

The Negative Externalities of the U.S. - Mexico Border Wall According to
Local Public Officials in Rio Grande Valley, Texas:
A Descriptive Study

By

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Abstract

Public infrastructure projects cause unintended consequence. The U.S. – Mexico border wall is a public security infrastructure project, which has caused many consequences for communities in Rio Grande Valley, Texas. Research has repeatedly illustrated the myriad of consequences the construction of roads and highways systems on a particular area, which is very similar to the construction of a border fence. The purpose of this research is to describe the negative externalities of the U.S. - Mexico border wall according to local public officials in Rio Grande Valley, Texas. The methodology for this study encompasses structured, open-ended, in-depth interviews with eight local public officials in Rio Grande Valley, Texas. The interviews focused directly on the impact of the construction of the border fence on the Rio Grande Valley and each participant’s specific jurisdiction. This study ascertains that cities and counties in the Rio Grande Valley were impacted by the construction of the border wall, some areas negatively and others positively, or in some cases a combination of both positive and negative impacts. Impacts varied greatly on the location of the respondent. Overall, local public officials from the Rio Grande Valley experienced negative impacts economically, environmentally and socially. These impacts are attributable to the construction of the public infrastructure security project mandated by congress in the Secure Fence Act of 2006. Local public officials in Hidalgo County are unique in that they were able to compromise with the Department of Homeland Security and build a new fortified levee. The construction of the fortified levee came at a time when their levee system was in the process of being de-certified. Based upon these findings, recommendations were made to guide local public officials through the process to curb negative externalities.

About the Author

Christy Carter is originally from Haslett, Michigan. She is a world traveler, having lived and worked in London, England; studied abroad in Macerata, Italy; attended professional volleyball try-outs in the Czech Republic, Austria, Slovenia, Croatia and Italy; attended the International Association and Institutes of Administration (IASIA) conference in Rome, Italy, summer 2011. She has also traveled to Jamaica, Mexico, Belize, Ireland and Canada. She graduated with a Bachelors of Science in International Business from Sterling College in 2009. Christy also holds a Mediation Certificate and a Master of Public Administration degree from Texas State University. While conducting this study Christy worked in City Planning at a municipality and was the Deputy Campaign manager for a U.S. congressional campaign in San Antonio, Texas.

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Two border-patrol officers attempt to keep a fugitive in the U.S. Luis Marden – Courtesy of National Geographic.

Chapter One: Introduction

The U.S. Mexico Border Wall

“Borders reflect the nature of power relations and the ability of one group to determine, superimpose and perpetuate lines of separation or to remove them, contingent upon the political environment at any given time” (Newman 2006, pg. 147).

“Many people in the United States view the southern boundary as a highly permeable frontier, a disorderly, “out of control” space” (Martin 2007, pg 1702). As of October 23, 2008 the United States has restructured the physical landscape through the construction of over 370 miles (595 km) of fencing along its 1,952 mile (3,141 km) boundary with Mexico (Cornelius 2001). The wall is seen as a public security infrastructure project and was completed through localized engineering approaches quickly and with little testing, sustainability plans, or environmental impact studies (Martin 2007). In the first year after the border wall was constructed it caused three floods during two severe weather events (Martin 2007). The flooding

represents the wide variety of unforeseen consequences or “negative externalities” of public infrastructure projects, such as the border wall.

Beginning with the Immigration Act of 1924, which established the first Border Patrol, border operations were shaped towards the exclusion of Asian migrants and controlling illicit alcohol smuggling, not the prevention of border crossings from Mexico (Martin 2007). In 1978, border and immigration policy shifted from a lack of physical presence to an emphasis on labor recruitment and deportation. In 1996, Congress passed the Illegal Reform and Immigrant Responsibility Act (IIRIRA), which granted the Attorney General the authority to construct barriers along the border and authorized the Immigration and Naturalization Service (INS) to construct a secondary layer of fencing to serve as a buttress to the already existing border wall (Nuñez-Neto & Viña 2006). In 2005, with the passage of The Real ID Act, Congress passed H.R. 418, which required the Secretary of the Department of Homeland Security to waive all laws necessary to ensure the construction of security barriers was executed accelerated. The justification from the public for a fence or “wall” is the need for securing the U.S. borders to protect against potential terrorists attacks and the perceived need for better “security” (Sharp 2011). Sharp (2011) further explains that the need to secure the border also stems from political policy debate of the idea that illegal immigration needed to be halted to prevent loss of U.S. citizens’ jobs to the large number of illegal border crossers traveling from Latin America.

In 1978, seven miles (11.26 km) of 10-ft (3.04 m) chain link fencing was installed in El Paso, San Diego, Yuma, and Tucson sectors, which were upgraded to 10-ft (3.04 m) corrugated steel walls and in 1991 to welded panels of surplus steel and military landing mats left over from the Gulf War (Nuñez-Neto & Viña 2006). In Addition to the fence, United States Border Patrol

utilized helicopters and small air craft for surveillance, footfall ground sensors, and the expanded detention centers for apprehended migrants (Martin 2007).

With powers granted from the Attorney General to guard and control the U.S. border, the United States Border Patrol started the process of constructing a barrier known as the “primary fence” directly on the border in 1990 to deter illegal entries and drug smuggling in the San Diego sector (Nuñez-Neto & Viña 2006). The deployment of fencing was part of the United States Border Patrol’s “Prevention Through Deterrence” strategy. This strategy was geared towards reducing the number of unauthorized migration by placing agents and resources directly on the border in hopes of deterring possible migrants from entering the country (Martin 2007, Sharp 2011, Fan 2008).

The U.S. Department of Homeland Security (DHS) planned and constructed the physical and virtual border wall with unprecedented speed and lack of oversight (Martin 2007), DHS was able to build the wall so quickly due to thirty-seven waivers suspending laws and regulations governing the construction of federal infrastructure projects (Nuñez-Neto & Viña 2006, Martin 2007, Flesch, et al, 2010). Reports outlined negative externalities such as: fence induced flooding, environmental destruction, and human rights violations (Martin 2007, Flesch, et al, 2010, Shellabarger 2012). Within the Department of Homeland Security Customs and Border Protection and the U.S. Border Patrol are responsible with securing the United States land and maritime borders between official ports-of-entry to deter and interdict terrorists, weapons of mass destruction, and aliens attempting to cross the border illegally (Nuñez-Neto & Viña 2006). The CBP and USBP execute their respective duties through personnel, technology, and tactical infrastructure such as vehicle barriers and fencing/wall.

The expansion of the border wall comes at a time when border safeguarding, immigration and citizenship are considered matters of national security. The border wall is under constant surveillance for possible illegal migrations. On December 16, 2005, the U.S. House of Representatives passed an amendment to the Border Protection, Antiterrorism, and Illegal Control Act (HR 4437), which demanded the construction of a border fence at five locations along the border with Mexico, including Rio Grande Valley, Texas. As of December 2008 the U.S. government has constructed more than 370 miles of fencing along the southern border, fifty percent of which was mandated by the 2006 Secure Fence Act (Nuñez-Neto & Viña 2006, Martin 2007). In 2001 the fence was seventy-three miles long, since then the construction of the border fence has extended in conjunction with huge investments in Border Patrol staffing and investments in surveillance.

The southern border of the United States is understood as a territorial problem for U.S. sovereignty. While most public infrastructure projects are seen as providing a benefit to improve (with varying degrees of success) citizen life by overcoming or controlling “natural processes,” the construction of the border wall changes the physical landscape in order to control the mobility of humans in the borderlands (Martin 2007). Public infrastructure projects such as roads, highways and dam reservoirs are used to channel, detain, and divert the flows of humans and water; the border wall, a public security infrastructure project, channels, detains, and diverts the flow of migrants. Due to the construction of the wall migrants are re-routed from crossing areas in urban settings to more rural settings and through treacherous conditions resulting in an increase in migrant deaths and injuries.

The construction of the border wall is more than a public security infrastructure project; it represents a concentrated political effort to seal off the U.S. – Mexico boundary through a

combination of large-scale public infrastructure projects and intense surveillance. Transnational migration is seen in the United States as a national security issue, the border wall construction is a policy change that affects people and places far beyond the specific location of the physical construction, it naturalizes the federal government's power to create territorial and political exclusions (Martin 2007). The construction of the wall has created ripples of negative externalities: economically, environmentally, and socially.

Economy

The United States and Mexico share a desire to grow both economies through cooperation and hard work, which was highlighted in the passage of the North American Free Trade Agreement (NAFTA) (Chamber of Commerce Report 2010, Gallegos 2004). NAFTA created a "free trade zone" in the United States, Canada, and Mexico to facilitate trade and investment (Gallegos 2004). Mexico has become the third-largest trading partner behind Canada and China (Chamber of Commerce Report 2010). Moreover, it is the second largest export market for U.S. businesses, and approximately twenty-two states depend on Mexico as their number one and number two export market. The trade relationship between the United States and Mexico is worth \$397 billion in products in 2009, resulting in more than \$1 billion in cross border commerce taking place daily, \$45 million per hour, and a large majority of it tariff free under NAFTA (Chamber of Commerce Report 2010).

The important trade relationship between the United State and Mexico has been impacted due to the construction of the border wall (U.S. Chamber of Commerce Report 2010). In a border user's survey, measuring the common experiences of those using the border every day, executed by the U.S. Chamber and the American Chamber of Commerce in Mexico and found:

- that U.S. and Mexican companies face higher transportation costs as a result of longer wait times at the border,
- companies are spending significantly more money on security to ensure products aren't intercepted by criminals,
- U.S. and Mexican firms are faced with holding onto larger inventories to accommodate for uncertainty,
- Consumers pay higher prices for a reduced selection of goods, and
- Time-sensitive products, such as fresh fruits and vegetables and other agricultural commodities are put at risk due to perishable nature of products (Chamber of Commerce Report 2010).

In addition to the impact of trade, the border wall has affected tourism and property values. A large portion of the citizens in border cities in the Rio Grande Valley fear that the wall or “al Muro” as the barrier has become locally known will sever important historically-grown cultural, social and economic ties (Langerbein 2009). The large size of the wall and the outright ugliness of the wall decreased the beauty of the cultural boundary, which resulted in decreased property values and tourism. Tourism has also decreased due to the increase in crime, including murder, kidnapping, human trafficking, and drug trade. Tourism is very important in Mexico which is heavily reliant on ecotourism and legal international trade. The border wall has caused significant negative externalities in regards to the economy.

Environment

The border lands are vast and economically distinct areas in North America. In fact, the international border crosses some of the most biologically diverse areas in the world, mountain

ranges, two of the major North American deserts and water ways. Some of the plants and species are only located in the border lands. Many environmental groups and citizens verbalize that the border wall is a major disaster for wildlife and parks along the southern border, for example: Big Bend National Park and Organ Pipe Cactus National Monument. The border wall does unnecessary harm and serious harm to precious

In addition to the border being a place where unique eco-systems live, with the passage of the REAL ID Act, which allowed for DHS secretary to disregard a previous mandate to comply with state and federal laws and regulations for construction projects (Sayre & Knight) major distress to the area has occurred. For illustration, the National Environmental Protection Act (NEPA), requires impact assessments and community involvement, as well as changes to initial plans in response to challenges identified, but with the passage of the REAL ID Act, DHS border projects are exempt from oversight, unless there are cases where citizens' constitutional rights are directly threatened (Martin 2007). The policies, or lack thereof, which govern the construction of the border wall have endangered unique eco-systems, disrupted the flow of animals and have caused several fence induced floods.

Cultural

"The construction of the hundreds of miles of a border wall and fencing through diverse cultural, political, and ecological landscapes represents an attempt to engineer the racial, cultural, and political landscapes of American citizenship as much as an attempt to control territory" (Martin 2007 pg. 1703). The United States and Mexico share a border of nearly 2,000 miles with rich cultural heritage where residents, binational families, and shared regional histories to characterize the unique borderland culture (Gallegos 2004).

People living near the wall, some with the wall dissecting their property see the wall as a barrier that separates “us” from “them”; keeping “them” out of our country and keeping “us” in. (Newman 2006, Martin 2007, Sharp 2011). “Them” meaning the people who are not legally allowed in the United States; illegals, terrorists, and other border crossers. Some people describe the infirmity of law in the vicinity of the border by driving across their property to show the “government fence” at the border, which in some spots is an aged livestock fence, cut and torn wire, falling down in some places. (Fan 2008)

The aforementioned thoughts and feelings of citizens living in close proximity to the border cause a decrease in quality of life. The adopted immigration policy of diversion through United States Border Patrol programs “Prevention Through Deterrence” and “Operation Gatekeeper” allowed people in the border region to experience firsthand what rerouted migrant traffic looked like and the problems it presented for those living in close proximity. “Those along the border experience emotional and material effects of mass human movement suddenly routed through their lives and environs” (Fan 2008, pg. 703). People living along the border experience the effects, emotionally and physically of increased crime and migrant deaths due to the construction of the border wall (Fan 2008, Martin 2007, Sharp 2011).

Public infrastructure projects such as roads, highways and dam reservoirs are used to channel, detain, and divert the flows of humans and water; the border wall, a public security infrastructure project, channels, detains, and diverts the flow of migrants (Martin 2007). Transnational migration is seen in the United States as a national security issue, the border wall construction is a policy issue that affects people and places far beyond the specific location of the physical construction, it naturalizes the federal government’s power to create territorial and political exclusions (Martin 2007, Fan 2008). The construction of the wall has created ripples of

negative externalities: economically, environmentally, and socially (Fan 2008, Bean, et al, 1994, Shellabarger 2012, Cornelius 2011).

Research Purpose Statement

The United States southern border wall has caused negative externalities within communities within close proximity to the border economically, environmentally and socially. Similar to public infrastructure projects such as roads, highways, dam reservoirs which are used to channel, detain, and divert the flow of water and people, the border wall channels, detains and diverts the flow of people, animals and forces of nature around the wall (Martin 2007). “The border fence or wall has become the barrier that separates us from them (i.e. illegals, terrorists, and other border crossers) and creates “the other space” that serves as a reinforced buffer against those who have lost their rights of entering another country illegally” (Sharp 2011, pg. 531). The same barrier has sealed off movement of animals and water, causing negative impacts to the environment and unique eco-systems. Moreover, the purpose of this research is to describe the negative externalities of the U.S. – Mexico border wall according local public officials in the Rio Grande Valley, Texas. This paper will examine the economic, environmental and social consequences of the border wall.

Chapter Overview

Chapter two presents the conceptual framework for the study and the ideas represented in the scholarly literature in regards to the negative externalities of the U.S. Mexico border wall. Chapter Three illustrates the methodology employed for the research and outlines the questions utilized for the qualitative, structured interviews with local public officials in the Rio Grande Valley, Texas. Chapter Four analyzes the results of the study. Finally, Chapter Five provides a

conclusion of the study and recommendations for similar future studies in regards to the negative externalities of the U.S. Mexico border wall.

Chapter Two: Literature Review

Chapter Purpose

This literature review will briefly touch on the history and current research of negative externalities of public infrastructure development and projects within the realm of the economy, environment, and society in the United States. Negative externalities can be characterized by effects not taken into account completely in market-place transactions and projects (Daniels et al 2012, Segupta, et al, 2007). Externalities classically involve an impact on a person's welfare not involved in the transaction, which can be long or short term and usually encompass unknown outcomes within a community. Public infrastructure projects are comprised of any facility or institution provided by the state which facilitates the juncture between production and consumption (Martin & Rogers 1995). The development of public infrastructure is intended to better the community and the lives of citizens.

Planning and policy are to be directed towards selecting strategies and options that account for the full long term interest of society, and are sustainable in practice, then taking externalities into account is critical (Daniels et al 2012, Segupta, et al, 2007). Although, there are some public infrastructure projects that unintentionally harm the community while providing a service. For example, landfills, bridges, highways and border fences or walls (Bean, et al, 1994). Garrett and Storbeck (2011) indicate that there is a huge disparity in reality between policy makers in Washington compared to the rancher or homeowner in the lower Rio Grande Valley as to how the border fence affects them. The purpose of this research is to describe the negative externalities of the U.S. Mexico border wall according to local public officials in the Rio Grande Valley, Texas.

Conceptual Framework

The conceptual framework for this paper uses descriptive categories to connect supporting literature in *Table 1.1*. The category, subcategories, and conceptual framework will be utilized in developing interview questions to describe the perceptions of local government officials in regards to the negative externalities of the U.S. Mexico Border Wall.

Table 2.1: Conceptual Framework

Conceptual Framework Table	
Descriptive Categories	Literature
Economic Consequences	
1. Decreased property values	Kilpatrick et al, Condoos & Root, Vor & Groot, Troy & Grove, Segupta et al, Martin, Chandra & Thompson
2. Decreased tourism	Baskin, Wong, Martinez, Sofield, Bean et al
3. Decreases in trade	Baskin, Garrett & Storbeck, Langerbein, Martin & Rogers, Heyman, Martin, Karaim, Bean et al
Environmental Consequences	
1. Degradation of unique border ecosystems	Shellabarger et al, Flesch et al, Sayre & Knight, Nuñez-Neto & Viña; Trombulak & Frissell, Lasky et al, Langerbein, Martin
2. Flooding / Barrier to drainage	Shellabarger et al, Trombulak & Frissell, Lasky et al, Sayre & Knight, Daniels et al, Langerbein, Martin, Langerbein
3. Disruption of migration patterns	Kilpatrick et al, Nuñez-Neto & Viña, Flesch et al, Trombulak & Frissell, Lasky et al, Martin
Social and Cultural Consequences	
1. Reduced quality of life	Shellabarger et al, Kilpatrick et al, Coondoo et al, Garrett and Storbeck, Fan, Garrett & Storbeck, Gilman

2. Increased crime/ fear of crime	Cornelius, Troy & Grove, Fan, Garrett & Storbeck, Dannenberg et al, Carter et al, Martin, Fan
3. Increased deaths	Nuñez-Neto & Viña, Fan, Shellabarger et al, Cornelius, Fan, Heyman, Morales, Martin, Fan, Paulozzi, Beck et al

Economic Consequences

The principal goal of developmental activities, including those relating to transport infrastructure, is to promote social welfare. (Segupta, et al, 2007). Public infrastructure projects are generally beneficial for the communities, however, due to societal, geopolitical and historical features; the benefits of development are often not shared equitably (Segupta, et al, 2007). Moreover, there are several economic negative externalities that occur during public infrastructure development, for example; a decrease in: property values, tourism and trade (Kilpatrick, et al, 2007, Vor & Groot 2009).

In general, public infrastructure projects play a significant role in changing the living conditions of the people in the region through positive externalities, such as increased access to a previously inaccessible area. This section focuses on the economic consequences of the public infrastructure development and specifically focuses on the U.S. Mexico Border wall along the Rio Grande Valley, Texas.

Decreased Property Values

Public infrastructure projects, such as transportation systems cause negative externalities such as decreased property values for home and business owners within close proximity to the development (Kilpatrick et al 2007, Vor & Groot 2009). While proximity to a highway or rail

line can be more convenient, it simultaneously creates negative externalities; noise, pollution and decreased property values. In a research study assessing the impact of transit corridor on residential property values, researchers found that transportation infrastructure lowers property values via the negative externalities that come with the development (Kilpatrick, et al 2007, Vor & Groot 2009). Decreased property values can mean decreased revenue for local governments and significantly decrease the desirability of a town or city. The government provides services for citizens such as public infrastructure to improve the lives of citizens, in some cases, while providing services negative externalities occur which create an adverse affect.

The U.S. - Mexico border wall is a public security infrastructure project which has created many negative economic externalities similar to road construction and utilization. The construction of the U.S. - Mexico border wall is similar to road or highway construction because both are sizeable and unattractive infrastructures which sever communities (Martin 2007, Fan 2008, Bean, et al, 1994). Moreover, both also require a large amount of land to complete the project, which is normally purchased from private citizens or the government exercises eminent domain. Nuñez-Neto and Viña (2006) explained in a report to Congress that current immigration law authorizes the Secretary of the Department of Homeland Security (DHS) to contract for and buy any interest in land adjacent to or in the vicinity of the international border when the Secretary deems the land essential to control and guard the border against any violation of immigration law.

The border wall removes property and land from the common use of farmers, ranchers and homeowners, business owners, universities, local individuals and institutions that have utilized it for public use (Garrett & Storbeck 2011). The border wall is a spatial and physical

strategy localized in the backyards of border residents (Martin 2007). Removing property from land owners and building an unattractive wall creates a negative impact on property values.

Infrastructure development projects are intended create a positive impact, this occurs when greater access is granted and more avenues are available (Kilpatrick et al 2007). The construction the U.S. - Mexico border wall denies access to those who previously had complete access to the United States and land owners to their property, separating “them” from “us”. The construction of the border wall serves as a divider and in instances a loss of land and value for property owners.

Public infrastructure projects can cause negative externalities, such as decreased property values, while providing a service to citizens (Vor & Groot 2009, Kilpatrick, et al, 2007). Property values are an important portion in local government revenue. The construction of public infrastructure projects such as highways, roads or border walls cause decreased property values for those in close proximity. Generally, transportation infrastructure provides greater access to an area, but can significantly and unintentionally reduce property values simultaneously (Kilpatrick, et al, 2007). More importantly, the size, design, and general appearance of the infrastructure are important elements to focus on in the building of such a project. The border wall is an unattractive public infrastructure project which has caused a significant impact on value of properties within close proximity.

Decreased Tourism

Public infrastructure projects such as highways, landfills, and border walls can cause a significant impact in tourism for local governments. Governments exercise regulatory and legislative powers that both facilitate and hinder tourism flows (Sofield 2006). While highways

and landfills are absolutely necessary, the outright ugliness and size of the construction can cause negative impacts on tourism.

Tourism is a very important revenue source for local governments and businesses. Tourism revenue generally extrapolates into improved transportation facilities and other infrastructure, generates enhanced local government revenue, improves community facilities and services, and benefits multiply across other economic sectors (Wong 1996). Tourism is not an isolated industry, it is a large group of complimentary services which build upon each other and create jobs very quickly in the local economy (Wong 1996).

Travel and tourism are a large part of our national and local economies. The tourism industry creates an impact on the local economy when tourists, any person coming to the city to spend time and money, stay longer or visit more frequent; the city attracts visitors away from other destinations, or influence those who were not planning to travel to visit the area (Wong 1996). The end result of tourism stimulus is an increase in income, employment and increased tax receipts for local governments. Overtime, a local economy begins to expect a certain amount of receipts from tourism. Therefore, the construction of large and unattractive public infrastructure projects can decrease a tourists desire to spend time and money in a community.

Large and unattractive public infrastructure projects can cause negative externalities to those living within close proximity. The U.S. Mexico border has potentially severed cross border tourism in many areas along the border (Heyman 2008). The construction of the U.S. - Mexico border wall is similar to road or highway construction given that both are sizeable and unattractive concrete infrastructures which sever communities. The outright ugliness of the sizeable construction of the border wall security infrastructure and observation towers have been

described as being similar to a concentration camp (Martinez 2009). While transportation infrastructure may increase access to a particular area, the border wall severs relationships and partnerships previously held for the businesses and citizens living within close proximity; resulting in a decrease in revenue.

The development of the U.S. - Mexico border wall has divided two previously connected communities (Haymen 2008). Tourists and goods are now funneled through access points and are not able to cross the border outside of those points, legally. The border wall is similar to road and highway construction, because each causes significant impacts on the economy through decreased pedestrian flow through the area.

The border wall is viewed by locals as separating people and places and serving as a divider (Martin 2007). Moreover, due to the outright unattractiveness of the border wall tourists and locals could avoid going anywhere near it. The goal of the wall is to block border crossers from entering the United States illegally (Nuñez-Neto & Viña 2006). The U.S. - Mexico border wall is a public infrastructure project that causes negative externalities locally throughout the community (Martin 2007, Sharp 2011).

Decreased Trade

Public infrastructure projects generally have a positive impact on trade due to increased access and greater avenues. Although, some public infrastructure projects negatively impact trade due the significant amount negative externalities. In fact, Poor infrastructure imposes costs on trade within and between countries (Martin & Rogers 1995). If infrastructure is poor or lacking a large portion of the goods produced and traded will not actually be consumed by the national or foreign purchaser (Martin & Rogers 1995).

The construction of a highway in the middle of a city serves as a wall, creating divisions within the community (Heyman, 2008). When routes to trade goods are made more difficult and longer, this in turn causes an increase in costs. It is important for cities to make it easy for business to trade with ease and allow greater access.

The U.S. - Mexico border wall negatively affects international trade between Mexico and the United States (Garrett & Storbeck 2011, Langerbein 2009, Chamber of Commerce Report 2010). Mexico is the United States' second largest trading partner and its largest source of foreign-born residents (Heyman 2008, Gallegos 2004, Martin 2007). The U.S. – Mexico border remains the busiest in the world, with more than 220 million legal crossings each year (Karaim 2008, Gallegos 2004). “Hardening” of the border cuts off the trade of services and skills; cutting off thousands of people from places of employment to the detriment of the America employers who benefit from cheap, unregistered labor (Newman 2006).

Before the security infrastructure was introduced, Americans and those living south of the border were able to trade labor and goods with ease, now those interested in trade first must cross the border at specified ports-of-entry located in urban areas or obtain visas for employment (Gallegos 2004). At ports millions of commercial vehicles, noncommercial vehicles, and pedestrians seek to enter the United States (Heyman 2008, Karaim 2008). In an era of global trade the opening of borders increases the competitiveness of a county, for example, the European Union and the North American Free Trade Agreement (NAFTA) (Newman 2006). Increased wait times for the transportation of goods causes increased costs and in some instances discourages business from engaging in foreign trade (Karaim 2008).

Tom Fullerton, an economics professor at the University of Texas, El Paso, attributes an average of \$900 million annually in retail sales to Mexicans crossing the border to shop in the United States (Karaim 2008). Public infrastructure projects are intended to provide greater access for citizens and provide them with a benefit. The U.S. - Mexico border wall disconnects the two previously connected trade partners (Langerbein 2009).

Public infrastructure causes negative impacts on trade between citizens and businesses (Langerbein 2009). Poor and inconvenient infrastructure imposes costs on trade within and between countries (Martin & Rogers 1995). Funneling people and products through urban ports-of-entry, which take substantial amounts of time to get through, dissuade businesses and people from engaging in foreign trade. Public infrastructure projects that essentially sever the ties of two communities cause ripples of negative externalities (Langerbein 2009).

Environmental Consequences

“Imagine the border as a big, long, skinny balloon. When you squeeze in one part, it comes out in another. It doesn’t disappear. “

-Border Patrol union President T.J. Bonner

Large public infrastructure projects cause significant environmental consequences (Shellabarger, et al, 2012, Flesch, et al, 2010, Cornelius 2001). Many public infrastructure projects disrupt environments and are responsible for changing the patterns of animals, people, and goods (Amekudzi, et al, 2011, Trombulak & Frissel 2000, Shellabarger, et al, 2012). For example, roads of all kinds affect terrestrial and aquatic ecosystems in many ways: (1) increased mortality from construction, (2) increased mortality from collision with vehicles, (3) modification of animal behavior, (4) alteration of the physical environment, (5) alteration of the chemical environment, (6) spread of exotic species, and (7) increased alteration and use of

habitats by humans (Trombulak & Frissell 2000). Public infrastructure projects like roads serve as a barrier that separates people and animals from previously accessible areas (Sayre & Knight).

International boundary development including fences, roadways, lighting, vegetation clearing, and increased human activity, threatens to alter connectivity of animals in the United States and abroad (Cornelius 2001, Martin 2007, Shellabarger, et al, 2012). The U.S. - Mexico border wall was constructed during a time of increased concern over national security and the effect of human migration (Martin 2007). The development impacts unique eco-systems and flooding and drainage, and disrupts animal migration patterns (Trombulak & Frissell 2000, Martin 2007, Cornelius 2001, Shellabarger, et al, 2012).

The main problem with anti-immigration barriers, known as the border wall or fence, in the United States is that law exempts the construction of the border wall from adherence to or parts of thirty-seven environmental regulatory and review requirements under the REAL ID Act of 2005 (Nuñez-Neto & Viña 2006, Lasky et al 2009, Martin 2007, Sayre & Knight). These exemptions allow for contractors to do disregard many of our most important laws in regards to the environment; the same laws that local business owners and developers must abide by when they are engaging in projects (Nuñez-Neto & Viña 2006, Martin 2007). The border wall has negatively impacted the unique eco-systems, caused fenced induced flooding and drainage issues, and disrupted animal migration patterns significantly (Martin 2007, Sayre & Knight 2009, Shellabarger, et al, 2012, Lasky, et al, 2011).

Degradation of Unique Eco-Systems

Public infrastructure projects are detrimental for unique eco-systems located in and around the project from construction to utilization (Martin 2007, Sayre & Knight 2009).

Trombulak & Frissell (2000) and Martin (2007) articulate that construction of infrastructure alters the physical condition of the natural environment underneath and adjacent to the road. Also, infrastructure projects, such as road construction and utilization, affect the environment in eight ways: soil density, temperature, soil water, content, light, dust, surface-water flow, pattern of run-off, and sedimentation (Shellabarger, et al, 2012). Disruption of the eco-system can have a significant effect on animals, plants, and organisms in the project zone (Sayre & Knight 2009).

Roads and other public infrastructure projects act as barriers causing a shift in behavioral conditioning. For example, prey species are reluctant to cross wide areas that lack protective cover (Sayre & Knight 2009, Trombulak & Frissell 2000). The aforementioned changes caused shifting their normal patterns and rerouting them through new areas (Flesh et al 2010). New roads also open up areas for poaching and hunting, which were previously not available to the public, reducing the population of many species. Roads also increase both legal and illegal fishing in streams and lakes, making native rare fish populations vulnerable (Trombulak & Frissell). Public infrastructure projects from construction through utilization cause negative externalities in unique eco-systems.

The U.S. - Mexico border wall is detrimental for unique ecosystems surrounding the U.S. - Mexico Border wall (Martin 2007, Sayre & Knight 2009, Shellabarger, et al, 2012, Lasky, et al, 2011). While the border wall isn't a road, it's very similar due to process of construction and impact on the environment. The border wall was constructed without adherence to more than thirty-seven federal statues pertaining environmental and sustainable practices (Nuñez-Neto & Viña 2006, Martin 2007). Which removes several laws and regulations dedicated preservation and sustainable building practices. The border wall serves as a barrier for unique eco-systems

causing ecological degradation in vulnerable borderland ecosystems, even within protected by federal parks, refuges, and forests (Shellabarger et al 2009, Martin 2007).

Border crossers, who have been re-routed due to the border wall, are now taking routes through vulnerable ecosystems. These ecosystems are protected by the U.S. government, creating a negative impact on sensitive areas (Martin 2007, Lasky, et al, 2011). Land management volunteers in a study completed by Shellabarger et al (2009) explained:

“By forcing migrants into more remote and rugged areas U.S. policy has had an effect on these ecosystems. We should not confuse this issue by saying that migrants are responsible for this reality. What we are talking about is a system of policies that have led to an increased impact on sensitive areas.”

Public infrastructure projects are detrimental to unique eco-systems. Modifications to the land can severely threaten the diverse wild and plant life of the region. Road construction, security infrastructure and many other public projects have a negative impact on the unique ecosystems. The Secretary of the Department of Homeland Security was granted the ability to waive all environmental protection laws during the construction, therefore creating innumerable negative externalities within the communities and eco-systems.

Flooding / Barrier for Drainage

Public infrastructure projects upset the flood plains and serve as barriers for drainage. Roads are among the many human endeavors that impair natural habitat development and woody debris dynamics in forested floodplain rivers (Trombulak & Frissell 2000). For a healthy community, access to sources of suitable water is essential for meeting basic human needs, ecological integrity, and other functions that enhance welfare (Daniels et al 2012). Proper

draining and flood prevention techniques are essential responsibilities of local and federal government, when drainage and flooding prevention plans are interrupted serious risks arise (Trombulak & Frissell 2000).

Planning and policy are to be directed towards selecting strategies and options that account for the full long term interest of society, and are sustainable in practice, then taking externalities into account is critical (Daniels et al 2012). The construction of roads and highways changes the flow of water and in some cases causes significant environmental consequences. Roads and highways serve as barriers, not allowing proper discharge and flow of water (Daniels, et al, 2012). Neglect of water-related decision making activities will encourage investment in suboptimal alternatives which may prove regrettable in the long run (Daniels et al 2012, Sayre & Knight 2009). Infrastructure projects that serve as barriers disrupt the natural drainage for water within close proximity.

The U.S. - Mexico border wall causes an interruption the normal patterns of flooding and drainage (Langerbein 2009, Martin 2007). While the border wall isn't a road, it's very similar due to process of construction and the impact on the environment. At several locations in the borderlands, the border road was built across drainages subject to major flash flooding (Sayre & Knight 2009). Martin explains what happened in Arizona:

“On July 12, 2008 s severe thunderstorm created flash flood conditions in Lukeville, Arizona, where there is a 5.2 mile (8.36 km) fence, constructed adjacent to the Organ Pipe National Monument, on land set aside for road construction. The fence’s particular design had two major effects on water flow: first the fence included grates in drainage areas that were intended to allow flash flood waters to dissipate, although sediment and debris piled up and the fence began to act like a dam. Flash flood conditions prevented Border Patrol officers from removing the debris, which they had promised to do in the event of severe weather. Second, as with most areas of the new fencing, the 15 ft (4.57 m) mesh fencing sits atop deeper cement foundations. The concrete foundations prevented subsurface water flow, which exacerbated the flood. In short, the fence became a dam. When the waters subsided, sediment and debris had

washed out the 45-ft (13.7 m) patrol roads adjacent to the fence and nearly covered the drainage grates, the stream flow had scoured the foundation of the fence, eroding the earth around the fence, which will ultimately have to be repaired. In addition, the backup caused significant changes in flows and composition of the washes flowing towards the wall.”

Border engineering flaws ensure that roads will wash out, barriers will give way under the force of water and debris and large quantities of sediment will wash into downstream. Therefore, the border fence’s specific design and materials of the fence created new hazards by creating flood conditions for an area that previously experienced proper drainage. This example clearly indicated that the design of the border fencing will have lasting impacts on the physical areas it is constructed (Martin 2007).

The U.S. - Mexico border wall was constructed with all thirty-seven federal statutes pertaining to the conservation of cultural and environmental resources waived, including the National Environmental Policy Act, the Endangered Species Act (ESA), the Clean Air and Clean Water acts, and the Antiquities acts (Sayre & Knight 2009, Heyman 2008, Langerbein 2009). Failure to factor in externalities lead to misallocation of resources and increased levels of damage to society and the natural environment in which it is embedded (Daniels et al 2012). Without proper planning and adherence to laws construction of public infrastructure projects, such as the U.S. - Mexico border wall, can be hazardous to the environment and community.

Drainage and flood patterns are impacted by public infrastructure development and utilization. The incorporation of externalities into the design of policy and planning of projects is an ambitious but potentially valuable task (Daniels et al 2012). Without proper planning and policy directed towards the betterment of the community and environment in the long-term, the government is creating a disruption in the drainage patterns. The construction of public infrastructure projects causes significant consequences on the environment.

Disruption of animal migration patterns

Public infrastructure projects, from construction to completion, significantly alter the patterns of animals (Kilpatrick, et al, 2007, Flesch, et al, 2010, Lasky, et al, 2010). In regards to road construction animals modify their behavior and avoid roads because of concentrated human activity (Trombulak & Frissell 2000). Moreover, road crossings commonly operate as barriers to the movement of fishes, other aquatic and various animals. Public infrastructure projects are detrimental to the wildlife surrounding the project, cutting off their previously connected habitats. Public infrastructure projects such as roads and highways, significantly impact the migration patterns of animals.

The U.S. - Mexico border wall causes a disruption in the migration and movement of animals surrounding the wall. While the border wall isn't a road, it's very similar due to process of construction and the impact on the environment. The wall is essentially a barrier, causing changes in animal migratory patterns. On the India-Pakistan border the security fence has already affected wildlife movements (Trombulak & Frissell 2000).

The border wall is comprised of two fence types, vehicle and pedestrian; the pedestrian fence is intended to be impermeable to humans (Nuñez-Neto & Viña 2006). These fences and walls are typically 4.5 meters tall, sunk 1 meter into the ground and have either no openings or openings of 1-10cm, serving as a wall, not allowing animals to execute normal migration patterns (Lasky et al 2011). Additionally, human disturbance, vegetation removal and additional barriers, roads and lighting that accompany fences are additional disruptions in animal migration patterns (Lasky, et al, 2011, Sayre & Knight 2010). The disruption of migration patterns can cause a (1) loss of population interconnectivity owing to a reduction in dispersal across the

border and (2) reduction in effective population sizes subsequent to loss of connectivity. The U.S. - Mexico border wall severs access for the animals from their natural habitat and disrupts their normal migration patterns (Lasky, et al, 2011, Sayre & Knight 2010).

The normal patterns of animal migration are significantly impacted by public infrastructure development. Animals must shift their patterns to get around man made walls constructed to keep illegal border crossers from entering into the United States. A majority of the fence and walls are very tall and are deep within the ground, making it almost impossible for anything to move across them. While this policy may seem effective in Washington, local citizens and animals making serious changes in their movement patterns causing negative externalities (Sharp 2011).

The U.S. - Mexico border wall was constructed without adherence to thirty seven federal statutes pertaining to the conservation of cultural and environmental resources, therefore allowing builders to only take into account the goal of constructing the wall or fence (Nuñez-Neto & Viña 2006, Fan 2008). Public infrastructure projects cause significant environmental consequence from construction to completion (Kilpatrick, et al, 2007, Flesch, et al, 2010, Lasky, et al, 2010). Public infrastructure projects disrupt unique border ecosystems, drainage and flooding issues and migration patterns of native animals. Public infrastructure projects, specifically the U.S. - Mexico border wall has caused significant negative environmental externalities.

Social and Cultural Consequences

“We have shut down traditional illegal entry routes, forcing alien smugglers to lead illegal crossers to remote and rural regions. Illegal aliens and smugglers are now exposed to longer and more arduous entry routes and are subjecting themselves to greater risk of apprehension. In short, the Border Patrol has successfully raised the cost and difficulty of entering the United States illegally.”

-Statement of William Veal 2001

Public infrastructure projects can cause social and cultural consequences from construction to utilization (Fan 2008, Sharp 2011). Public infrastructure projects promote access to markets, materials and opportunities by facilitating movements of persons and goods to improve earnings and thereby level of earning, ultimately benefitting society. (Segupta et al 2007). Although, many public infrastructure projects, such as the U.S.- Mexico border wall, have been constructed without much thought of social and cultural consequences. For example, many roads and highway systems are built through areas, which essentially sever the ties between the two previously connected areas. Negative externalities such as social and cultural consequences occur in many public infrastructure projects causing shifts within the community.

In regards to various other public infrastructure projects some ultimately reduce the quality of life and increase crime and migrant deaths within close proximity. By definition border regions are peripheral to the centre; therefore border peoples are marginalized since it is often a reflection of the unequal distribution of power in the economy and society (Sofield 2006). The U.S. - Mexico border wall was built without the adherence to thirty seven federal statutes aimed at environmental and cultural preservation (Nuñez-Neto & Viña 2006).

The essence of a border wall of fence is a symbol of safety for those at some distance from the areas affected and simultaneously, a symbol of oppression for local who have been

directly impacted by its presence (Sharp 2011, Fan 2008). The top-down manner in which border hardening occurred in 2008, has undermined the trust and respect between the area residents and the federal government (Sayre & Knight 2009). Public infrastructure projects significantly impact the social and cultural realm of a community.

Reduced Quality of Life

Public infrastructure projects significantly affect the quality of life for persons who live within close proximity. The well-being or quality of life (QOL) of a population is an important concern for Public Administrators, as QOL brings new residents, businesses, and tourists. QOL is defined as the satisfaction or dissatisfaction with the cultural or intellectual conditions under which you live (J. M. Amekudzi 2011). QOL for individuals in the population depend on many factors, including both physical and psychological conditions (J. M. Amekudzi 2011). “The QOL relationship can be found in relationship to the natural environment, built environment, human health, economic vitality, economic achievement, social equity, social interaction, mobility, or any other area which is experienced or perceived by human beings.” (J. M. Amekudzi 2011). Throughout the country and the world, people chose locations to live in or activities that will provide them with the highest benefit of highest QOL. Public infrastructure projects which sever previous relationships and access to family and friends cause a negative impact on QOL for those living within close proximity.

The U.S.-Mexico border wall negatively impacts quality of life for those living near the wall (Fan 2008, Sharp 2011). Infrastructure design, planning and policy decisions can ultimately affect the QOL of the public, either positively or negatively (J. M. Amekudzi 2011). Quality of life is created by the physical condition and infrastructure design, which should enhance the

natural systems of the community (Martin 2007). The external environment is important because the effects on human health and wellbeing (Fan 2008). “For those who have seen their property taken and their ways of life forever changed by the bulking wall placed along the Texas-Mexico border, there is little solace” (Gilman, 2011, pg. 293). The construction of the wall has significantly impacted the quality of life.

The essence of the border wall is a symbol of safety for those who are at a distance from the actual construction and simultaneously a symbol of oppression for “locals” who have been directly impacted by its presence (Garrett & Storbeck 2011, Fan 2008, Martin 2007, Newman 2006). Previously, to live on the border was a benefit, both American and Mexican or Latin American citizens were able to cross with ease and maintain relationships with friends, family, and business owners (Fan 2008, Martin 2007). Now residents, business owners, and tourists are impacted negatively by the outright ugliness and deeper understated meaning of the U.S. - Mexico border wall and immigration policy (Sharp 2011, Martin 2007).

The physical structure U.S. – Mexico border wall has created a negative impact on citizens living within proximity of the border (Fan 2008, Martin 2007, Sharp 2011). Citizen groups, local public officials (elected and unelected), and individuals are opposed due to the outright ugliness of the construct and disruption of ties with friends and families across the border (Garret & Storbeck 2011). The border wall wasn’t designed to enhance the natural systems of the community; it was made to halt and redistribute the flow of goods and people through ports of entry (Martin 2007, Fan 2008). Quality of life is molded by physical conditions; the border wall presents a negative impact on the quality of life and cultural landscape of those living on the border.

Public infrastructure projects create negative externalities for those who live near the development (Martin 2007, Fan 2008). As previously stated QOL is an imperative aspect of Public Administration and is configured by physical conditions. Infrastructure should enhance the natural systems and QOL of the community affected. The U.S. – Mexico border wall has significantly changes cultural landscape of the border and has become the object that separates “us” from “them” and serves as a symbol of oppression for many locals. In the Rio Grande Valley, the public is outraged by the structure and do not want it as a part of their lives (Sharp 2011). The free flowing border previously boasted strong familial and cultural exchanges, where people could be in contact with their community domestic and abroad. Now people are forced through ports-of-entry locations located in more populous cities, creating a significant decrease QOL.

Increased Crime/ Fear of Crime

Public infrastructure projects cause an increase in crime if not planned strategically. Rate of crime and fear of crime are associated with features of the physical environment within neighborhoods (Dannenberget al 2003). Crime in the United States has a significant impact on the health and well being of the public (Carter et al 2003). Moreover, Carter et al (2003) explain that reducing crime through better design of the physical environment is a good approach to public infrastructure development. Fear of crime is especially high among low-income individuals and among people of color, including Latinos (Day et al 2007). Day et al (2007) also explain that planning and design scholars and practitioners have linked design of the built environment with safety from crime. Public infrastructure projects cause an increase in crime by sectioning off two previously joined communities.

The security infrastructure along the U.S. - Mexico border impacts the crime rate (Nuñez-Neto & Viña 2006). Fencing is intended to create a disincentive for migrants attempting to cross the border, displacing the crossing to more rural areas, which increases criminal activity in the border due to migrants relying heavily on coyotes to cross in remote areas (Martin 2007). Coyotes are a term used for a person who guides migrants across the border for a nominal fee. Shellabarger et al (2009) explain that refuge borderland along the U.S. - Mexico border near Nogales, AZ, was closed to the public in October 2006 due to the threat of violence from both border bandits and smugglers.

Moreover, ranchers around the border tell traumatic experiences with “the sudden spurt of border crossers, large groups of men pounding on their door in the dead of the night demanding clothes and water, of home break-ins survived with young children huddled shaking and crying quietly in the house, of formerly compassionate feelings souring with strain and stress” (Fan 2008).

Public infrastructure projects can cause an increase in crime or fear of crime if not planned strategically. Crime creates a negative impact on quality of life and overall wellbeing. Along the U.S. - Mexico border all there has been an increase of crime and fear of crime. It is very important that the government strategically design infrastructure in ways that deter crime and reduce fear of crime.

Increased Deaths

Public infrastructure projects are focused on providing an intended benefit to the community, although construction of public infrastructure projects causes negative externalities (Chandra & Thompson 2000). For example, the construction of an interstate highway is intended

to increase economic activity, while at the same time causes increase in pedestrian fatalities (Paulozzi 2006). In the Southern United States, there are significantly more pedestrian fatalities (Paulozzi 2006, Beck, et al, 2007).

In 2010, there were 32,885 non-motorist fatalities and 30,196 fatal crashes in the United States (The National Highway Traffic Safety Administration). Public infrastructure projects essentially re-route people, goods and animals to new courses. While the new and increased routes may provide a benefit for some, there are others who suffer the negative externalities. The development of public infrastructure projects, like roads, interstate and binational highways causes increased deaths within close proximity (The National Highway Traffic Safety Administration, Paulozzi 2006, Beck, et al, 2007).

The U.S. - Mexico border wall is re-routing migrant traffic and has caused an increase in migrant deaths (Cornelius 2001, Shellabarger et al 2012, Fan 2008, Heyman 2008, Nuñez-Neto & Viña 2006, Martin 2007). According to Nuñez-Neto & Viña (2006) in a Congressional report there has been an increase in migrant deaths each year; on average 200 migrants dies each year in the early 1990's. In 2005 there were 472 deaths that year alone (Nuñez-Neto & Viña 2006). During the Clinton Administration illegal entry was made more difficult with the new policy “prevention-through-deterrence” which increased the difficulty of illegal entry, including installation of multiple physical barriers, and the use of advanced electronic surveillance equipment (Cornelius 2001, Morales 2009, Nuñez-Neto & Viña 2006).

Shellabarger et al (2012) report that declining numbers of undocumented persons apprehended at port-of-entry sites was initially interpreted as a sign for successful deterrence, but the demand for labor re-routed border-crossers away from traditional ports-of-entry along the

border spurred an increase in traffic through less inhabited areas (Morales 2009, Nuñez-Neto & Viña 2006). The shift in migration patterns and increased deaths was an unintended consequence of several United State Border Patrol strategies such as “Operation Gatekeeper” and “Hold the Line” (Gallegos 2004).

In calendar year 1994 there were twenty-three migrant fatalities along the Mexico-California border, these deaths were a result of traffic accidents caused by migrants crossing the border in San Diego and being hit by high speed vehicles running across the freeway after crossing the border (Cornelius 2001). The most convincing evidence that concentrated border enforcement and the development of the wall is largely responsible for the rise in migrant mortality is due to the changes in causes of death among unauthorized border crossers (Cornelius 2001, Heyman 2008, Morales 2009).

Migrants are now re-routed from populous areas through dangerous mountainous and dessert terrain with very little food, water or appropriate clothing (Heyman 2008, Morales 2009). From 1996 to 2001 most deaths were a result of environmental causes: hypothermia, dehydration or heat stroke (Cornelius 2001). Moreover, Shellabarger et al (2012) found that both land management and humanitarian volunteers found dead bodies in the borderlands. An estimated total of 3861 – 5607 migrants died along the U.S. - Mexico border between 1994 and 2009 (United States General Accounting Office 2009). The estimated figure only includes bodies recovered by Border Patrol and authorities, an unknown number of bodies lie undiscovered in the mountainous and dessert terrain.

Public infrastructure, specifically the U.S. - Mexico border wall causes significantly more deaths. As a consequence of concentrated border enforcement, many migrants must take

dangerous paths to gain entry to the United States. The fundamental assumption that raising costs would deter, proved to be wrong; soaring death rates and unabated migrant traffic showed that people were paying the ultimate price rather than being deterred (Cornelius 2001, Morales 2009)

Chapter Summary

This chapter explored the literature on the negative externalities of public infrastructure projects and specifically the U.S. - Mexico border wall. Public infrastructure projects cause significant impacts within a community, positive and negative. Research outlines above public infrastructure projects planned to benefit a community can cause negative externalities within the realm of the economy, environment, and society

Negative externalities can be characterized by effects not taken into account directly when the project is planned and completed. A majority of projects are intended to better the community developed in. Although, the U.S. - Mexico border wall is a large public security infrastructure project that has caused series of negative externalities. There is a disparity in the reality between policy makers in Washington compared to the rancher or homeowner along the border wall as to the fence affects their livelihood.

The U.S.-Mexico border wall was constructed with all thirty-seven federal statutes pertaining to the conservation of cultural and environmental resources waived, including the National Environmental Policy Act, the Endangered Species Act (ESA), the Clean Air and Clean Water acts, and the Antiquities acts (Sayre & Knight 2009). Public infrastructure projects need to be planned strategically with the best interest of the community. The descriptive categories include economic, environmental and social consequences. The aforementioned descriptive

categories comprise the conceptual framework for the study and provide a strong foundation for the interview questions. The next chapter outlines the methodology used in this study.

Chapter 3: Methodology

Chapter Purpose

The purpose of this chapter is to provide an overview of the research methodology for the process of studying the negative externalities of the U.S. - Mexico border wall according to local public officials. To restate, the research purpose of this study is to describe the negative externalities of the U.S. – Mexico border wall according to local public officials in Rio Grande Valley, Texas. Specifically, this study will describe the economic, environmental and social consequences of the border fence in each community as experienced. This chapter will discuss how the population will be chosen for the study, discuss the strengths and weaknesses of the research method and outline the questions formulated for the interviews. The chapter will conclude with a discussion of Human Subject Protection Issues.

Methods

The literature revealed a strong emphasis on the need for strategic planning when constructing public infrastructure projects, government should also take into account all negative externalities and abide by all laws when executing major infrastructure projects to decrease potential negative externalities (Shellabarger et al 2012, Flesch et al 2010, Sayre & Knight 2009, Nuñez-Neto & Viña 2009, Martin 2007). The U.S. – Mexico border fence was constructed without adherence to thirty-seven federal laws and without the input of local communities (Martin 2007, Gallegos 2004). The purpose of this study is to describe the negative externalities of the U.S. – Mexico border fence according to local public officials. Established by a review of the literature, three descriptive categories are indentified as the major negative externalities of public infrastructure projects:

- Economic consequences
- Environmental consequences
- Social and cultural consequences

Following, each descriptive category is broadened through three subcategories. The categories subcategories were then used to develop the conceptual framework to produce interview questions for local public officials. An interview will be used as a collection mechanism for local public officials to express the extent of negative externalities caused by the construction of the U.S. - Mexico border fence in the community. Due to the diversity of local public officials and the impact each community experienced, answers to the interview questions will be analyzed subjectively and in context with information provided by the research. The interviewer will gain information while listening and encouraging the interviewee to speak openly and honestly (Dicicco-Bloom & Crabtree 2006).

Interview Subjects

The areas affected most by the border fence are those communities within close proximity to the U.S. – Mexico border, therefore interview subjects will be chosen based on their proximity to the border fence in Rio Grande Valley, Texas. Interview subjects will also be targeted due to their position within the locality. Personal interviews will be conducted with eight, local public officials in the Rio Grande Valley.

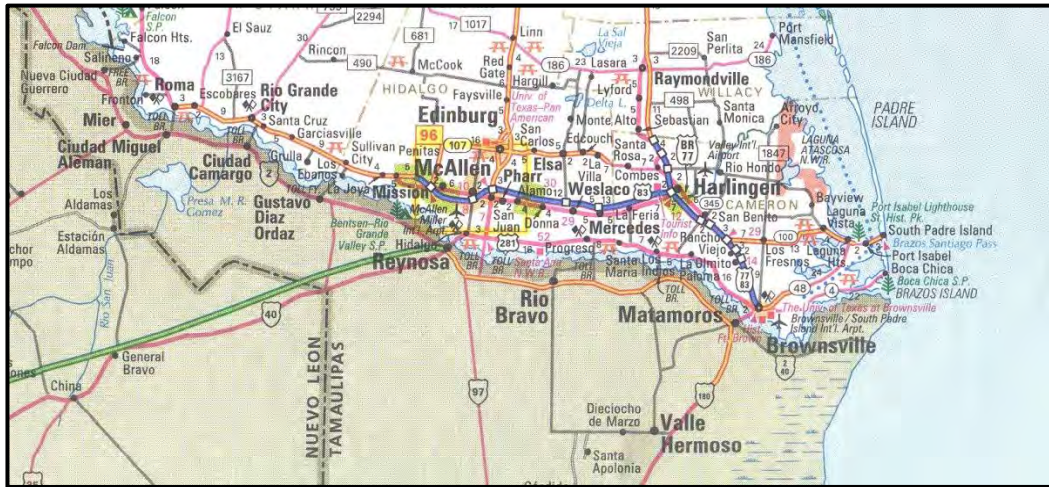


Image courtesy of: <http://www.thecitiesof.com/texas/theriograndevalley/lgriograndemap.html>

Structured Interviews

The research methodology utilized in this study is structured qualitative interviews executed by face-to-face. Qualitative interviews are best when a set of topics are to be discussed in depth based on the use of standardized questions (Babbie 2010). Structured interview questions were chosen as a research method due to the low number of participants and the level of desired depth of questionnaire. To promote honesty and enhance conversation, the researcher will build rapport early on in the process. The interview is a data collection encounter in which one person (an interviewer) asks questions of another (respondent) (Babbie 2010). The structured interviews are the most appropriate method for gathering data in this project because it allows the researcher to gain a deeper understanding of the issues the community is facing due to the U.S. - Mexico border fence through probing and clarifying of questions. Structured interviews provide more complete questionnaires (Babbie 2010). It is important for the researcher to be able to observe nonverbal cues from the respondent to gain better insight (Babbie 2010). Structured interviews also provide a reliable source of qualitative data (Babbie 2010).

The structured interviews will be executed within thirty to forty-five minutes and will follow the interview questions outlined on table 3.1. The respondents will be allowed to elaborate and present any information they consider significant. The interviewer will document the respondent's answers through written notes and an audio recording device for accuracy.

Qualitative interviewing, like all research methods, has distinctive strengths and weaknesses (Babbie 2010). Field research, including structured qualitative interviews, is effective when studying social processes, nuances, and attitudes (Babbie 2010). Strengths also include flexibility, as you can modify your research at any time and relatively inexpensive in comparison to other methods of research (Babbie 2010). Field research also hosts several weaknesses. For example, field research isn't an appropriate means for arriving at statistical descriptions of a large population.

In regards to validity, field research provides greater validity and less reliability than survey research (Babbie 2010). Moreover, being present in an interview allows for one to gain insights into the nature of human nature and clarify questions of interviewee. Moreover, observations and conceptualizations are valuable which can provide the basis for further research (Babbie 2010). Field research can pose a problem for reliability due to the personal nature and the interviewer's personal biases (Babbie 2010). For example, the interviewer may reveal his or her own personal political views by referring to a person or group as "conservative" or "liberal", because the interviewer is labeling the person or group based on their own beliefs. Qualitative interviewers must be very careful in monitoring their own personal biases or judgment.

Operationalization of the Descriptive Categories

The interviews executed in this study will present the experiences of governmental leaders in cities and counties along the border in the Rio Grande Valley, Texas. Local public officials will impart their knowledge, experience, and personal stories related to the effects of the construction of the border fence in their respective communities. The interviews conducted in this study will shed light on the depth of knowledge and experience of the interviewee. The interview structure is comprised of general questions in regards to the core descriptive categories: economy, environment, and society/culture. The core descriptive categories are followed by subcategory questions to further explore the issue. The tables following outline the interview questions used to operationalize each category of the descriptive conceptual framework.

Interview Questions - Economic consequences

Public infrastructure projects, such as roads and highways, can cause significant changes within a community. The principal goal of developmental activities, including those relating to transport infrastructure, is to promote social welfare, however, due to societal, geopolitical and historical features; the benefits of development are often not shared equitably (Segupta, et al, 2007, Kilpatrick, et al, 2007). Based on the literature review, answers to the questions for the following descriptive category should uncover the extent of which local public officials in Rio Grande Valley, Texas encountered economic consequences due to the construction of the border fence. *Table 3.1* illustrates the interview questions for the first descriptive category, economic consequences, and the corresponding subcategories within the conceptual framework.

Table 3.1 - Operationalization of Economic Consequences in the Rio Grande Valley	
Economic Consequences	Operationalization Questions
Impact on property values	<ol style="list-style-type: none"> 1. Please describe the appearance of the border wall in terms its "appearance," in other words the way it "looks." 2. Do you believe that the appearance of the border wall has had an impact on the value of property in the region? 3. Do you believe that the border wall has significantly affected your jurisdiction's revenue?
Impact on Tourism and Shopping	<ol style="list-style-type: none"> 4. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in the Region? 5. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in your jurisdiction?
Impact on Trade	<ol style="list-style-type: none"> 6. Do you believe that the border wall has had an impact on trade between the United States and Mexico overall? 7. Do you believe the border fence has impacted trade between Mexico and your jurisdiction?

Interview Questions - Environmental consequences

The literature review suggests that the construction large public infrastructure projects cause a significant impact on unique ecosystems, drainage and animal migration patterns (Amekudzi, et al, 2011, Trombulak & Frissel 2000, Shellabarger, et al, 2012). Established by the literature review, answers to the questions for the following descriptive category should reveal the extent of which local public officials in Rio Grande Valley, Texas encountered

environmental consequences due to the construction of the border fence. *Table 3.2* illustrates the interview questions for the second descriptive category, environmental consequences, and the corresponding subcategories within the conceptual framework.

Table 3.2 - Operationalization of Environmental Consequences in the Rio Grande Valley	
Environmental Consequences	Operationalization Questions
Impact on unique border ecosystems	<p>8. Do you believe the border wall has impacted any unique eco-systems or endangered animals in the region?</p> <p>9. Do you believe the border wall has impacted any unique eco-systems or endangered animals in your jurisdiction?</p>
Impact on drainage	<p>10. Do you believe the border wall has significantly affected drainage in the region?</p> <p>11. Do you believe the border wall has significantly affected drainage in your jurisdiction?</p>
Impact on migration patterns	<p>12. Do you believe the border wall has had an impact on the migration patterns of animals in the region?</p> <p>13. Do you believe the border wall has had an impact on the migration patterns of animals in your jurisdiction?</p>

Interview Questions - Social consequences

Public infrastructure projects can cause social and cultural consequences from construction to utilization (Fan 2008, Sharp 2011). The construction of a barrier through the middle of two previously connected communities, with deep historical and cultural ties, serves as a divider (Garrett & Storbeck, 2007). Illustrated by the literature review, answers to the questions for the following descriptive category should uncover the extent of which local public officials in Rio Grande Valley, Texas encountered social and cultural consequences due to the construction

of the border fence. *Table 3.3* illustrates the interview questions for the third descriptive category, social consequences, and the corresponding subcategories within the conceptual framework.

Table 3.3 - Operationalization of Social and Cultural Consequences in the Rio Grande Valley	
Social and Cultural Consequences	Operationalization Questions
Impact on quality of life	<p>14. Do you believe the appearance of the border wall has had an impact of the Quality of Life of persons living in the region?</p> <p>15. Do you believe the appearance of the border wall has had an impact of the Quality of Life of persons living in your jurisdiction?</p>
Impact on crime	<p>16. Do you believe the border wall has significantly impacted crime rate in the region?</p> <p>17. Do you believe the border wall has significantly impacted crime rate in your jurisdiction?</p>
Impact on migrant deaths	<p>18. Do you believe the border wall has impacted the amount of migrant deaths in the region?</p> <p>19. Do you believe the border wall has impacted the number of migrant deaths in your jurisdiction?</p>
Overall General Border Wall Questions	
	<p>20. In general can you summarize what you think the wall has meant for this region?</p> <p>21. Would you like to add anything?</p>

Human Subjects Protection

The research in this project will be collected through interview research, which requires the interacting with humans. Texas State University Institutional Review Board granted this project exemption due to the nature of the questions asked and the population being interviewed. Each interview participant and their responses are anonymous. Each participant engaged in the interview on a voluntary basis. Voluntary participation of human subjects and interviewees were provided with a consent form included in Appendix B, which outlines interviewee's rights. These rights include the ability for an interviewee to not answer certain questions or withdraw from the study at any time. Participants were not provided with compensation for the interviews. Respondents are referred to as respondent one through eight to protect their identity.

The purpose of the research is to describe the negative externalities of the border fence, therefore the interviews focused on the interviewee's knowledge of border fence issues in their community. The information disseminated in this study will not harm the participant or put them in risk or criminal, civil, or financial liability. Interviewees were also provided with the researchers contact information in the event of further questions or concerns about the research.

Informed Consent

Many universities throughout the United States emphasize the importance of both accurately informing subjects and respondents as to the nature of the research and obtaining his or her verbal or written consent to participate (Babbie 2010). In social research there are many unethical practices, such as coercion or forced participation, misrepresentation or deception and covert research, when participants are unaware they are being observed (Babbie 2010). In this

study participants have the choice to leave the study at any time and are able to choose not to answer certain questions.

Interviewees participating in the study will have fully informed consent; meaning participants involvement will be completely voluntary and no harm, emotional or physical, will come to interviewees. The participants will engage in discussion in regarding their thoughts and beliefs about the consequences of the U.S. – Mexico border fence in the Rio Grande Valley, Texas.

Given the politics surrounding the border fence, subjects will have a right to privacy. Thus each interview will be anonymous and kept confidential. Moreover, the analysis and reporting of data acquired in this study will be anonymous, as discussed earlier. This will ensure that participants are protected from harm. This protection will ensure participants aren't characterized or chastised within their industry for their beliefs (Babbie 2010).

Chapter Summary

Chapter three outlined the research method employed in this project. The researcher developed structured interview questions from the conceptual framework based on the literature reviewed in regards to the negative externalities of public infrastructure projects on the economy, environment and society. A structured interview data collection technique was selected as the best research tool to use in this research due to the topic and need for extrapolation. The purpose of this research is to describe the negative externalities of the U.S. – Mexico border fence according to local public officials. Local public officials were interviewed in person in hopes of gaining a deeper understanding of the negative externalities caused by the construction of the fence in their communities.

Chapter Four: Results

Chapter four communicates the results from the interviews conducted in this study. The purpose of this research is to describe the negative externalities of the U.S.- Mexico border fence according to local public officials in Rio Grande Valley, Texas. The culmination of information presented by local public officials suggests that overall there has been varying degrees of economic, environmental and social consequences due to construction of the U.S.- Mexico border fence. In Cameron County, the border fence is built through the downtown of the City of Brownsville; in Hidalgo County, the border fence functionally serves as a levee wall or “fortified levee”; and in Starr County, the wall is still in the preliminary stages of planning.

Economic Consequences

Public infrastructure projects provide many benefits to society, such as additional routes to previously inaccessible areas; however, the new accessibility creates a myriad of consequences. The literature review identified that public infrastructure projects cause negative externalities within a community while attempting to provide a benefit to the area. Seven interview questions were asked to gain a deep understanding of the extent of negative externalities faced by each community due to the construction or proposal of a border fence.

Decreased Property Values

1. Please describe the appearance of the border wall in terms its "appearance," in other words the way it "looks."
2. Do you believe that the appearance of the border wall has had an impact on the value of property in the region?

3. Do you believe that the border wall has significantly affected your jurisdiction's revenue?

Decreased Tourism

4. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in the Region?
5. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in your jurisdiction?

Decreased Trade

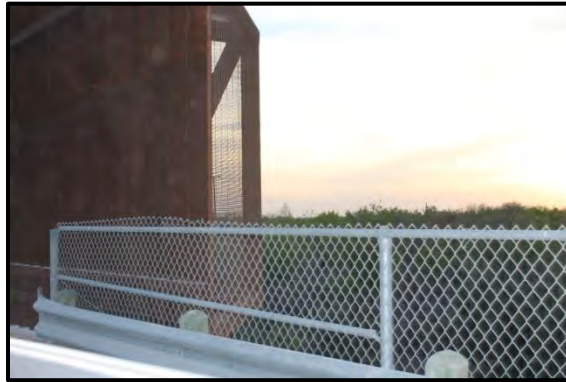
6. Do you believe that the border wall has had an impact on trade between the United States and Mexico overall?
7. Do you believe the border fence has impacted trade between Mexico and your jurisdiction?

The respondents in this study provided responses which provide support for the theory that the construction of the border wall in Rio Grande Valley, Texas had a negative impact on the local economies. Respondents were asked to first describe the appearance of the fence in terms of its appearance. Most respondents indicated that the wall was visually offensive to persons living on both sides of the fence. Respondent 4 refers to the border fence as “jail like”; respondent 8 describes the wall as “not continuous, but like Swiss cheese”; and respondent 5 indicates the following about the border fence:

“Aesthetically, it looks horrible. You can drive for a couple hundred yards and then the fence will end, then you can go around it. The wall goes through schools, parks, downtown areas and many other desirable areas for people in our community.”

Respondent 8 described the fence in greater depth:

“In certain areas it is a fortified levee, in other places it is an i-beam that sticks out and in other areas it’s a concrete façade with a fence that is two or three feet high.”



Border Fence in Penitas, Texas

Property Values

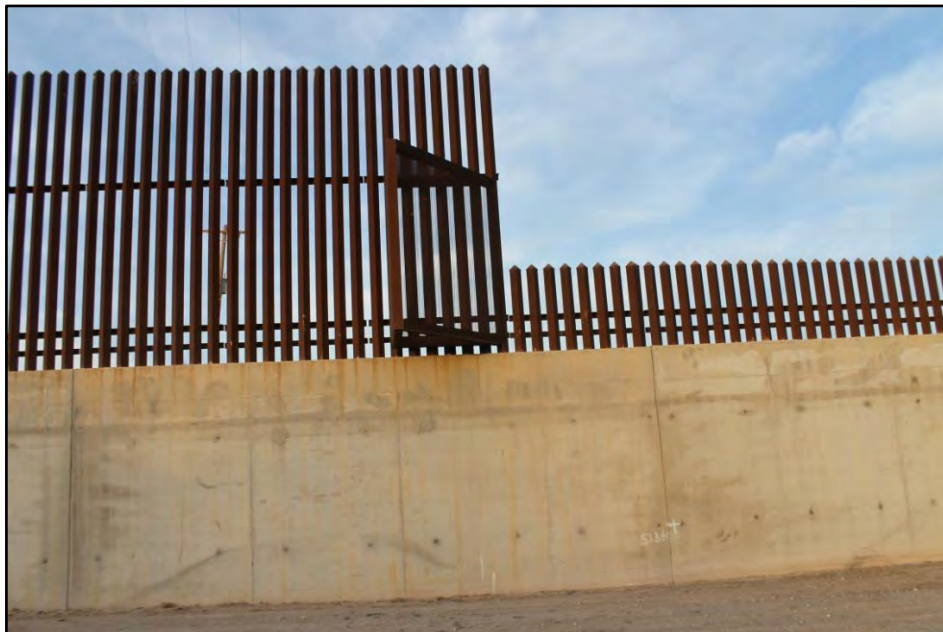
Due to the outright ugliness and in some cases inconvenience of the wall, most respondents indicated that the appearance of the border wall has created a negative impact on property values in the Rio Grande Valley and in their jurisdiction. Respondent 6 outlined the fact that the wall disrupted many economic development and revitalization projects for the locality and “countless monies from personal property owners to potential economic development opportunities were lost.” Respondent 8 outlines the consequences property owners ensure within close proximity to the border wall:

“Farmers face limited access to their own property, sometimes they have to drive down to a gate to get to the southern portion of their property.”

Respondent 2 expressed that property values are based on location, possible use and access. Moreover, for people living within close proximity there has been a decrease in property values and estimated a 10-20% decrease in value. However, many respondents found it impossible to quantify the impact on property values.

Conversely, some respondents indicated that their jurisdiction saw a positive impact on property values from the construction of the border fence. Much of the southern portion of Hidalgo County is located in a flood way. Additionally, in 2006 when the border wall was mandated by the federal government Hidalgo County was facing a possible de-certification of their levee system. Working together with the Department of Homeland Security, Hidalgo County was able to find a compromise. The Department of Homeland Security and Hidalgo County built fortified levee wall to satisfy the needs of both jurisdictions. Respondent 6 elaborated on the issue:

“We were able to work with USBP, Customs and the federal government to make sure the wall here was more appealing. We have a fortified levee wall, which was needed to protect the area from future flooding in cases of in climate weather.”



Respondent 8 provides further support indicating that if the levee system would have been de-certified, that would have meant a loss of billions not only for the locality but for citizens in increased home insurance costs and decreased home values.

In regards to the impact on property values previously stated, most respondents indicated that their jurisdiction saw a negative impact on revenue. Moreover, most respondents found it extremely difficult and purely speculative to attempt to quantify the impact. Respondent 2 explains:

“Yes, I believe that the border wall negatively impacted my jurisdictions revenue, but very little and for a short time. Now people forget about the wall. It is human nature, take for instance in Israel, there are bombings and killings and people still live there. What developers have done is built apartments with safe rooms. As humans we adjust and keep living.”

Respondent 7 also explained the process his jurisdiction was and still is facing because of the border fence:

“At a local level we are still going through a healing process with Mexico. They were very offended and the history and culture go back 100 years. The law makers are not here in the Valley and we are, we know how things work down here. It's been a slow journey as we transitioned into this process. The border wall has negatively impacted the local economy and even a small hiccup can mean a lot for a small community like us.”

Respondent 5 suggests *“The border fence has kept people from coming over from Mexico. It's something very personal and it can be very offensive. If you are from Mexico and you engage in legitimate trade, then it is offensive.”*

Alternatively, respondent 8 explains that the fortified levee wall in Hidalgo County “kept areas developable” and therefore increased or kept property values the same.

All study participants indicated that there was an impact on property values within their jurisdiction due to the construction of the border fence. Most respondents indicated that their jurisdictions did not address the change in revenue or impact of property values. Many respondents explained that the impact would be very small and for a very short period of time, so there was no need.

Tourism and Shopping

A large majority of participants describe the negative impacts on tourism and shopping within their individual jurisdictions. Respondent refers to the wall as a “divider” for two previously interdependent communities. Respondent 8 explains the impact:

“Initially it was impacted. Before crossing into Mexico was easier, we would go over there for lunch and they would come over here and grocery shop. The border existed, but the communities were very close with each other. I think that the rhetoric of the border wall impacted the perception. It went from being all of us to “us” and “them”. There is a perception of over here and over there. The college population used to cross over and go to Mexico, not you see a lot of Mexican students coming over here to eat and have fun.”

Several respondents articulated that the impact was short lived and that most people have adjusted to the border fence. Respondent 5 calls legitimate border crossers as “humble” and that those humble people see the wall as offensive. Respondent 6 explains that the border fences has “set the community back decades” in its’ pursuit of tourism development and revitalization.

Participants in the Rio Grande Valley indicated that marketing had a large role in limiting negative impacts on shopping and tourism. Respondent 5 explained their locality launched strategic marketing campaign, which targeted specific cities in Mexico. The marketing campaign informed them of the following:

“We are opposed to the project and that we let Washington delegation know of our opinion. Ultimately, there was very little that we could do. We advertised for people to still come across and visit.”

Respondent 6 and 4 concur with the aforementioned statement. Each area engaged in concentrated marketing efforts in Mexico to ensure that tourists and shoppers would still frequent their jurisdictions. Respondent 2 reported a range of \$30,000 to \$50,000 dollars was spent in marketing efforts to re-build relations and keep their jurisdiction a shopping destination.

Decreased Trade

A majority of respondents indicated that the border fence caused a negative impact on trade between the United States and Mexico overall, but only for a short period of time.

Respondent 6 explains that the border fence impacted *“relationships more than anything.*

Commerce and trade are dependent on strong relationships. It’s important that we have gone

above and beyond to make sure Mexicans feel welcome here.” Respondent 5 indicated that

“from a perspective of pride, 99% of the bridge crossings are legitimate trade and travel.”

Most respondents believe that their jurisdiction’s trade with Mexico was also negatively impacted due to the construction of the border wall. Respondent 7 explains how their relationship with Mexico has been impacted:

“We have always had a long history of cultural exchange with Mexico. There is a deep and rich history that goes back hundreds of years. All of that has been tainted due to this border wall issues. It’s simple, you have law makers in Washington dictating law and have never been here and do not understand the dynamics.”

A large majority of respondents explained that marketing and advertising to strategically chosen areas in Mexico were crucial in curbing additional substantial decreases in trade, tourism and shopping. Respondent 8 explains:

“Right when the debate was raging about the border wall, we did a strong push in the media to communicate with down south that you are still welcome here and we are still friends, we want you to come here.”

Most respondents indicated the importance of communicating to those south of the border that their presence was still wanted in their respective communities. While respondents agree that there was a negative impact on trade, they were not able to quantify the impact on trade. Particularly due to the fact that around the same time the United States faced an economic downturn.

The respondents' answers provide a strong foundation to support the U.S. – Mexico border had a negative impact on the economy, including property values, tourism and trade. While some respondents expressed the impacts were for a short period of time. Also, impacts were curbed by concentrated and strategic marketing efforts.

Local public officials in Hidalgo County reported that the border fence was a benefit to the overall economy due to the compromise made by the Department of Homeland Security and local officials. The compromise of building a fortified levee saved “billions” of dollars for private citizens and localities.

Environmental Consequences

Public infrastructure projects provide many benefits to society, such as additional routes to previously inaccessible areas; however, the new accessibility generates innumerable economical consequences. The literature review identified that public infrastructure projects cause negative externalities for unique eco-systems, animal migration and drainage. Six interview questions were asked to gain a deep understanding of the extent of negative externalities faced by each community due to the construction or proposal of a border fence.

Unique Eco-Systems

8. Do you believe the border wall has impacted any unique eco-systems or endangered animals in the region?
9. Do you believe the border wall has impacted any unique eco-systems or endangered animals in your jurisdiction?

Flooding/Barrier to Drainage

10. Do you believe the border wall has significantly affected drainage in the region?

11. Do you believe the border wall has significantly affected drainage in your jurisdiction?

Animal Migration Patterns

12. Do you believe the border wall has had an impact on the migration patterns of animals in the region?

13. Do you believe the border wall has had an impact on the migration patterns of animals in your jurisdiction?

Respondents' answers suggest that the border wall hasn't had a visible impact on the environment, specifically unique eco-systems and endangered animals in the region and in their jurisdiction. Although, almost all logically concluded that the wall would have to present some issues for animals living within close proximity. Respondent 2 reported concern for the endangered Jaguarundi, which is found in dense, thorny shrub land and the border fence may impact genetic exchange. Respondent 7 explained "the wall goes down just as far as it goes high, below the surface we are getting into the water table and impacting little creatures below the surface." Respondent 2, 4 and 8 expressed the fact that the border fence serves as a divider not only for humans but for animals as well. Moreover, a large majority agree that it will take more than ten to twenty years to see the impact of the border fence on unique eco-systems and endangered animals.

Respondent 7 concluded the answers with the fact that their particular jurisdiction isn't engaging in any activity to mitigate environmental issues. In contrast, respondent 4 explains what their jurisdiction is doing to oversee environmental issues:

“There are many wildlife refuge areas in the city and county. We have a lot of people who oversee that aspect of the community and feel confident we are doing everything we can to mitigate environmental issues. “

Responses to these two questions revealed that half of the respondents believe that the border fence will or has significantly affected drainage in the region and in their respective jurisdictions. Respondents from Hidalgo County reported that the border fence/ fortified levee presented positive impacts in regards to flooding and drainage. Respondent 2 describes the building of the border wall as “an economic development project which has helped our drainage system.” Respondent 8 illustrates the positive impact of the border fence:

“The Levees were fixin’ to be de-certified and certain areas were going to be labeled high risk flood zones. The beauty of what happened in Hidalgo County was the compromise was to build a fortified levee. Those levees helped to keep property values the same, since they weren't labeled as flood zones. Fortified levees helped to save the values and retain the area for development. “

Respondent 7 provides additional insight into the greater extent of positive impacts of the border fence during the 2010 floods:

“Yes, it (border fence) was very helpful in the floods of 2010. The city of Granjeno, which is very historical, in fact which predates the United States, might have been destroyed if the levee system had been compromised. When we had the floods the river rose to 14 feet and went into the flood way system. The area of Granjeno was the most fiercely against the border fence, but has benefitted immensely, as their buildings are still standing today. “

Conversely, respondent 1 explained that the border wall will be a liability for the jurisdiction:

“Anything that gets between the fence and the water could create a dam like situation where water will not drain normally, there is no doubt that there will be drainage and flooding issues.”

Responses to the two aforementioned questions revealed that all respondents indicated that there has to be some sort of impact on migration patterns of animals in the

Region and Jurisdiction even if for a small number of animals. Respondent 4 and a large majority of respondents explained that animals are unable to migrate using the same routes previously and it will take two or three decades to determine whether or not animals were significantly affected. Respondent 8 compared new migration patterns for animals to that of farmers and ranchers finding new paths to their property:

“We have jaguarundis, ocelots and other animals that cannot get through the fence. There were some discussions about allowing passageways for animals, but that was impossible because people and drugs would find their way through the passageways. There is some negative impact, they have to find another pattern to get through, just like the farmer, they have to find another way across. “



Social Consequences

The construction of public infrastructure projects, such as roads and interstate highways, causes significant consequences for communities within close proximity. The literature review identified that public infrastructure projects cause negative externalities in communities in the areas of: quality of life, crime and increase deaths. Six interview questions were asked to gain a deep understanding of the extent of negative externalities faced by each community and the overall Rio Grande Valley due to the proposal of or the actual construction of a border fence.

Reduced Quality of Life

14. Do you believe the appearance of the border wall has had an impact of the Quality of Life of persons living in the region?

15. Do you believe the appearance of the border wall has had an impact of the Quality of Life of persons living in your jurisdiction?

Increased Crime/Fear of Crime

16. Do you believe the border wall has significantly impacted crime rate in the region?

17. Do you believe the border wall has significantly impacted crime rate in your jurisdiction?

Increased Deaths

18. Do you believe the border wall has impacted the amount of migrant deaths in the region?

19. Do you believe the border wall has impacted the number of migrant deaths in your jurisdiction?

Responses to the questions listed above revealed that six out of eight respondents believe the border fence had an impact on quality of life for those living in the region. Two out of eight respondents indicated that they believed the border fence only impacts those people who can physically see or are directly impacted by the fence and believe that most citizens have forgotten or no longer care.

Five out of eight respondents believe that the border wall has had an impact on quality of life for those living in their respective jurisdictions. Two respondents explain the impacts in a

positive manner because the construction of the fortified levee in their jurisdiction allowed people in the flood way to benefit in savings the cost of home insurance. Moreover, respondent 7 indicated that several areas were positively impacted due to the reduction of “hooches”, areas where migrants would build huts and live:

“Our jurisdiction used to have little hooches where the aliens would cross with high grass. They would build little huts and live there for weeks. In the hooches, there would be heaps of trash and fecal matter. Since the construction of the fence, those areas have been developed into neighborhoods and businesses districts. “

Three out of the five respondents believed the border fence had a negative impact of quality of life for persons in their jurisdiction. Respondent 6 explained:

“Families have inherited their lands from previous generations and do not want to leave. They have made a sacrifice to stay and have their land chopped into pieces by an ugly fence. Their life has been changed; their land has been split apart.”

Respondent 4 explained that for his citizens the wall separated his constituents from their family and friends, making cultural and familial exchanges more difficult.

Responses to the questions listed above revealed a majority of respondents believe the crime rate has remained consistent throughout the Rio Grande Valley since the construction of the border fence. Three out of eight respondents believe the border fence had an impact on the crime rate for those living in the region. Respondent 3 rationalizes any decrease in crime in the Rio Grande Valley through the improvement of the economy on the Mexican side and sites no credit to the border fence. Respondent 7 expressed that *“the crime rate in the valley has been low, especially in comparison to other cities like Detroit, Chicago and Corpus Christi.”*

Additionally one hundred percent of respondents believe that their jurisdiction didn’t experience an impact on crime rates. Respondent 8 believes “the biggest crime the people who are crossing the river are guilty of is wanting a better life and economic opportunity in a time of

desperation.” Almost all respondents ascertain that their jurisdictions have some of the lowest crime rates in the United States. Respondent 8 refers to their jurisdiction as “one of the safest areas in the country and continues to be a very safe area”.

Individually respondent 2 expressed the belief that the border wall continues to have an impact on migrant deaths in the region. Additionally, he added that the wall must (increase migrant deaths) due to the fact that “migrants are routed through more treacherous areas.” Four respondents reported that they believed the wall didn’t have an impact on migrant deaths in the region and the remaining three respondents were unsure. Respondent 7 explained where the migrant deaths were occurring and why:

“Most migrant deaths are occurring in Brooks County and further north. A lot of migrant deaths are caused by ruthless smugglers; they look at people as cargo not people. Today, if you don't have a U.S. attorney case that has five people saying you are a smuggler, then it is hard to prosecute. Smugglers charge a range of fees to get people across the border, \$1,500 to 60,000 per person depending on where they are from. Once migrants get across the border they are sometimes kept in stash house for six or seven days, most have already been on the road for more than a month and are significantly malnourished and dehydrated. In this process a lot of sexual assaults occur. After all of this time on the road migrants are dropped off thirty miles south of checkpoint in 102 degree heat and expected get past the check point in high brush areas.”

Six respondents believe that the border wall has impacted migrant deaths in their jurisdiction and two were unsure. Respondent 8 refers the border fence as “Swiss cheese”, meaning that it is not continuous and there are many holes migrants can still get through. Respondent 6 explicated “One thing the border wall has done is shift the migration patterns for those coming across the border.”

Respondent 7 discussed in detail what his governmental entity is doing to help mitigate migrant deaths north of the border wall:

“We work very closely with foreign consulates; we create public service announcements to push out to countries where most migrants come from. Proactively, we do press conferences and create PSA's. In Brooks County we have 1000 placards and land marks and created a communication system. Smugglers leave boost phones with group and what we've done is we have added land marks like wind mills, water troughs, gates and we have added placards' with GPS. We tell them (migrants) to look for the nearest gate or windmill so we can go and find them. Within 5-10 minutes we will have someone on the ground. We also have rescue beacons, which are large towers that guys created with a sensor, with a manual button, if people are lost, mandatory 20 minute response time.”

The remaining respondents didn't mention any efforts to mitigate migrant deaths in the region or in their particular jurisdiction.

Chapter Five: Conclusion

Findings

Tables 5.1 through 5.3 encapsulate the findings for this study and present recommendations for local public officials who in the future face the proposal of a border fence in their community. The responses to the structured interview questions outline local public officials in the Rio Grande Valley varied experiences and beliefs in regards to the construction of the border fence. The variance in experiences and beliefs has to do with geographic location.. The fact is that the border fence is neither continuous nor consistent.

The geographic location of the City or County in the Rio Grande Valley is the major factor of the impact the border fence had. In some jurisdictions the border wall is present, partly present, or in the proposal stage. Each community leader believes that the U.S. – Mexico border wall has impacted their economy, environment and society. The impacts overall are negative, the only time the border fence was referred to as positive was with local public officials in Hidalgo County.

Economic Consequences

The answers provided by respondents in this study regarding the economic consequences of the border wall described an overall impact, some positive and negative. Due to the outright ugliness of border fence most respondents believe that property values, tourism and shopping saw a negative impact, even if for a short time. Most respondents explained that it took extensive strategic marketing efforts in Mexico to mitigate impacts on shopping and tourism. The marketing efforts focused on communicating that each jurisdiction welcomed neighbors in the South.

Respondents in Cameron County explicate that their jurisdictions are still healing from the impact of the border fence due to decreases in revenue and forgone economic development projects. Respondents in Starr County who are in the initial stages of the planning process indicate that the potential border fence will also impact their downtown revitalization efforts and create a negative impact on tourism, shopping, and property values.

Local public officials in Hidalgo County reported a much more positive and overall beneficial experience with the decision of the federal government in constructing a border fence. In the County of Hidalgo the levee system was going to be de-certified, as it no longer met the stated requirements. Therefore instead of building a fence separate from the levee, the Department of Homeland Security and the County of Hidalgo made a compromise. The Department of Homeland Security built a “fortified levee”. A fortified levee is a levee wall with a fence built on top of it. The County of Hidalgo was able to save constituents and cities located in the flood way countless amounts of money, due to potential increases in insurance costs and decreased home values. At the same time, respondents explained that people within their jurisdiction who lived within close proximity to the fence most likely saw a decrease in property value.

Table 5.1 Findings and Recommendations: Economic Consequences in the Rio Grande Valley		
Interview Questions	Findings	Recommendations
Economic Consequences		
1. Please describe the appearance of the border wall in terms its "appearance," in other words the way it "looks."	8/8 respondents referred to the border wall as visually offensive for those living north and south of the fence. Many respondents called it outright ugly, “jail like” and oppressive.	Local public officials should work with the Department of Homeland Security and local citizen groups to design a more appealing wall.
2. Do you believe that the appearance of the border wall	8/8 respondents believe the appearance of the border wall	Local public officials should create a region-wide alliance

has had an impact on the value of property in the region?	impacted property values. Some respondents in Hidalgo County reported a positive impact due to the construction of the fortified levee.	commission that records data to track the impacts of major changes to the region. This system should be monitored monthly or quarterly.
3. Do you believe that the border wall has significantly affected your jurisdiction's revenue?	6/8 respondents believe that the border wall has impacted the jurisdictions revenue.	Local public officials should create a tracking process which monitors and tracks property values and major changes in the community/catastrophic events. This system should be monitored monthly or quarterly.
4. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in the Region?	6/8 respondents believe that the border wall has impacted tourism and shopping in the region. Many believe the impact was for a short time.	Local and public officials should create a region-wide multi-jurisdictional task force to develop a joint targeted marketing plan for the region.
5. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in your jurisdiction?	7/8 respondents believe that the border wall has impacted tourism and shopping in their jurisdiction. A majority believe the impact was for a short time.	Local public officials should create a city wide task force to develop a strategic marketing plan to specific areas.
6. Do you believe that the border wall has had an impact on trade between the United States and Mexico overall?	5/8 respondents believe that the border wall has impacted trade between Mexico and the United States overall.	Local public officials should create a region-wide tracking mechanism for trade. Also, communicate with businesses and citizens in Mexico. This system should be monitored monthly or quarterly.
7. Do you believe the border fence has impacted trade between Mexico and your jurisdiction?	5/8 respondents believe that the border wall has impacted trade between their jurisdiction and Mexico.	Local public officials should create a tracking mechanism to record trade in each city and county. This system should be monitored monthly or quarterly.

Environmental Consequences

The answers contributed by respondents in this study regarding the environmental consequences of the construction of the border wall describe an impact overall. Many respondents believe that the construction of the border wall impacted unique eco-systems and animal migration patterns negatively. Most respondent indicated that it would take two or three decades to see the impact on animals and unique eco-systems.

Fifty percent of respondents believe that the border fence had an impact on flooding in the region and in their particular jurisdiction. Respondents from Hidalgo County explain the fortified levee wall in their jurisdiction has impacted flooding positively, preventing major flooding in 2010. Other respondents were unsure and on respondent thought the fence could create a dam-like situation if debris during a storm were to build up.

Table 5.2 Findings and Recommendations: Environmental Consequences in the Rio Grande Valley		
Interview Questions	Findings	Recommendations
Environmental Consequences		
8. Do you believe the border wall has impacted any unique eco-systems or endangered animals in the region?	6/8 respondents believe that the border wall has impacted unique eco-systems in the region.	Local public officials should form or enhance partnerships with environmental groups in the region and create a regional coalition to track and monitor changes in the region.
9. Do you believe the border wall has impacted any unique eco-systems or endangered animals in your jurisdiction?	4/8 respondents believe that the border wall has impacted unique eco-systems in their jurisdiction.	Local public officials should form or enhance partnerships with local environmental groups to track and monitor changes in the jurisdiction.
10. Do you believe the border wall has significantly affected drainage in the region?	4/8 respondents believe that the border wall has impacted drainage in the region.	Local public officials should create a region-wide flooding advisory board for the region, with representatives from each county or city to track and monitor impacts of the drainage and flooding issues in the region.

11. Do you believe the border wall has significantly affected drainage in your jurisdiction?	4/8 respondents believe that the border wall has impacted drainage in their jurisdiction.	Local public officials should create a flooding advisory board for the jurisdiction to track and monitor impacts of the drainage and flooding.
12. Do you believe the border wall has had an impact on the migration patterns of animals in the region?	6/8 respondents believe that the border wall has impacted migration patterns of animals in the region.	Local public officials should work with regional environmental groups to track and monitor animal migration patterns.
13. Do you believe the border wall has had an impact on the migration patterns of animals in your jurisdiction?	6/8 respondents believe that the border wall has impacted migration patterns of animals in their jurisdiction.	Local public officials should work with local environmental groups to track and monitor animal migration patterns.

Social and Cultural Consequences

The answers contributed by respondents in this study regarding the social and cultural consequences of the border wall describe an impact overall. Most respondents believe the border fence has a negative impact on quality of life for people in region and in their particular jurisdiction. Respondents also described that increased crime was not a consequence of the border fence. Many respondents believe that the Rio Grande Valley is one of the safest places in the United States because smugglers, whether drugs or people, are not staying in the Valley to distribute the cargo.

Respondents also indicated the border fence didn't have an impact of the number of migrant deaths in the region or in their jurisdiction. Many respondents reasoned that if there was an increase in migrant deaths it would be due to ruthless smugglers called "coyotes".

Table 5.3 Findings and Recommendations: Social and Cultural Consequences in the Rio Grande Valley		
Interview Questions	Findings	Recommendations
14. Do you believe the	6/8 respondents believe that	Local public officials should

appearance of the border wall has had an impact of the quality of life of persons living in the region?	the border wall has impacted quality of life for persons living in the region.	create a survey to establish baseline data of quality of life of citizens in the region.
15. Do you believe the appearance of the border wall has had an impact of the quality of life of persons living in your jurisdiction?	5/8 respondents believe that the border wall has impacted quality of life for persons living in their jurisdiction.	Local public officials should create a survey to establish baseline data of quality of life of citizens in the local jurisdiction.
16. Do you believe the border wall has significantly impacted crime rate in the region?	3/8 respondents believe that the border wall has impacted crime rates in the region.	Local public officials should use existing crime data to evaluate the impact in the region.
17. Do you believe the border wall has significantly impacted crime rate in your jurisdiction?	0/8 respondents believe that the border wall has impacted crime rates in their jurisdiction.	Local public officials should use existing data to evaluate the impact in the local jurisdiction.
18 Do you believe the border wall has impacted the amount of migrant deaths in the region?	1/8 respondents believe that the border wall has impacted migrants deaths in the region.	Local public officials should begin to track and monitor migrant deaths in the region to establish baseline data. Based on the information develop action plan to address high risk areas.
19. Do you believe the border wall has impacted the number of migrant deaths in your jurisdiction?	0/8 respondents believe that the border wall has impacted migrant deaths in their jurisdiction.	Local public officials should begin to monitor migrant deaths in their jurisdiction and establish baseline data.

When respondents were asked if they would like to add anything further, unanimously all respondents indicated that it was their opinion that the border wall was and is a huge waste of money and effort. Many felt that a cooperative organized law enforcement effort or “more boots on the ground” would be more significantly more effective and beneficial to each community.

Furthermore, most respondents elaborated further pin pointing government contractors as the largest benefactors of the U.S. - Mexico border fence public security infrastructure project.

Respondent 1 –

“Walls don't solve problems, people do.”

Respondent 3 –

“I was asked by a 4th grade teacher to speak about the border wall to their class and I told the class of fourth graders. I said hey look, what have you been told the purpose of the border wall is? The kids responded to stop drugs and illegal immigrants. Then I went on to say what if I were to tell you that 40% of the people who are illegally in the United States came through legal means and overstayed their visas. In fact, they came through numerous legal ways and overstayed their visas. Tell me how the border wall can help keep them out. I also explained that 10% come with false documents. I then asked how can the wall stop those people? So forty plus ten is fifty, so half of the illegal immigrants cannot be stopped, tell me why we need a border wall to stop illegal immigration? When fourth graders understand how ridiculous this border wall is, it is complete insanity of what they did building that wall.”

Respondent 6 –

“Private vendors and contractors benefitted most. There are vendors who have a monopoly. Engineers who designed the wall and contractors who built it. What we really need is more personnel and technology; that's all it takes. The border wall doesn't make sense, you build a wall and then there is a ten mile gap, it doesn't make any sense”

Recommendations for Future Research

With the onset of the federal government's sequestration the funding for additional border fence construction is halted. Local public officials in the Rio Grande Valley have expressed overall discontent of with the federal government's solution for securing the United States - Mexico border in South Texas.

Local public officials have described the consequences of the public infrastructure security project in great depth. This research is preliminary and focuses on many consequences for the region. Therefore, a more in-depth view of each descriptive category, including empirical data focusing on one particular area would be advantageous. It would also serve great

importance to compare the beliefs of public administrators versus citizens in regards to social and cultural consequences.

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Appendix A: Interview Script

Structured Interview Questions/Script

The Negative Externalities of the U.S. Mexico Border Wall According to Local public officials in the Rio Grande Valley, Texas.

Hello, my name is Christy Carter and this interview is to be utilized for research for my Applied Research Project (ARP) to complete a Masters Degree in Public Administration. First and foremost, I would like to thank you for granting me the opportunity to speak with you today. The information that you provide today will significantly enrich the research I am conducting for this project. The purpose of my ARP is to describe the negative externalities of the U.S. Mexico border wall in regards to the economy, environment, and society.

I will be interviewing you along with seven to ten other local administrators. Throughout the course of the interviews I hope to discover the impact of the U.S. Mexico border wall on your community.

The Secure Fence Act of 2006 is a highly controversial piece of legislation which many people, organizations and businesses in your community protested fiercely. Moreover, research has shown that large public infrastructure projects can cause significant impacts economically, environmentally and socially. Questions in this interview will explore these externalities and are based on the three categories mentioned above: economic, environmental, and social.

The time allotted for the interview is 30-45 minutes, although you may end the interview or choose not to answer any question at any time. During the interview I will ask questions related to the three categories listed above. With your consent, I will utilize an audio recorder, which at the end of the project will be discarded of audio, and take notes.

Economic Consequences

The questions in the primary section of the interview are related to the economic consequences of the U.S. Mexico border wall in your community. It will focus on three subcategories, including decreased property values, decreased tourism, and decreased trade.

Decreased Property Values

1. Please describe the appearance of the border wall in terms its "appearance," in other words the way it "looks."
2. Do you believe that the appearance of the border wall has had an impact on the value of property in the region?
 - a. If yes, please describe those impacts.
 - b. Can you quantify the amount of change in property values?
3. Do you believe that the border wall has significantly affected your jurisdiction's revenue?
 - a. If so, how much and how have you addressed this change in revenue?

Decreased Tourism

4. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in the Region?

- a. If so, can you quantify this change?
5. Do you believe that the appearance and location of the border wall has had an impact of tourism and shopping in your jurisdiction?
 - a. If yes, please describe the impact.
 - b. If so, what has your jurisdiction done to address this change?

Decreased Trade

6. Do you believe that the border wall has had an impact on trade between the United States and Mexico overall?
 - a. If yes, please describe those impacts.
7. Do you believe the border fence has impacted trade between Mexico and your jurisdiction?
 - a. If yes, please describe those impacts.
 - b. If yes, how has your jurisdiction addressed this change?

Environmental Consequences

The questions in the second section of the interview are related to the environmental consequences of the U.S. Mexico border wall in your community. It will focus on three subcategories, including degradation of unique border ecosystems, flooding/barrier to drainage, and disruption of animal migration patterns.

Unique Eco-systems and Endangered Animals

8. Do you believe the border wall has impacted any unique eco-systems or endangered animals in the region?
 - a. If so, please describe those impacts.
9. Do you believe the border wall has impacted any unique eco-systems or endangered animals in your jurisdiction?
 - a. If so, please describe those impacts.
 - b. If yes, how has your jurisdiction been involved in trying to address those changes?

Flooding/Barrier to Drainage

10. Do you believe the border wall has significantly affected drainage in the region?
 - a. If so, please describe those impacts.
11. Do you believe the border wall has significantly affected drainage in your jurisdiction?
 - a. If so, please describe those impacts.
 - b. If so, how have you addressed the changes in flooding and drainage?

Animal Migration Patterns

12. Do you believe the border wall has had an impact on the migration patterns of animals in the region?
 - a. If so, please describe those impacts.
13. Do you believe the border wall has had an impact on the migration patterns of animals in your jurisdiction?
 - a. If so, please describe those impacts.

- b. How has your jurisdiction addressed the change in migration patterns?

Social Consequences

The questions in the third section of the interview are related to the social consequences of the U.S. Mexico border wall in your community. It will focus on three subcategories, including reduced quality of life, increased crime/fear of crime, and increased migrants deaths.

Reduced Quality of Life

- 14. Do you believe the appearance of the border wall has had an impact of the Quality of Life of persons living in the region?
 - a. If yes, please describe those impacts.
- 15. Do you believe the appearance of the border wall has had an impact of the Quality of Life of persons living in your jurisdiction?
 - a. If yes, how has your jurisdiction addressed the changes in quality of life?

Increased Crime/Fear of Crime

- 16. Do you believe the border wall has significantly impacted crime rate in the region?
 - a. If so, please describe those impacts.
- 17. Do you believe the border wall has significantly impacted crime rate in your jurisdiction?
 - a. If so, please describe those impacts.
 - b. If so, how has your jurisdiction addressed these impacts?

Increased Deaths

- 18. Do you believe the border wall has impacted the amount of migrant deaths in the region?
 - a. If yes, please describe those impacts.
- 19. Do you believe the border wall has impacted the number of migrant deaths in your jurisdiction?
 - a. If yes, please describe those impacts.
 - b. How have your jurisdiction addressed those impacts?

This now completes our interview. Thank you for your time and providing me with this information. The information that you have provided me with is invaluable to my research and will contribute to the awareness of the impact of the U.S.-Mexico Border wall in the Rio Grande Valley. My completed ARP will be available in May if you would like more information about the study conducted or the results gained. Thank you again for your time and cooperation. Have a wonderful day.

Appendix B: Consent Form

Consent Form

The Negative Externalities of the U.S. Mexico Border Wall According to Local public officials in the Rio Grande Valley, Texas.

Researcher: Christy Carter • **Phone:** (517) 449 -0649 • **Email:** ChristyLeeCarter@gmail.com

This study involves research for a Texas State MPA Applied Research Project. The purpose of this study is to conduct research to describe the negative externalities of the U.S. - Mexico Border Wall according to Local public officials in Texas. The participants chosen as interviewees for this project are local public officials in South Texas near the border.

Each interview will be approximately 30-45 minutes long. The student researcher will ask questions regarding the consequences of the U.S. - Mexico border wall, in regards to the economy, environment and society. Interview questions will be asked in a format similar to the following question: Do you think that property values have been affected due to the U.S. Mexico border wall in your community? Yes or no, can you explain why?

This study could be beneficial to the participant and many other stakeholders by identifying the negative externalities that the community is facing due to the U.S. - Mexico border wall. There is no compensation offered to participants. Participation is voluntary, and refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled and the subject may discontinue participation at any time. The participant has the right to refuse to answer any question, at any time, for any reason. Participants may withdraw from the study at any time without prejudice or jeopardy to their standing with the University and any other relevant organization/entity with which the participant is associated.

Pertinent questions about the research, research participants' right, and/or research-related injuries to participants should be directed to the IRB chair, Dr. Jon Lasser (512-245-3413 – lasser@txstate.edu), or to Ms. Becky Northcut, Compliance Specialist (512-245-2102).

The confidentiality of the individuals will be maintained as a result of the project. Any audio recordings of interviews will be maintained as records for the duration of the project. A summary of the findings will be provided to participants upon completion of the study, if requested. Participants may access the results by contacting the researcher listed above.

IRB Exempt

Researcher

Date

Respondent

Date