How long have you been in your current position with the department? Any previous experience with policy evaluation and best practices you'd like to note?
- 2) There is a lot of emphasis on root causes—what's caused this current opioid crisis; some claim unemployment, increasing despair among individuals as part of the recent "great recession". From your informed perspective, what are some of the theories you have on how this problem spiraled out of control?
- 3) What do you assess to be the successes and limitations of PDMPs to address the opioid crisis?
- 4) Do you notice any unintended consequences that have emerged as a result of the PDMP, or the PDMP as a part of several approaches occurring simultaneously to address the issue?
- 5) Annual reports from a number of PDMPs, and individual research papers, have noted a possible "chill effect" occurring among prescribers, where some report being hesitant to prescribe opioid pain medications, and even refused prescribing pain medications due a fear of potential investigation into their practice. Do you know if this is occurring in your state? Would you consider an effect of PDMPs to have discouraged prescribers from treating pain with these medications?
- 6) Looking at the implementation of PDMPs as one strategy to curb supply, can you speak to the degree to which policy developers consult with law enforcement in developing these strategies? Specifically, the likelihood of certain unintended outcomes occurring?
- 7) How would you evaluate the effectiveness of PDMPs in addressing the opioid crisis although deaths from overdoses, including heroin and fentanyl adulterated heroin, continue to rise?
- 8) In what ways is the problem in your state affected by geography? (For example: proximity to certain states; proximity to states with less oversight/ drug laws to address the problem; international borders; drug flows into the US more generally; highway system/ prominent drug corridor?)