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Tactical Mapping of Border Security Impacts: El Paso Sector

Project Report

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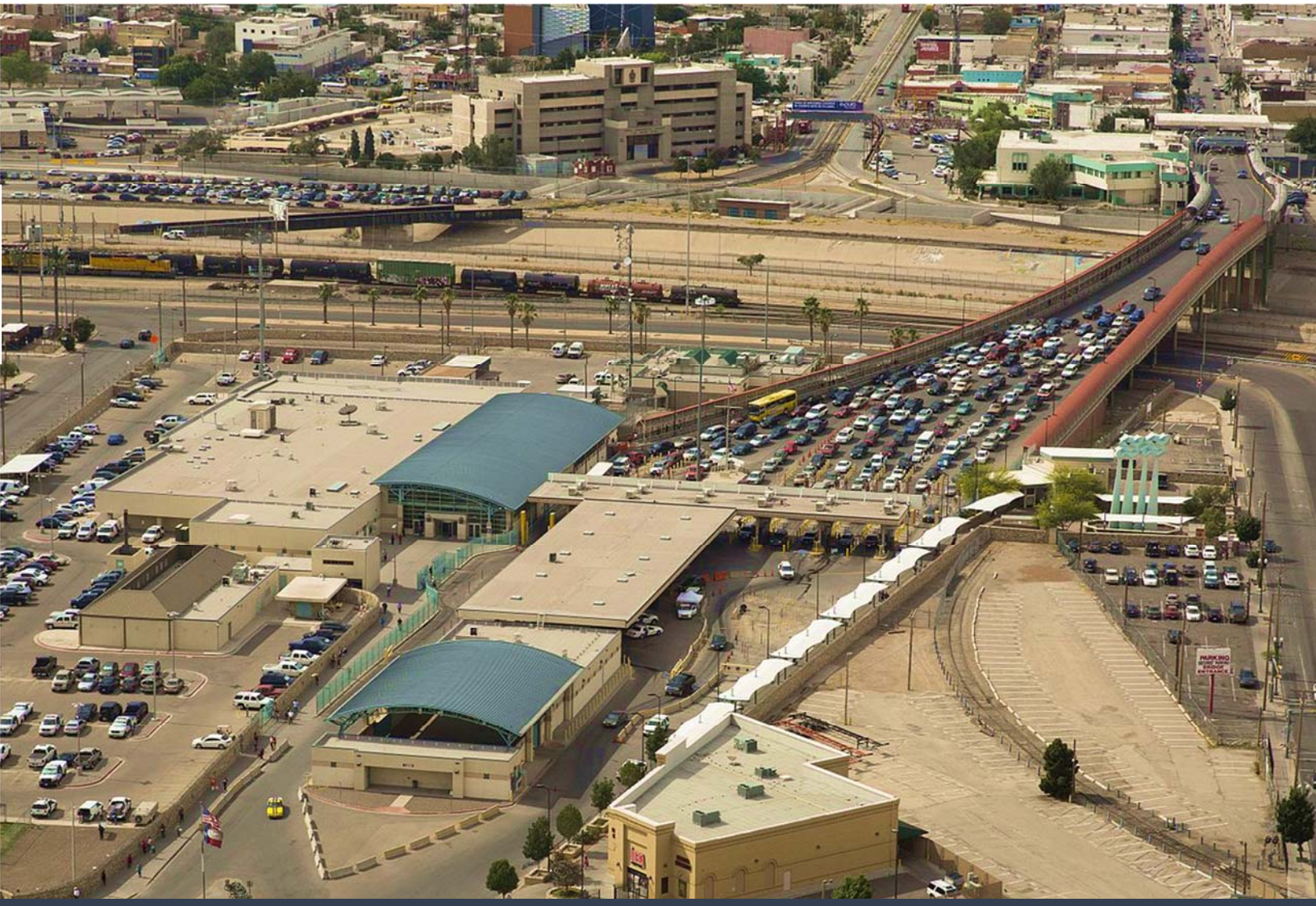

TACTICAL MAPPING OF BORDER SECURITY IMPACTS: EL PASO SECTOR

In Collaboration with the Hunt Institute

University of Texas at El Paso

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Executive Summary

The objective of the tactical mapping project was to build a comprehensive mapping of the impacts that border security deployments and regulatory changes have had on the social and economic conditions of communities in the El Paso Sector. The El Paso Sector counties include: the El Paso and Hudspeth counties in Texas; and the Doña Ana, Hidalgo, and Luna counties in New Mexico. The project team accomplished this objective through five tasks and four deliverables. Deliverable one included a review of previous mappings of social and economic impact of border security deployments. Deliverable two included collection and consolidation of historical baseline border security data. Deliverable three included collection of historical social, demographic, and economic data mapping. The final deliverable for the project was a reporting of the economic impact analysis. This report summarizes the findings of this investigation and is intended to inform and guide future analyses using the mapping tool developed by the project team for US Border Patrol.

Key findings for this briefing report are listed below:

- The data collected and depicted in this report show that "the prevention through deterrence" strategy announced in 1994 discouraged unauthorized migration flows as the number of illegal alien apprehensions at the southern border has decreased. Regulations and operational strategies have discouraged unauthorized migration flows as the number of illegal alien apprehensions at the southern border has continuously decreased since 2000 with a marked exception in 2019. The 2019 increase was attributed to factors arising outside the US, in particular from Central America, rather than from a shift in US Government policies.

- The illegal alien apprehensions by country of origin have shifted during the last two decades. While in 2000 the share of Mexican illegal apprehended migrants in the U.S. accounted for over 97% of total apprehensions, this percentage decreased to 20% in 2019. In the El Paso Sector, the share decreased from 99% in 2000 to approximately 8% in 2019. Total apprehended migrants from Guatemala, Honduras, Brazil, and El Salvador increased considerably in 2019 to approximately 85% of all apprehensions in the El Paso Sector.

- The demographic profile of illegal aliens apprehended has also shifted in recent years. In 2012, single adults made up 90% of the approximately 357,000 illegal alien apprehensions at the southern border, while members of family units accounted for 3%, and 7% were unaccompanied children.[1] By 2019, however, illegal apprehensions of persons in family units represented the largest share with approximately 474,000 apprehensions (56% of total illegal apprehensions), outnumbering all family unit apprehensions from 2012 to 2018 combined.

- The national origins of illegal alien apprehensions classified as family units have shifted as well on the southern border, with national origins changing from mostly Mexican (80%) in 2012 to mostly Salvadoran, Guatemalan, and Honduran (91%) in 2019.[2] Family unit apprehensions in the El Paso sector totaled 132,909 in 2019.

- El Paso Sector mapping counties are primarily sparsely populated and experience relatively low international inflows with the exception of Hudspeth County in Texas.

- Most of the mapping counties are undergoing negative domestic migration flows, except for Hudspeth, Texas, and Hidalgo, New Mexico.

- The following trends in the percent of the civilian, non-institutionalized population with public health coverage were observed: In Luna County, the percent increased from 55% in 2015 to 67% in 2018; in Hidalgo County, the percent increased from 53% in 2015 to 61% in 2018; in Doña Ana County, the percent increased from 44% in 2015 to 545% in 2018; in Hudspeth County, the percent decreased from 46% in 2015 to 44% in 2017 with a return to 47% in 2018.

- In El Paso County, in 2018, approximately 21% of the population were below the poverty level. However, the number of people below the poverty level in El Paso County decreased 7% from 189,000 in 2012 to 175,000 in 2018.

- In 2018, approximately 27% of the population in Doña Ana County were below the poverty level. Although the number of people below the poverty level in Doña Ana County decreased from 2017 to 2018, it has been on an upward trend since 2012.

- In El Paso County, the fertility rate has not changed much since 2010. In Hudspeth County, the fertility rate increased significantly from 2010 to 2013. Recently, however, the fertility rate in Hudspeth County decreased slightly. In Doña Ana County, the fertility rate has also remained relatively stable since 2010. In Hidalgo County, the fertility rate increased markedly from 2010 to 2011 and then decreased until 2015. In Luna County, the fertility rate has been increasing consistently since 2010.

- Educational attainment levels have remained relatively the same for the pilot mapping counties. However, educational attainment seems to be on the rise in El Paso County. In 2010, the bachelor's degree educational attainment, for the population 18 to 24 years old, was 3,617, while in 2018, it grew to 5,453. This is also true for Doña Ana County, where educational attainment levels grew from 1,667 in 2010 to 2,017 in 2018.

- In El Paso County, high school graduation levels are at the same level in 2018 that they were at in 2010. However, there has also been a 50% increase in those graduating with a bachelor's degree or higher in 2018 with respect to 2010.

- In El Paso County, graduation levels for those 25 years and over were much more diverse. In 2018, for the population over the age of 25, 23.9% graduated from high school and 23.1% completed some college but received no degree. That same year, a significant percent of the El Paso County population graduated with a bachelor's degree (15.3%). However, a significant percent have not completed high school (13.6%).

- In Hudspeth County, the population 18 to 24 years old primarily graduated with an associate degree or completed some college with 39% doing so, as of 2018. High school graduation levels were much higher in 2010 than in recent years. The percentage of those graduating from high school fell from 56% in 2010 to 29% in 2018.

- Since 1996, commercial border crossings have been on a downward trend, although they have increased consistently since 2011. The most common mode of transportation for non-commercial border traffic through the ports of entry in the El Paso Sector is via personal vehicle.

- Violent crimes in El Paso County historically increase when the economy is under performing. Between 2008 to 2010, for example, violent crimes in El Paso increased significantly compared to other years, and again between 2014 to 2015.

- The median household income for the El Paso Sector counties varied from 2010 to 2018 as follows: El Paso County increased from $36,000 in 2010 to $45,000 in 2018; Doña Ana County increased from $36,500 in 2010 to $38,000 in 2018; Hidalgo and Luna Counties remained essentially unchanged; Luna County $27,500 in 2010 to $27,000 in 2018; Hudspeth County increased significantly from $22,500 in 2010 to $30,000 in 2018.

- In 2018, a total of $32 billion in exports crossed the border through the El Paso Port of Entry, up from $17 billion in 2003. The Santa Teresa Port of Entry in Doña Ana County has seen a marked increase in exports from below $1 billion in 2003 to $12 billion in 2019.

- Total imports through the El Paso Port of Entry increased from $24 billion in 2003 to $45 billion in 2019. The Santa Teresa Port of Entry sees slightly more imports than exports with, total imports of $22 billion in 2019. The Columbus Port of Entry does not see much commercial traffic.

- Traffic flow through the El Paso Port of Entry is 80% personal vehicles. Many residents of El Paso County and Ciudad Juárez have employment on the opposite side of the border thus necessitating twice daily crossings accounting for a significant amount of personal vehicle trans-border flow.

- Non-commercial traffic includes all the passengers that cross the border. This includes personal vehicles, train and bus passengers, and pedestrians. Most of non-commercial traffic involves personal vehicle passengers as they cross the border daily to visit family, to go to work, or to visit retail outlets across the border in El Paso County.

- The Department of Homeland Security spent $1.22 billion in fiscal year 2019 in the five counties of the El Paso Sector. The process, physical distribution, and logistics consulting services industry dominated El Paso Sector's border security-related contracting with 47% of the total value of contracts awarded.

- In fiscal year 2019, El Paso Sector generated about 24,498 jobs in total, the total economic output was about $2.15 billion, the added annual household income was about $0.87 billion, and the value added was about $1.13 billion.

- The Investigation and Security Services industry generated the highest number of jobs of 7,390 in the El Paso Sector with a total contract value of about $339.31 million.

- The Management Consulting Services industry generated the highest total economic output of $584.79 million in the El Paso Sector with a total contract value of about $569.77 million.

Introduction

The objective of the tactical mapping project was to build a comprehensive mapping of the impacts that border security deployments and regulatory changes have had on the social and economic conditions of communities in the El Paso Sector. These communities are located in the El Paso and Hudspeth counties in Texas, and the Doña Ana, Hidalgo, and Luna counties in New Mexico. The mapping is intended to serve a tactical purpose as a decision support tool to optimize the policy and resource deployment for Customs and Border Protection (CBP) and the U.S. Border Patrol (USBP) in order to assist with the safeguarding of the southern U.S. border around and between ports of entry. The project team collected and depicted data in context with border security deployments at the national level and for the El Paso Sector. The historical baseline border security deployments and events data are summarized in Table 1 below.

Table 1. Historical Baseline Border Security Deployments and Events

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Infrastructure					
a. Physical	Miles of Pedestrian and Vehicle Barrier	Southern Border States	2018	2019	FY
	Miles of Primary Barrier Construction	Southern Border States	1960	2018	FY
	Cumulative Miles of Primary Barrier Construction	Southern Border States	1960	2018	FY
b. Non-Physical	Border Barrier Funding	Southern Border States	2007	2016	FY
	Border Barrier Infrastructure Funding	El Paso Sector Nationwide	1992	2019	FY
B. Personnel Deployment					
	U.S. Border Patrol Fiscal Year Staffing	El Paso Sector Nationwide	1992	2019	FY
C. Regulatory Changes Regarding Migration and Border Security					
	Restrictive Immigration Legislation Enacted by Congress	Nationwide	1986	2010	FY
	Restrictive Enforcement Operations Launched by INS or DHS	Nationwide	1993	2010	FY

Note: *FY stands for Fiscal Year, October 1 through September 30.*

The historical baseline for border security deployments and events data is presented in three main categories. Infrastructure, the first main category, is split into physical and non-physical infrastructure. Physical infrastructure includes pedestrian and vehicle barrier mileage, and primary barrier construction mileage, while non-physical infrastructure includes border barrier funding. Publicly available data provided by the Department of Homeland Security (DHS) is the primary source for this data. The second category includes personnel deployment as reported in publicly available documents by the U.S. Border Patrol. The third category includes the regulatory changes regarding migration and border security data from sources in the public domain. In addition to the breakdown of the historical baseline border security deployments and events main categories and sub-categories, Table 1 provides the geographic jurisdiction, the earliest and latest data points, and data frequency. Also included are indicators for the following categories: migration (Table 2); social and demographic (Table 3); public health (Table 4); education (Table 5); cross border flows through ports of entry (Table 6); crime (Table 7); and economic (Table 8).

Table 2. Migration Indicators

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Immigration					
a. Domestic	Domestic Migration Inflows	County	2010	2017	5 Years
	Domestic Migration Inflows, Top 20 Counties	County	2010	2017	5 Years
b. International	Immigrants Obtaining Lawful Permanent Resident Status	El Paso MSA Nationwide	2003 1990	2018 2018	FY FY
	Immigrants Obtaining Lawful Permanent Resident Status by Type and Major Class of Admission	El Paso MSA Nationwide	2000	2018	FY
	Immigrants Obtaining Lawful Permanent Resident Status by Country of Birth	El Paso MSA Nationwide	1989	2018	FY
	International Migration Inflows	County	2010	2017	5 Years
B. Outmigration					
a. Domestic	Domestic Migration Outflows	County	2010	2017	5 Years
	Domestic Migration Outflows, Top 20 Counties	County	2010	2017	5 Years
b. International	Data Not Available				
C. Net Migration					
	Net Migration Flows	County	2010	2017	5 Years
D. Illegal Alien Apprehensions and Removals					
a. Total Illegal Alien Apprehensions	Total Illegal Alien Apprehensions	El Paso Sector Nationwide	2000 1925	2019 2019	FY FY
	Total Illegal Apprehensions by Country of Origin	El Paso Sector Nationwide	2007	2019	FY
	Total Illegal Alien Apprehensions, Top 10 Countries	El Paso Sector Nationwide	2007	2019	FY
	ICE Removals by Criminality	El Paso Sector Nationwide	2017	2019	FY
b. Illegal Alien Apprehensions from Mexico		El Paso Sector Nationwide	2000	2019	FY
c. Illegal Alien Apprehensions from Countries other than Mexico		El Paso Sector Nationwide	2000	2019	FY
d. Total Family Unit Apprehensions		El Paso Sector Nationwide	2013	2019	FY
e. Total Unaccompanied Alien Children Apprehensions		El Paso Sector Nationwide	2010	2019	FY

Note: *FY stands for Fiscal Year, October 1 through September 30.*

Table 3. Social and Demographic Indicators

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Population	Total Population by County	County	1969	2018	Y
a. By Age and Gender	Population by Age and Gender	County	2010	2018	Y
b. By Race and Ethnicity	Population by Race and Ethnicity	County	2010	2018	Y
c. By Language Spoken	Population by Language Spoken	County	2010	2018	Y
B. Population Below the Federal Poverty Level					
	Population below Poverty Level by County	County	2012	2018	Y
C. Poverty Rate					
	Population below Poverty level by County (%)	County	2012	2018	Y
D. Fertility Rate					
	Fertility Rate by County (%)	County	2010	2018	Y
	Fertility Rate, Distribution by Different Age Ranges (%)	County	2010	2018	Y

Source: *Created by the Hunt Institute.*

Table 4. Public Health Indicators

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Access to Health Services					
	Access to Health Services	County	2011	2020	Y
	Public Coverage of Civilian Noninstitutionalized Population (%)	County	2015	2018	Y
B. Maternal Infant and Child Health					
	Infant Mortality Rate by County (%)	County	2014	2020	Y
C. Physical Activity, and Obesity					
	Population with Adequate Access to Locations for Physical Activity by County (%)	County	2014	2020	Y
	Population (Age 20 and Older) that Reports a Body Mass Index (BMI) Greater than or Equal to 30KG/㎡ by County (%)	County	2011	2020	Y
D. Life Expectancy					
	Life Expectancy	County	2019	2020	Y
E. Substance Abuse					
	Drug Use Disorders Mortality Rate by County (%)	County	1980	2014	5Y

Source: *Created by the Hunt Institute.*

Table 5. Education Indicators

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Educational Attainment					
	Educational Attainment, Population 18 to 24 Years Old (%)	County	2010	2018	Y
	Educational Attainment, Population 25 Years and Over (%)	County	2010	2018	Y
B. Graduation Rates	Graduation Rates for Population 18 to 24 Years Old and 25 years and over	County	2010	2018	Y
a. College					
b. High School					
c. Middle School					
d. Elementary School					
C. Enrollment Rate	Student Enrollment Rate at School by County (%)	County	2010	2018	Y
a. College					
b. High School					
c. Middle School					
d. Elementary School					
D. Education Spending as a Share of County Gross Domestic Product					
	Education Spending as a Share of County Gross Domestic Product (%)	County	2010	2017	Y

Source: *Created by the Hunt Institute.*

Table 6. Cross Border Flows Indicators by Ports of Entry

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Exports					
	Total Exports by Port of Entry, USD Billion	County	2003	2019	Y
B. Imports					
	Total Imports by Port of Entry, USD Billion	County	2003	2019	Y
C. Commercial Border Traffic through Port of Entries					
	Trains	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
	Rail Containers Full/Empty	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
	Truck Containers Full/Empty	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
	Trucks	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
D. Non-Commercial Border Traffic through Ports of Entry					
	Buses	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
	Personal Vehicles	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
E. Pedestrians and Passengers Border Traffic through Ports of Entry					
	Train Passengers	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
	Bus Passengers	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
	Pedestrians	El Paso/Santa Teresa/Columbus PoE	1996	2019	M
	Personal Vehicle Passengers	El Paso/Santa Teresa/Columbus PoE	1996	2019	M

Source: *Created by the Hunt Institute.*

Table 7. Crime Indicators

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Violent Crimes	Violent Crimes by County	County	2004	2018	Y
a. Rapes					
b. Murder and Non-negligent Manslaughter					
c. Robbery					
d. Aggravated Assault					
B. Property Crime	Property Crime by County	County	2004	2018	Y
a. Burglary					
b. Motor Vehicle Theft					
c. Larceny Theft					
d. Arson					
C. Burglary					
	Property Crime by County	County	2004	2018	Y
D. Motor Vehicle Theft					
	Property Crime by County	County	2004	2018	Y

Source: *Created by the Hunt Institute.*

Table 8. Economic Indicators

Proposal	Measurement	Location	Start Date	End Date	Frequency
A. Median Income					
	Median Household Income by County, USD	County	2010	2018	Y
B. Labor					
a. Farm Jobs	Farm Employment by County	County	2001	2018	Y
b. Non-farm Jobs	Non-Farm Employment by County	County	2001	2018	Y
C. Wages					
	Per Capita Personal Income by County, USD	County	1969	2018	Y
D. Job Concentration by Industry					
	Top Job Concentration by Industry (NAICS Code) by County	County	2001	2018	Y
E. Number of Establishments					
	Number of Establishments by County	County	2001	2018	Y
F. Business Confidence Index					
	Business Cycle Index	El Paso MSA	1981	2019	M
	Business Confidence Index	Nationwide	1981	2019	M
G. New Construction Permits					
	Total New Construction Permits by County	County	1990	2018	Y
H. Property Value					
	Property Value by County	County	2010	2018	Y
I. Public Spending					
	Public Spending by County	County	2008	2019	Y

Source: *Created by the Hunt Institute.*

The project team collected data to create the Historical Baseline and Socio-Economic Data indicator mapping for pilot mapping counties within the El Paso Sector. The pilot mapping counties include Hidalgo, Luna, and Doña Ana counties in New Mexico, and El Paso and Hudspeth counties in Texas. First, the project team created a map to illustrate the location of these counties. Then, the project team gathered population data for these counties by age and gender from 2010 to 2018. Population data by race and ethnicity, and by language, was also collected for the pilot mapping counties. Lastly, the project team collected population data for those under the federal poverty level, the poverty rate, and the fertility rate.

I. Historical Baseline Border Security Deployments

The United States Border Patrol (*USBP*) began to implement the "prevention through deterrence" strategy in 1994 to provide additional infrastructure, deploy new equipment/technology and increase the number of *USBP* agents along the U.S. southern border. This strategy was a multi-year project launched by the U.S. Attorney General and the Immigration and Naturalization Service (*INS*) to increase border enforcement actions at popular points of entry in Arizona, California, New Mexico, and Texas. Broadly, this strategy was divided into two phases. Its initial phase involved targeting areas with the largest number of unauthorized crossers and the least amount of control, while its second phase involved maintaining control in San Diego (CA), Nogales (AZ), and El Paso (TX) Border Patrol sectors. These enforcements by *INS* during the 1990s resulted in more physical and non-physical border infrastructure as well as more personnel deployments.

After the terrorist attacks of September 11, 2001 and the advent of *DHS*, Operation ENDGAME, also known as the "Office of Detention and Removal Strategic Plan for 2003-2012," provided a cohesive enforcement program for building the capacity to "remove all removable aliens" by eliminating the backlog of expected final order removals cases within ten years.[5] Operation ENDGAME was a crucial operation following the "prevention through deterrence" strategy of the 1990s.[6]

This section provides a collection and depiction of data from governmental sources concerning the historical baseline border security deployments and events indicators in Table 1. The infrastructure section is split into physical and non-physical infrastructure. For physical infrastructure, data for mileage of pedestrian and vehicle barrier by southern border states are collected and depicted as well as miles of primary barrier construction. For non-physical border infrastructure, data on southern border barrier funding for the U.S. is provided while for that of El Paso Sector is estimated. Another section includes the Border Patrol personnel deployments, provided at the national level and for the El Paso Sector since 1992. Lastly, this section depicts a summary of regulatory changes regarding migration and border security retrieved from Task 1.

A. Infrastructure

This section provides a collection and depiction of data for the physical and non-physical border infrastructure from publicly available governmental sources. First, the report provides data for the mileage of pedestrian and vehicle barrier by southern border state for 2018 and 2019 as well as new primary barrier-built and accumulated data since 1960. Then, for non-physical border infrastructure, the Institute gathered publicly available data on southern border barrier funding and estimated its funding for the El Paso Sector.

1. Physical Infrastructure

Physical barriers were first built along the southern border in the mid-1990s as part of the *INS "*prevention through deterrence" strategy. A key feature of this strategy was not only the concentration of personnel, and surveillance technology on the southern border, but also the construction of physical barriers to discourage unauthorized flows.[7] Total primary barrier often refers to pedestrian primary barrier and vehicle barrier. Pedestrian primary barrier is located right on the border and involves steel fencing while

pedestrian secondary barrier can be seen a few meters away from the pedestrian primary barrier to further discourage unauthorized border crossings.

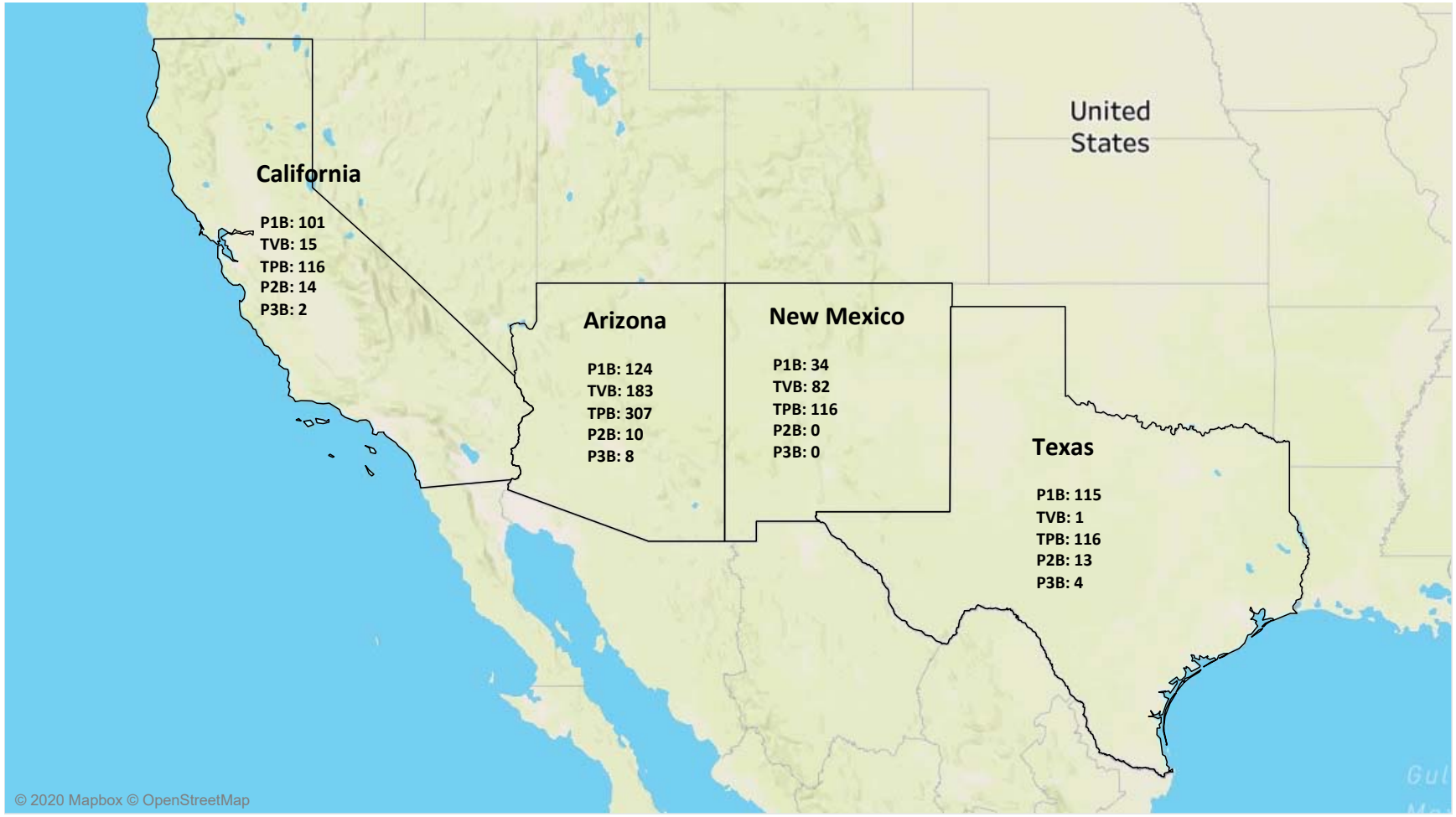
The construction of these physical border barriers was largely driven by legislative initiatives by Congress and each administration starting in the 1990s. In 1996, for example, Congress passed the Illegal Immigration Reform and Immigrant Responsibility Act (*IIRIRA*), which provided specific authorization for the construction of these physical border barriers, and again, in 2006, with the Secure Fence Act (*SFA*). These legislative initiatives were eventually superseded, however, by legislation included in the consolidated Appropriations Act of 2008. This law amended provisions previously established in the *IIRIRA,* replacing most of the *SFA* as well.

From 2006 to 2008, the Bush administration built the most significant portion of physical border barriers with the construction of 124 miles of primary barrier in the El Paso Sector. The Obama administration also added to the construction of new physical border barriers but none for the El Paso Sector. The Trump administration has not added to the number of miles of border barrier along the southern border.[8]

As of 2018, approximately 33% of the estimated 1,991-mile southern border was covered by Total Primary Barrier (TPB) which includes Primary Pedestrian Barrier (P1B) and Total Vehicle Barrier (TVB).[9] Map 1 depicts these barriers as of 2019 in the southern border states in the following grouping:

1. Pedestrian Primary Barrier (P1B)
2. Total Vehicle Barrier (TVB)
3. Total Primary Barrier (TPB) includes Pedestrian Primary Barrier (P1B) and Total Vehicle Barrier (TVB).
4. Pedestrian Secondary Barrier (P2B)
5. Pedestrian Tertiary Barrier (P3B)

Map 1. Pedestrian and Vehicle Barrier in U.S. States on the Southern Border, Miles



Source: *U.S. Customs and Border Protection.*
Note: Data as of September 30, 2019.
P1B (Pedestrian Primary Barrier): Runs directly along the border and is intended to prevent crossings on foot.
TVB: Total Vehicle Barrier.
TPB: Total Primary Barrier includes Pedestrian Primary Barrier (P1B) and Total Vehicle Barrier (TVB).
P2B (Pedestrian Secondary Barrier): Runs behind the pedestrian primary barrier, usually separated by a patrol road that allows Border Patrol to monitor the area between fences.
P3B (Pedestrian Tertiary Barrier): Runs behind the pedestrian secondary barrier, intended to prevent crossings on foot.

In 1994, the previously described "prevention through deterrence" strategy aimed at fortifying popular points of entry to deter illegal crossings directly at the border. This would help the *USBP* obtain a tactical advantage by rerouting unauthorized activity to less urbanized areas along the U.S.-Mexico border that were easier to survey and control. Unauthorized entry increased following the start of the strategy and peaking around 2001, remaining largely consistent with pre-1994 levels for much of the following decade. Boyce suggested that the lack of access and infrastructure also generates everyday tactical and logistical challenges for boundary enforcement personnel. According to the author, the following are a series of investments the *USBP* made in technology designed to facilitate remote detection of unauthorized movement:[10]

1. The Integrated Computer-Aided Detection System (ICAD: 1989-1994)
2. ICAD II (1994-1998)
3. The Integrated Surveillance Intelligence System (ISIS: 1998-2004)
4. The America's Shield Initiative (Rebranding of ISIS, ASI: 2004-2006)
5. The Secure Border Initiative Network (*SBInet*: 2005-2010)
6. The Arizona Border Surveillance Technology Plan (2011-Present) [11]

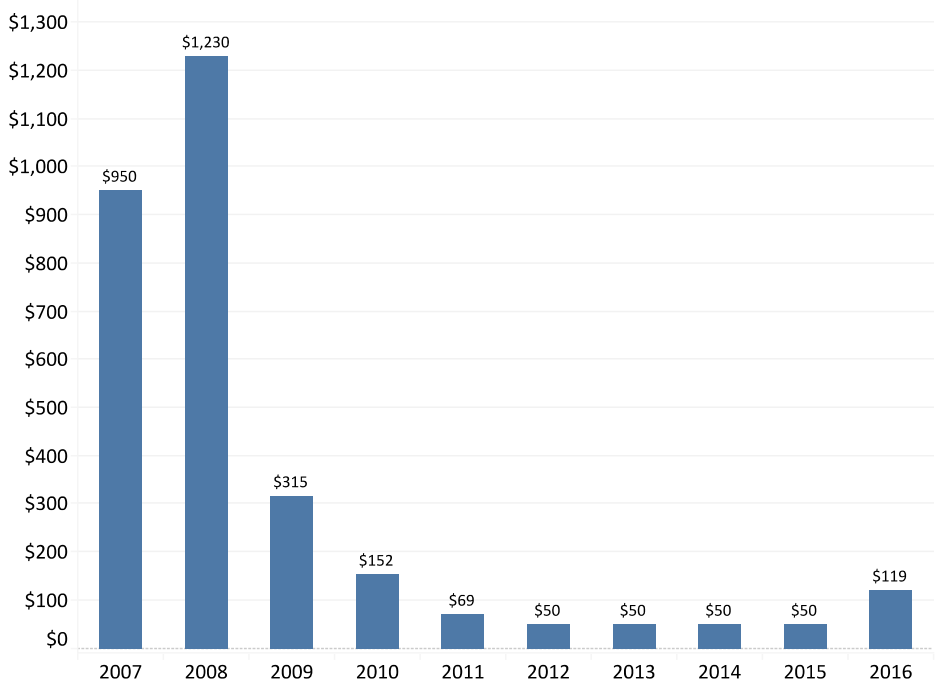
From 1998-2006, $239 million was spent on the *ISIS* system, which involved the installation of a series of integrated ground sensors that would network into central dispatch and control centers.[12] However, more than 90% of the responses to sensor alerts resulted in false alarms, something other than illegal alien activity, such as local traffic, outbound traffic, a train, or animals. In 2006, *DHS* discontinued *ISIS* and contracted with Boeing Corporation to launch the Secure Border Initiative (*SBI*), including its surveillance component, *SBInet*. The *SBInet* program attempted to deal with the shortcomings of some of the previous systems (*ICAD* and *ISIS*). The *SBInet* program was a state-of-the-art system of systems, a virtual fence that integrateed artificial intelligence capabilities with existing ground sensors, fixed camera towers coupled with infrared, high-resolution imaging capacity, motion detecting ground radar, and communications equipment. After the cancellation of *SBInet* in January 2011, *CBP* developed the Arizona Southern Border Surveillance Technology Plan, which included a mix of radars, sensors, and cameras to help provide security for the Arizona border. The three highest-cost programs under this new plan were the integrated fixed tower, remote video surveillance systems, and mobile surveillance capability, accounting for 97 percent of the estimated costs for the plan.[13]

The Trump administration has driven the recent trend of border barrier construction. On January 25, 2017, for example, the administration issued Executive Order 13767, titled "Border Security and Immigration Enforcement Improvements." This executive order, particularly Section 2(a), stated that it is the policy of the Executive Branch to "secure the southern border of the United States through the immediate construction of a physical wall on the southern border, monitored and supported by adequate personnel so as to prevent illegal immigration, drug and human trafficking, and acts of terrorism," though no new miles of border barrier have been built during this administration.[14]

2. Non-Physical Infrastructure

Federal border barrier investment historical data are not available for years prior to 2007 and for years after 2016. According to the Congressional Research Service (*CRS*), "the evolving structure of the appropriations for agencies charged with protecting the border and account structure has shifted, initiatives have come and gone, and appropriations typically have not specified a precise level of funding for barriers as opposed to other technologies that secure the border." [15] Starting in fiscal year 2007 and continuing through fiscal year 2016, the Border Security Fencing, Infrastructure, and Technology appropriation (*BSFIT*) included border barrier funding for the southern border. When this appropriation was established in the *DHS* Appropriations Act of 2007, it consolidated border technology and tactical infrastructure funding from other accounts, including *CBP*'s construction appropriation and salaries and expenses appropriations.[16]

Figure 1. U.S. Southern Border Barrier Funding by Fiscal Year, USD Million



Source: *U.S. Customs and Border Protection.*

Figure 1 above shows southern border barrier funding data from 2007 to 2016. Congress provided approximately $1.5 billion for *BSFIT* activities from 2007 to 2016 for border infrastructure. This border infrastructure, such as funding for design and construction, other than at ports of entry, is now included in the Border Security Assets and Infrastructure Programs, Projects, and Activities (*PPA*) along with several other activities.[17] In March 2017, the Trump administration submitted a supplemental appropriation request for a variety of priorities, including *CBP* staffing and border wall construction. The request included additional *CBP* Procurement, Construction, and Improvements (*PC&I*) funding of $1.38 billion, of which $999 million was for the planning, design, and construction of the first installment of the border wall. [18] In 2018, the Trump administration requested $1.72 billion that included $1.57 million for construction of border barriers. In the 2018 appropriations for *DHS*, Congress provided $1.74 billion which included funding for over 90 miles of physical barrier construction along the southern border. This

included replacement and levee improvements. Section 230 of the Bill specified $1.375 billion for the following activities under the *CBP PC&I* appropriations.

- $445 million for 25 miles of primary pedestrian levee fencing in Rio Grande Valley Sector
- $196 million for primary pedestrian fencing in the Rio Grande Valley Sector
- $251 million for secondary replacement fencing in the San Diego Sector
- $445 million for replacement of existing primary pedestrian fencing
- $38 million for border barrier planning and design

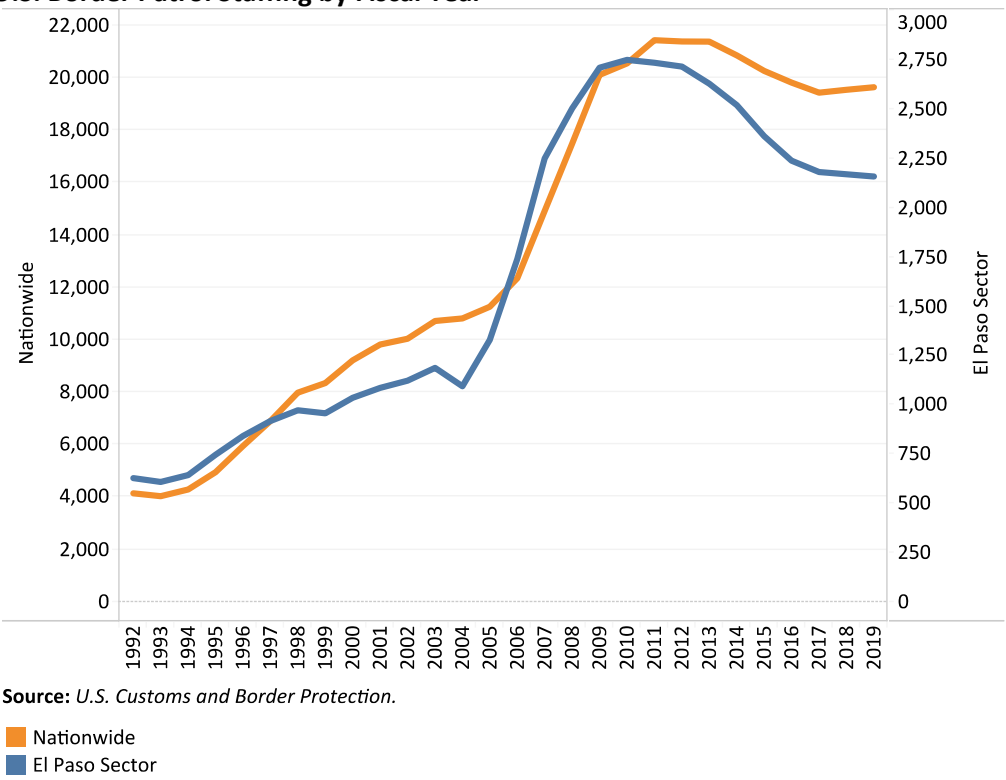
In 2019, the Trump administration requested $1.647 billion for the Border Security Assets and PPA. Later, in February 2019, the administration requested an additional $5 billion in border barrier funding for 2020 to continue to support the construction of approximately 206 miles of border wall system. However, the 2020 DHS Appropriations Act only appropriated $1.375 billion for "construction of barrier system along the southern border."[19]

As the *CBP* border barrier infrastructure funding is only publicly available for operations at the national level, the Hunt Institute estimated that funding for the El Paso Sector. The estimation is based on the proportion of agent deployments in El Paso relative to the nationwide agent deployments applied to national funding. The average share of these three years was used for the 2020 estimates. The table below illustrates the nationwide data and the El Paso Sector estimates for border infrastructure funding.

B. Personnel Deployment

The *USBP* "prevention through deterrence" strategy of the 1990s resulted in a large assignment of border patrol agents to the southern border. The number of *USBP* personnel deployed to the southern border has been increasing since the early 1990s. In 1992, for example, there were 3,555 agents deployed assigned to the southern border. By the year 2000, that number was 8,580. Since that year the number of agents in the southern border continued to increase to approximatly 17,500 agents by 2009.[20] This strategy made border crossing much more challenging and expensive for unauthorized immigrants. However, the total number of aliens apprehended increased from 1994 to 2000 even as the number of personnel and resouces deployed along the border more than doubled. According to *CRS*, "it is possible that the increased presence of agents and resources stationed on the border led the *USBP* to apprehend more unauthorized aliens, accounting for the increase in apprehensions."[21] The "prevention through deterence" strategy was successful in increasing the number of apprehensions and keeping them at a steady level afterwards.

Figure 2. U.S. Border Patrol Staffing by Fiscal Year



Source: *U.S. Customs and Border Protection.*

After the terrorist attack of September 11, 2001 and the creation of the *DHS*, the *USBP* personnel deployment markedly increased. The *USBP* personnel stationed in the El Paso Sector have historically made up 13% of nationwide *USBP* personnel, currently accounting for approximately 11%. Recently, and particularly after 2011, the number of *USBP* personnel in the El Paso Sector has decreased as Figure 2 shows. The following section reviews significant regulatory changes that have resulted in *USBP* personnel deployment trends aforementioned, in particular, legistlative initiatives and resulting strategic operations.

C. Regulatory Changes Regarding Migration and Border Security

In 1994, the U.S. attorney general and commissioner of the Immigration and Naturalization Service (*INS*) announced a multi-year strategy to strengthen the enforcement of immigration laws and to close the corridors known for unauthorized immigration crossings along the southern border. This strategy was a way for the *INS* to manage the border ensuring that those attempting to cross illegally would be prevented, while those crossing legally would encounter minimal delays at ports of entry.[22] A key feature of the strategy was the concentration of personnel, surveillance technology, fencing, and other infrastructure directly on the border to discourage unauthorized flows. Overall, the number of *USBP* agents increased from 3,444 in 1993 to 6,315 by 1997 at southern border.[23] Additionally, these new agents were utilizing bold new tactics.[24] According to the U.S. Office of National Drug Control Policy in 1994, as part of the *USBP* "prevention through deterrence" strategy, personnel deployments were placed on the front-line of the border in a deterrent position. Additional agents were positioned close to the border to apprehend those who might get through. As a result, the flow of illegal immigrants was disrupted and reduced in the targeted areas.[25] The strategy had four phases that included *USBP* sectors with the highest levels of unauthorized migrant activity:

1. Phase I: San Diego and El Paso sectors
2. Phase II: Tucson, Del Rio, Laredo, and McAllen sectors
3. Phase III: El Centro, Arizona, and Marfa sectors
4. Phase IV: The Northern Border, Gulf Coast, and Waterways

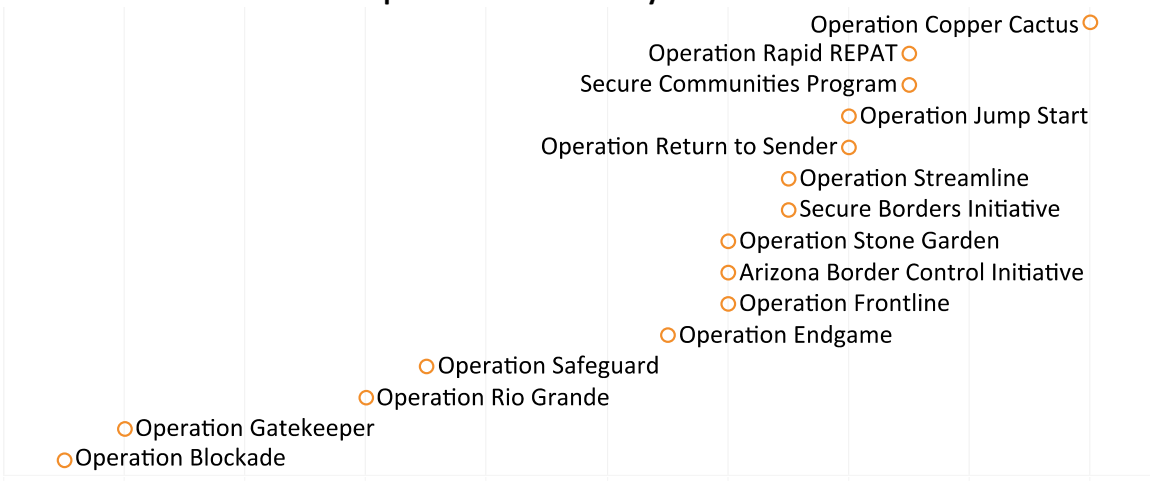
The strategy resulted in increased apprehensions by placing personnel and resources strategically on the border in a coordinated effort to regain and maintain control of key points on the border.

Past legislative initiatives significant to border security enforcement actions and immigration, which were presented in the first briefing report, are depicted in this section. Figures 3 and 4 below illustrate the mapping of significant baseline enforcement actions.

Figure 3. Restrictive Immigration Legislation Enacted by Congress

Source: *Created by Hunt Institute.*

Figure 4. Restrictive Enforcement Operations Launched by INS or DHS



Source: *Created by Hunt Institute.*

Operation Blockade

As Border Patrol Sector Chief for El Paso in 1993, Silvestre Reyes employed a strategy for "Operation Blockade" (later renamed to "Operation Hold the Line") by stationing hundreds of Border Patrol agents along a 25-mile stretch of the border between El Paso and Ciudad Juárez. This program and its success led to other sectors adopting similar approaches in the years that followed, such as "Operation Gatekeeper" in San Diego, and "Operation Safeguard" in Tucson. Operation Hold the Line in El Paso took advantage of specific crossing patterns and El Paso's flat terrain by placing agents in highly visible positions. Agents were placed 100 feet apart across downtown El Paso to deter illegal crossings. The *INS* detailed 54 agents to the El Paso Sector in 1994 and an additional 50 agents in 1995 to help support the operation. Since the launch of Operation Hold the Line, the flow of illegal immigrants in the El Paso area was substantially reduced by nearly 50%, from a high in 1993 when more than 285,000 apprehensions were made, to approximately 145,000 apprehensions in 1996.[26]

Operation Gatekeeper

On October 1, 1994 Operation Gatekeeper was initiated in the San Diego Sector. A principal element of this strategy was a significant increase in personnel deployments as well, particularly at the Imperial Beach station. The new strategic plan at Imperial Beach called for three tiers of agent deployments. The first tier was deployed in fixed positions along the border and had "prevention, apprehension, and observation" as its main objectives.[27] The second tier was located further north and consisted of apprehending any unauthorized immigrants that made it past the first-tier agent deployment. The third tier was charged with apprehending any traffic that penetrated the first and second tier agent deployments. Given Operation Gatekeeper's deterrence emphasis, many agents were assigned to first-tier, fixed positions along the border. Agents were instructed to advise their colleagues in the next tier north of any alien traffic moving in their direction and were instructed to remain in their assigned positions rather than chase alien traffic passing through adjacent areas. Prior to Operation Gatekeeper, such stationary positions were relatively rare.[28] The goal of Operation Gatekeeper was to shift unauthorized immigrant traffic away from the 14-mile stretch in San Diego, which provided easy access to transportation northward, to areas in the mountains that were difficult to cross.

Operation Rio Grande

In July 1997, Operation Rio Grande was initiated in the Rio Grande Valley Border Patrol Sector and expanded the control of the Brownsville area. It divided Texas and New Mexico into three main corridors that encompassed five *USBP* sectors in McAllen/Laredo, Del Rio/Marfa and El Paso.[29] It was designed to meet the challenges along the different areas of the border throughout Texas and New Mexico.[30] In 1997, the *USBP* personnel deployments in Texas and New Mexico increased by 53% to approximately 2,700 from 1,756 in 1993. Prior to Operation Rio Grande, *INS* deployed new equipment and technology in Texas starting in 1993 and continued through Operation Rio Grande. This new technology included low-light television monitors, night vision equipment, night scopes, sensors, and encrypted radios, for example, which enabled field managers to more effectively apprehend and accurately track the crossing patterns of illegal entrants. The new technology allowed *USBP* to develop tactics that utilize their personnel more effectively and help the line agents accomplish their mission.

Operation Safeguard

Once border enhancements were made to El Paso and San Diego sectors, *INS* anticipated that unauthorized immigrant traffic would be pushed east of San Diego, leading to Border Patrol launching Operation Safeguard in Arizona in 1995. This operation redirected illegal border crossings away from urban areas near the Nogales port of entry to more open areas that the Border Patrol could more effectively control. This operation enabled the Border Patrol to take advantage of the new equipment and

technology that was provided along with increased manpower to make apprehensions in areas where illegal entrants were more visible. Due to the progress made in San Diego, El Paso, and Nogales, there was a shift in the traditional traffic patterns of illegal immigration on the border. The increased control in these areas created new challenges for *INS* as illegal immigrants and alien smugglers tried to find new routes of entry.

Operation ENDGAME

Operation ENDGAME is formally known as the multi-year strategic enforcement plan by the Immigration and Customs Enforcement (*ICE*) and the Office of Detention and Removal (*DRO*). This strategy was initiated in 2003 to 2012 and it "stresses the effective and efficient execution of the critical service *DRO* provides its partners and stakeholders to enforce the nation's immigration and naturalization laws."[31] After the September 11, 2001 terrorist attacks, the USBP re-evaluated its priorities to prevent terrorist penetration, while remaining committed to its traditional duties of preventing the illicit trafficking of people and contraband between official ports of entry. After the creation of *DHS* in 2003, *USBP* was directed to formulate a new National *USBP* Strategy that would reflect the realities of the post September 11, 2001 security landscape. The *DRO* strategic plan set forth a cohesive enforcement program with a ten-year time horizon that built the capacity to "remove all removable aliens," and eliminated the backlog of unexecuted final order removal cases.

The following systems were installed during the "prevention through deterrence" strategy of the 1990s and were expanded during operation ENDGAME and other *USBP* enforcement actions. These systems are an ongoing part of *USBP* efforts to control the border, but they are not directly related to border enforcement operations previously discussed.

IDENT

The *IDENT* system is a biometric identification system that uses fingerprints to identify any criminal alien attempting to re-enter the U.S., whether the alien has a criminal record or has previously been removed from the U.S. This system was originally the fingerprint border control system established in the mid-1990s. Installation of the *IDENT* system by INS began in 1995. Currently, *IDENT* systems have been installed at ninety-seven sites along the southern border. Since installation of *IDENT* at El Paso Sector's Paso del Norte port of entry, there has been a sharp increase in the apprehension of repeat offenders attempting to re-enter the U.S. after removal. This system was later expanded in 2003 and made operational in 2004 as the *US-VISIT* system. When armed with this biometric information, the *CBP and USBP* work with U.S. attorneys to prosecute aliens unlawfully present in the U.S. after previous immigration violations. It also helps *INS* in strategy development by tracking the number of aliens attempting to illegally re-enter the country. The usefulness of this system does not stop at the border, however, as *INS* district offices use the system to identify repeat offenders using fraudulent documents at ports of entry as well as to identify aliens it encounters in investigative operations.

CADRE/ Sensor Deployment

The *CADRE* system is a Windows-based computer network that analyzes sensor data and is connected to a dispatch system. The system also allows *USBP* sectors to analyze sensor data to see crossing patterns. These sensors were buried along the border at suspected crossing locations to allow agents to cover a wider area. Border Patrol stations are alerted when the sensors are set off and line agents are then notified. The information obtained from the sensors in the detection of migrant crossing groups is enhanced when coupled with the *CADRE* system. In the El Paso Sector, where the number of sensors increased from 788 in 1995 to the current level of

approximately 1,328, *CADRE* sensors increase the response rate to sensor "hits" by tracking the number of agents available and providing information that increases the efficient use of these agents in the field. The *INS*, by the end of 1997, had installed 8,272 sensors along the southern border. [32]

ENFORCE

The *ENFORCE* system allowed *INS* to automate the preparation of paperwork used by *INS* agents to process immigration violations. Prior to *ENFORCE*, the paperwork for immigration cases, prepared by hand, often took more than two hours per case to complete. This automation reduced the processing time to less than 30 minutes. This system is used to print the necessary forms for hearings and other actions. It supports a more streamlined and efficient business process and includes a biometric interface with the *IDENT* system, allowing *INS* to capture photographs and perform fingerprint matching functions during a single procedure. The *ENFORCE* system is currently in place in the El Paso Sector at the ports of entry and was later installed in the Rio Grande Valley Sector. The El Paso Sector was selected as the prototype location for marrying IDENT with *ENFORCE,* to increase the proficiency in tracking immigration and criminal records of detainees and facilitating the detention and repatriation of illegal entrants.

Operation Frontline

After 2004, U.S. Immigration and Customs Enforcement (*ICE*) initiated Operation Frontline with the mission of addressing potential vulnerabilities in immigration and trade systems relative to the national security to the U.S.

Secure Border Initiative

In 2005, *DHS* announced the Secure Border Initiative, which was a multi-year program aimed at reducing illegal immigration. The *SBInet* program was touted as a state-of-the-art system with a virtual fence that integrated artificial intelligence capabilities with existing ground sensors, fixed camera towers coupled with infrared, high-resolution imaging capacity, motion detecting ground radar, and communications equipment. This program was meant to provide an outline for integrating essential border security components. The Secure Border Initiative included a program component called *SBInet* and it was responsible for integrating personnel, infrastructure, technologies, and rapid response capability into the comprehensive border protection system. [33]

Arizona Border Control Initiative

After the cancellation of *SBInet* in January 2011, *CBP* developed the Arizona Border Surveillance Technology Plan, which also included a mix of radars, sensors, and cameras to help provide security for the Arizona border. The three highest-cost programs under this new plan were the Integrated Fixed Tower, Remote Video Surveillance, and the Mobile Surveillance Capability, accounting for 97 percent of the estimated costs for the plan.[34]

Operation Stone Garden

Operation Stone Garden is part of the Homeland Security Grant Program. The grants in this program provide funding for planning, organization, equipment purchase, training exercises, and management and administration across all core capabilities and mission areas. Operation Stone Garden supports the cooperation and coordination among *CBP* and *USBP*, and other federal, state, and local law enforcement agencies. This program provides funding for planning for integration of information technology infrastructure, software, and the sites necessary to connect to FirstNet.[35] FirstNet is an independent

authority within the U.S. Department of Commerce and its mission is to develop, build and operate the nationwide, broadband network that equips first responders to save lives and protect U.S. communities.[36]

Operation Streamline

Operation Streamline was created to mitigate drug trafficking, weapons trafficking, human smuggling, and repeat illegal alien immigration attempts. The ultimate goal of Operation Streamline included achievement of a 100 percent criminalization of unauthorized border crossing. Operation Streamline targets illegal aliens attempting to cross the border for criminal prosecution prior to placing them in civil removal proceedings. The program has a zero tolerance policy contrasts with traditional practices of placing unauthorized border crossers in civil deportation proceedings and permitting many to depart the country voluntarily.[37]

II. Migration Indicators

This section describes and exhibits migration data for the pilot mapping counties located in the El Paso Sector. These counties include: El Paso County, and Hudspeth County in Texas, and Doña Ana County, Hidalgo County, and Luna County in New Mexico. The project team gathered publicly available data from the U.S. Census Bureau for domestic migration inflows and outflows as well as for international inflows. For the five counties named, the project team analyzed the twenty counties with respect to inflows and outflows.

A. Migration Flows

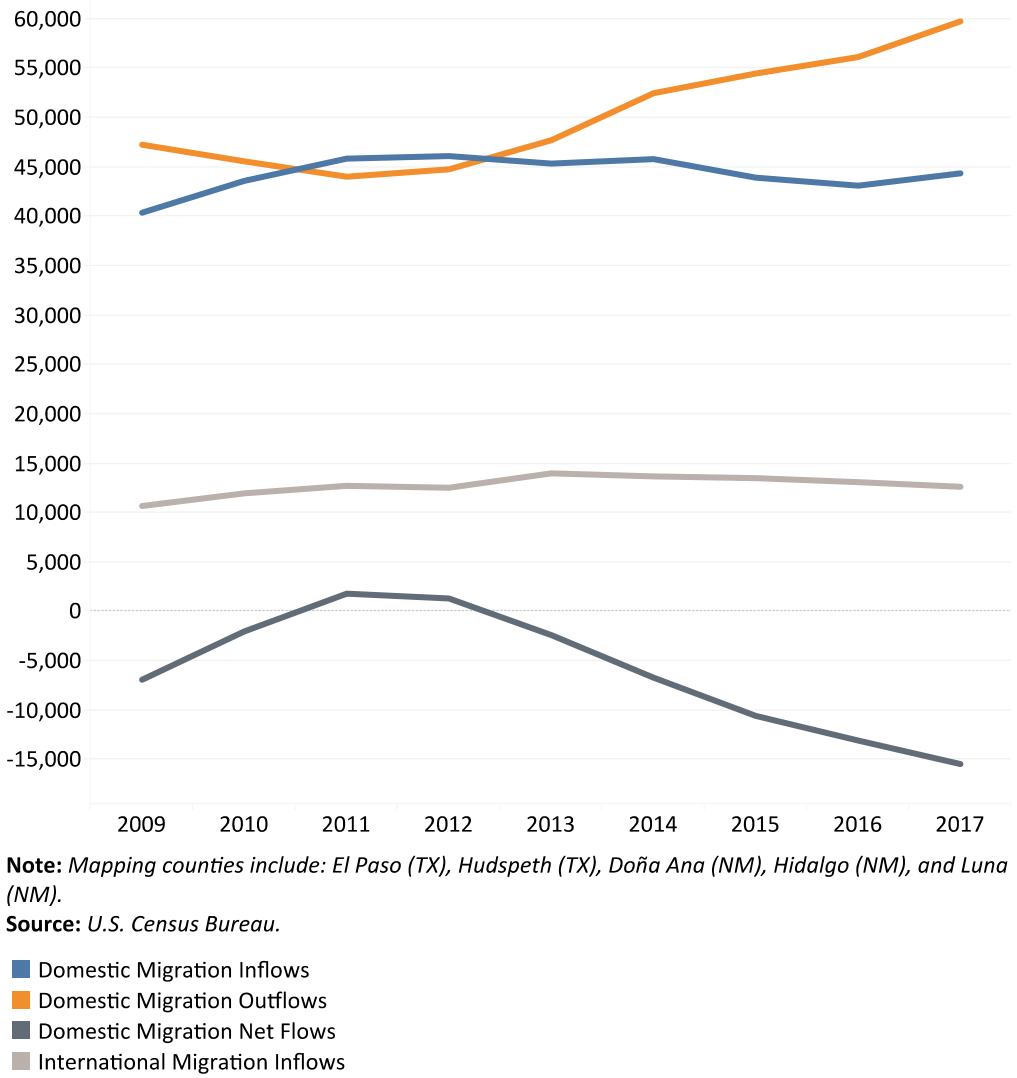
The El Paso Sector includes several *USBP* stations that are in New Mexico, such as Alamogordo, Albuquerque, Deming, Las Cruces, Santa Teresa, and Truth or Consequences, and others that are in Texas, such as Clint, El Paso, Fort Hancock, Lordsburg, and Ysleta. The project team included domestic migration inflows and outflows, net migration flows, and international migration inflows for the pilot mapping counties. While domestic migration inflows represent people entering the county from another county, domestic migration outflows represent those leaving the county for another county. International migration flows refer to people entering the county from foreign origin.

Map 2. Mapping Counties Boundary Map

Source: *Created by Hunt Institute.*

Figure 5 shows that domestic migration net flows to these pilot mapping counties have been negative in recent years given that domestic migration outflows have been greater than domestic migration inflows. Since 2011, this figure also shows that international migration inflows remained steady since 2009 (but decreased markedly after 2017; data not shown).

Figure 5. Migration Flows for Mapping Counties



Note: *Mapping counties include: El Paso (TX), Hudspeth (TX), Doña Ana (NM), Hidalgo (NM), and Luna (NM).*
Source: *U.S. Census Bureau.*

The following section will discuss these indicators for each of the mapping counties in this report.

1. El Paso County, Texas

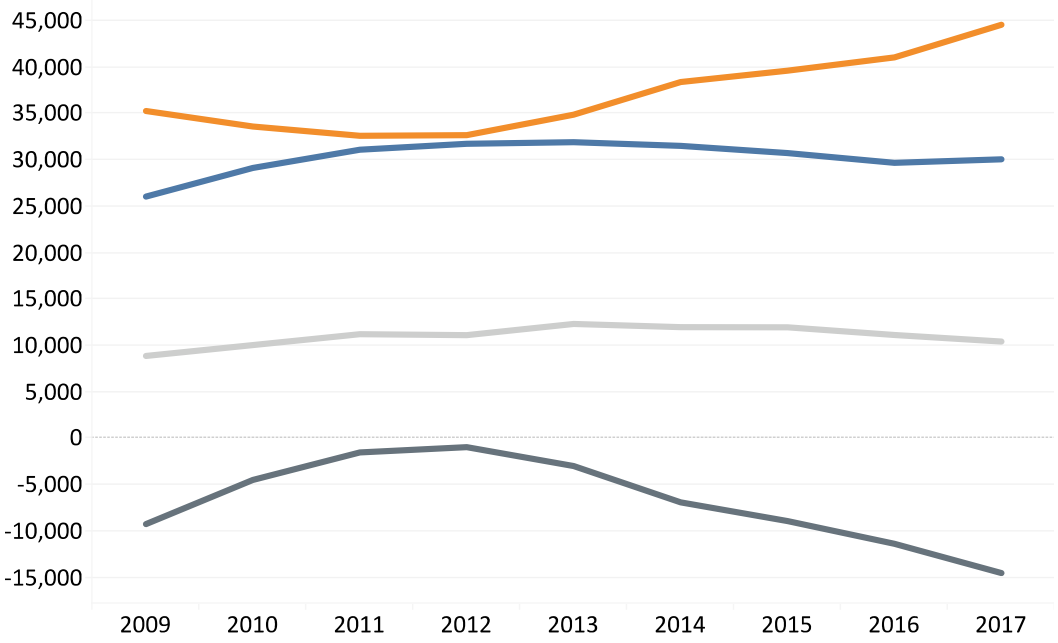
El Paso County is the largest county among the pilot mapping counties in terms of population and cross-border flows, however, it is relatively isolated from any other major urban area in Texas or New Mexico. Map 3 was created to illustrate the boundaries of El Paso County, its territorial connections, and ports of entry.

Map 3. El Paso County Boundary Map

Source: *Created by Hunt Institute.*

In El Paso County, domestic migration outflows have surpassed domestic migration inflows since 2009. Starting in 2012, domestic migration outflows increased while domestic migration inflows slightly decreased. Therefore, since 2012, domestic migration net flows have been negative and have decreased since. International inflows have remained relatively stable since 2009. Figure 6 illustrates these trends.

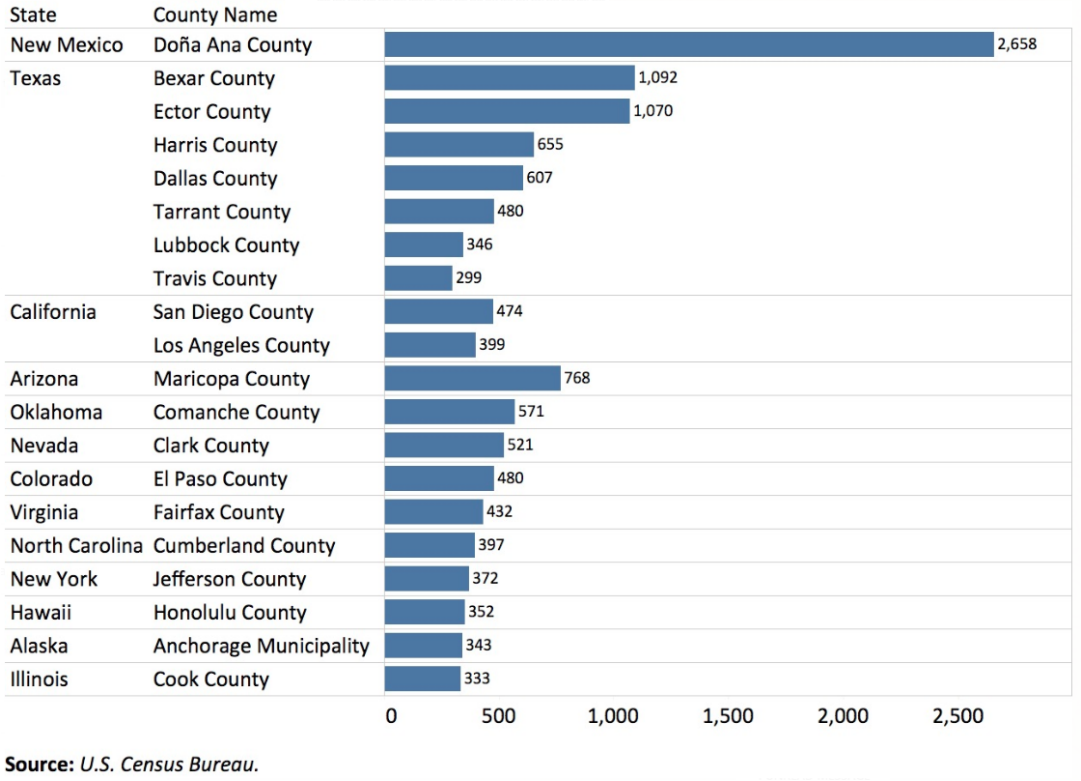
Figure 6. Migration Flows for El Paso County, Texas



Source: *U.S. Census Bureau.*

As of 2017, the majority of domestic migration inflows came from the nearby Doña Ana County in New Mexico. Doña Ana County includes the City of Sunland Park, the Santa Teresa border area, and the City of Las Cruces. Approximately 300 and 550 miles east to El Paso, Bexar and Ector counties, respectively, are the second and third counties for domestic inflows to El Paso County. Figure 7 below shows these trends as of 2017.

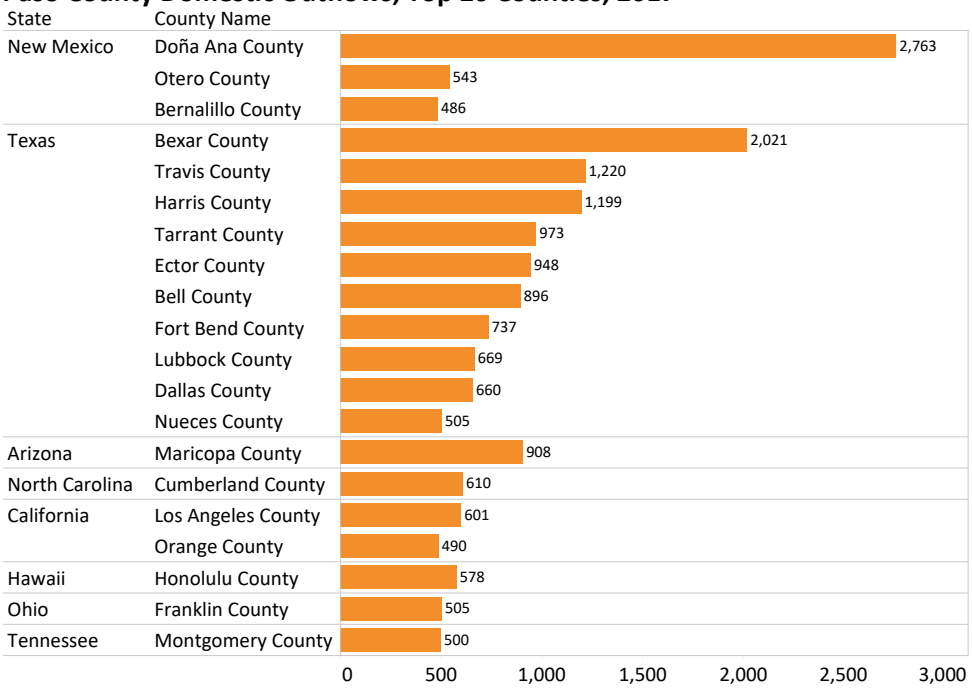
Figure 7. El Paso County Domestic Inflows, Top 20 Counties, 2017



Source: *U.S. Census Bureau.*

Doña Ana County in New Mexico, and Bexar County, Travis County, and Harris County in Texas were the main contributors for domestic outflows for El Paso County in 2017. Given the close vicinity with Doña Ana County, domestic migration inflows to El Paso were almost all from this county. However, most of the outflows for El Paso County occur near or east of Texas. Figure 8 shows this trend for 2017.

Figure 8. El Paso County Domestic Outflows, Top 20 Counties, 2017



Source: *U.S. Census Bureau.*

2. Hudspeth County, Texas

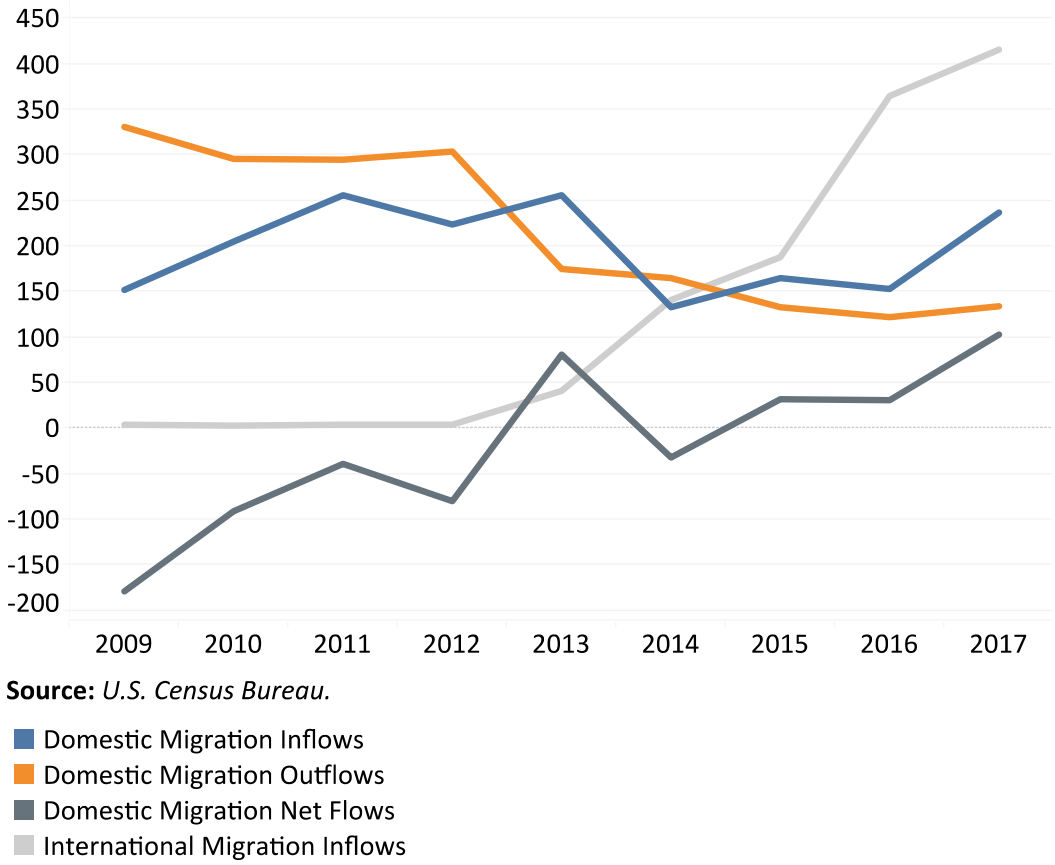
Hudspeth County in Texas had a population of an estimated 3,500 as of 2010. It is the county nearest to El Paso heading east. Map 4 was created to illustrate the boundaries of Hudspeth County, its territorial connections, and ports of entry.

Map 4. Hudspeth County Boundary Map

Source: *Created by Hunt Institute.*

Since 2012, international migration inflows to Hudspeth County increased dramatically, but domestic outflows have continuously decreased since then, showing a slight increase in 2017. Both domestic flows have resulted in positive net migration flows for 2016 and 2017. Figure 9 below illustrates these trends.

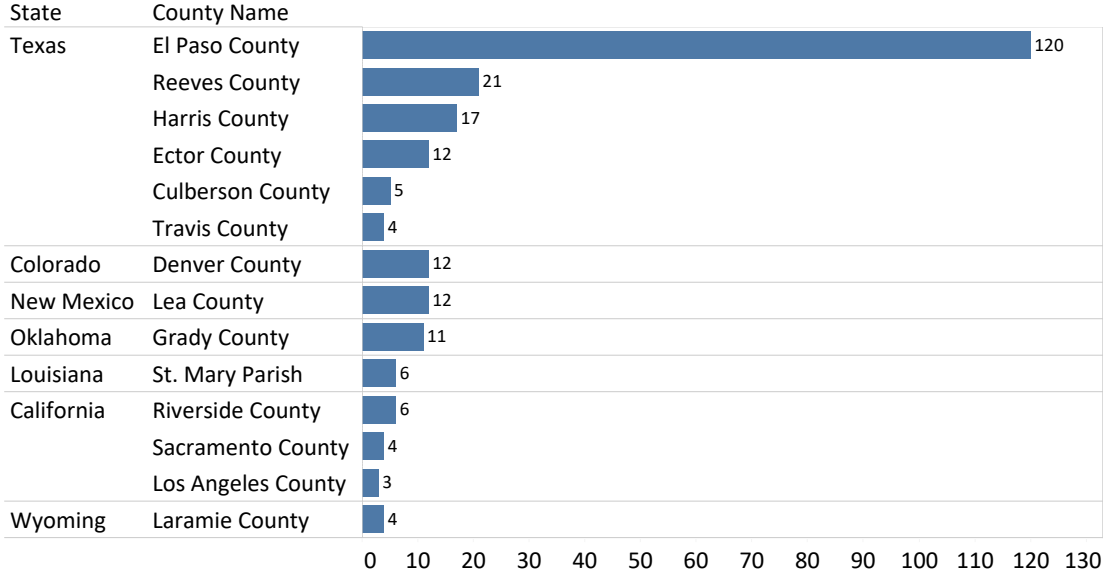
Figure 9. Migration Flows for Hudspeth County, Texas



Source: *U.S. Census Bureau.*

In terms of domestic inflows, El Paso County is the primary source to Hudspeth County, followed by Reeves County. Figure 10 below shows these data points for 2017.

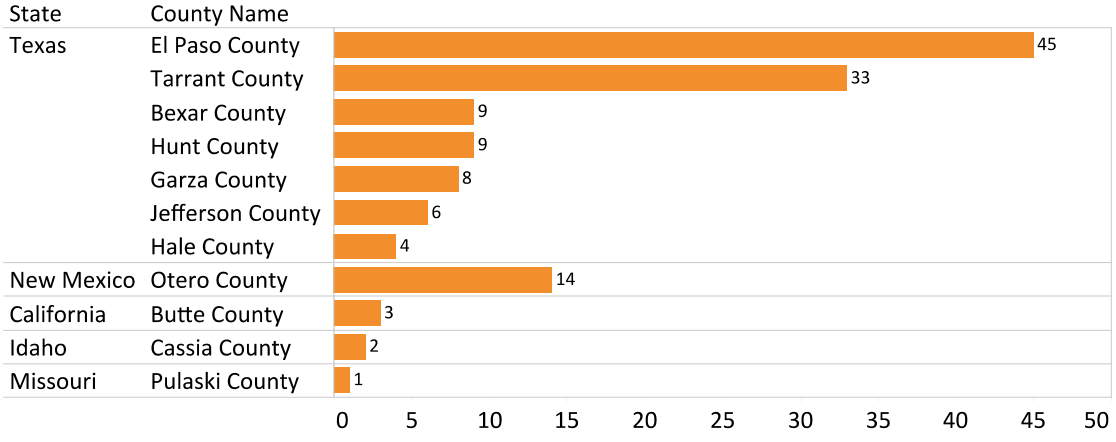
Figure 10. Hudspeth County Domestic Inflows, Top 14 Counties, 2017



Source: *U.S. Census Bureau.*

Similarly, most domestic migration outflows leave Hudspeth County for El Paso County. However, El Paso County is not an important source for domestic migration outflows. Tarrant County, in Texas, is a strong second to El Paso County in terms of outflows from Hudspeth County. Figure 11 below illustrates these remarks for 2017.

Figure 11. Hudspeth County Domestic Outflows, Top 11 Counties, 2017

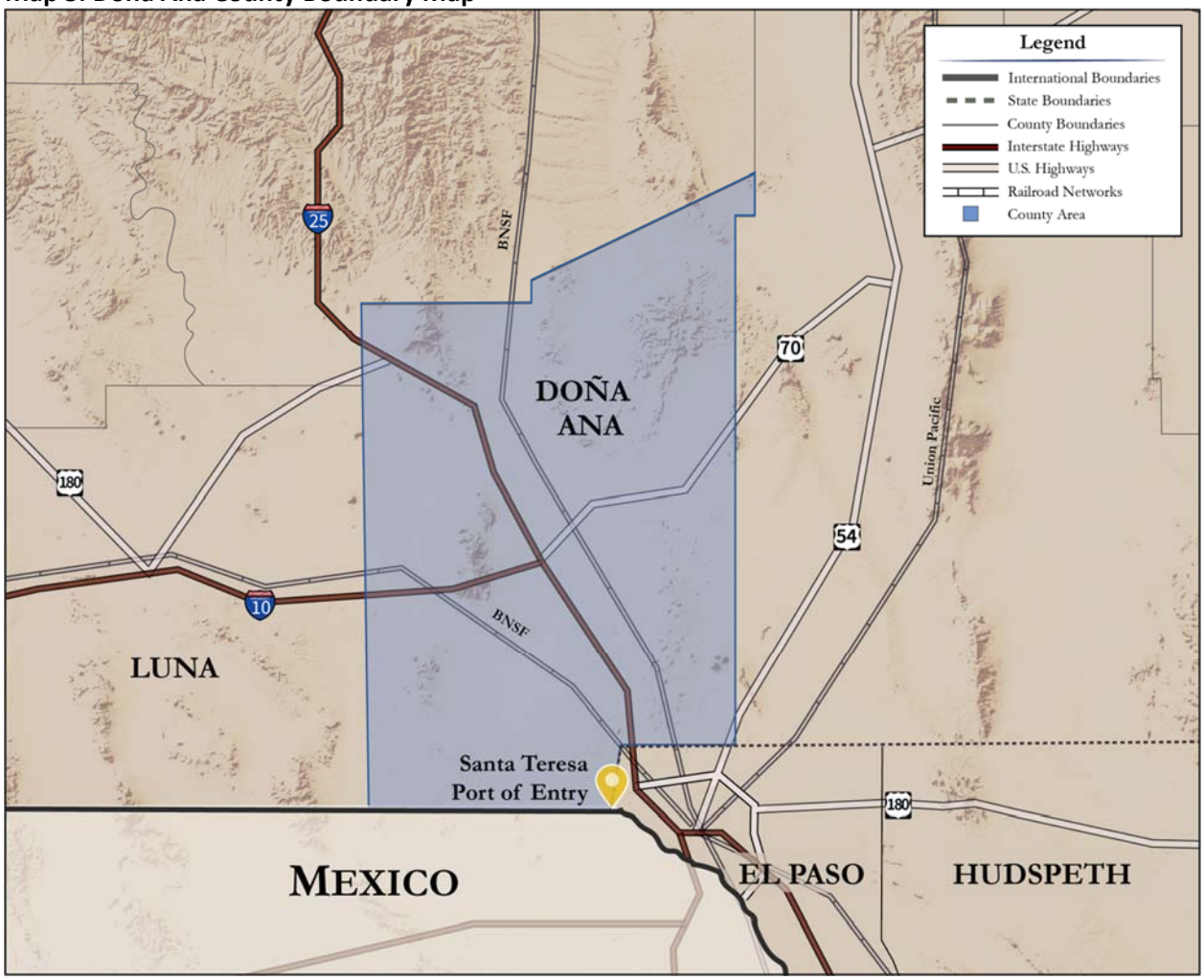


Source: *U.S. Census Bureau.*

3. Doña Ana County, New Mexico

Doña Ana County is located west of El Paso in New Mexico. It had an estimated population of 210,000 in 2010, making it the third largest county included in the El Paso Sector. Map 5 shows the boundaries of Doña Ana County, its territorial connections, and ports of entry.

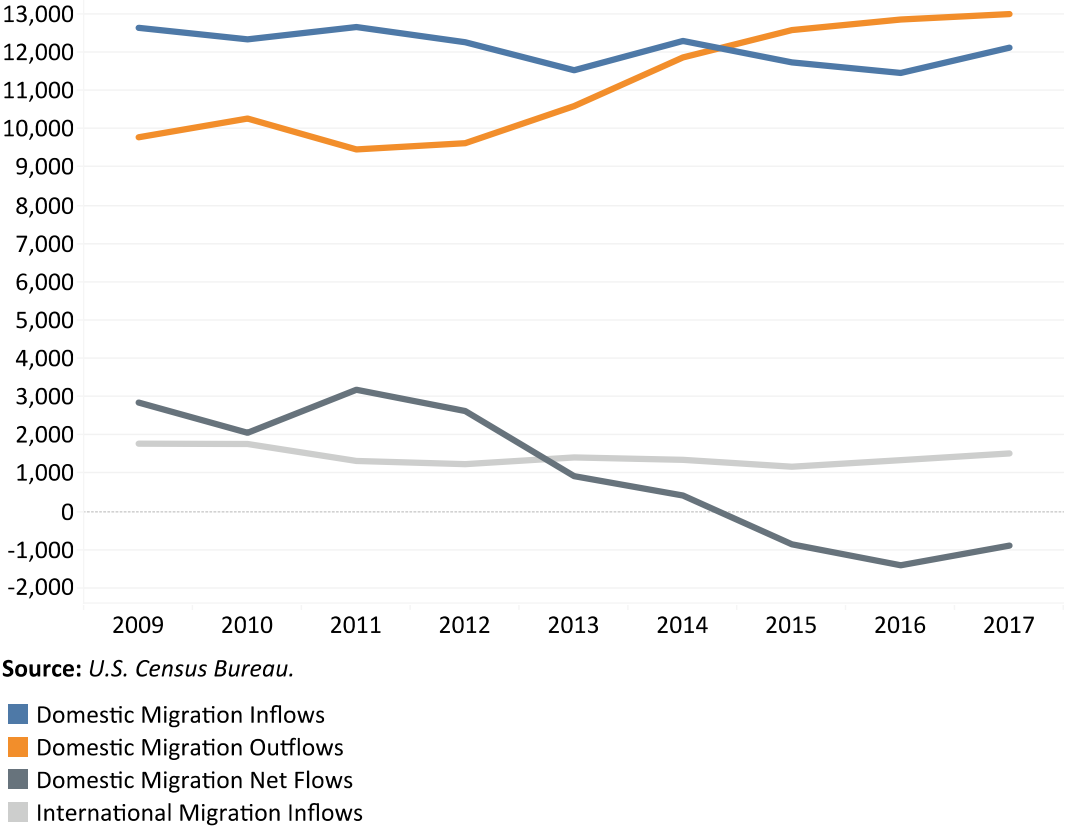
Map 5. Doña Ana County Boundary Map



Source: *Created by Hunt Institute.*

Doña Ana County includes the City of Sunland Park, the Santa Teresa border area, and the City of Las Cruces. Since 2015, domestic migration outflows have surpassed domestic migration inflows, therefore, domestic migration net flows have been negative for Doña Ana County. International inflows have remained relatively stable since 2011, showing very little growth in 2017. Figure 12 below shows these trends for Doña Ana County.

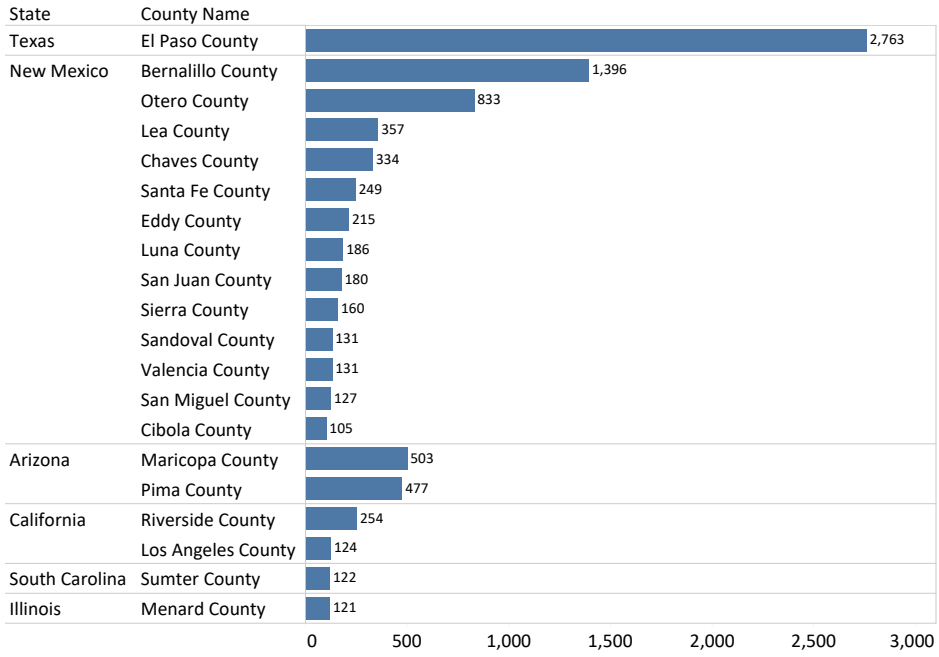
Figure 12. Migration Flows for Doña Ana County, New Mexico



Source: *U.S. Census Bureau.*

In terms of domestic migration inflows, as of 2017, the majority came from El Paso County in Texas. Second was Bernalillo County in New Mexico. Doña Ana County is similar to other pilot mapping counties as its domestic migration inflows is described by counties nearby.

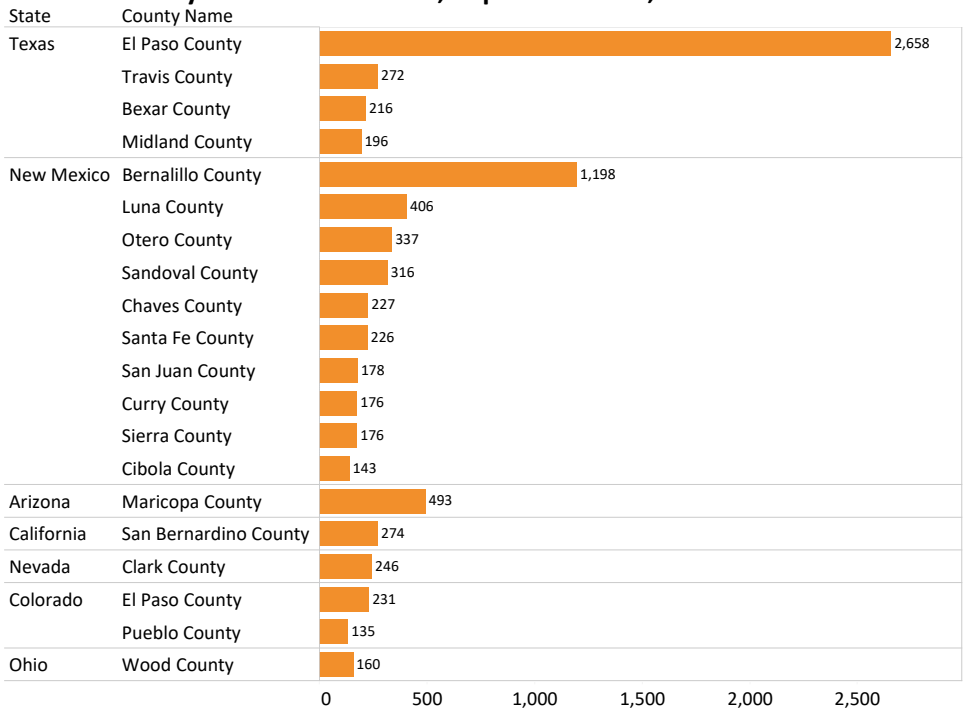
Figure 13. Doña Ana County Domestic Inflows, Top 20 Counties, 2017



Source: *U.S. Census Bureau.*

In terms of domestic migration outflows, El Paso County is by far the major destination out of Doña Ana County. Figure 14 below depicts this point for 2017.

Figure 14. Doña Ana County Domestic Outflows, Top 20 Counties, 2017

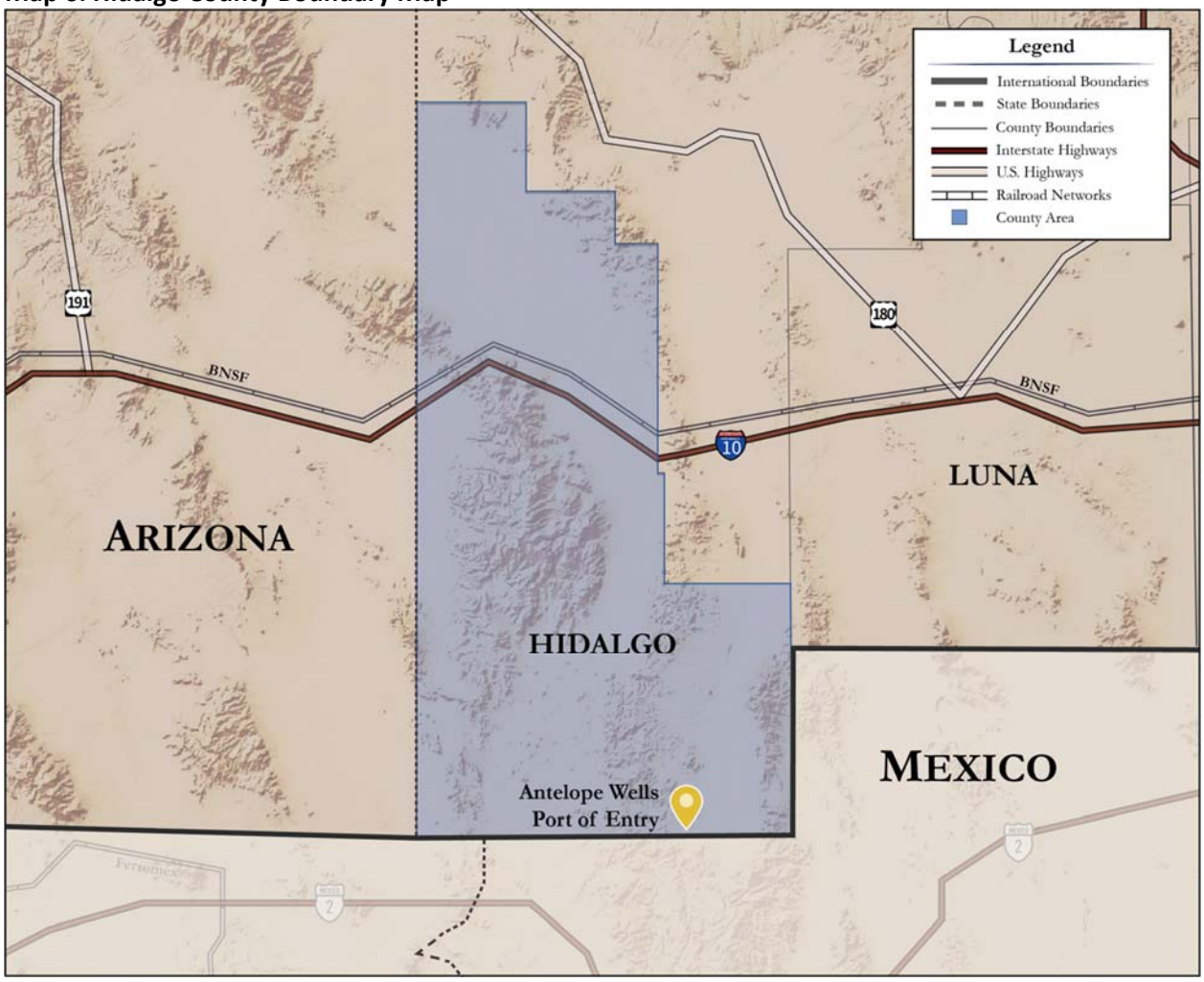


Source: *U.S. Census Bureau*.

4. Hidalgo County, New Mexico

Hidalgo County is a small county in New Mexico with an estimated population of 4,890 as of 2010. Map 6 was created to illustrate the boundaries of Hidalgo County, its connections, and ports of entry.

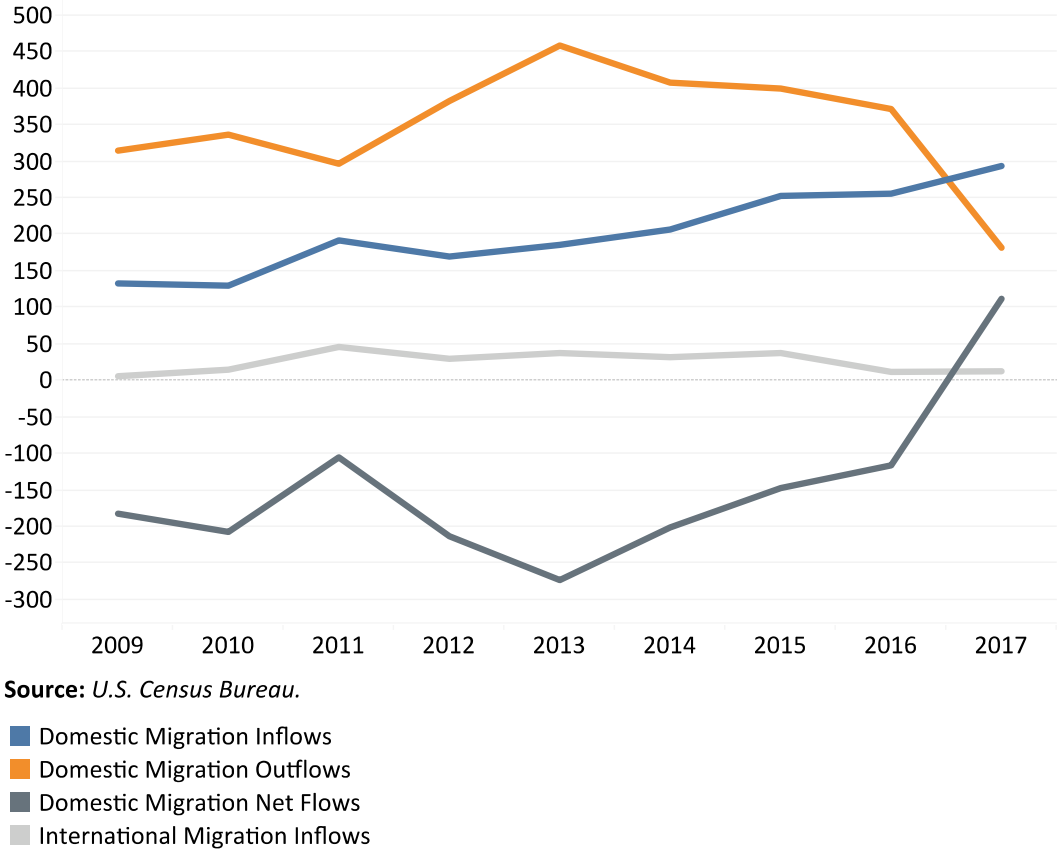
Map 6. Hidalgo County Boundary Map



Source: *Created by Hunt Institute.*

Hidalgo County domestic migration inflows have mostly increased since 2009 while domestic migration outflows have decreased since 2013. However, since 2009 domestic migration net flows for the county have only been positive for 2017. Figure 15 shows these findings.

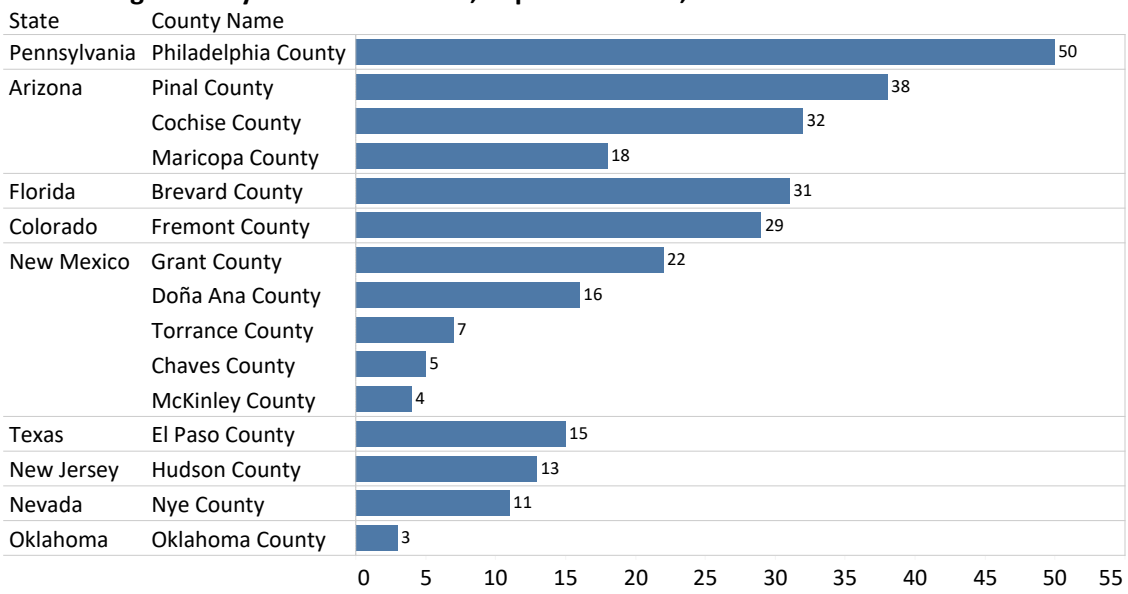
Figure 15. Migration Flows for Hidalgo County, New Mexico



Source: *U.S. Census Bureau.*

In terms of domestic migration inflows, as of 2017, the majority came from Philadelphia County in Pennsylvania. Second was Pinal County in Arizona. Hidalgo County differs from other pilot mapping counties as its domestic migration inflows is described by counties not seen on other pilot mapping counties.

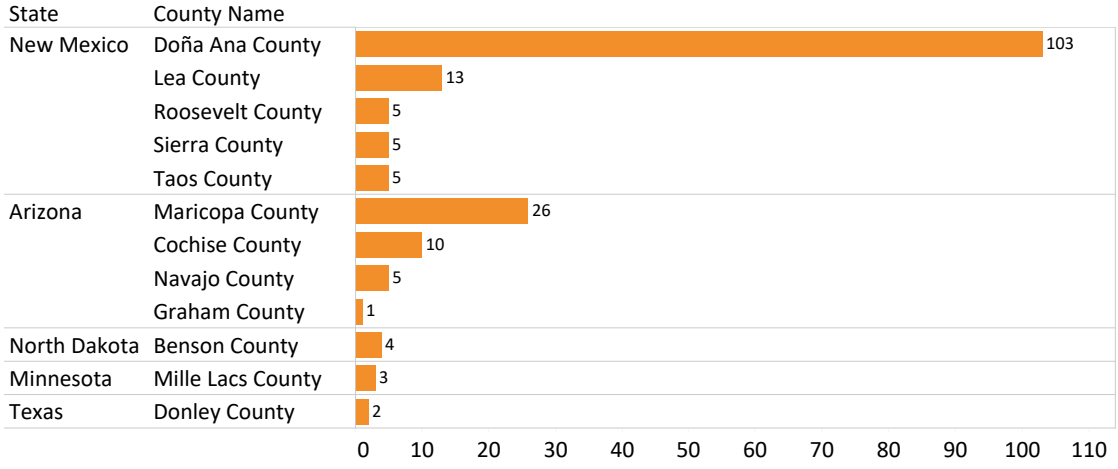
Figure 16. Hidalgo County Domestic Inflows, Top 15 Counties, 2017



Source: *U.S. Census Bureau.*

In terms of domestic migration outflows, Doña Ana County is by in large the primary destination out of Hidalgo County. Figure 17 below depicts this point for 2017.

Figure 17. Hidalgo County Domestic Outflows, Top 12 Counties, 2017

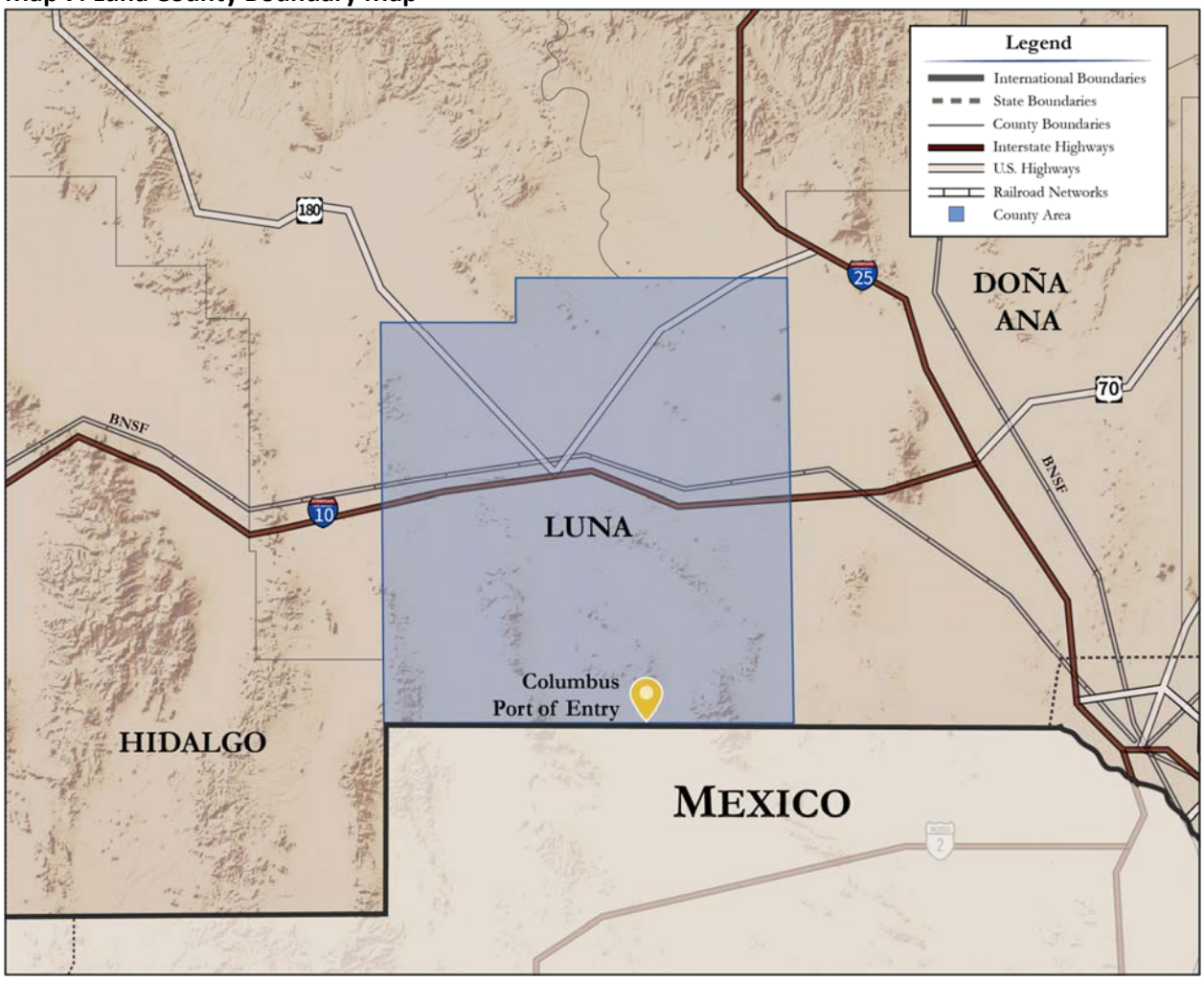


Source: *U.S. Census Bureau.*

5. Luna County, New Mexico

Luna County, located on the U.S.-Mexico border, includes the Deming border station and it is a small county with an estimated population of 25,095 as of 2010. Map 7 was created to illustrate the boundaries of Luna County, its connections, and ports of entry.

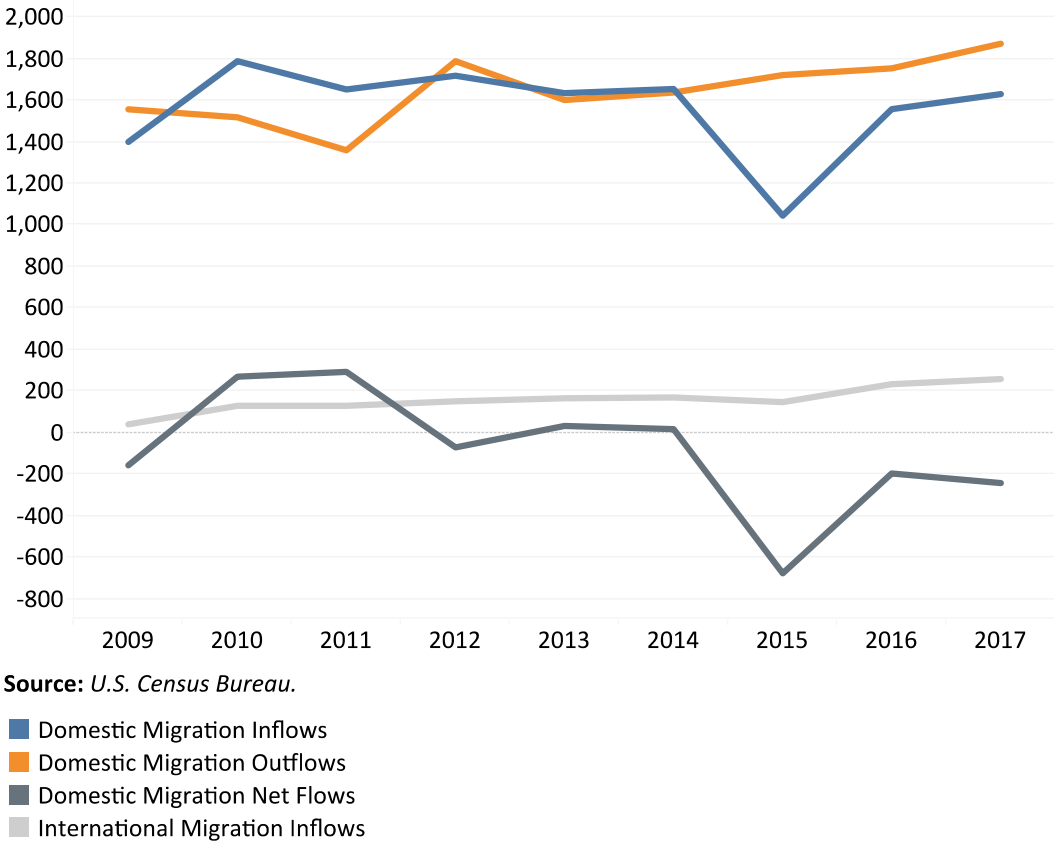
Map 7. Luna County Boundary Map



Source: *Created by Hunt Institute.*

Since 2015, domestic migration outflows have surpassed domestic migration inflows, therefore, domestic migration net flows have been negative for Luna County since then. International inflows have slightly increased at a low pace since 2009. Figure 18 below illustrates these trends.

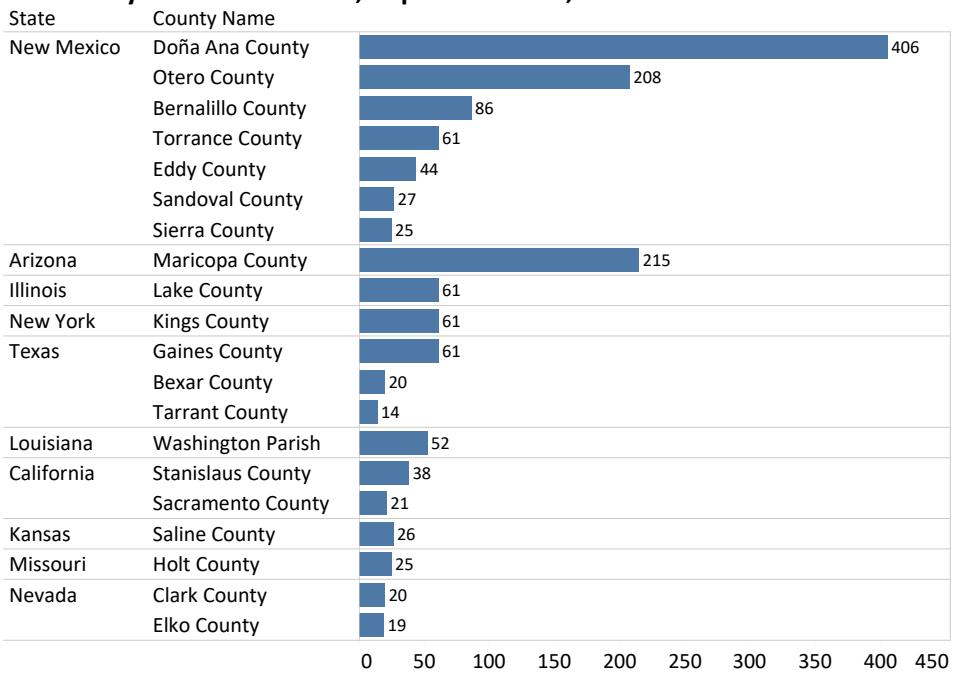
Figure 18. Migration Flows for Luna County, New Mexico



Source: *U.S. Census Bureau.*

Similar to Doña Ana County, Luna County is relatively isolated from any major urban area in New Mexico. In terms of domestic migration inflows, as of 2017, the majority came from the nearby Doña Ana County. Another significant share of inflows to Luna County came from Maricopa County, home of a large urban area, Phoenix, Arizona. Otero County in New Mexico was another significant source of inflows to Luna County.

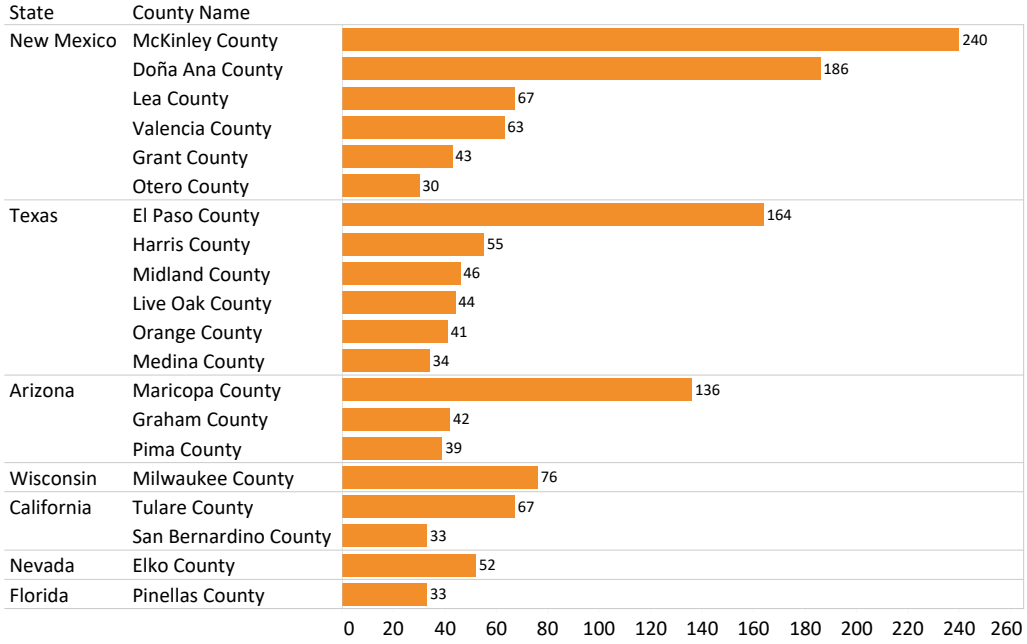
Figure 19. Luna County Domestic Inflows, Top 20 Counties, 2017



Source: *U.S. Census Bureau.*

According to Figure 20, McKinley County in New Mexico was the most frequent destination for the majority of domestic outflows from Luna County in 2017. Doña Ana County follows as the second most frequent destination for Luna County domestic migration outflows.

Figure 20. Luna County Domestic Outflows, Top 20 Counties, 2017



Source: *U.S. Census Bureau.*

B. Lawful Permanent Residence Status

The Immigration and Nationality Act (*INA*) defined three legal alien categories: immigrants, non-immigrants, and refugees.[38] Immigrants under lawful permanent resident status refers to foreign nationals who live lawfully and permanently in the U.S. Non-immigrants include tourists, foreign students, diplomats, temporary agricultural workers, exchange visitors, or intra-company business personnel. Lastly, refugees include people fleeing their countries due to actual or perceived persecution.[39]

The *INA* provides criteria for lawful permanent resident status based on the following three components:

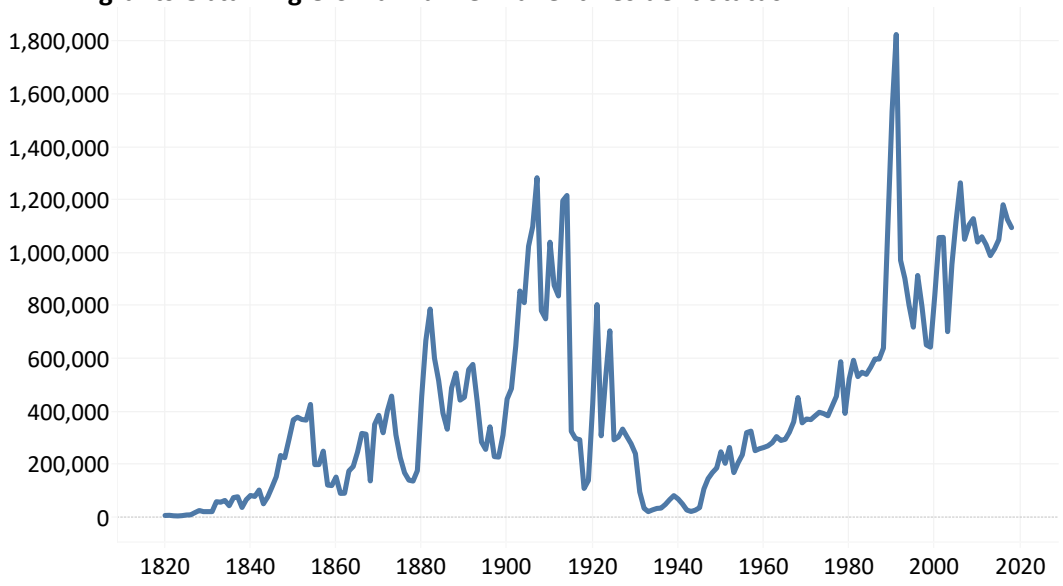
1. Family-sponsored immigrants
2. Employment-based preference immigrants
3. Diversity immigrants

The reunification of families, the admission of immigrants with needed skills, the protection of refugees and asylees, and the diversity of immigrants by country of origin, are the four major principles concerning U.S. legal permanent immigration policy.

1. U.S. Permanent Residents

The INA established categories and numerical limits for lawful permanent resident status to the U.S. The priorities in which lawful permanent resident status are admitted, however, are addressed through the employment-based immigration system. Each preference category included in the employment-based immigration system has specific eligibility criteria that involves numerical limits with a distinct application process.[40] In 2017, the *INA* allocated 140,000 visas annually for all five-employment based lawful permanent resident status categories, roughly 12% of the 1.1 million admitted in 2017.[41] According to the Congressional Research Service (*CRS*), the *INA* also limits each immigrant country of origin to an annual maximum of 7% of all employment-based lawful permanent resident status admissions, known as the per-country ceiling, or "cap."[42]

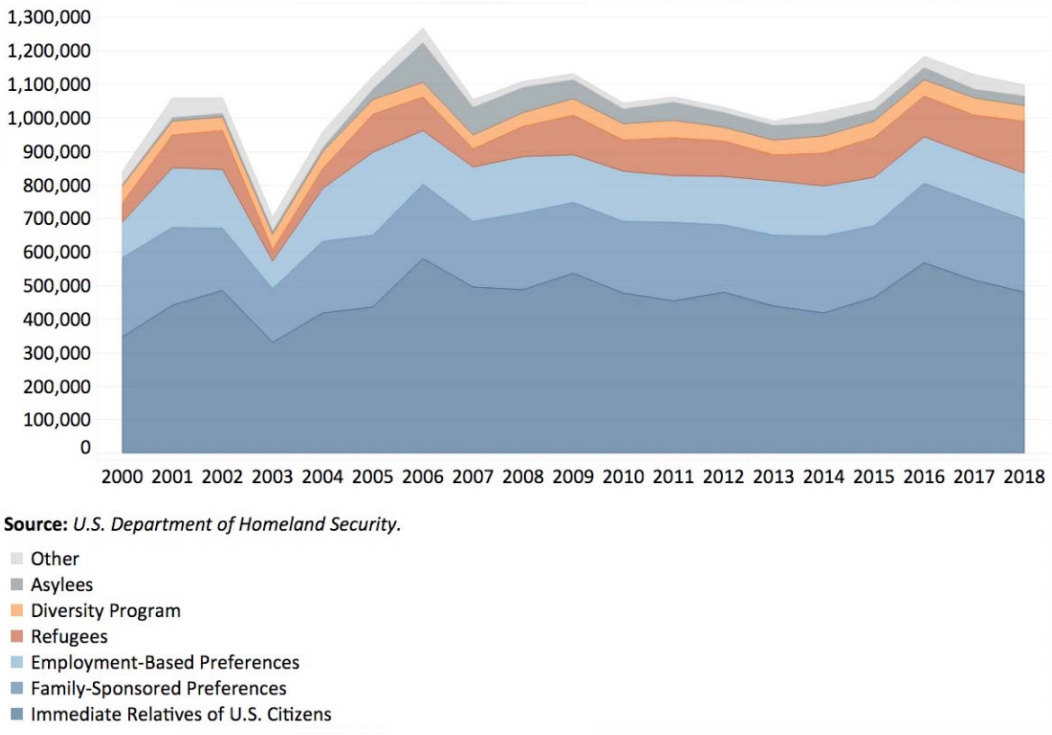
Figure 21. Immigrants Obtaining U.S. Lawful Permanent Resident Status



Source: *U.S. Department of Homeland Security.*

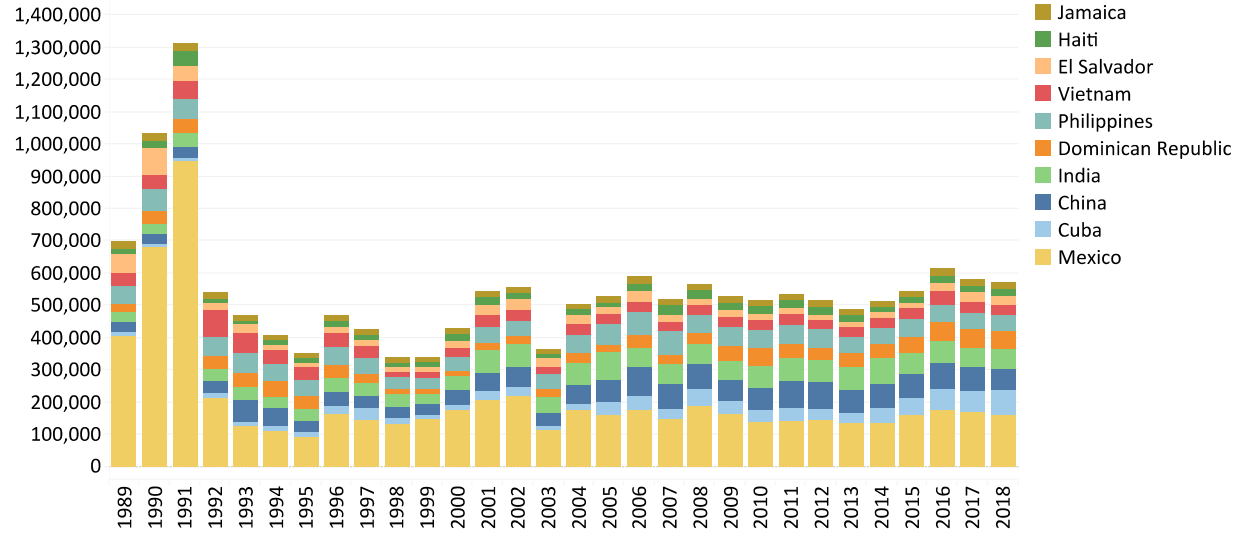
In 2016, according to the *CRS*, approximately 1.2 million aliens obtained lawful permanent resident status. They did so either by admission upon arrival to the U.S. from overseas, or by adjusting to lawful permanent resident status from a non-immigrant status while in the U.S. Of this total, just over two-thirds acquired lawful permanent resident status as family-sponsored immigrants.[43] Employment-based immigrants were 12%, refugees and asylees were 13%, diversity immigrants were 4%, and all other classes of immigrants were 3%. Immediate relatives of U.S. citizens, not numerically limited by the *INA*, accounted for 48% of all lawful permanent resident status. According to the *CRS*, "this portion of all lawful permanent resident status can be further broken down by relationship to the U.S. citizen: spouses made up 26%; parents made up 15%; and children (including adopted orphans) made up 7%."[44] Also, CRS states that family-sponsored preference immigrants dominated the queue of 4.06 million approved lawful permanent resident status visa petitions pending with the National Visa Center at the end of 2017. As Figure 22 shows, the vast majority of immigrants obtaining lawful permanent resident status were from immediate relatives of U.S. citizens (44%).

Figure 22. Immigrants Obtaining U.S. Lawful Permanent Resident Status by Type and Class of Admission



Historically, Mexico has been the leading country of origin for those immigrants obtaining lawful permanent resident status. However, after 2015, the number of Cubans and Chinese immigrants obtaining lawful permanent resident status has increased. In 2018 for El Paso Metropolitan Statistical Area, immigrants from Mexico, Cuba, and China made up just over 25% of the total number of immigrants obtaining lawful permanent resident status. Figure 23 provides data on the top 10 countries of origin for immigrants obtaining lawful permanent resident status in the U.S.

Figure 23. Immigrants Obtaining U.S. Lawful Permanent Resident Status by Country of Birth, Top 10 Countries



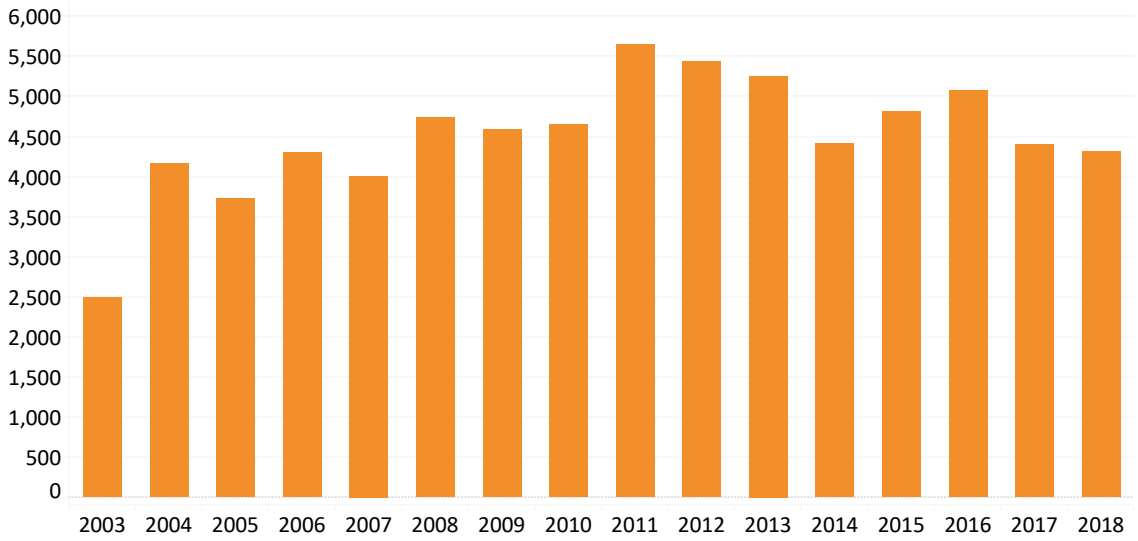
Source: *U.S. Department of Homeland Security.*

The next section analyzes lawful permanent resident status data for the El Paso Metropolitan Statistical Area (*MSA*).

2. El Paso Permanent Residents

The number of immigrants obtaining lawful permanent resident status in the El Paso MSA decreased in 2017 compared to 2016 and it is the lowest number of people granted lawful permanent resident status in El Paso since 2008. In 2008, for example, authorized immigrants obtaining lawful permanent resident status were close to 4,800 while in 2017 the number was less than 4,500. Figure 24 below shows these trends.

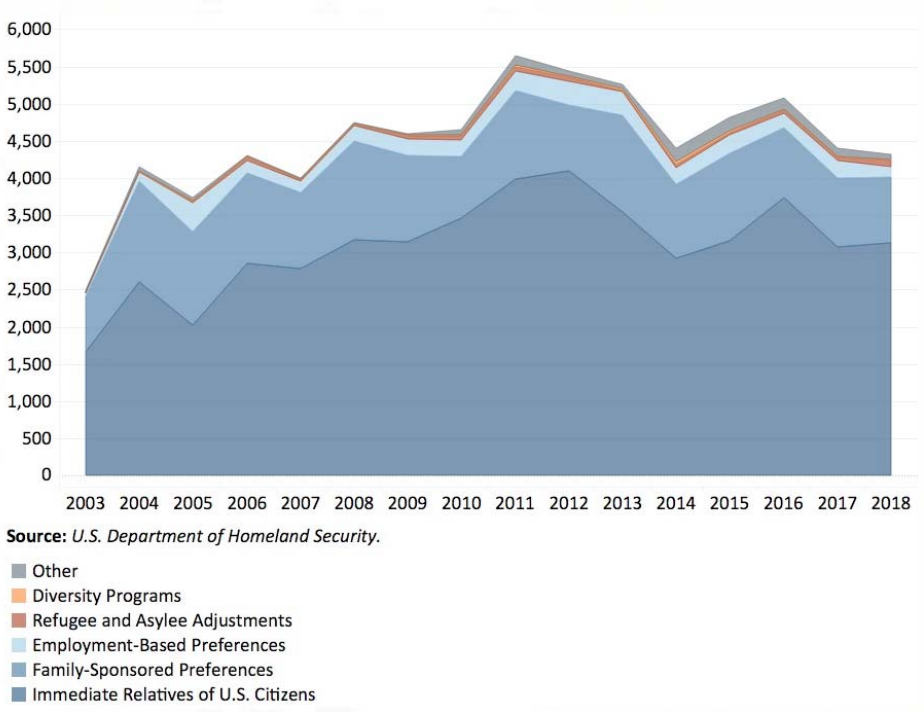
Figure 24. Immigrants Obtaining U.S. Lawful Permanent Resident Status in El Paso MSA, Texas



Source: *U.S. Department of Homeland Security.*

Since 2003, immediate relatives of U.S. citizens have been the most common class of admission for authorized immigrants to obtain lawful permanent resident status in El Paso. Figure 25 illustrates this point and also that from 2017 to 2018, this class of admission increased slightly. The only class of admission in this period which decreased, although moderately, was the employment-based preferences.

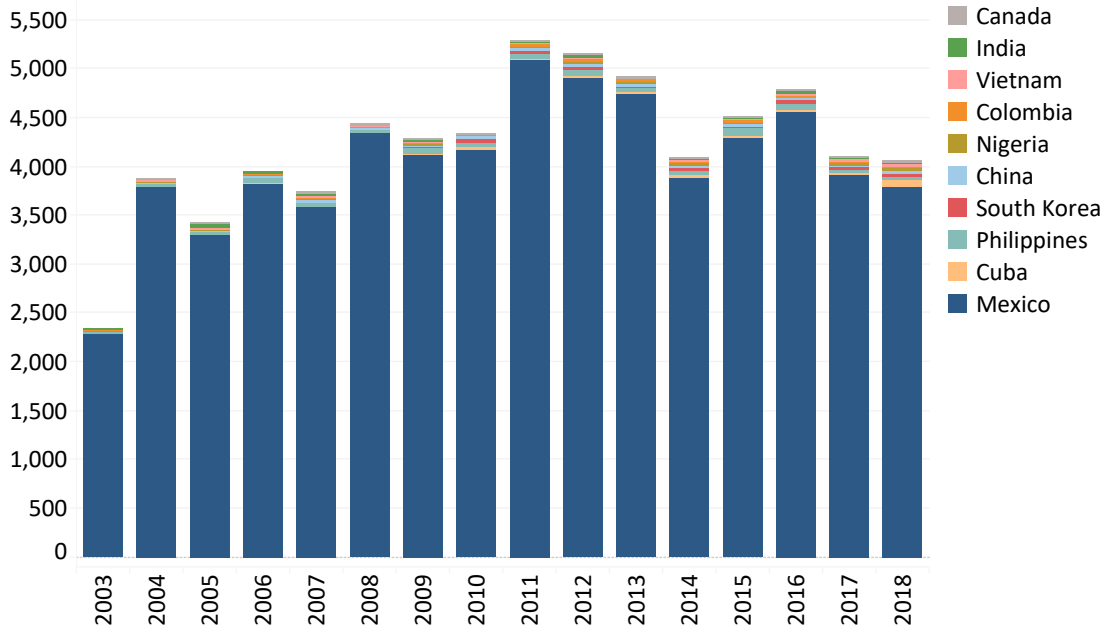
Figure 25. Immigrants Obtaining U.S. Lawful Permanent Resident Status by Type and Class of Admission in El Paso MSA, Texas



Source: *U.S. Department of Homeland Security.*

Since 2003, Mexico has been the leading country of origin for authorized immigrants obtaining lawful permanent resident status. Authorized immigrants obtaining lawful permanent resident status increased most notably after 2003. Interestingly, the number of authorized immigrants obtaining lawful permanent resident status from Cuba increased notably in 2018 with respect to 2017. These remarks are shown in Figure 26.

Figure 26. Immigrants Obtaining U.S. Lawful Permanent Resident Status by Country of Birth in El Paso County, Texas, Top 10 Countries



Source: *U.S. Department of Homeland Security.*

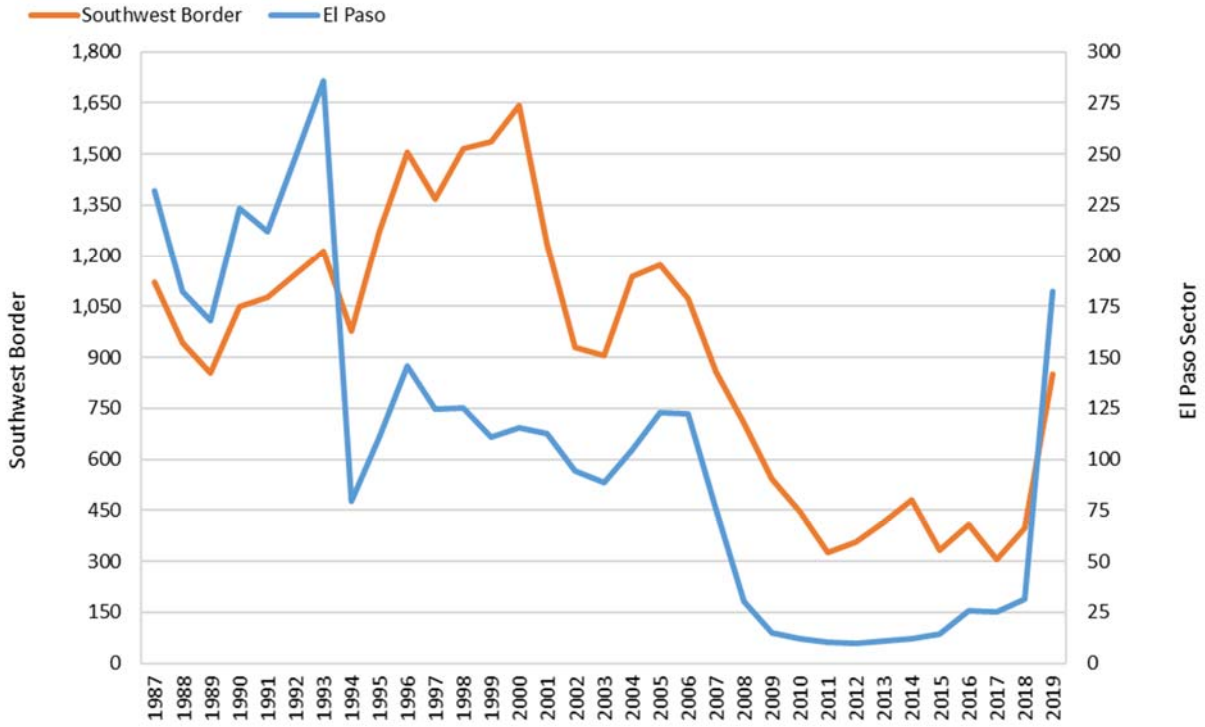
C. Illegal Alien Apprehensions and Removals

Illegal alien apprehensions have historically been used as a proxy measure for trends of unauthorized migration flows and for border enforcement. This section depicts total illegal alien apprehensions by country of origin in the U.S. and in the El Paso Sector. Trends of apprehensions of unauthorized immigrants coming from Mexico and other countries are also described. The number of illegal alien apprehensions increased significantly after the U.S. Border Patrol (*USBP*) began to enforce its "prevention through deterrence" strategy in 1994. In 2000, for example, apprehensions at the southern border reached 1.64 million but this number gradually declined to 303,916 in 2017. Apprehensions subsequently increased to 396,579 in 2018 and to 851,508 in 2019, the highest level since 2007. Historically, unauthorized migrant flows involved predominantly single Mexican adults, traveling without families, whose primary motivation was U.S. employment.[45] In fact, in 2011, Mexican nationals made up 84.1% of all apprehensions by national level and 93.1% in El Paso Sector, and relatively few were asylum seekers. In 2019, however, "Northern Triangle" migrants from El Salvador, Guatemala, and Honduras comprised 75.6% in El Paso Sector and 70.9% by national level of all apprehensions.

1. Apprehensions

Illegal alien apprehensions at the southern border averaged approximately 690,000 a year during the 1970s, a million during the 1980s, peaking at 1.3 million during the 1990s, and decreasing to a million in the 2000s.[46] In 2017, total apprehensions at the southern border reached a historic low of 303,916. Therefore, changes in the character of the migrant flows during the past decade occurred within the context of historically low numbers of apprehensions since 2000. From 2000 to 2017, unauthorized migration flows had been generally declining. Figure 27 below depicts this information and shows the overall decline in illegal alien apprehensions nationwide and at the El Paso Sector starting in 1987. However, in 2019, these numbers increased significantly nationwide and in the El Paso Sector.

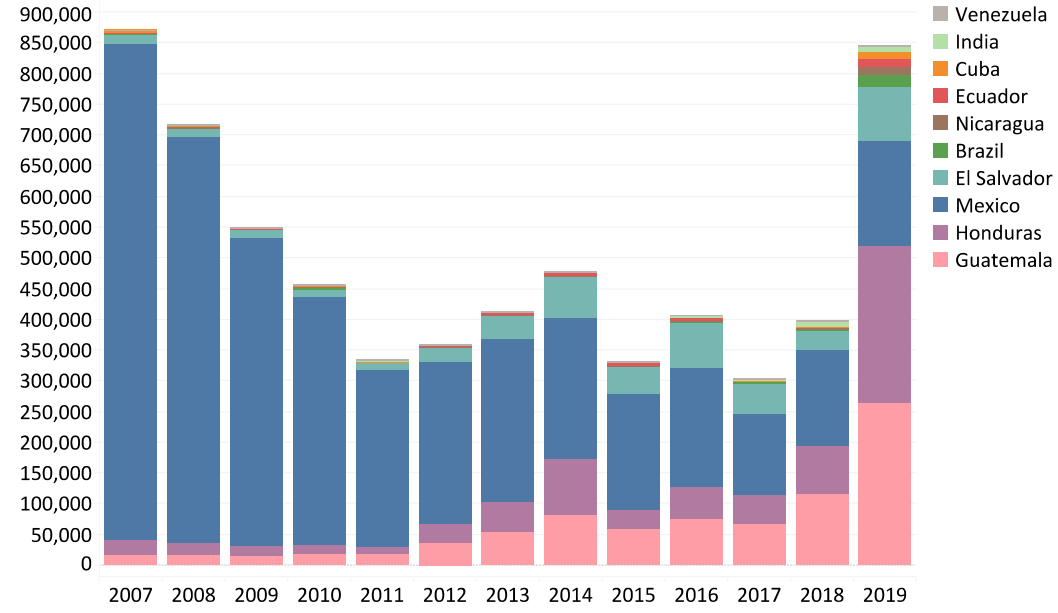
Figure 27. Total Illegal Alien Apprehensions by Fiscal Year, Thousands



Source: *U.S. Customs and Border Protection.*

The national origins of illegal aliens apprehended have shifted considerably during the past two decades. In 2000, for example, almost all of the 1.6 million illegal aliens apprehended at the southern border were Mexican nationals, and relatively few requested asylum. As recently as 2011, Mexican nationals made up 86% of all approximately 328,000 southern border apprehensions in that year. That share has declined, however, and for most years after 2013, Mexicans accounted for less than half of illegal alien apprehensions on the southern border. Figure 28 shows these remarks in addition to an overall downward trend for illegal alien apprehensions since early 2000s. This overall downward trend was significantly reversed by a surge in this number in 2019 reaching slightly more than 850,000.

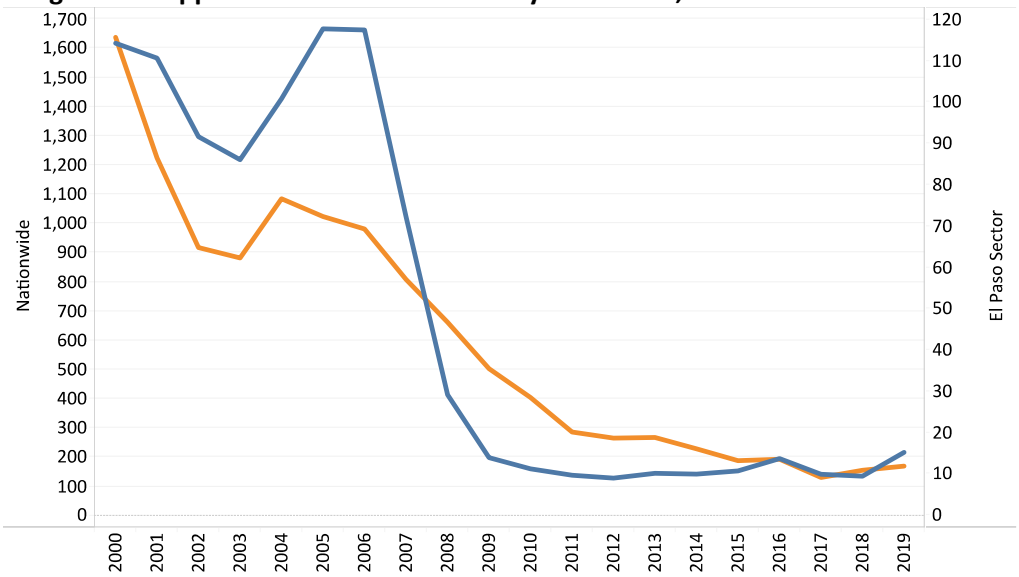
Figure 28. Total U.S. Illegal Apprehensions by Fiscal Year, Top 10 Countries



Source: *U.S. Customs and Border Protection.*

Figure 29 shows a decrease in illegal alien apprehensions from Mexico since 2000 in the U.S. This is also true for illegal alien apprehensions from Mexico in the El Paso Sector. Illegal alien apprehensions from Mexico increased significantly from 2003 to 2005 but then decreased thereafter.

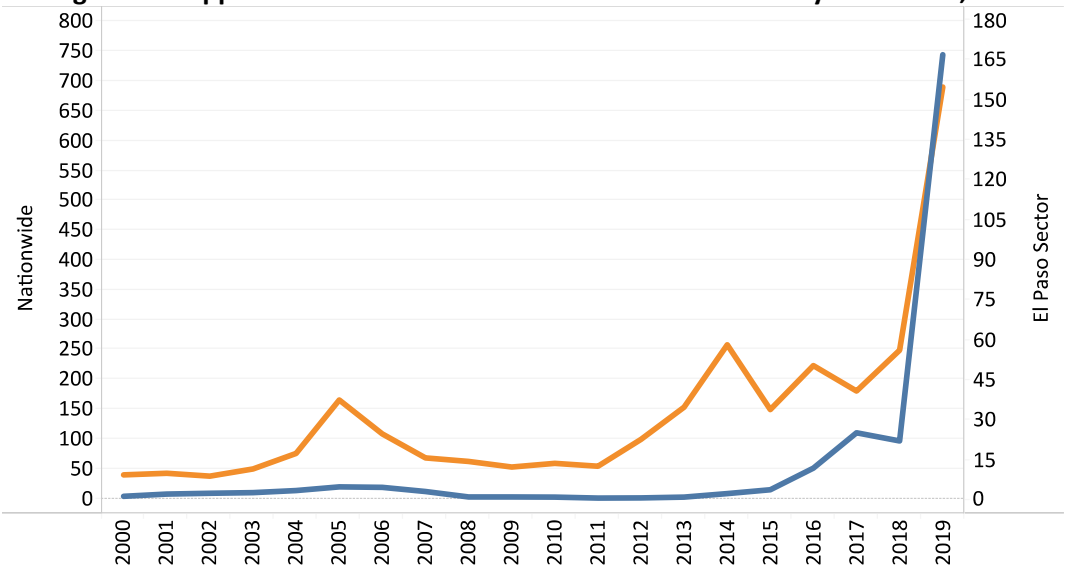
Figure 29. Illegal Alien Apprehensions from Mexico by Fiscal Year, Thousands



Source: *U.S. Customs and Border Protection.*

Nationwide
El Paso Sector

Figure 30. Illegal Alien Apprehensions from Countries other than Mexico by Fiscal Year, Thousands

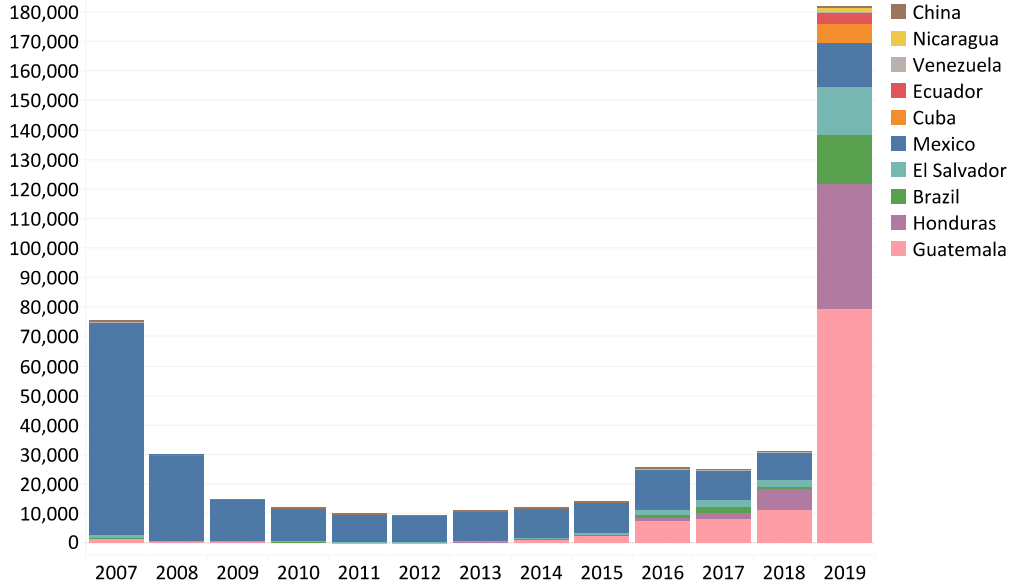


Source: *U.S. Customs and Border Protection.*

Nationwide
El Paso Sector

Figure 31 shows recent trends for illegal apprehensions in the El Paso Sector by the top 10 countries. From 2007 to 2013, illegal alien apprehensions have almost exclusively been from Mexico at the El Paso Sector. Illegal alien apprehensions from Guatemala have been on the rise since 2014 but recently, after 2018, apprehensions from Guatemala increased significantly from 11,550 in 2018 to just 79,484 in 2019. Guatemala is not the only country that has increased in significance in recent years. Illegal alien apprehensions from Honduras, Brazil, and El Salvador have also increased.

Figure 31. Total Illegal Apprehensions in El Paso Sector by Fiscal Year, Top 10 Countries

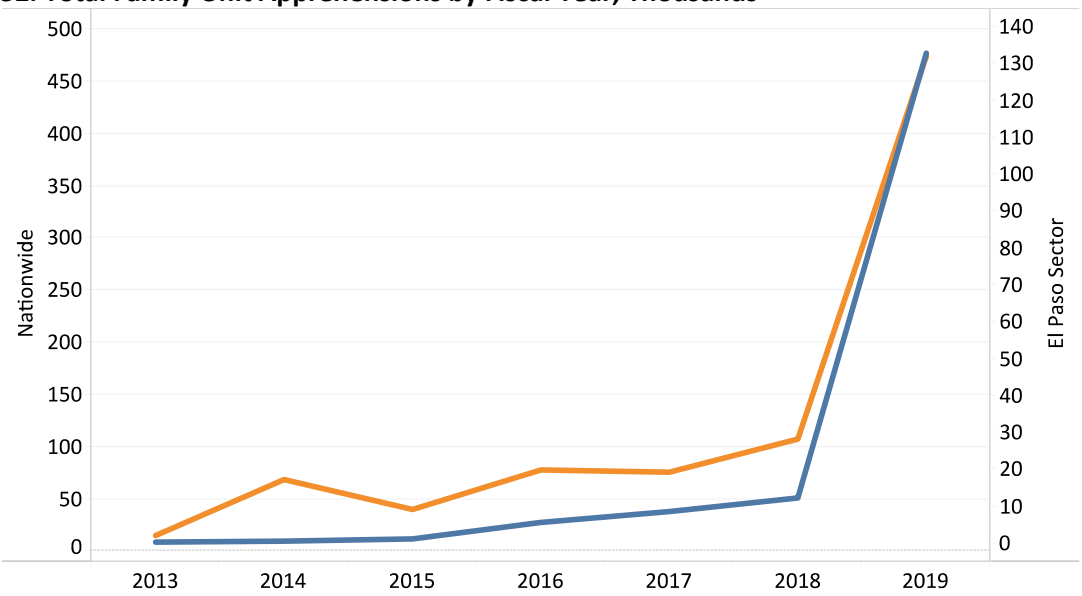


Source: *U.S. Customs and Border Protection.*

U.S. Customs and Border Protection (*CBP*) categorizes illegal aliens apprehended as single adults, family units (at least one parent/guardian and at least one child), and Unaccompanied Alien Children (*UAC*). Apprehensions of persons in family units have increased the most in absolute terms since 2012. In 2012, single adults (321,000) made up 90% of the 356,873 arriving migrants apprehended at the southern border, while members of family units numbered 11,116, and UAC accounted for 24,403. By 2019, however, apprehensions of persons in family units numbered 473,682 at southern border more than all family unit apprehensions from 2012 to 2018 combined. Figure 32 below illustrates these trends.

Since 2012, family unit illegal alien apprehensions national origins have shifted from mostly Mexican comprising 80% of all family unit illegal alien apprehensions, to mostly Salvadoran, Guatemalan, and Honduran, together comprising 91% in 2019. Figure 32 below shows that the number of family unit apprehensions increased significantly in 2019.

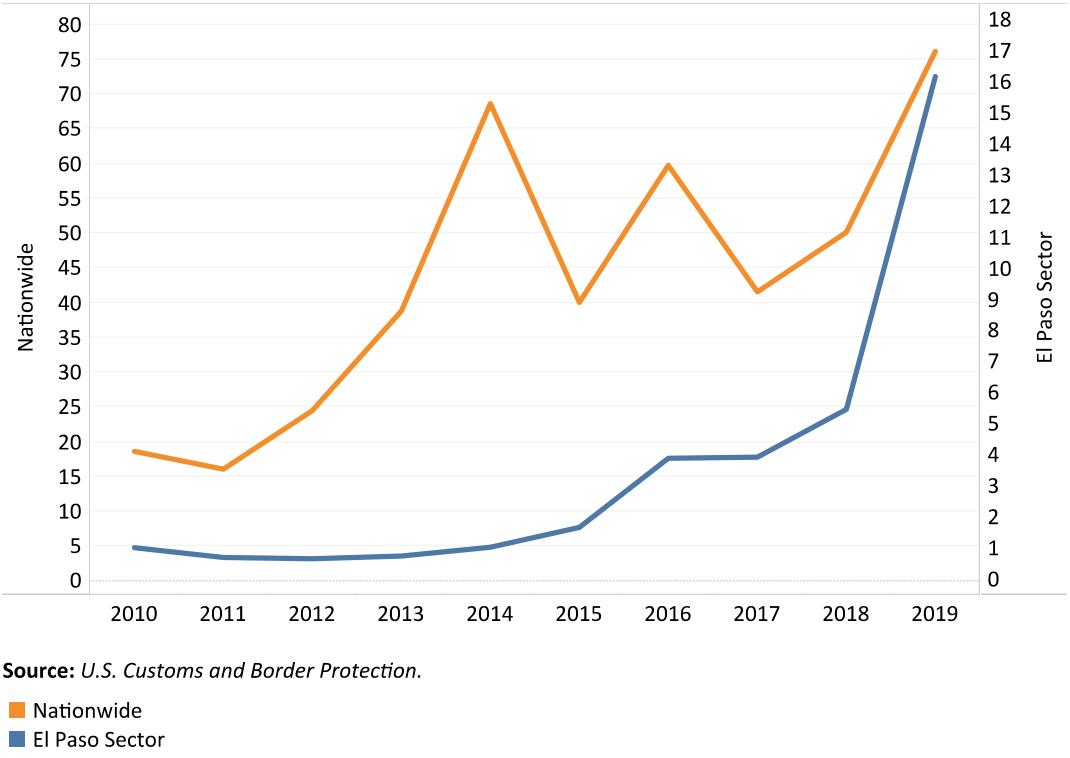
Figure 32. Total Family Unit Apprehensions by Fiscal Year, Thousands



Source: *U.S. Customs and Border Protection.*

From 2011 to 2014 at the national level, *UAC* apprehensions increased each year, and more than quadrupled from 16,067 in 2011 to 68,631 in 2014. Over the past decade, the number of *UAC* apprehended at the southern border has increased considerably, and particularly at the El Paso Sector, as shown in Figure 33. In the El Paso Sector, apprehensions of *UAC* remained steady from 2010 to 2015 with an overall upward trend. However, 2019 showed a record high since 2010 at 16,159.

Figure 33. Total Unaccompanied Alien Children (0-17 Years Old) Apprehensions by Fiscal Year, Thousands



Source: *U.S. Customs and Border Protection.*

Map 8. Total Illegal Alien Apprehensions by Country of Origin, Top 20 Countries, 2019

Source: *U.S. Customs and Border Protection.*

Number of Apprehensions
1
200,000
400,000
600,000
876,704

Map 9. Total Illegal Alien Apprehensions by Country of Origin in El Paso Sector, Texas, Top 20 Countries, 2019

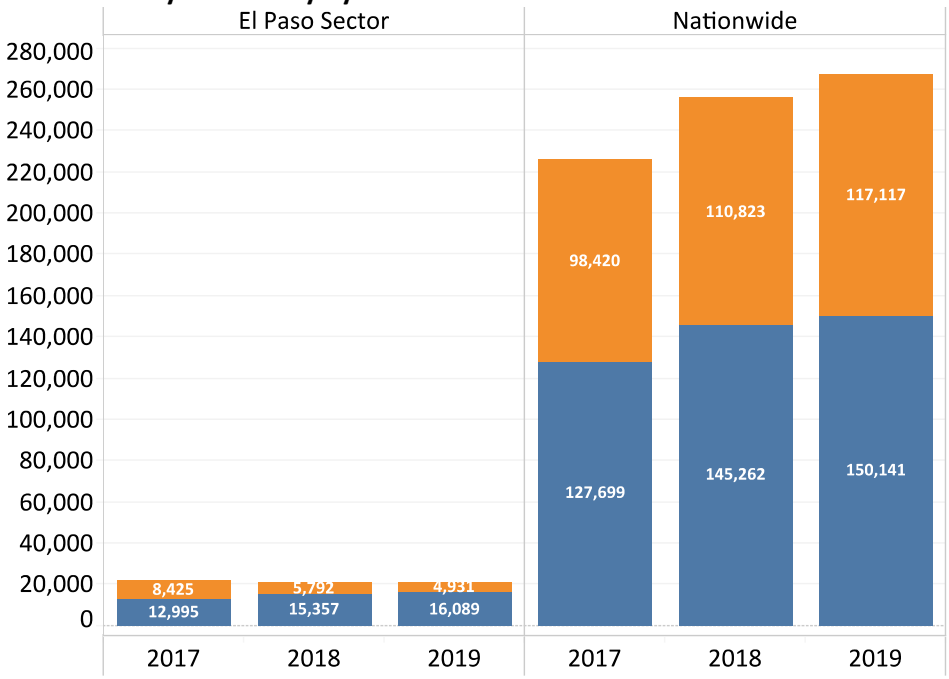
Source: *U.S. Customs and Border Protection.*

1
200,000
400,000
600,000
876,704

2. Removals

Certain operations executed by U.S. Immigration and Customs Enforcement (*ICE*) involve the removal of deportable aliens deemed to be a threat to communities in the U.S. The proportion of those removed as convicted criminals compared to non-criminals has been larger for the El Paso Sector than for the U.S. Figure 34 below illustrates for both the U.S. and the El Paso Sector, removals of convicted criminals have been increasing in recent years.

Figure 34. ICE Removals by Criminality by Fiscal Year

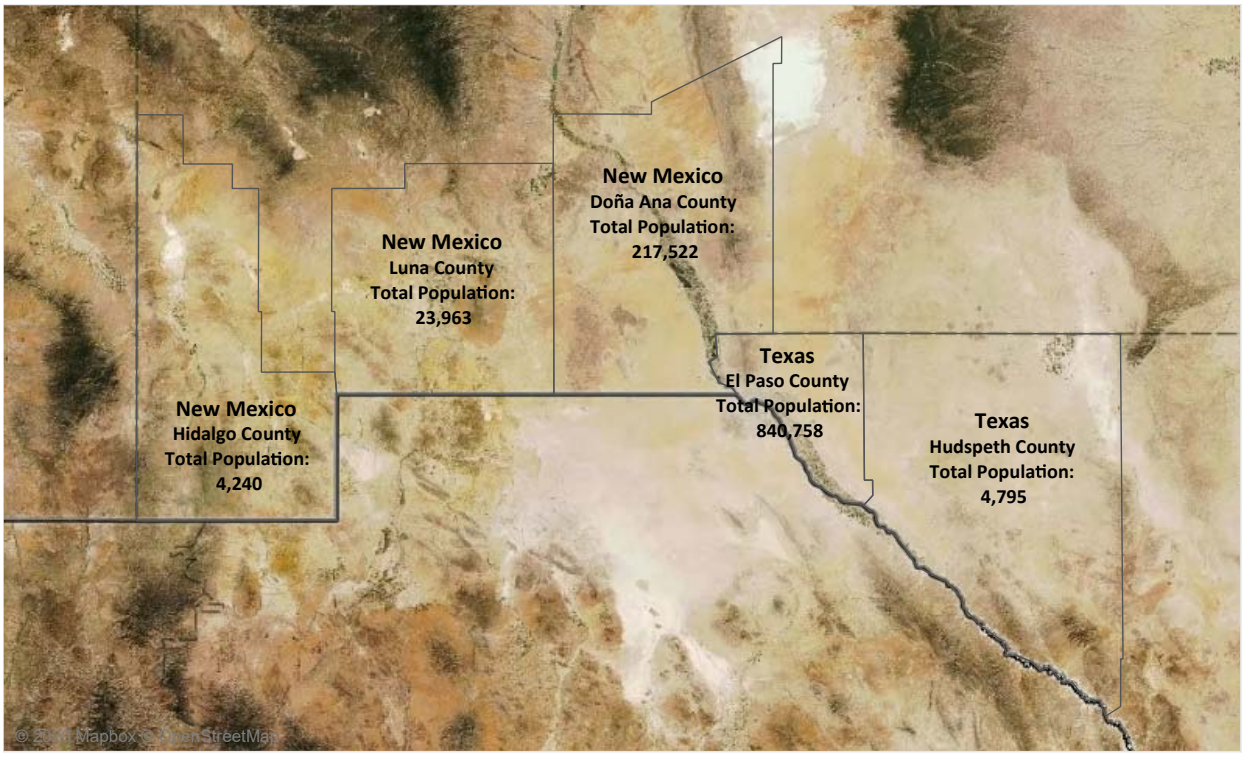


Source: *ICE Enforcement and Removal Operations Report.*

III. Social and Demographic Indicators

This section depicts recent trends of selected social and demographic indicators for the pilot mapping counties of El Paso and Hudspeth in west Texas, and Doña Ana, Luna, and Hidalgo in southern New Mexico. These indicators include: the total population; by age and gender, by race and ethnicity, and by language spoken. Additional social and demographic indicators include population below the poverty rate, and the fertility rate. The population densities in the pilot mapping counties provide insights into how previous border enforcement action deployments have impacted the communities in the El Paso Sector. El Paso County, for example, is the largest county in the El Paso Sector in terms of total population, however, it is the smallest in terms of total land area. The surrounding counties heading east and west are relatively small and rural. Hudspeth County is the biggest county in terms of land area but has one of the smallest populations. Luna and Hidalgo County are similarly small as well. These counties are more exposed to unauthorized immigrant crossing. The map below depicts the pilot mapping counties land area and total population.

Map 10. Total Population by County, 2018



Source: *U.S. Bureau of Economic Analysis.*

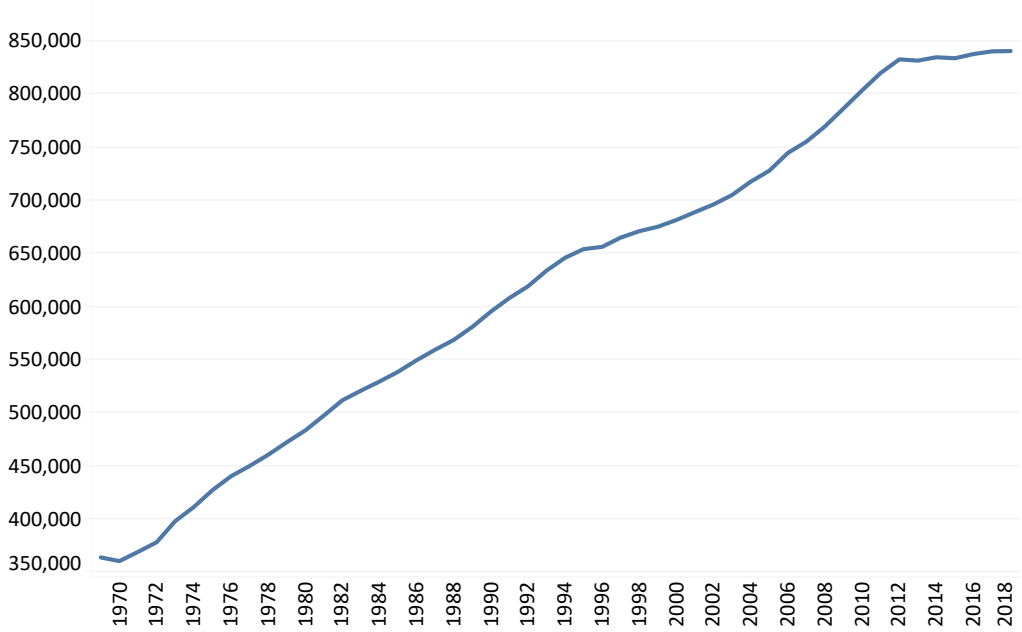
In El Paso County, particularly in the El Paso Metropolitan Statistical Area (*MSA*), the strong presence of *USBP* and *CBP* border enforcement infrastructure deters much of the unauthorized border crossing attempts. Much of this traffic is often spilled over to surrounding counties. The project team has created the map above, which illustrates the boundaries and square mile land area, along with the total population, of these pilot mapping counties.

A. Population

The U.S. Border Patrol (*USBP*) El Paso Sector encompasses the El Paso and Hudspeth counties in southwest Texas, and the Doña Ana, Luna, and Hidalgo counties in southern New Mexico. Although El Paso County is the smallest county in the El Paso *USBP* sector in terms of total land area (1015 square miles) (Map 1), it is the largest in terms of its population with 840,758 living there in 2018. Hudspeth County is a very small county in terms of its population with only 4,795 living there in 2018. However, it is the largest county in terms of its land area (4,572 square miles). West of El Paso County, in New Mexico, Doña Ana County is the second largest county in terms of its population with 217,522 living there in 2018. It is also a large county in terms of total land area (3,814 square miles). Many people in Hudspeth County and Doña Ana County travel to El Paso County daily for work and other leisure activities. El Paso County and Doña Ana County, together, make up the largest concentration of population with over one million living there in 2018. The other counties are mostly rural communities and have smaller populations. The remaining counties are much bigger in terms of their boundaries and all run along the U.S.-Mexico Border.

The following figures depict the total population in these counties from 1969 to 2018. According to the U.S. Bureau of Economic Analysis, the population in El Paso County has more than doubled since 1970 with a recent leveling off since 2010 at just below 850,000.

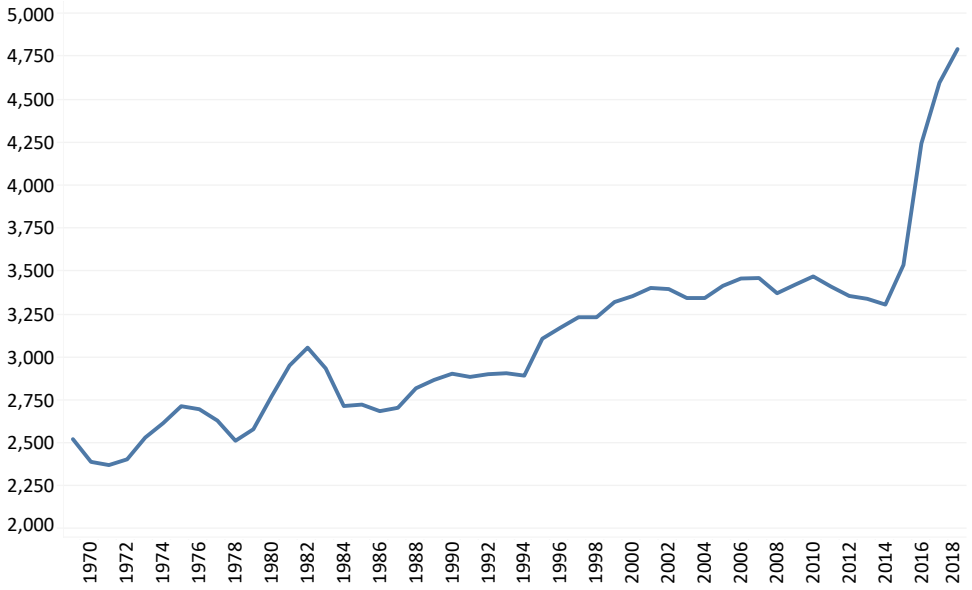
Figure 35. El Paso County, Texas, Total Population



Source: *U.S. Bureau of Economic Analysis.*

The population in Hudspeth County has increased since 1969, with a significant increase beginning in 2014. The Hudspeth County total population has increased by 90% from 1969 to 2018 as depicted in Figure 36 below.

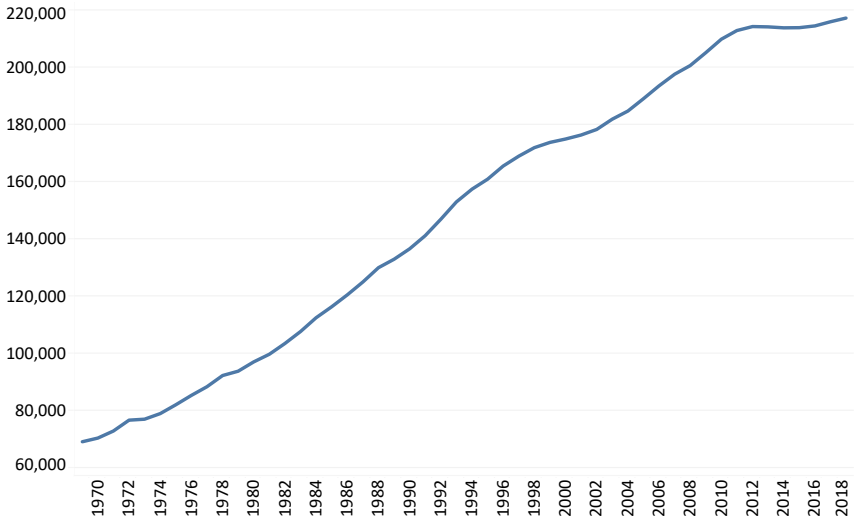
Figure 36. Hudspeth County, Texas, Total Population



Source: *U.S. Bureau of Economic Analysis.*

The population in Doña Ana County increased 215% from 1969 to 2018 and this growth is depicted in Figure 37 below.

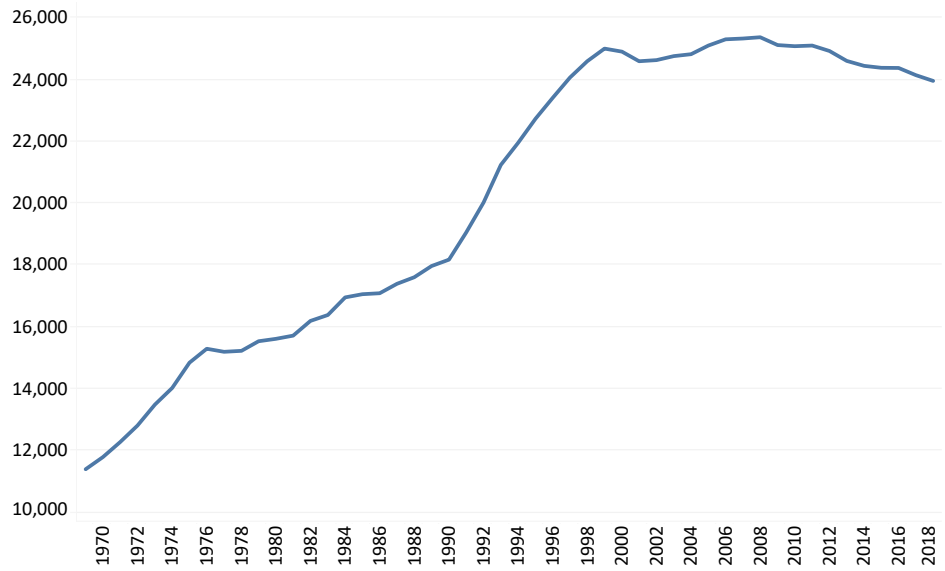
Figure 37. Doña Ana County, New Mexico, Total Population



Source: *U.S. Bureau of Economic Analysis.*

While the population of Luna County has increased by 110% from 1969 to 2018, its population has been slightly decreasing for several years as shown in Figure 38 below.

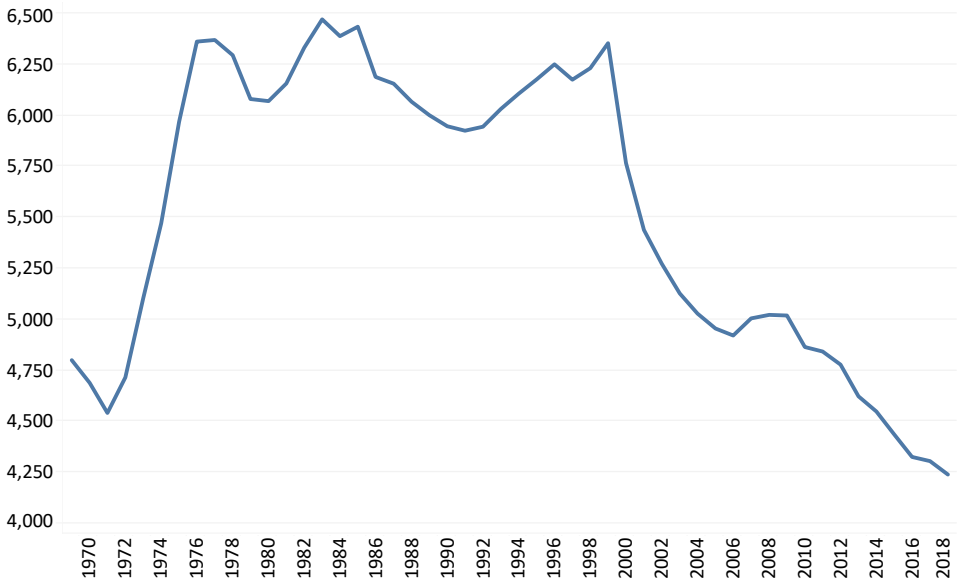
Figure 38. Luna County, New Mexico, Total Population



Source: *U.S. Bureau of Economic Analysis.*

Hidalgo County is the only El Paso Sector county where its population decreased from 1969 to 2018, with a reduction in the population by 12% with consistent declines year over year since 2000. The Hildago County population data are depicted in Figure 39.

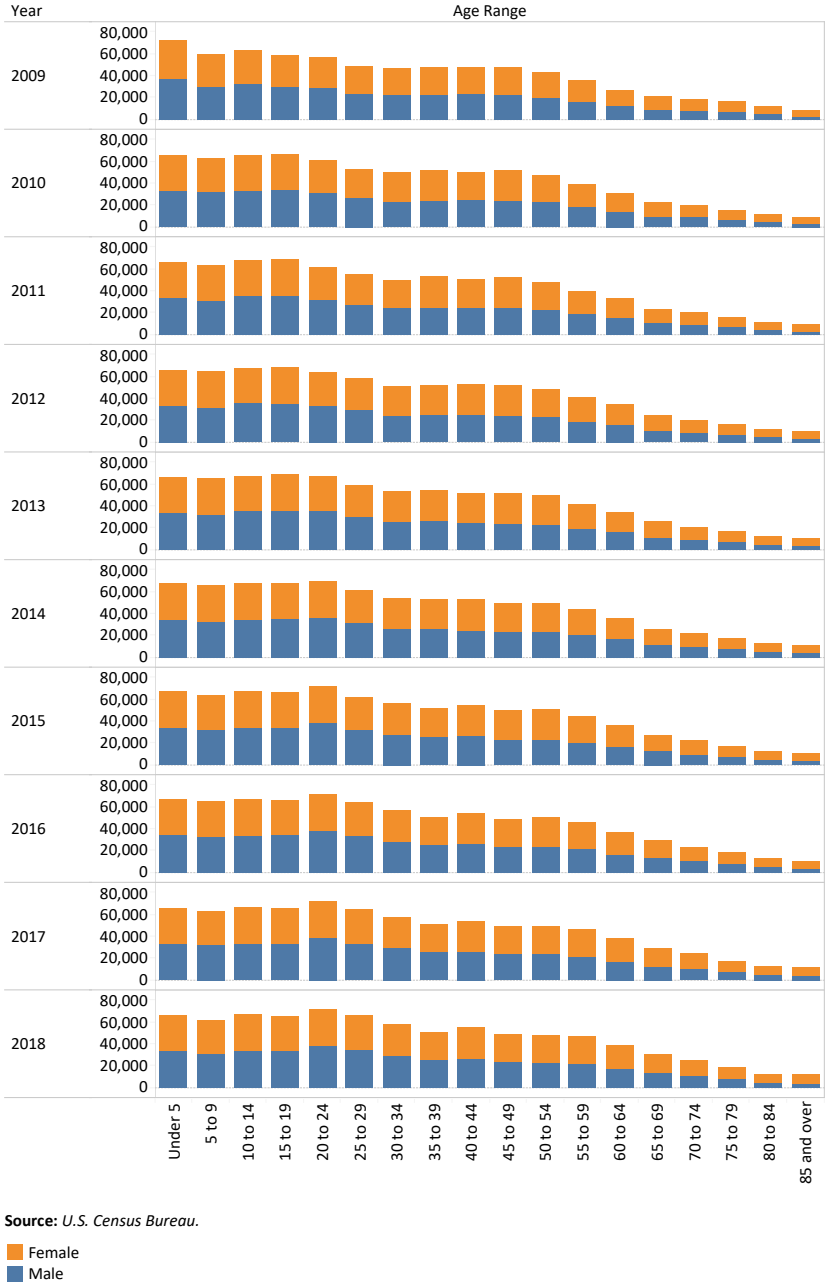
Figure 39. Hidalgo County, New Mexico, Total Population



Source: *U.S. Bureau of Economic Analysis.*

In 2018, the El Paso County population was 49% male and 51% female. However, the gender distribution in El Paso County differs depending on age. For example, for the age group 60 to 64 years old, 45% were male and 55% were female. While for the age group of 10 to 14, 50% were male and 50% were female. Nevertheless, generally, there are slightly more females than males in El Paso County, according to the U.S. Census Bureau. Figure 40 below depicts population trends by age and gender in El Paso County. El Paso County has a relatively young population. According to the U.S. Census Bureau, in 2018, the largest age group in El Paso County was 20 to 24 years. Generally, most of the population is between the ages of 0 and 24.

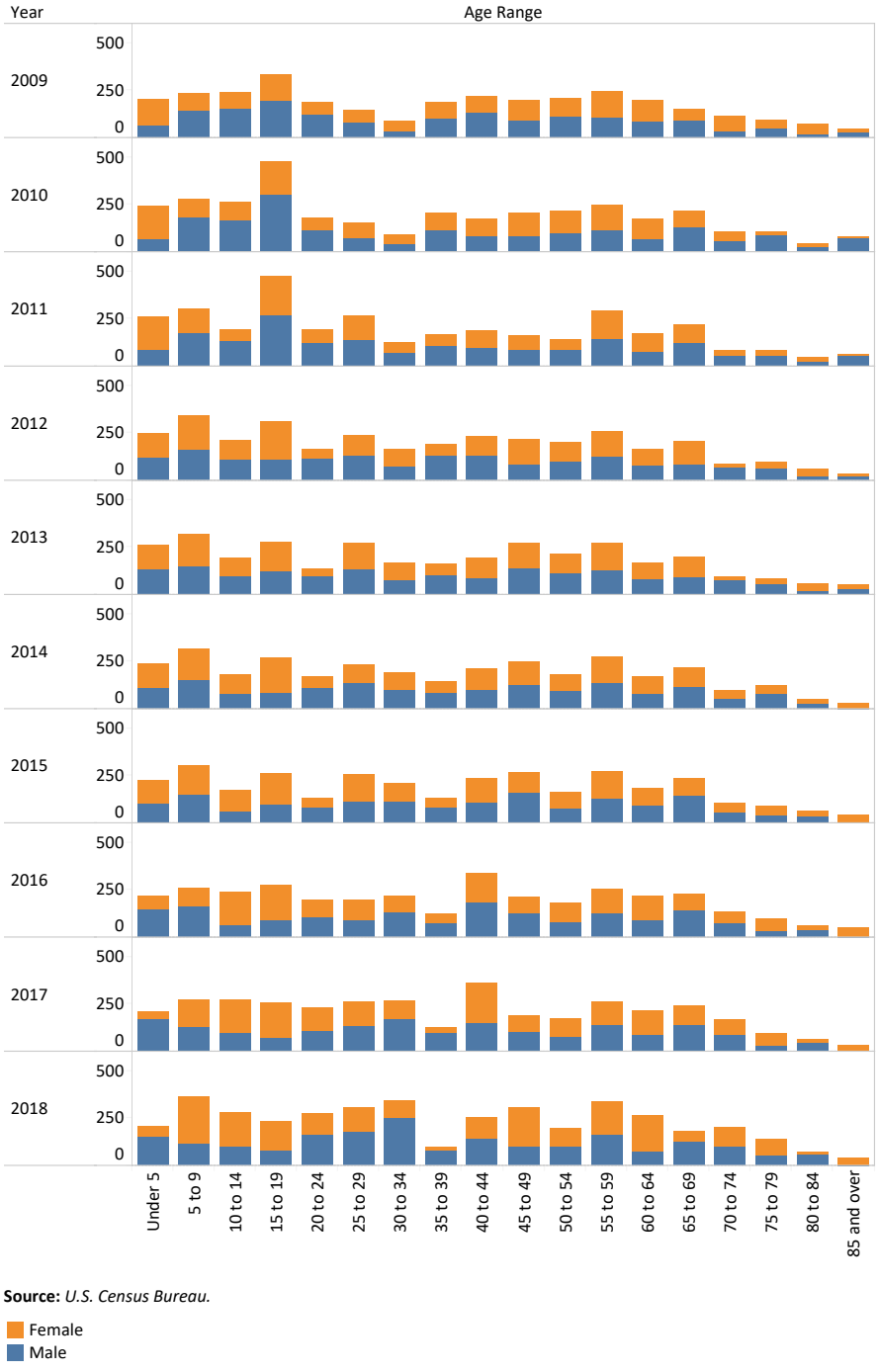
Figure 40. Population by Age and Gender, El Paso County, Texas



Source: *U.S. Census Bureau.*

It is difficult to observe a trend in terms of age groups in Hudspeth County because it has such a small population. Nevertheless, according to the U.S. Census Bureau, the largest age group in Hudspeth County, in 2018, was ages 5 to 9. The second largest age group was 30 to 34. In 2011, the largest age group was 15 to 19. Many people that live in Hudspeth County travel to El Paso daily for work and other leisure activities

Figure 41. Population by Age and Gender, Hudspeth County, Texas



Source: *U.S. Census Bureau.*

In Doña Ana County, the largest age group is by far those between the ages of 20 and 24. In 2018, the Doña Ana County population was 49% male and 51% female. The gender distribution in Doña Ana County differs depending on age. For example, for the age group 60 to 64 years, 43% were male and 57% were female. While for the age group of 10 to 14, 52% were male and 48% were female.

Figure 42. Population by Age and Gender, Doña Ana County, New Mexico

Source: *U.S. Census Bureau.*

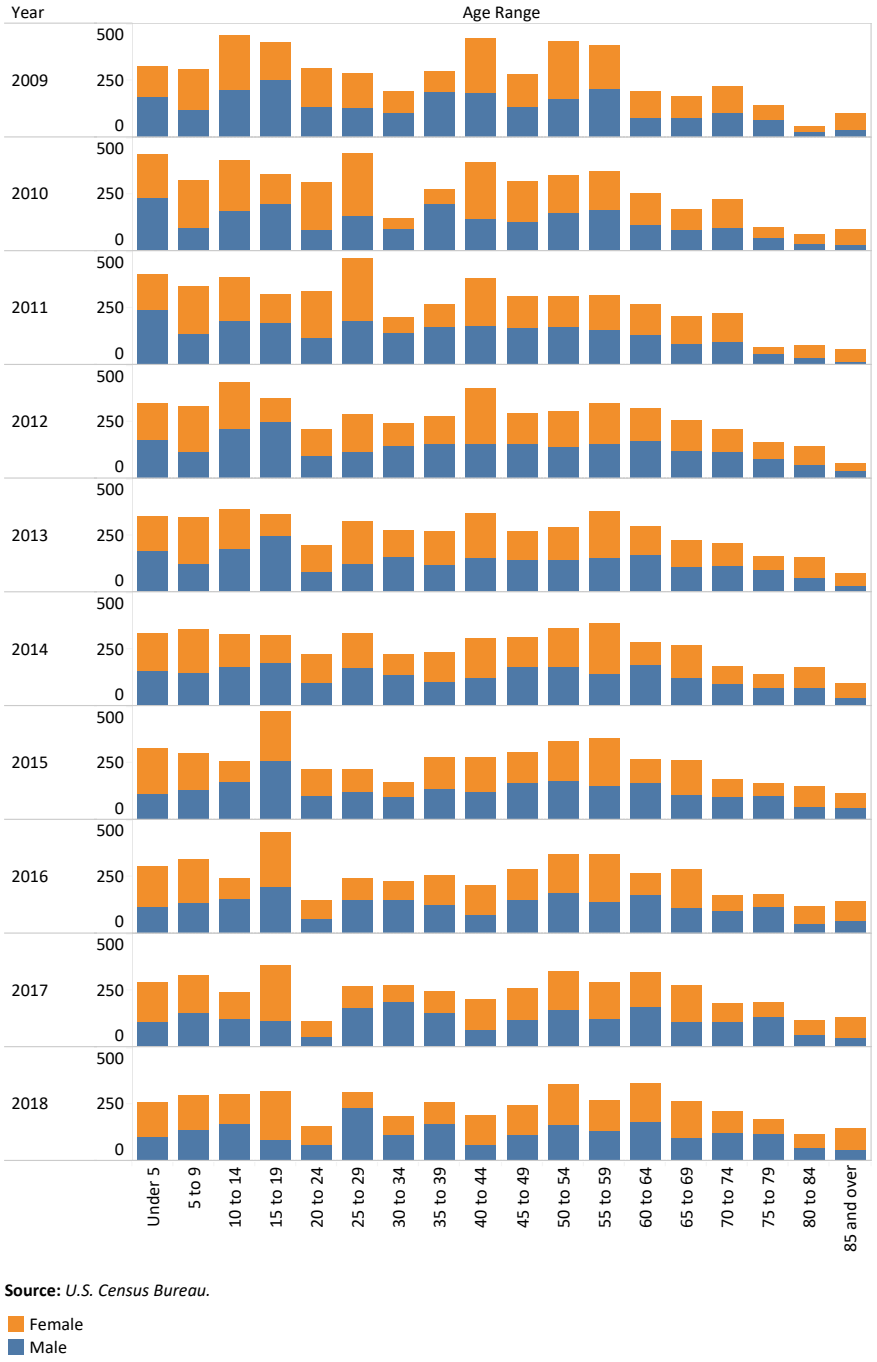
Luna County had a population of 23,963 in 2018, of which 49% was male and 51% was female. The gender distribution in Luna County also differs depending on age. For example, for the age group 60 to 64 years, 49% were male and 51% were female. While for the age group of 10 to 14, 45% were male and 55% were female. The age group 35 to 39 had the highest percentage of females with 60%.

Figure 43. Population by Age and Gender, Luna County, New Mexico

Source: *U.S. Census Bureau.*

In 2018, the Hidalgo County population was only 4,240, of which 32% was male and 68% was female. The gender distribution in Hidalgo County differs depending on age. For example, for the age group 60 to 64 years, 49% were male and 51% were female. While for the age group of 10 to 14, 54% were male and 46% were female. The age group of 25 to 29 had the highest percentage of males with 75%.

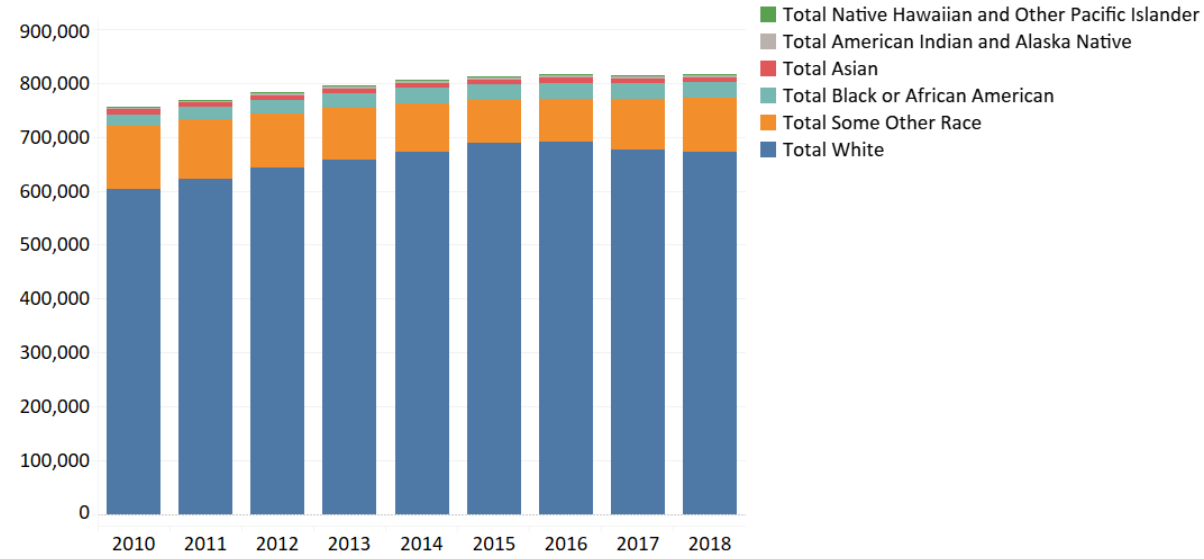
Figure 44. Population by Age and Gender, Hidalgo County, New Mexico



Source: *U.S. Census Bureau.*

Figure 45 below depicts recent population trends by race in El Paso County. Some Other Race is the second largest category, after White. Black or African American makes up the third biggest part of the El Paso County population. As the population has increased since 2010, so have the White, Some Other Race, and Black or African American populations in El Paso County.

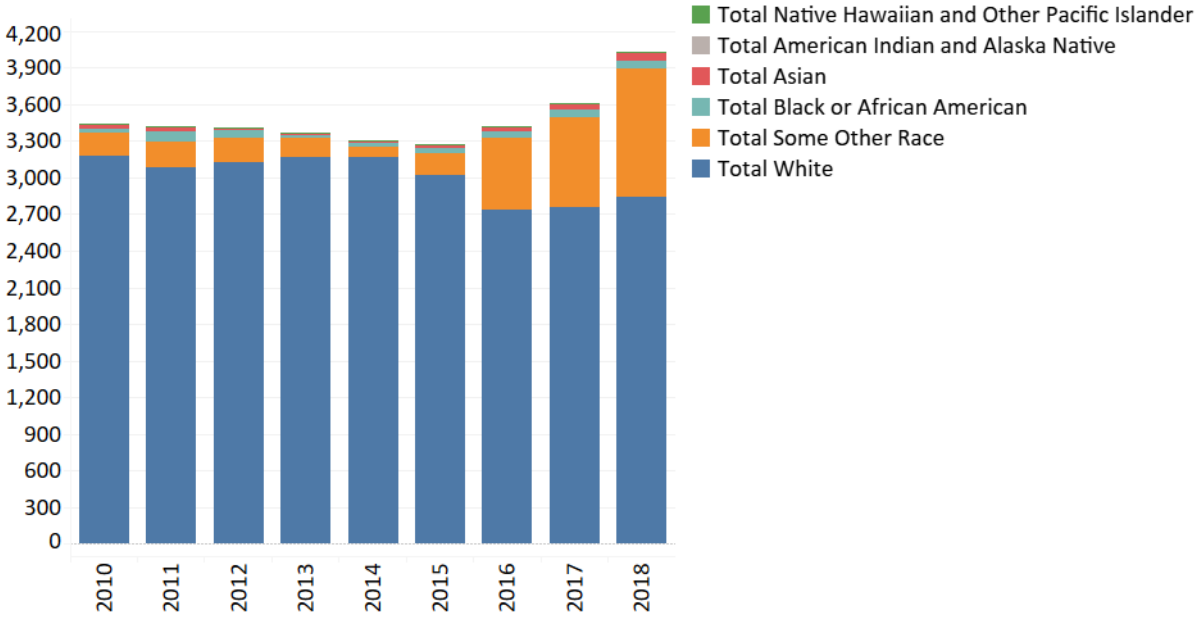
Figure 45. Population by Race (One Race, El Paso County, Texas



Source: *U.S. Census Bureau.*

The figure below depicts recent population trends by race In Hudspeth County. Most of the population is White like El Paso, however, this has decreased noticeably after 2015. In 2018, Some Other Race increased, making up approximately 31% of the total population.

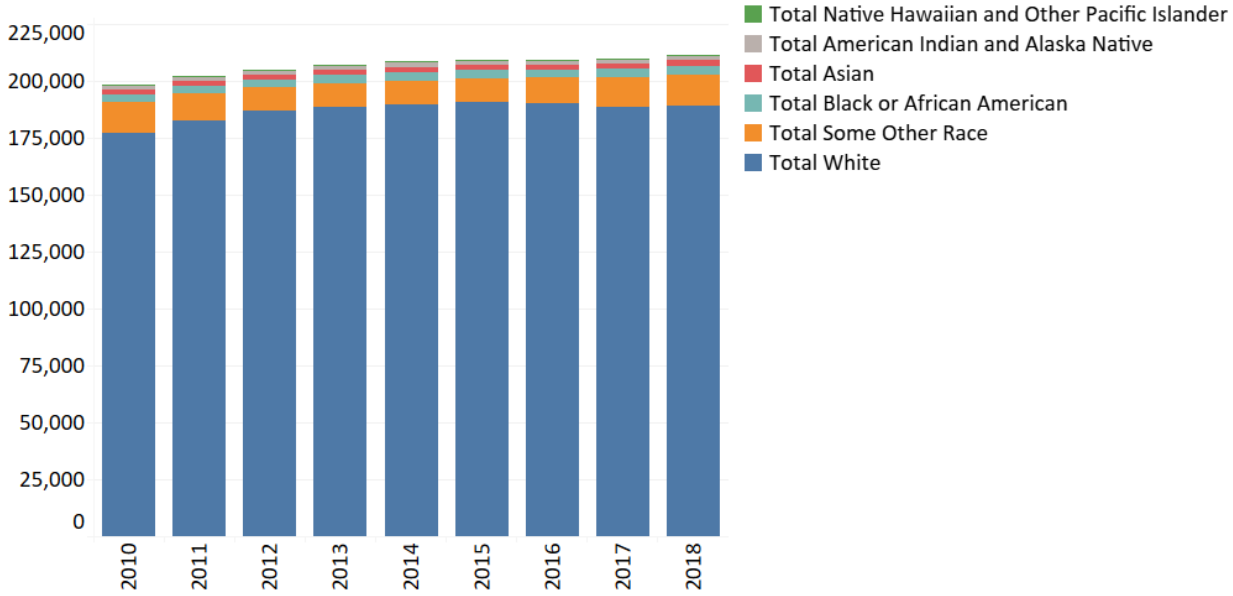
Figure 46. Population by Race (One Race, Hudspeth County, Texas



Source: *U.S. Census Bureau.*

Recent population trends by race in Doña Ana County indicate the vast majority of the population in Doña Ana County is White and the percentage (88%) has remained relatively unchanged from 2010 to 2018 as depicted in Figure 47.

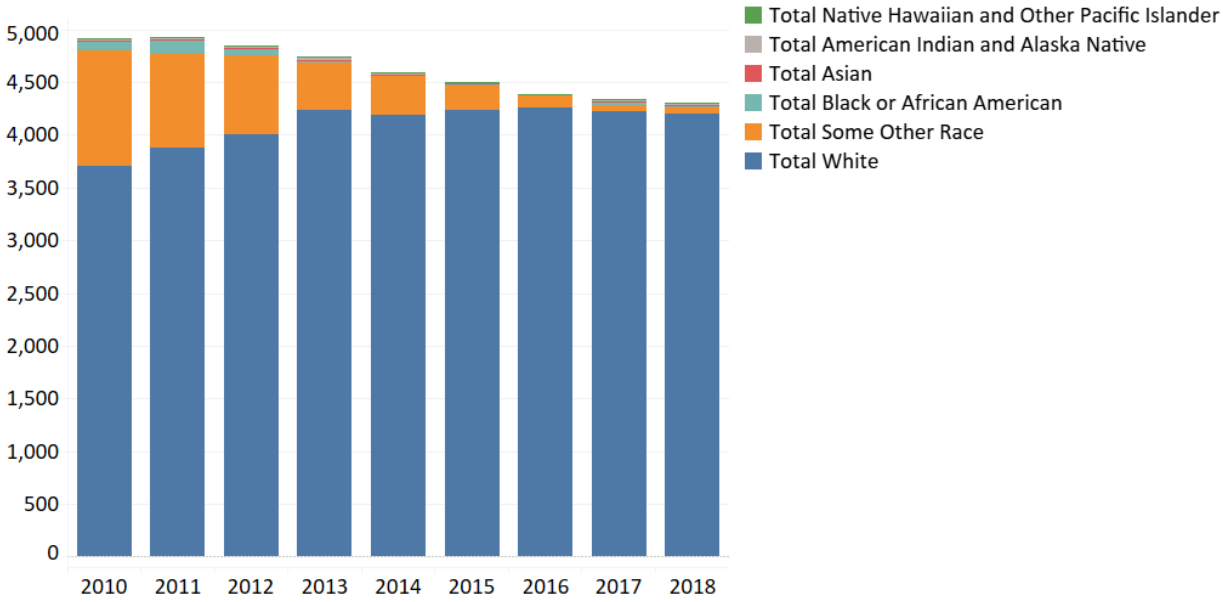
Figure 47. Population by Race (One Race), Doña Ana County, New Mexico



Source: *U.S. Census Bureau.*

Figure 48 below depicts recent population trends by race in Hidalgo County. In 2010, Some Other Race made up 22% of total population, while in 2018, it only made up less than 1% of the population. In 2010, three quarters of the population in Hidalgo County was White increasing to 96% by 2018.

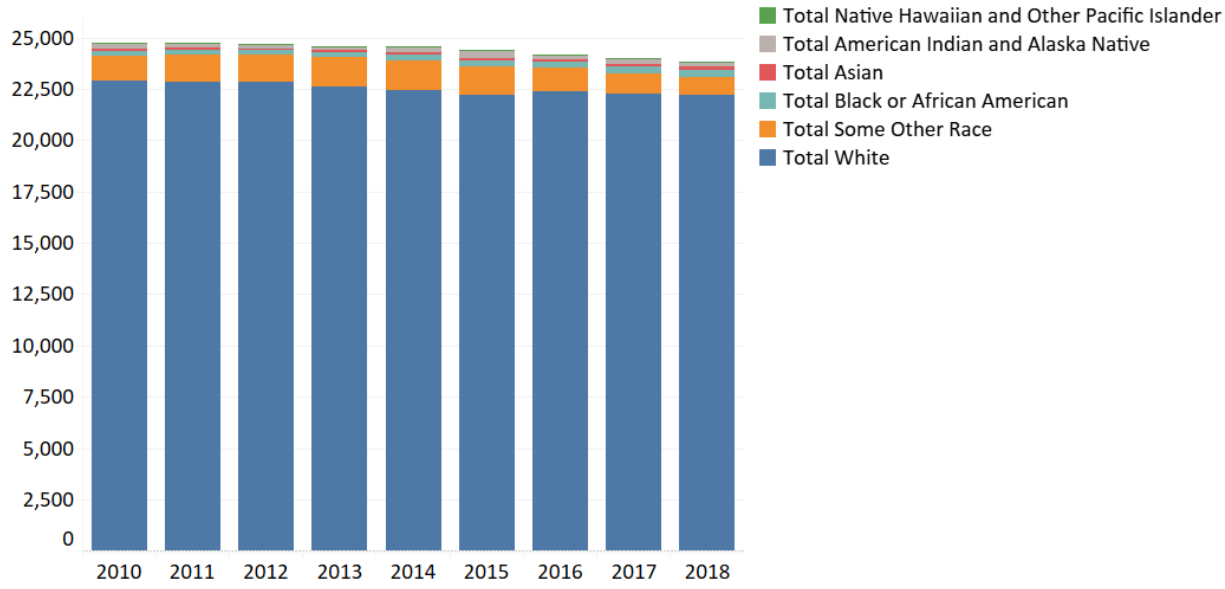
Figure 48. Population by Race (One Race, Hidalgo County, New Mexico



Source: *U.S. Census Bureau.*

As shown in Figure 49, the population in Luna County has remained predominantly White from 2010 to 2018.

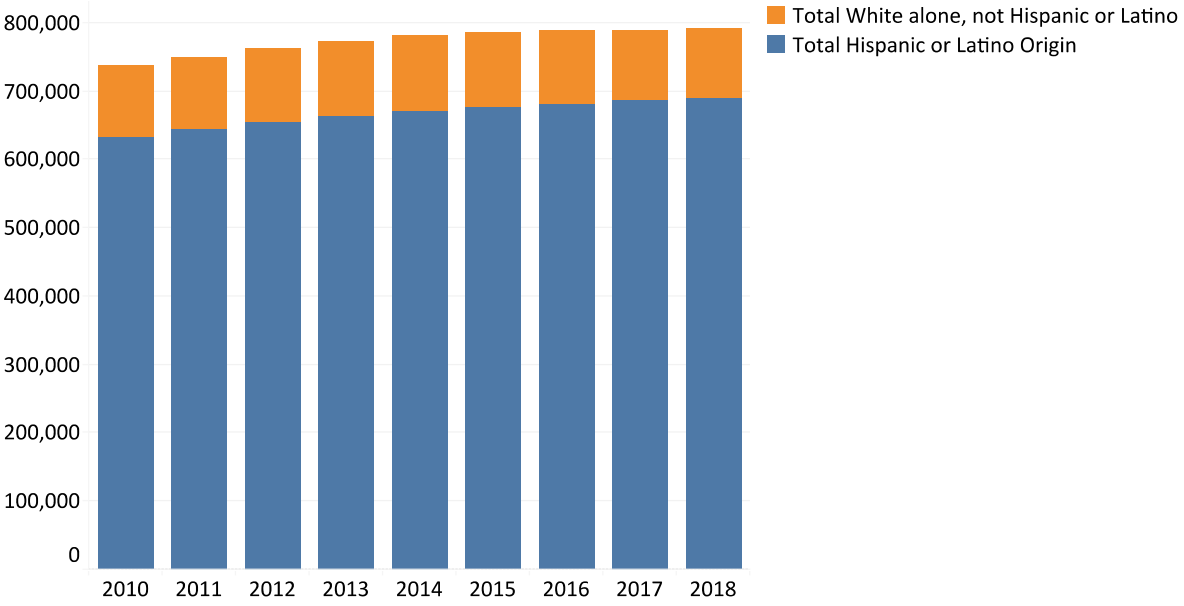
Figure 49. Population by Race (One Race, Luna County, New Mexico



Source: *U.S. Census Bureau.*

In Figure 50, recent trends in population by ethnicity for El Paso County are depicted with more than three quarters of the population identifying as being Hispanic or of Latino origin. In 2018, only 12% of the population was reported as White and not Hispanic or Latino origin in El Paso County. As the population has grown since 2010, so has Hispanic or Latino origin ethnicity within El Paso County.

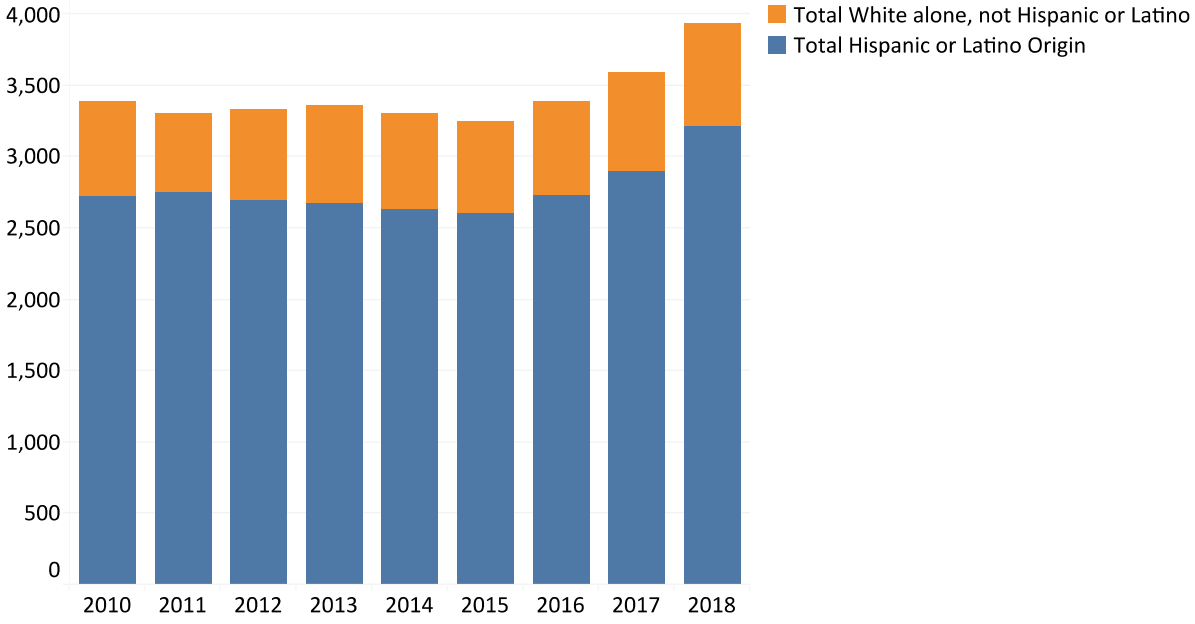
Figure 50. Population by Ethnicity, El Paso County, Texas



Source: *U.S. Census Bureau.*

The figure below depicts recent trends in population by ethnicity in Hudspeth County. Roughly three quarters of the population in Hudspeth County is Hispanic or of Latino origin. This demographic increased greatly after 2015. In 2018, White but not Hispanic or Latino made up 18% of the population.

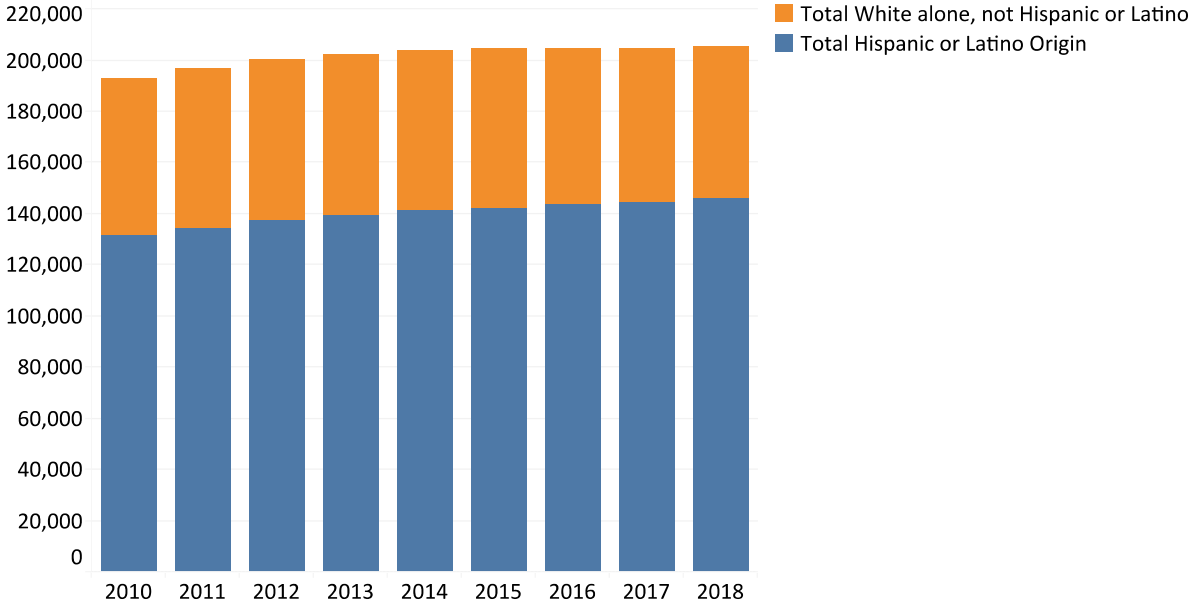
Figure 51. Population by Ethnicity, Hudspeth County, Texas



Source: *U.S. Census Bureau.*

About two-thirds of the population in Doña Ana County is Hispanic or of Latino origin. This demographic increased gradually after 2015. In 2018, White but not Hispanic or Latino made up 29% of the population.

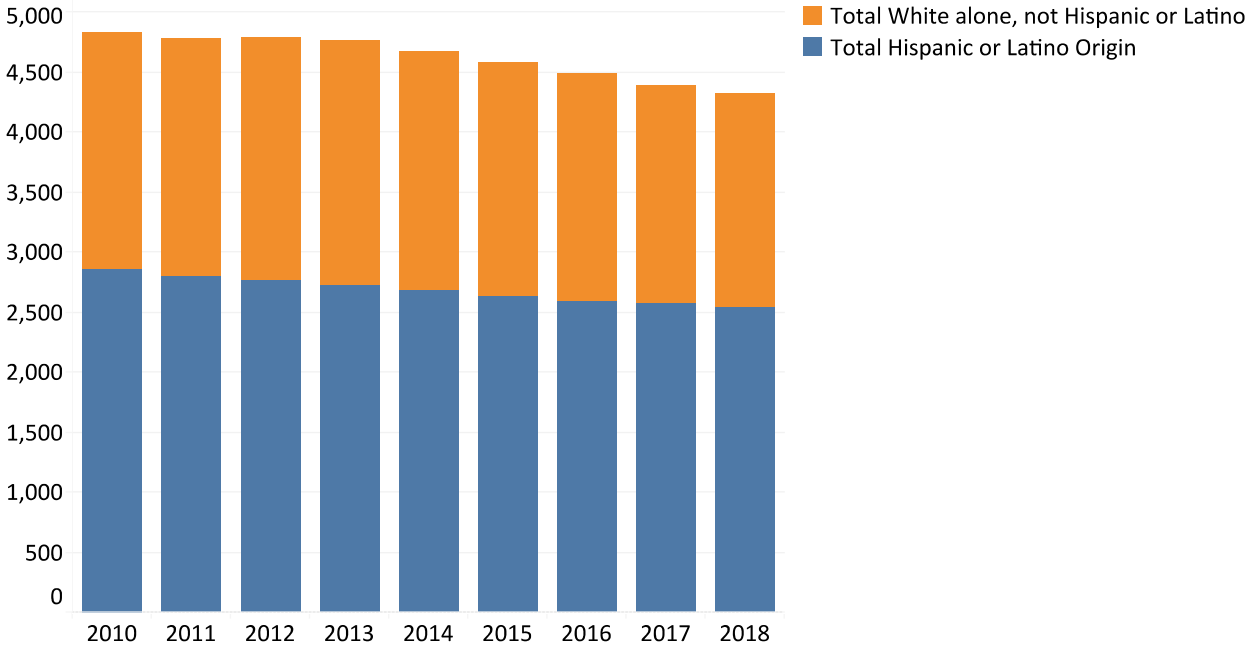
Figure 52. Population by Ethnicity, Doña Ana County, New Mexico



Source: *U.S. Census Bureau.*

More than half of the population in Hidalgo County is Hispanic or of Latino origin. This demographic decreased since 2010.

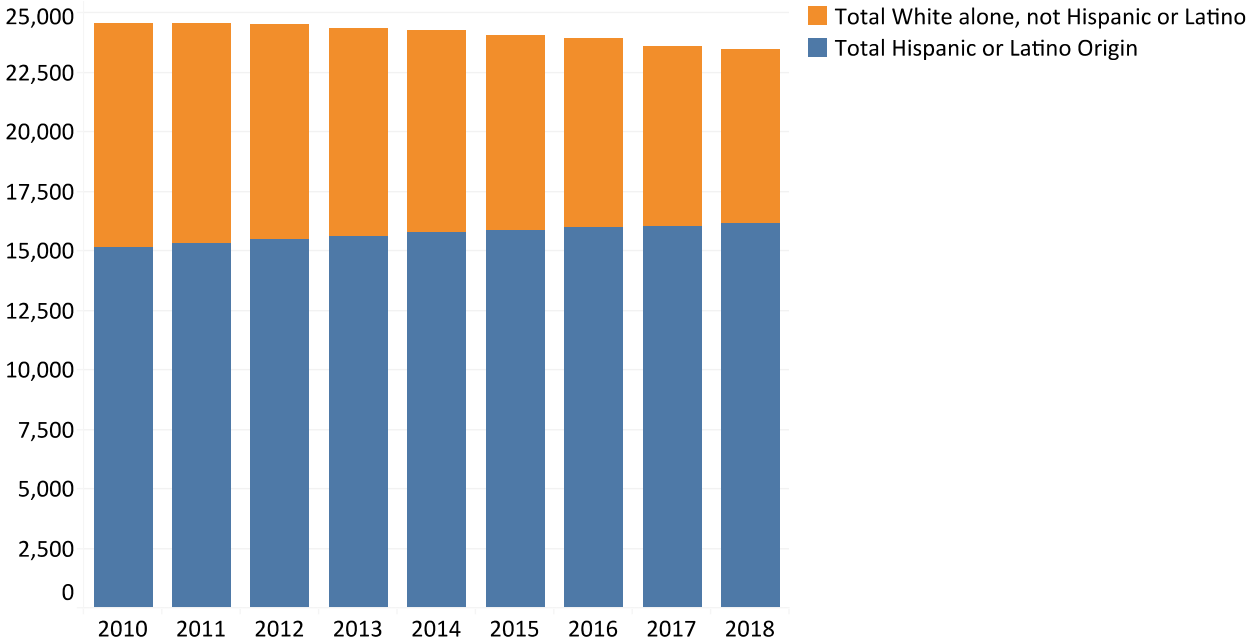
Figure 53. Population by Ethnicity, Hidalgo County, New Mexico



Source: *U.S. Census Bureau.*

More than half of the population in Luna County is Hispanic or of Latino origin. This demographic increased since 2010.

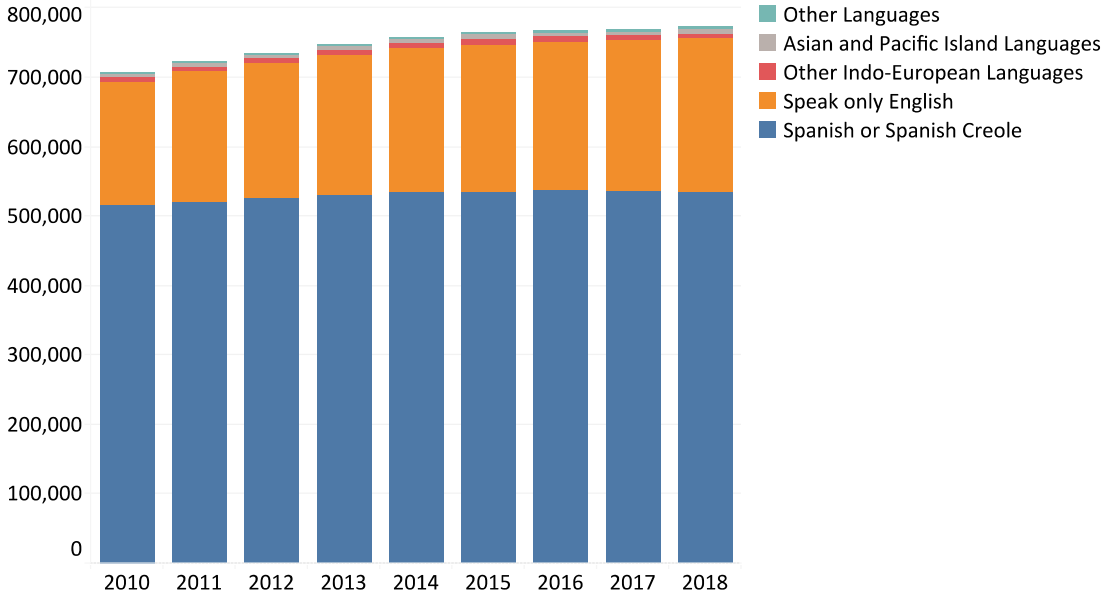
Figure 54. Population by Ethnicity, Luna County, New Mexico



Source: *U.S. Census Bureau.*

In El Paso County, as of 2018, 69% of the population spoke Spanish or Spanish Creole. The share of the only English speaking population has increased since 2010. In 2010, 25% of the population spoke only English, while in 2018 29% did so.

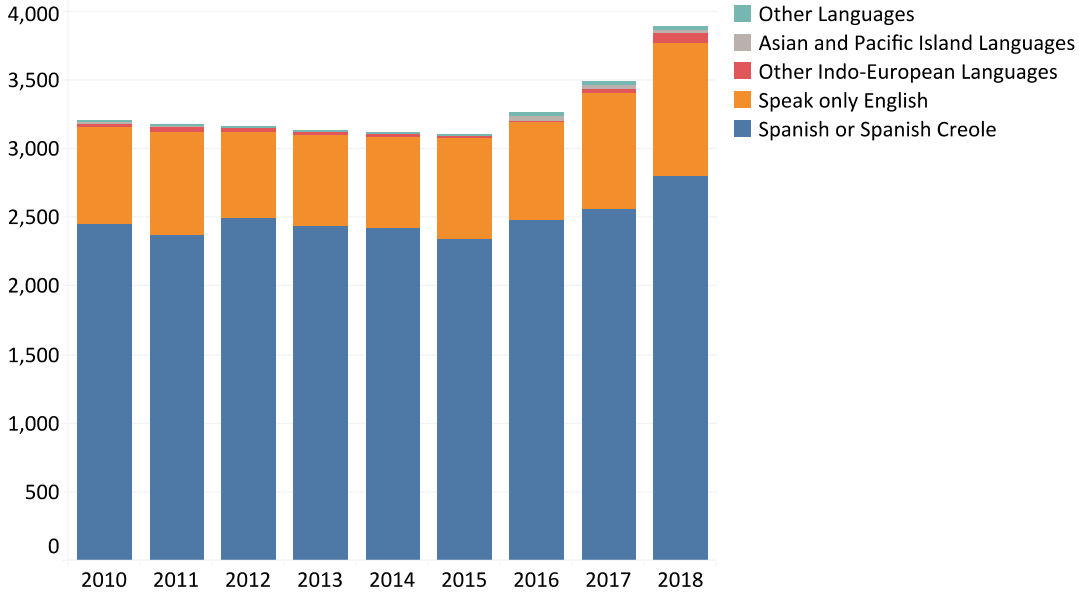
Figure 55. Population by Language Spoken, El Paso County, Texas



Note: *Data is for population age 5 years and over.*
Source: *U.S. Census Bureau.*

In Hudspeth County, as of 2018, 72% of the population spoke Spanish or Spanish Creole. The share of the only English-speaking population has increased since 2010. In 2010, 22% of the population spoke only English, while in 2018 25% did so.

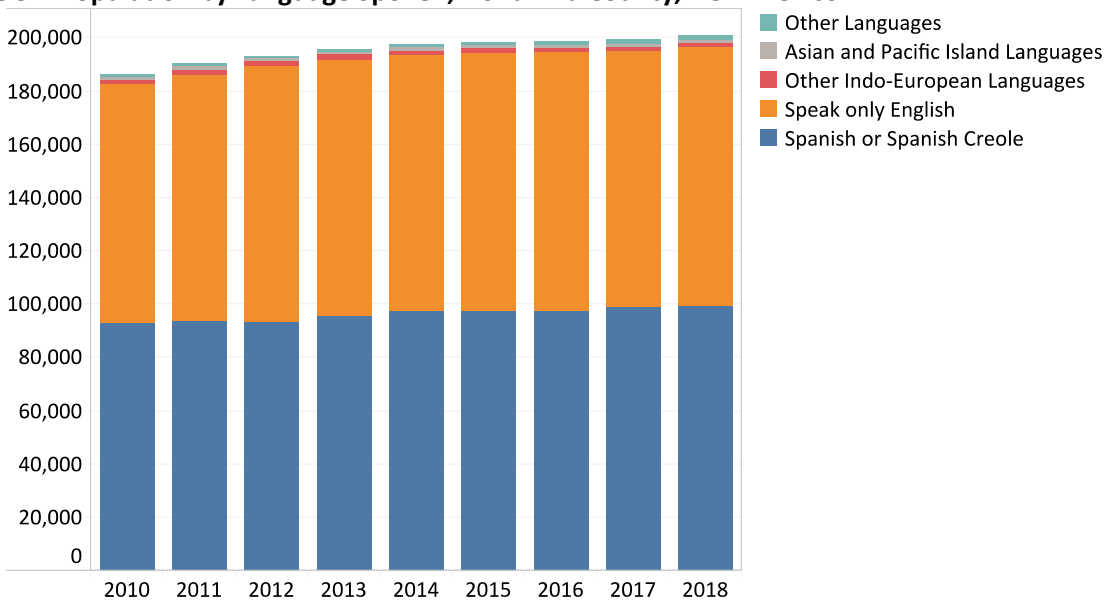
Figure 56. Population by Language Spoken, Hudspeth County, Texas



Note: *Data is for population age 5 years and over.*
Source: *U.S. Census Bureau.*

In Doña Ana County, the English only and Spanish speaking population have increased since 2010. About less than half of the population speaks Spanish.

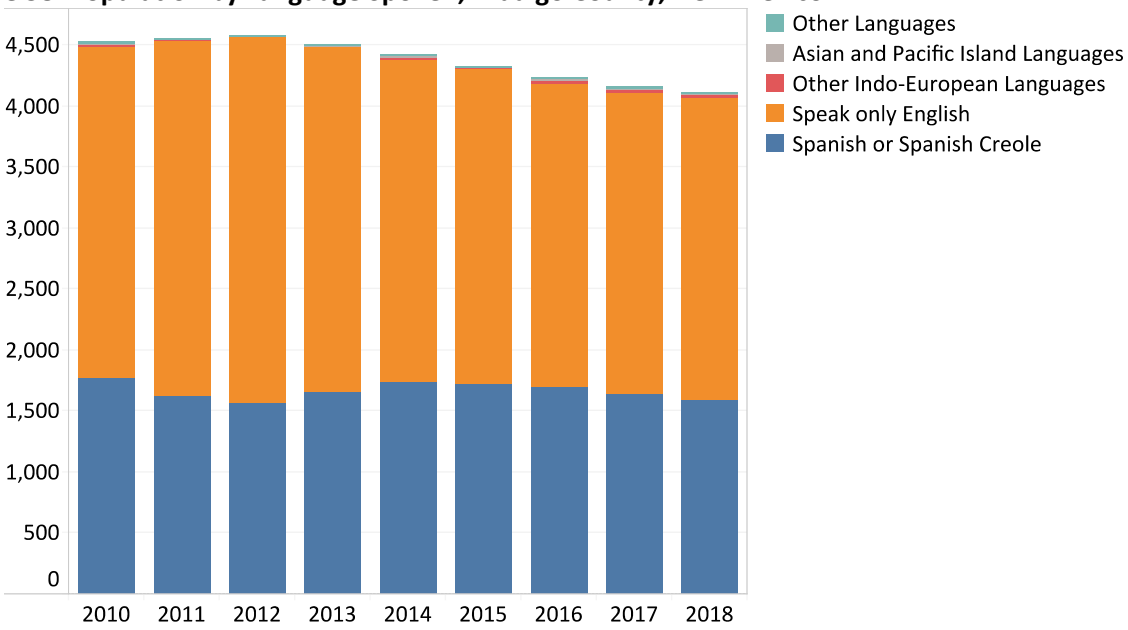
Figure 57. Population by Language Spoken, Doña Ana County, New Mexico



Note: *Data is for population age 5 years and over.*
Source: *U.S. Census Bureau.*

Less than half of the population speaks Spanish in Hidalgo County, New Mexico. In 2018, 1,584 persons spoke Spanish while 2,491 only English in Hidalgo County.

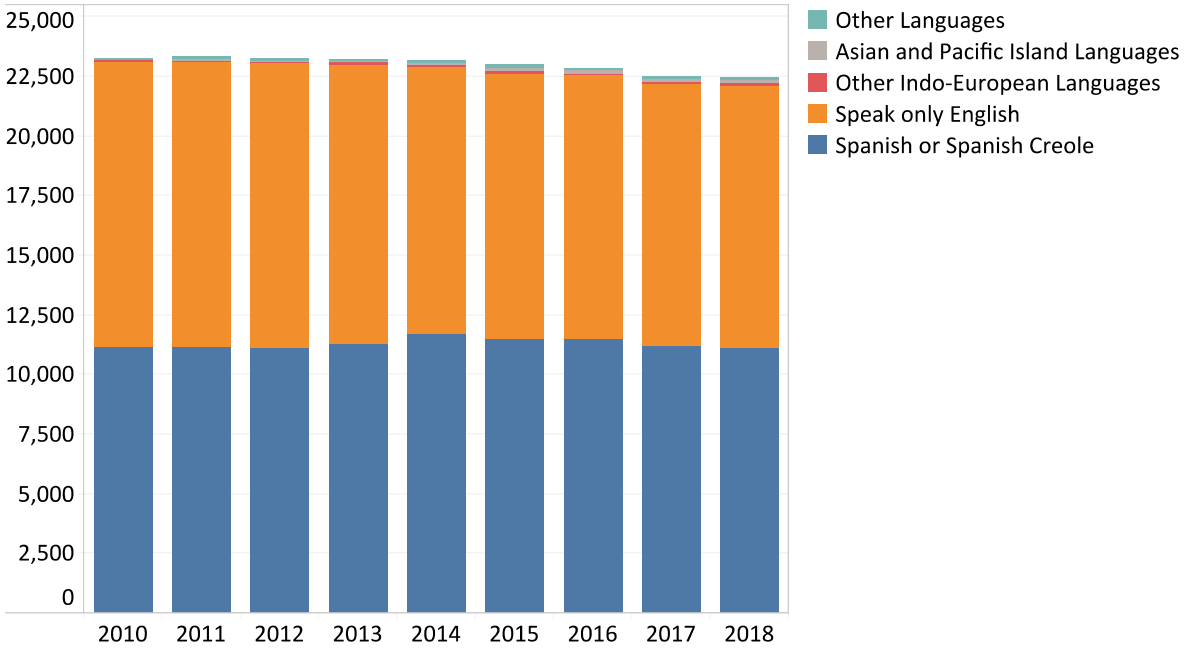
Figure 58. Population by Language Spoken, Hidalgo County, New Mexico



Note: *Data is for population age 5 years and over.*
Source: *U.S. Census Bureau.*

As shown in Figure 59, approximately half of the population speaks Spanish in Luna County, New Mexico.

Figure 59. Population by Language Spoken, Luna County, New Mexico

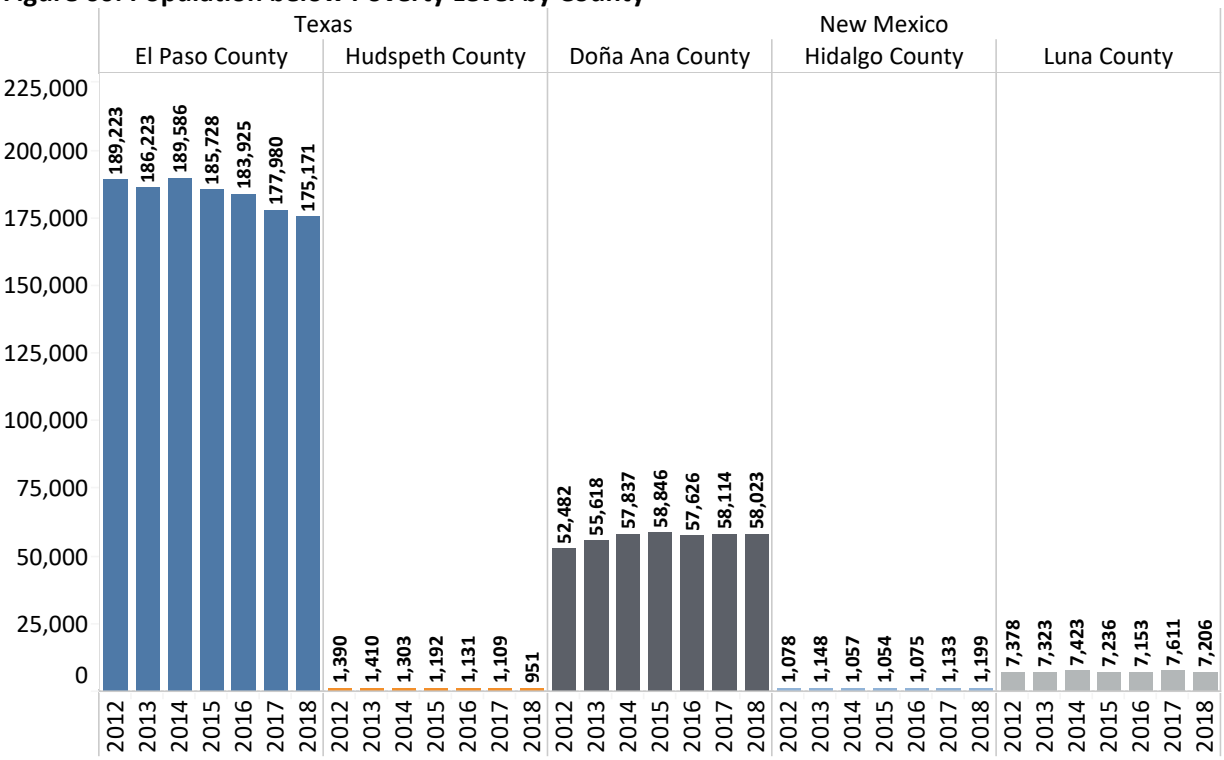


Note: *Data is for population age 5 years and over.*
Source: *U.S. Census Bureau.*

B. Population Below the Poverty Level

The project team has collected data on the number of people below the poverty level in pilot mapping counties. In 2018, in El Paso County, approximately 21% of the population was below the poverty level. However, the number of people under the poverty level in El Paso County has decreased consistently, going from 189,000 in 2012 to 175,000 in 2018, a 7% decrease. In Doña Ana County, approximately 27% of the population is below the poverty level. Although the number of people below the poverty level decreased from 2017 to 2018, the number of people below the poverty level has been increasing since 2012. Doña Ana County is the second largest county in terms of population and economy size.

Figure 60. Population below Poverty Level by County



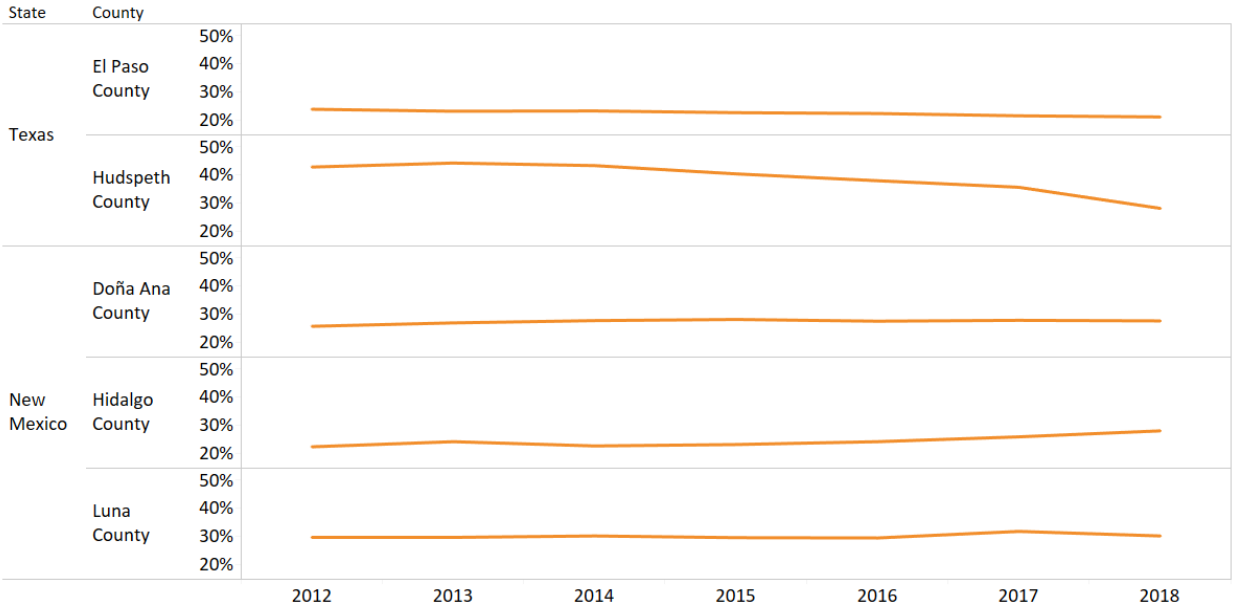
Source: *U.S. Census Bureau.*

In 2018, approximately 20% of the people in Hudspeth County were below the poverty level. In Hudspeth County, the number of people below the poverty line has decreased since 2013, falling from 1,109 in 2017 to 951 in 2018. In 2018, approximately 30% of the population in Luna County was below the poverty level. The number of people below the poverty level in Luna County has remained relatively the same since 2012.

C. Poverty Rate

The percentage of the population below the poverty level in El Paso County has remained relatively the same since 2012, with a slightly downward trend as seen in the figure below. Doña Ana County and Luna County have also had relatively stable trends. For Hudspeth County, however, the percentage of the population under the poverty level has decreased significantly. In Hidalgo County, the percentage of the population under the poverty level increased after 2016.

Figure 61. Population below Poverty level by County (%)

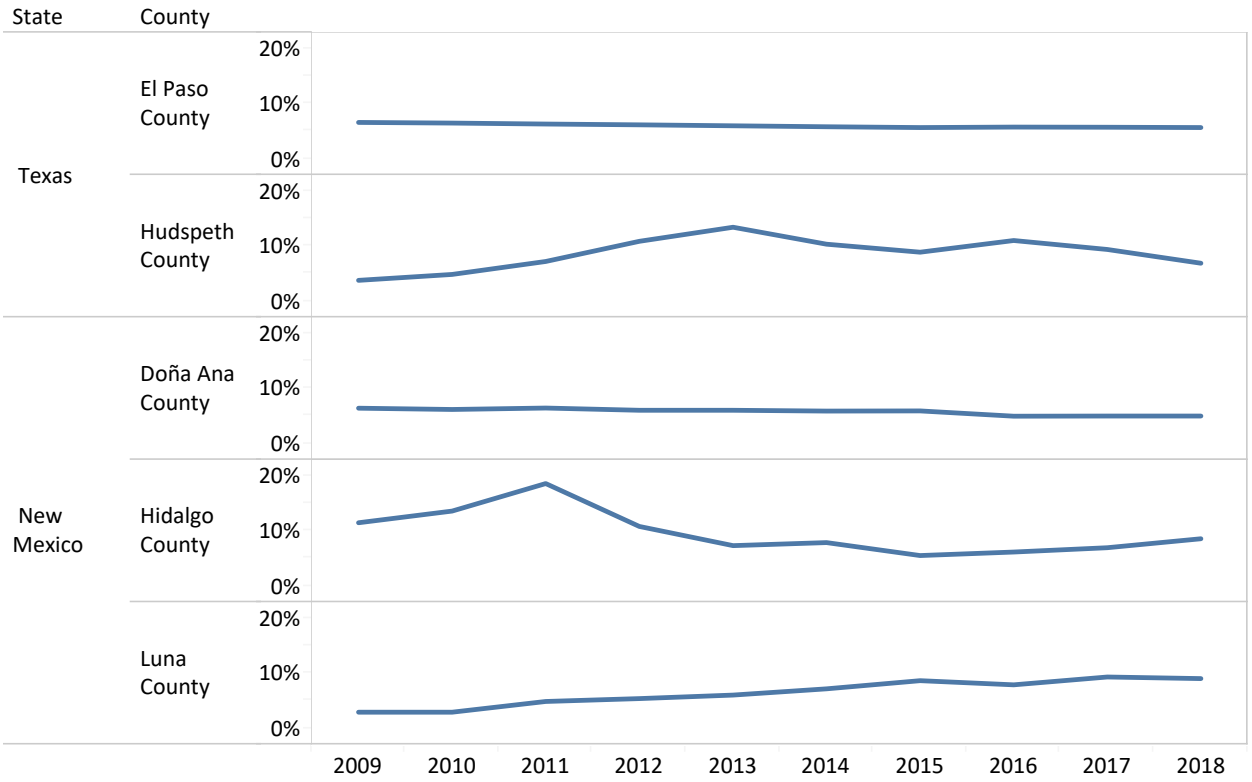


Source: *U.S. Census Bureau.*

D. Fertility Rate

In this section, the project team presents data on the fertility rate in pilot mapping counties. In El Paso County, the fertility rate has not changed much since 2009. In Hudspeth County, the fertility rate increased significantly from 2009 to 2013. Recently, however, the fertility rate in Hudspeth County has decreased. In Doña Ana County, the fertility rate has remained stable, mirroring El Paso's rate and trend closely. In Hidalgo County, the fertility rate increased markedly from 2009 to 2011 and then decreased until 2015. In Luna County, the fertility rate has been increasing consistently since 2009.

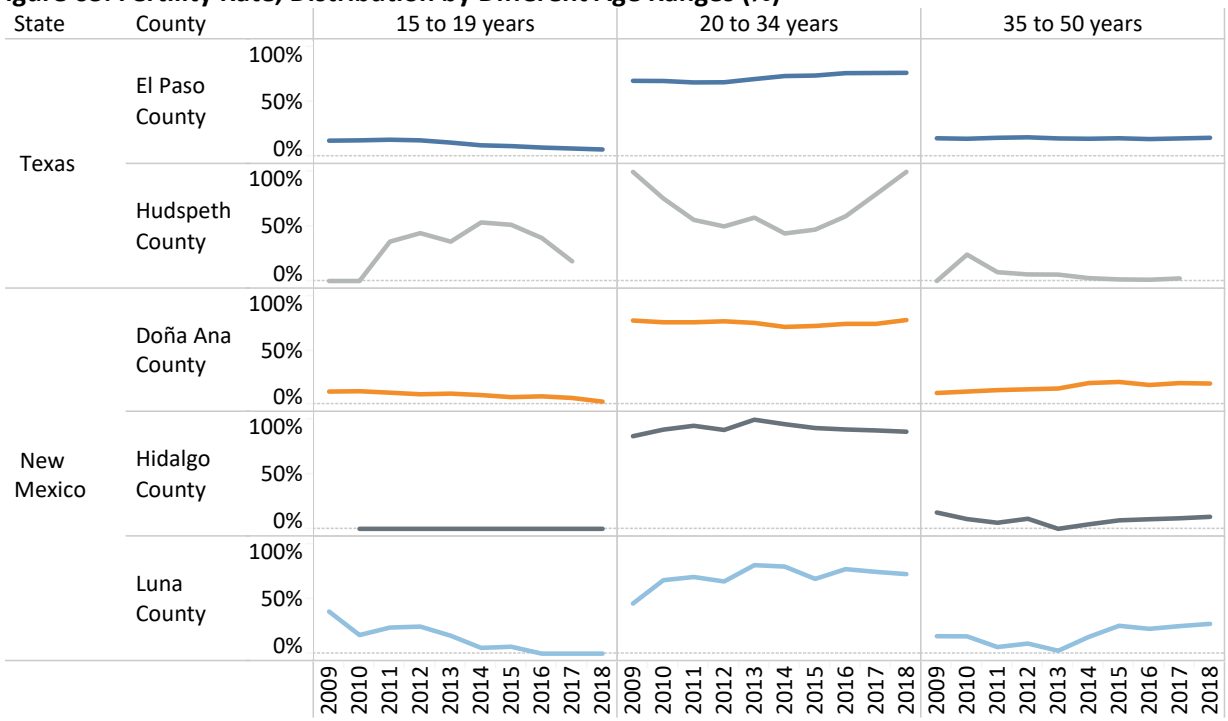
Figure 62. Fertility Rate by County (%)



Note: *Data is for women with births between 15 to 50 years old.*
Source: *U.S. Census Bureau.*

The distribution of the fertility rate is more diversified by age groups. The figure below depicts fertility rates by different age ranges. In El Paso County, the fertility rate among those 15 to 19 years decreased from 14% in 2009 to 6%% in 2018. The fertility rate among those 35 to 50 years old is also very low. The 20 to 34-year age group has the highest fertility rate at over 60%. The fertility rate in this age group has been increasing since 2010 to 2018. In Hudspeth County, the fertility rate among those 15 to 19 years old decreased significantly after 2014. In Doña Ana County, the 15 to 19 and have a fertility rate close to zero. However, the 20 to 34 age group has a high fertility rate. In all the pilot mapping counties, the 20 to 34 age group has the highest fertility rate.

Figure 63. Fertility Rate, Distribution by Different Age Ranges (%)



Source: *U.S. Census Bureau.*

IV. Public Health Indicators

Providing security for border communities allows the quality of life for the population in these counties to increase. The previous section created a population demographic profile for each county and showed how the population has increased overall. As the population has increased and border enforcement action deployments have also occurred, public health then is a key indicator in measuring the quality of life in these populations. The project team will show recent trends in access to health care services in the pilot mapping counties. Maternal infant and child health indicators, such as infant mortality rate by county, refers to the number of deaths per 1,000 live births. The nutrition, physical activity, and obesity levels in each of the pilot mapping counties provide further insight related to the relationship between community security and the overall wellbeing of its residents. Lastly, life expectancy and substance abuse data show further impacts associated with increased security in the pilot mapping counties.

A. Access to Health Care Services

The project team has collected access to health care services indicators for the pilot mapping counties. As one report states that "...for undocumented immigrants, the ability to access health care can be a daunting and difficult complex task given their vulnerability and the high degree of complexity and fragmentation of the financing and provisions of the U.S. health care services." [47] In Table 9 below, the ratio of population to every primary care physician in El Paso County is provided. This ratio represents the number of individuals served by one physician in El Paso County, if the population was equally distributed across physicians.

Table 9. Access to Health Services, El Paso County, Texas

Year	Ratio of Population to Primary Care Physicians	Ratio of Population to Dentists	Ratio of Population to Mental Health Providers
2011	1474:1	N/A	7692:1
2012	1474:1	5004:1	7692:1
2013	2310:1	3643:1	9686:1
2014	2189:1	2824:1	N/A
2015	2166:1	2687:1	1516:1
2016	2178:1	2526:1	1450:1
2017	2171:1	2415:1	1346:1
2018	2099:1	2283:1	1264:1
2019	2039:1	2253:1	1195:1
2020	2075:1	2254:1	1083:1

Source: *County Health Rankings and Roadmaps.*

In 2020, there were 2,075 persons for every primary care physician. Since 2011, the El Paso County population has grown, and health care continues to be an important part of the local economy. The increasing El Paso County population has been met with an increase of dentists and mental health providers. As shown in Table 9, in 2012 there were 5,004 persons per dentist and in 2011 7,692 mental health providers, while in 2020 there were 2,254 persons per dentist and 1,083 persons per mental health provider.

In Doña Ana County, the ratio of the population to primary care physicians decreased since 2011. In 2012, there were 3,141 persons per dentist, while in 2020 there were 1,623 persons per dentist. In 2011, there were 13,429 persons per mental health provider, while in 2020 there were 339 persons per mental health provider.

Table 10. Access to Health Services, Doña Ana County, New Mexico

Year	Ratio of Population to Primary Care Physicians	Ratio of Population to Dentists	Ratio of Population to Mental Health Providers
2011	1722:1	N/A	13429:1
2012	1722:1	3141:1	13429:1
2013	1846:1	2416:1	3050:1
2014	1810:1	2166:1	518:1
2015	1675:1	1958:1	438:1
2016	1605:1	1874:1	424:1
2017	1537:1	1880:1	392:1
2018	1468:1	1648:1	368:1
2019	1575:1	1633:1	354:1
2020	1609:1	1623:1	339:1

Source: *County Health Rankings and Roadmaps.*

In Luna County, in 2011, there were 3,011 persons per primary care physician, while in 2020 there were 2,675. In 2012, there were 6,332 persons per dentist, while in 2020 there were 2,663. In 2011, there were 27,095 persons per mental health provider, while in 2020 there were 648. As the population has increased in Luna County, access to health services has concomitantly improved.

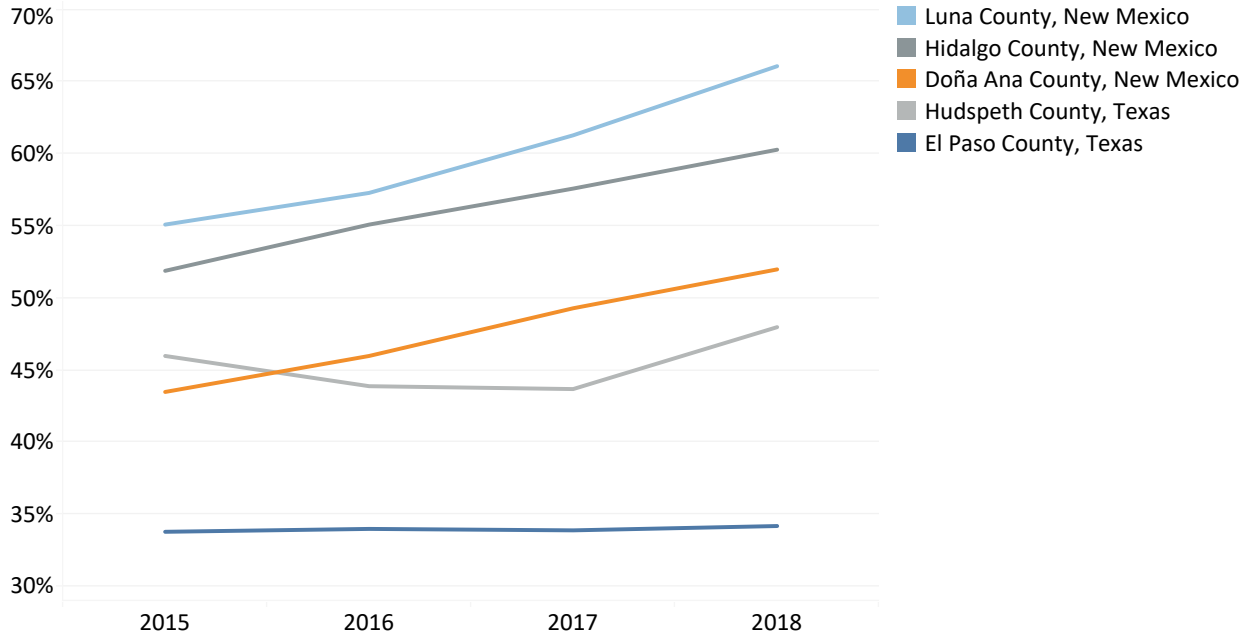
Table 11. Access to Health Services, Luna County, New Mexico

Year	Ratio of Population to Primary Care Physicians	Ratio of Population to Dentists	Ratio of Population to Mental Health Providers
2011	3011:1	N/A	27095:0
2012	3011:1	6332:1	27095:0
2013	2794:1	3671:1	6286:1
2014	2107:1	3130:1	1113:1
2015	2087:1	3082:1	913:1
2016	2242:1	2467:1	822:1
2017	2243:1	2452:1	791:1
2018	2724:1	2445:1	741:1
2019	2717:1	2408:1	708:1
2020	2675:1	2663:1	648:1

Source: *County Health Rankings and Roadmaps.*

As border security action deployments have increased in the El Paso Sector, the access to public health care coverage for the civilian population has increased for the pilot mapping counties, with the exception of El Paso County. Figure 64 below depicts the public health coverage of the civilian (non-institutionalized) population.

Figure 64. Public Coverage of Civilian Non-institutionalized Population (%)



Source: *U.S. Census Bureau.*

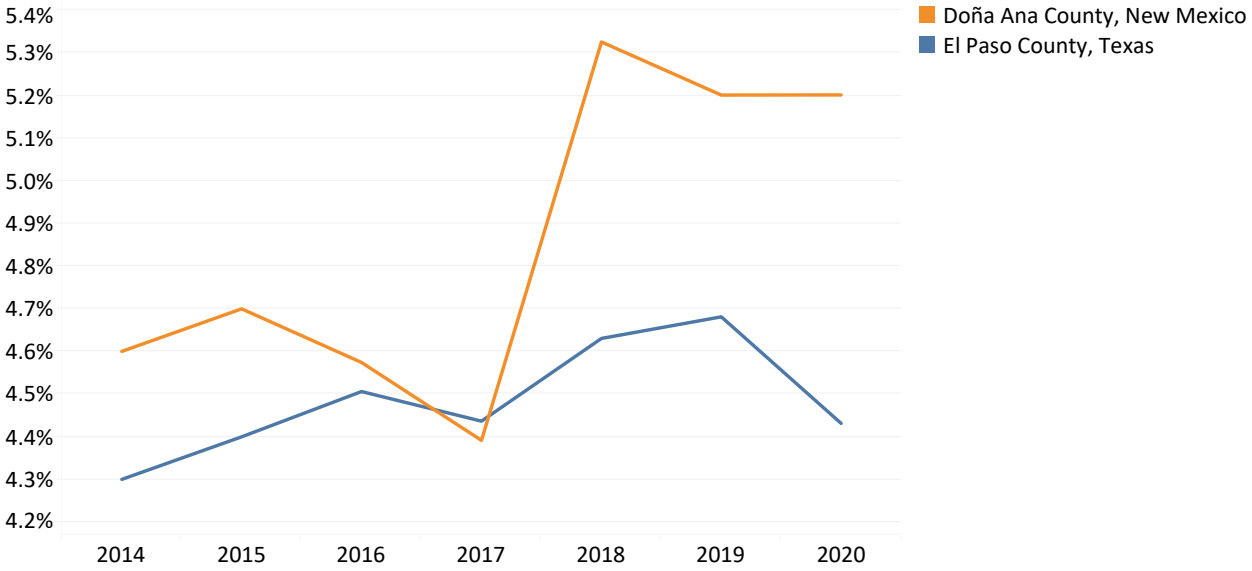
All the pilot mapping counties manifested increases in the access to health care services from 2015 to 2018. The percent of public heath care coverage of the civilian non-institutionalized population increased from 2015 to 2018 as follows: Luna County (55% to 67%); Hidalgo County (53% to 61%); Doña Ana County (44% to 54%); Hudspeth County (46% to 47%).

B. Infant Mortality

The infant mortality rate refers to the number of deaths per 1,000 live births. The figure below depicts the infant mortality rate in El Paso and Doña Ana County. In El Paso County and Doña Ana County, the infant mortality rates have increased significantly in 2018. In recent years, however, the infant mortality rate has decreased but is still higher than it was in 2014. The infant mortality rate also increased in 2018 but at a faster rate for Doña Ana County than in El Paso and then decreased slightly in both counties in 2020 considerably.

Infant mortality rate data is not available for Hudspeth County, Hidalgo County, and Luna County. The figure below depicts the infant mortality rate only in El Paso and Doña Ana County.

Figure 65. Infant Mortality Rate by County (%)

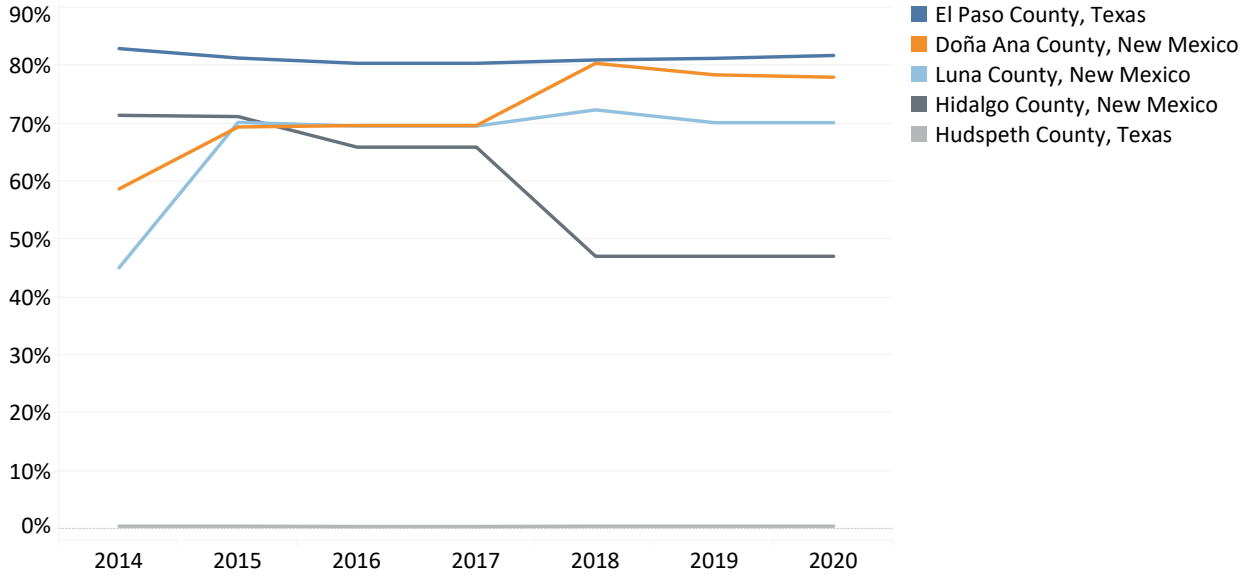


Note: *Data not available for Hudspeth County (Texas), Hidalgo County (New Mexico), and Luna County (New Mexico).*
Source: *County Health Rankings and Roadmaps.*

C. Nutrition, Physical Activity, and Obesity

The percentage of the population in the pilot mapping counties that have access to locations for physical activity varies. In El Paso County, there seems to be a downward trend associated with this public health indicator.

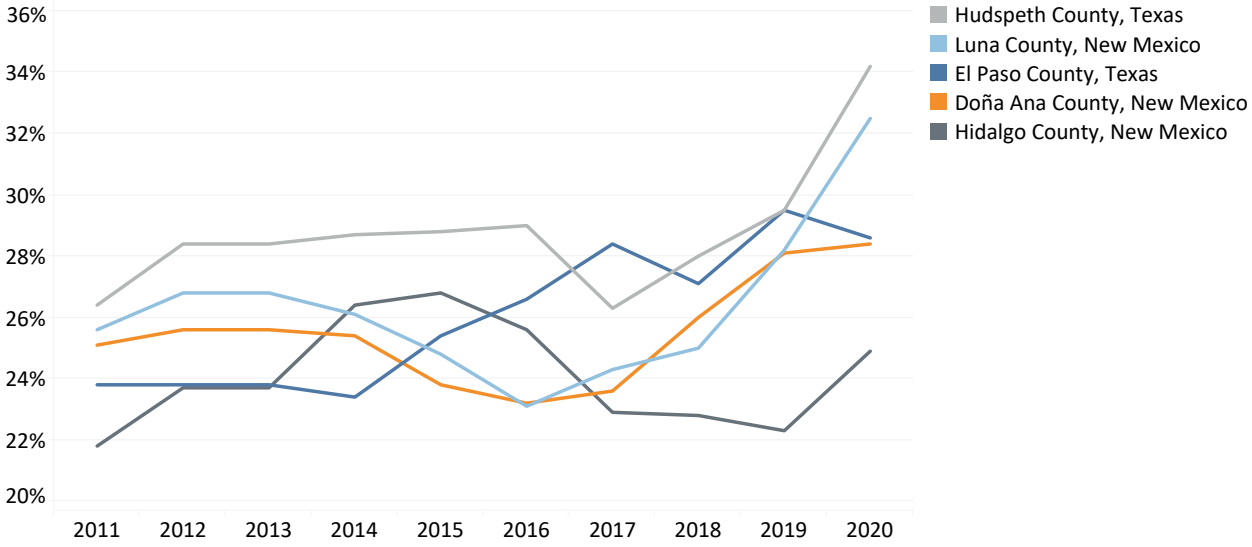
Figure 66. Population with Adequate Access to Locations for Physical Activity by County (%)



Source: *County Health Rankings and Roadmaps.*

An individual that reports a Body Mass Index (*BMI*) greater than or equal to 30 kg/m2 is considered obese and may have serious health issues. The figure below depicts the percentage of the adult population that reports a BMI greater than or equal to 30KG/m^2. Hudspeth County has the highest percentage. Luna County is second, El Paso County is third, and Doña Ana County is fourth. Hidalgo County has the lowest percentage of the adult population (age 20 and older) that reports a *BMI* that would be considered obese.

Figure 67. Population (Age 20 and Older) that Reports a Body Mass Index (BMI) Greater than or Equal to 30 kg/㎡ by County (%)

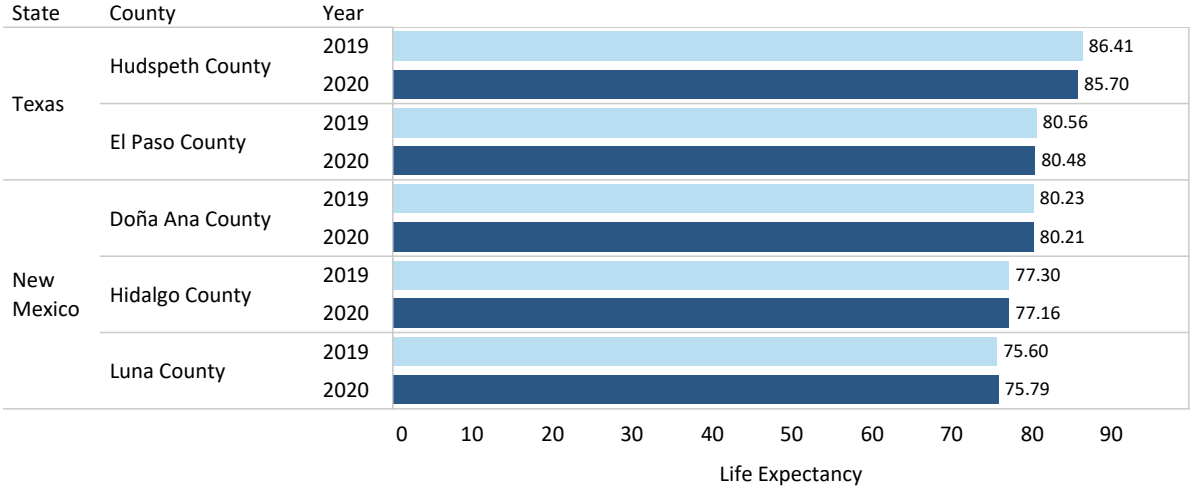


Source: *County Health Rankings and Roadmaps.*

D. Life Expectancy and Drug Use

The figure below depicts the highest life expectancy by county. Hudspeth County has the highest life expectancy in the El Paso Sector with 86 in 2019. The life expectancy in Hudspeth County decreased to 85 years in 2020, according to Health Rankings and Roadmaps. In El Paso County and Doña Ana County, the life expectancy is 80 years. Hidalgo County and Luna County have the lowest life expectancies, at 77 and 75, respectively.

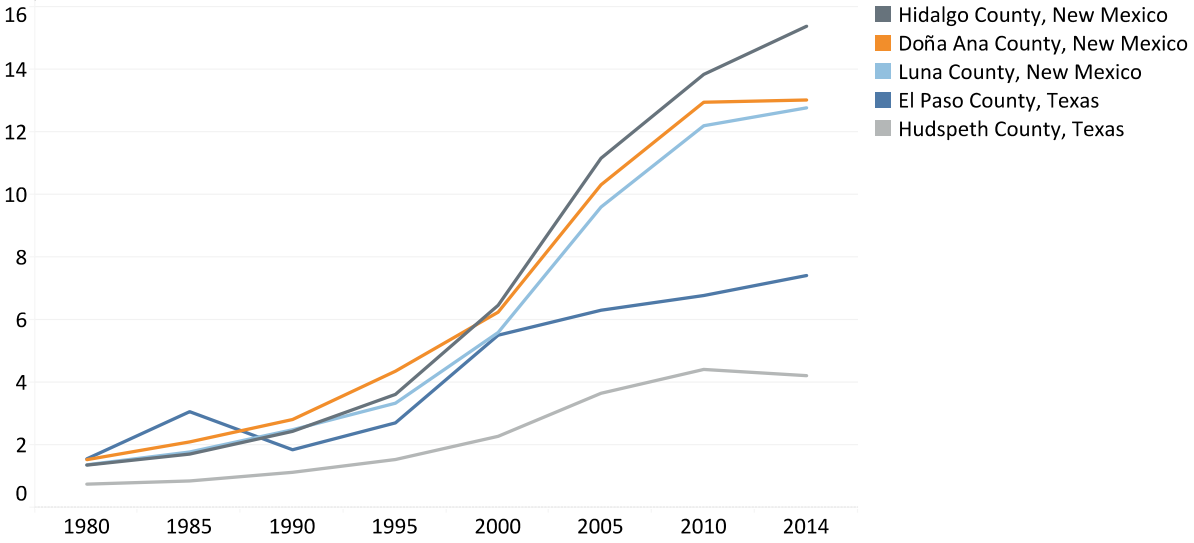
Figure 68. Life Expectancy by County



Source: *County Health Rankings and Roadmaps.*

Drug use disorders mortality rate by county show a significant increase in Hidalgo, Doña Ana, and Luna County, while less so in the rest of the pilot mapping counties.

Figure 69. Drug Use Disorders Mortality Rate by County (%)



Note: *Age-standardized mortality rate; deaths per 100,000 population.*
Source: *The Institute for Health Metrics and Evaluation (IHME).*

V. Education Indicators

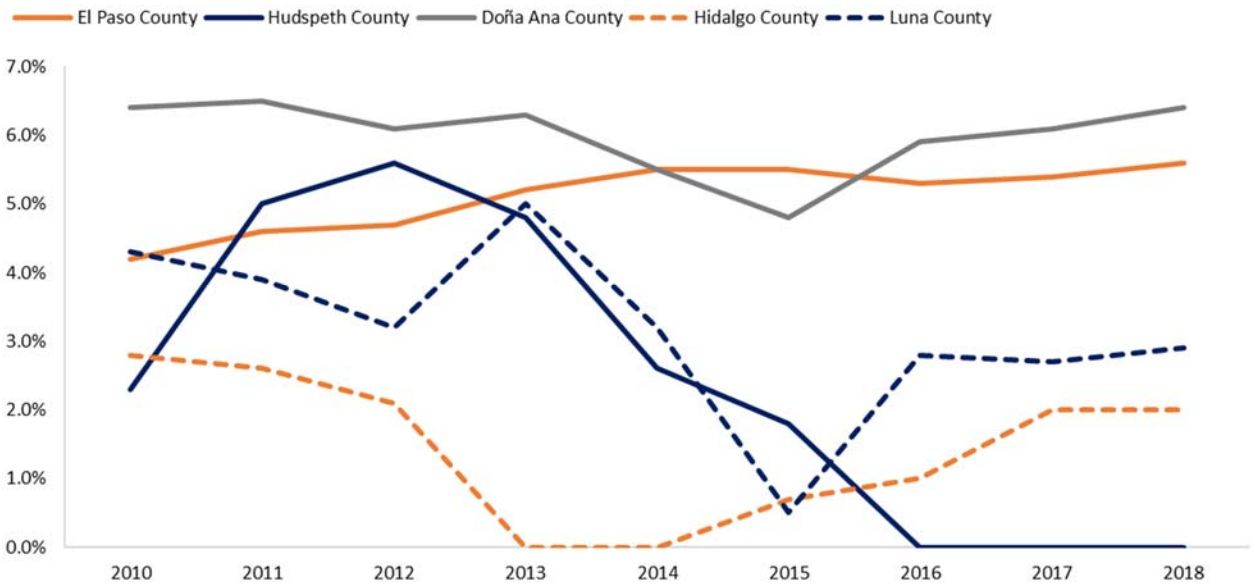
The project team has collected education indicators that display recent trends in educational attainment, graduation and enrollment rates, and education spending as a percent of Gross Domestic Product (GDP). The project team created graphics that depict educational attainment among pilot mapping counties for the population 18 to 24 years old. Educational attainment for the population 25 years and above is also provided here.

While educational attainment levels have increased in recent year for some counties, it has decreased considerably or remained the same for other counties. For example, the percentage of the population 18 to 24 years completing college level education in El Paso and Doña Ana County increased and remained unchanged, respectively, from 2010 to 2018. This percentage decreased significantly in the sparsely populated counties in the El Paso sector. Graduation rates by educational level in all counties show the improvement in terms of educational outcome. A large portion of the population in this region is enrolled in college or university, as either an undergraduate or graduate student. The Enrollment rate data shows the share of the population enrolled in Nursery School (Preschool), Kindergarten to High School, College (Undergraduate), and Graduate (Professional School). Lastly, the amount of education spending as a share of each pilot mapping county's *GDP* is shown. In all the pilot mapping counties, education spending as a share of total spending has decreased since 2001.

A. Level of Education by Age Group

Level of education, according to the U.S. Census Bureau Population Survey, refers to the highest level of education completed by an individual. The figure below depicts the percentage of the population 18 to 24 that graduated with a Bachelor's degree in El Paso, Hudspeth, Doña Ana, Hidalgo, and Luna counties from 2010 to 2018.

Figure 70. Share of the Population 18-24 Years Old with College Completion by County(%)

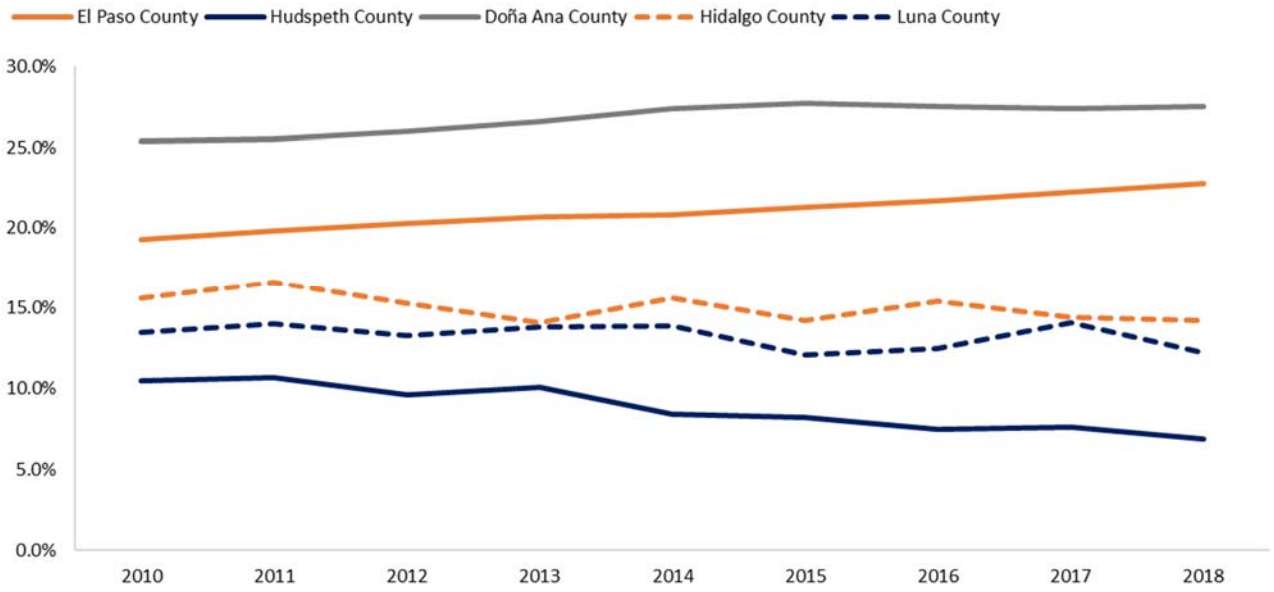


Source: *U.S. Census Bureau*.

In El Paso County, the percentage of the population 18 to 24 that completed a bachelor degree increased from 4.2% in 2010 to 5.6% in 2018. In Hudspeth County the percentage decreased significantly from 2.8% in 2010 to 0% in 2018, whereas there was no change Doña Ana County from 2010 to 2018 albeit a minor decrease in 2014 and 2015. Lastly, in Hidalgo and Luna County, the percentage of the population 18 to 24 that completed a bachelor's degree decreased from 2.8% in 2010 to 2.0% in 2018 and from 4.2% in 2010 to 2.9% in 2018, respectively.

Figure 71 below depicts the percentage of the population 25 and over that graduated with a bachelor's degree in El Paso, Hudspeth, Doña Ana, Hidalgo, and Luna counties from 2010 to 2018. In El Paso County, the percentage increased from 19.3% in 2010 to 22.8% in 2018. This may signal that as the population has increased in El Paso County so too have those graduating from Universities in the County. In Hudspeth County, however, the percentage decreased from 10.5% to 6.9%. The percentage increased in Doña County from 25.4% to 27.5% but decreased in Hidalgo County from 15.6% to 14.2%. Lastly, in Luna County, the percentage decreased from 13.5% to 12.2%.

Figure 71. Share of the Population 25 Years Old and Over with College Completion by County (%)

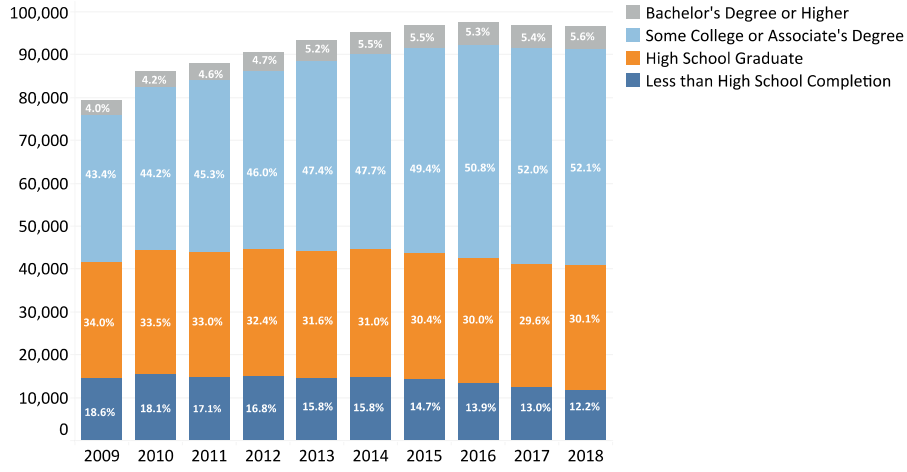


Source: *U.S. Census Bureau*.

B. Graduation Rates

In El Paso County, most of the population 18 to 24 years old obtained an associate degree or completed at least some college. High School graduation levels have remained unchanged from 2009 to 2018. However, there was a significant increase in those that graduated with a bachelor's degree or higher. A considerable number of students are graduating successfully from community colleges in El Paso County.

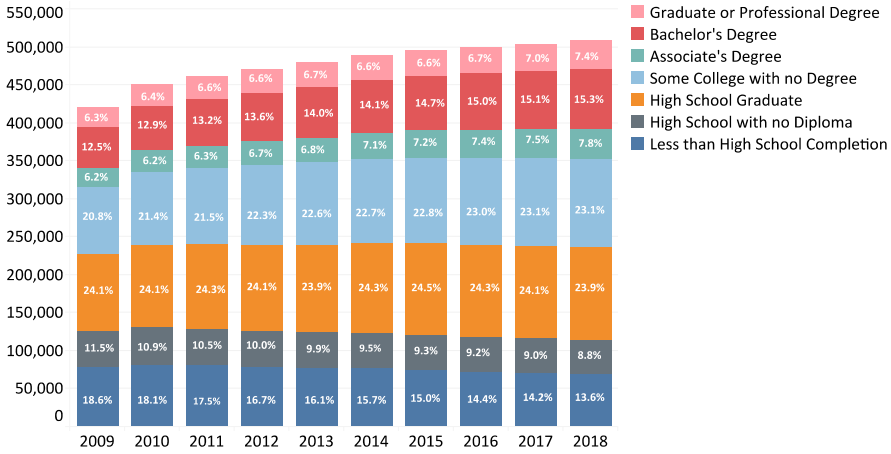
Figure 72. Graduations for Population 18 to 24 Years Old by Level of Education, El Paso County, Texas



Source: *U.S. Census Bureau.*

Figure 73 depicts graduation levels for those 25 years and older. The percentage that graduated from high school was 23.9% and those that completed some college but with no degree included 21.6% of this group. The percentage of this population that graduated with a Bachelor Degree was 15.3% while 13.6% of this group did not graduate from high school.

Figure 73. Graduations for Population 25 Years and Over by Level of Education, El Paso County, Texas

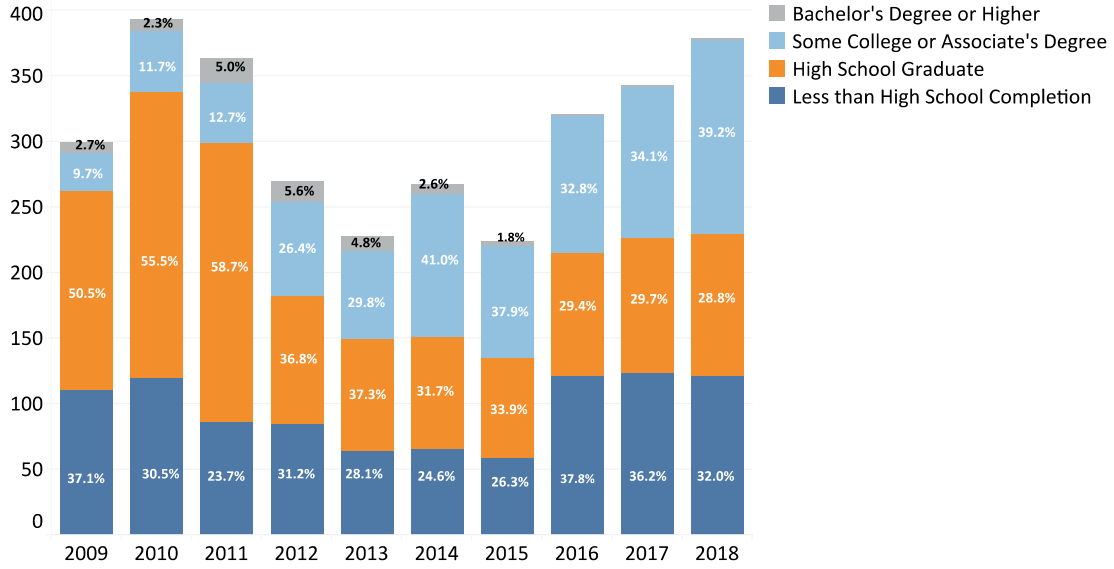


Source: *U.S. Census Bureau.*

In Hudspeth County, the population 18 to 24 years old mostly graduated with an associate degree or completed at least some college, with 39% doing so as of 2018. High school graduates were much higher

in 2009 than in recent years. The number of those graduating from high school as their highest education level in 2010 was 50%, while it was only 28% in 2018.

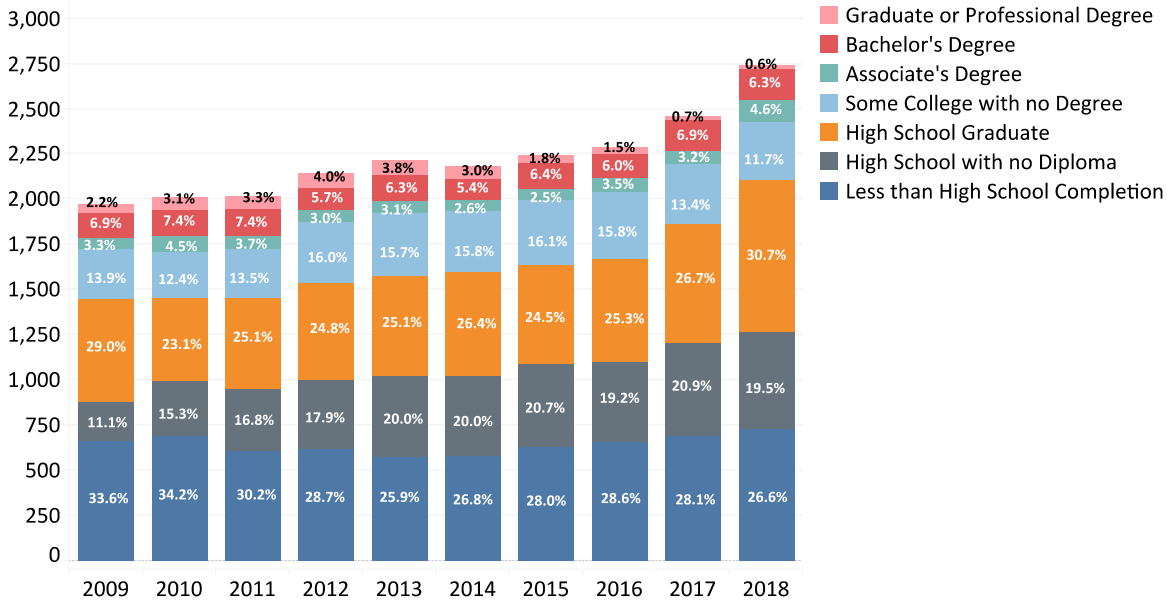
Figure 74. Graduations for Population 18 to 24 Years Old by Level of Education, Hudspeth County, Texas



Source: *U.S. Census Bureau.*

For those above the age of 25, graduation levels have increased consistently since 2009. High school graduation levels have increased since 2009, especially from 2017 to 2018.

Figure 75. Graduation for Population 25 Years and Over by Level of Education, Hudspeth County, Texas

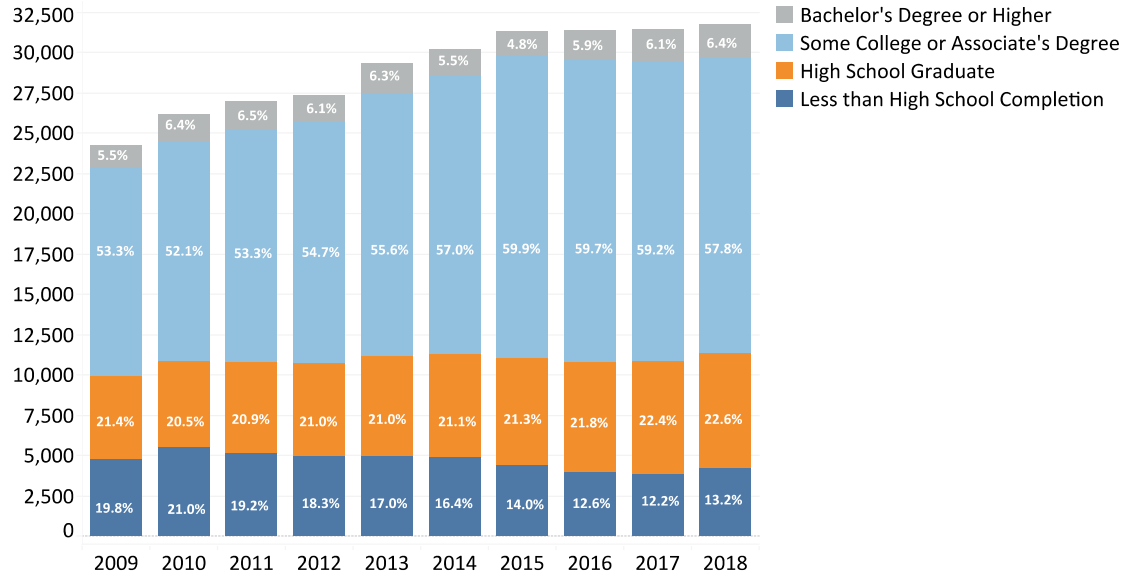


Source: *U.S. Census Bureau.*

In Doña Ana County, the population 18 to 24 years old mainly graduated with an associate degree or at least completed some college as their highest education level, with 57% doing so in 2018. The number of

those that graduated from high school also increased, while those with less than high school completion decreased.

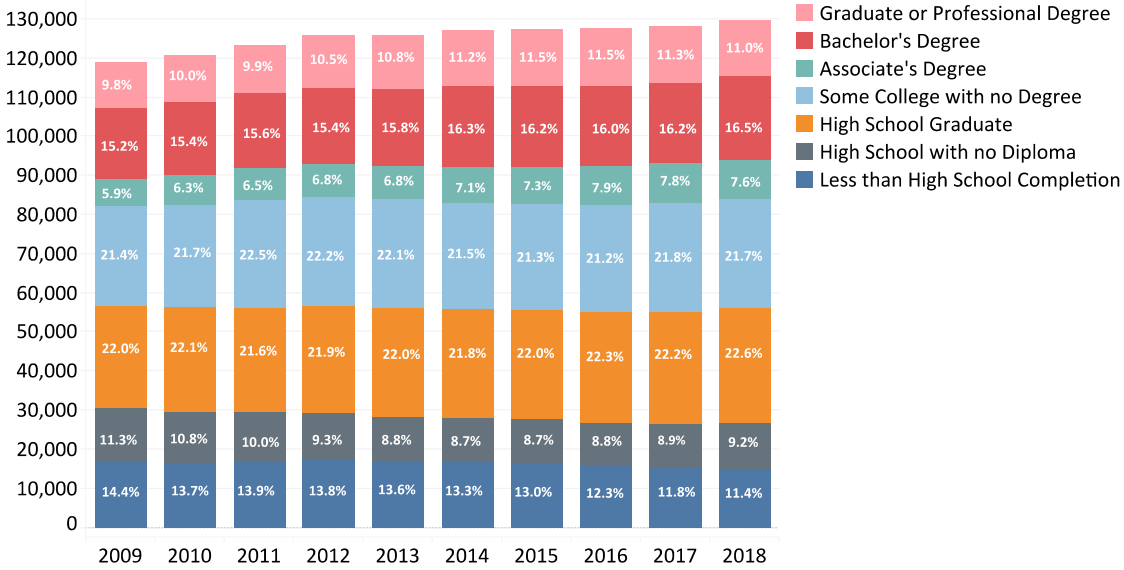
Figure 76. Graduations for Population 18 to 24 Years Old by Level of Education, Doña Ana County, New Mexico



Source: *U.S. Census Bureau.*

In Doña Ana County, the population over 25 generally reached either some college with no degree or simply completed a high school degree. Bachelor's degree graduation rates have not increased considerably since 2009.

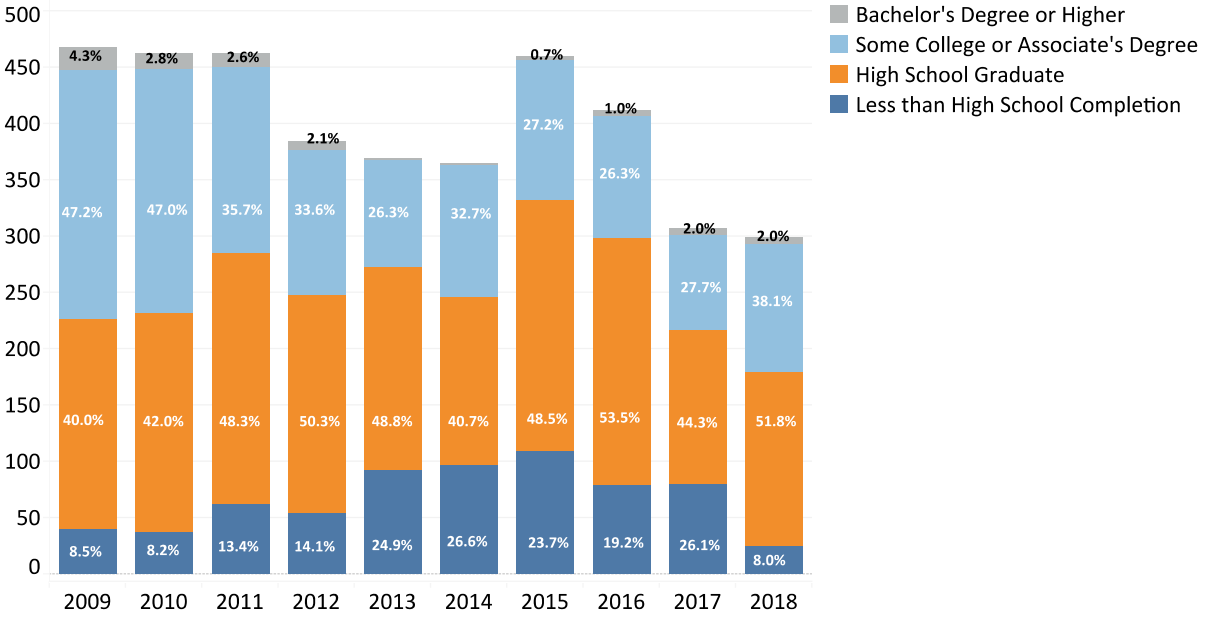
Figure 77. Graduations for Population 25 Years and Over by Level of Education, Doña Ana County, New Mexico



Source: *U.S. Census Bureau.*

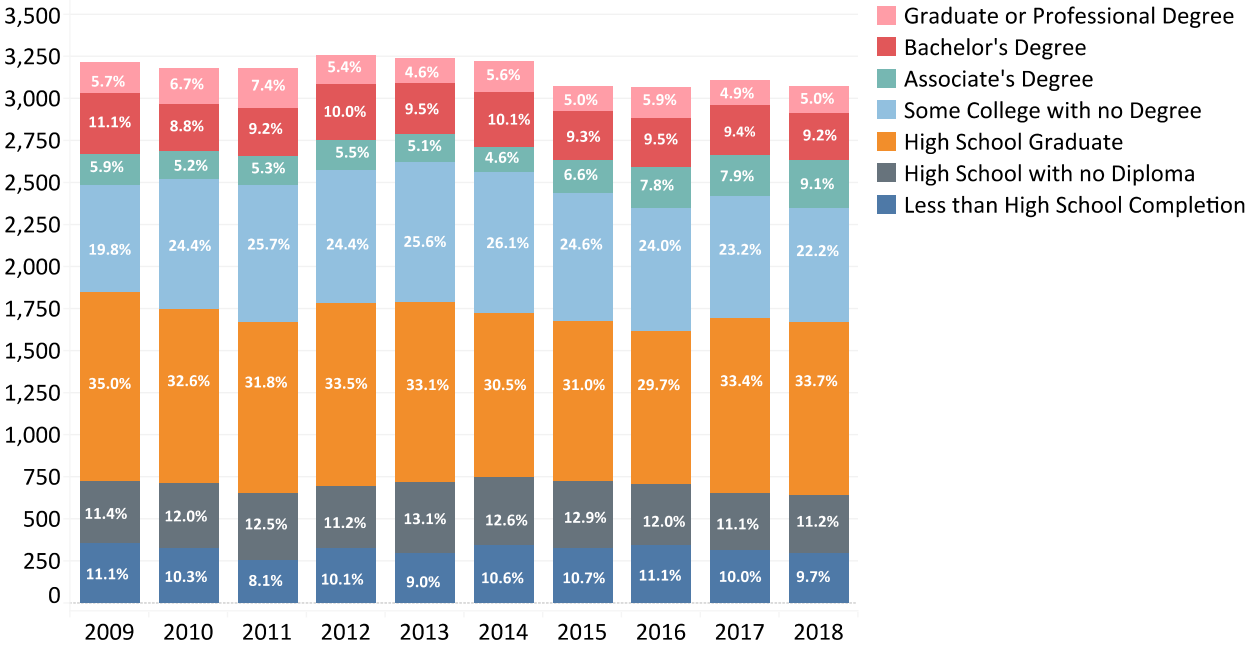
In Hidalgo County, over half of the population 18 to 24 years old (51%) in 2018 graduated from high school as its highest education level. The percentage of those who have completed some college or an associate degree has decreased since 2009 when it was 47% to now 38% in 2018.

Figure 78. Graduations for Population 18 to 24 Years Old by Level of Education, Hidalgo County, New Mexico



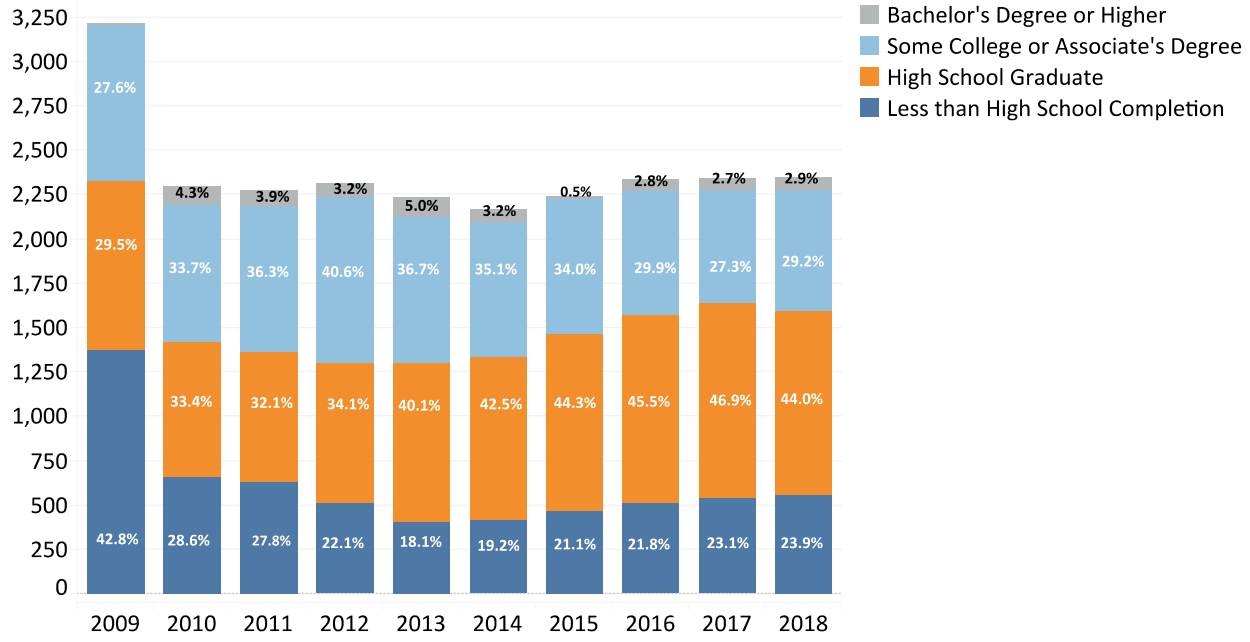
Source: *U.S. Census Bureau.*

Figure 79. Graduations for Population 25 Years and Over by Level of Education, Hidalgo County, New Mexico



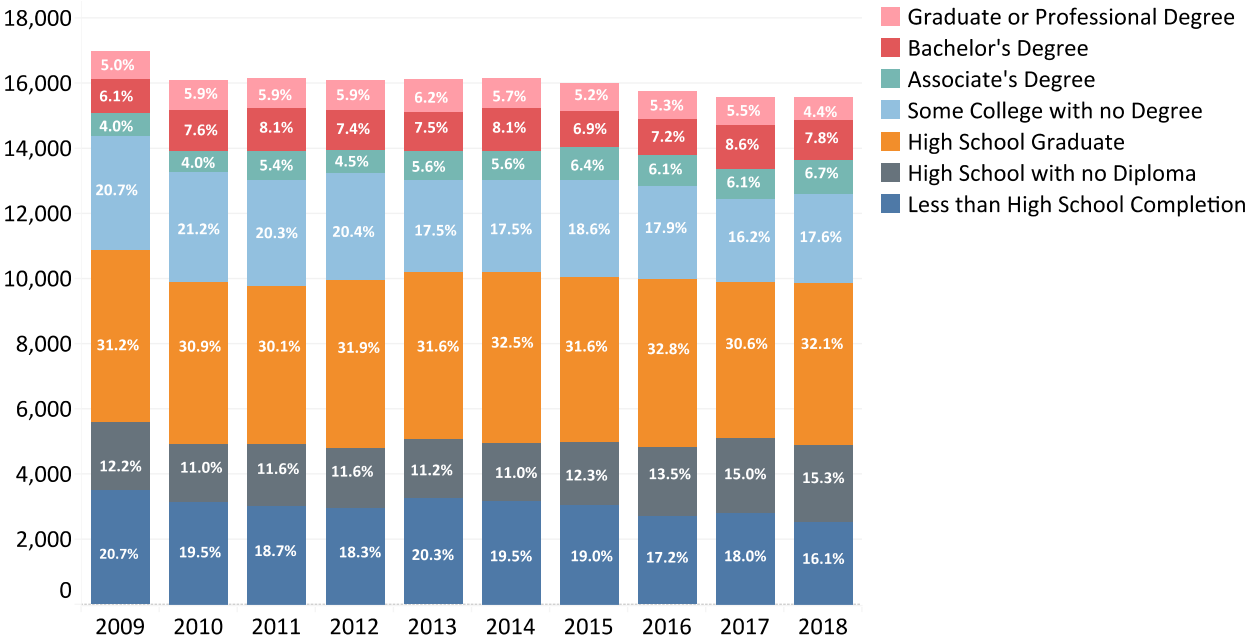
Source: *U.S. Census Bureau.*

Figure 80. Graduations for Population 18 to 24 Years Old by Level of Education, Luna County, New Mexico



Source: *U.S. Census Bureau.*

Figure 81. Graduations for Population 25 Years and Over by Level of Education, Luna County, New Mexico



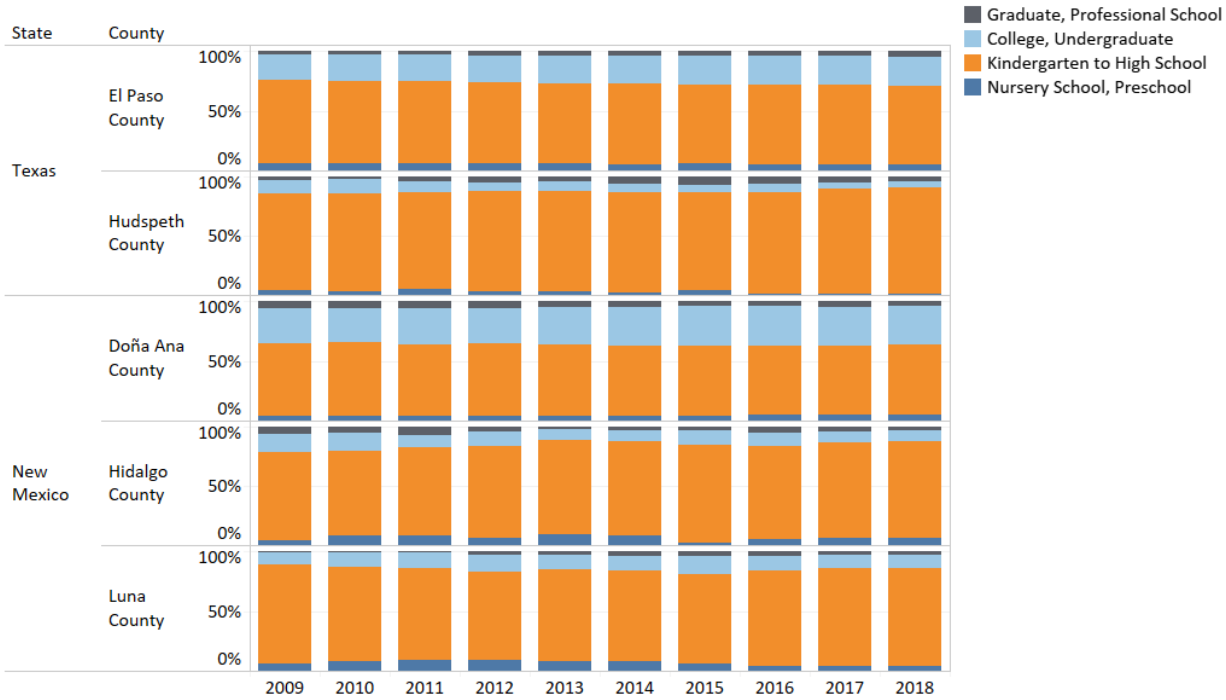
Source: *U.S. Census Bureau.*

C. Enrollment Rate

Enrollment rate data is presented as the share of the population that enrolled in Nursery School (Preschool), Kindergarten to High School, College (Undergraduate), and Graduate (Professional School). The figure below depicts school enrollment rates in the pilot mapping counties. According to the U.S. Census Bureau, in 2018, more than half of the population 3 years old and over that were enrolled in school were enrolled in Kindergarten to High school (K-12). Approximately 25% of the population in El Paso County were enrolled in college (undergraduate) and below 5% in graduate (professional school). This has remained the same for El Paso County since 2009. A slight downward trend in the share of population in K-12 with a slight upward trend in the share of population in college is observed.

In El Paso County, 66% of enrollments are in K-12. Twenty-one percent of these enrollments are in high school (grade 9-12), 20% are in elementary (5-8), and 19% in elementary (1-4). Those enrolled in college (undergraduate) make up 24%. Less than 10% are enrolled in graduate and professional school. In Doña Ana County, in 2018, about 60% of the enrollments were in K-12, while 30% were in college and under 10% in graduate school. This has remained stable since 2009. In Hudspeth, Hidalgo and Luna counties, most of the enrollment is in K-12.

Figure 82. Student Enrollment Rate by Level of Education by County (%)



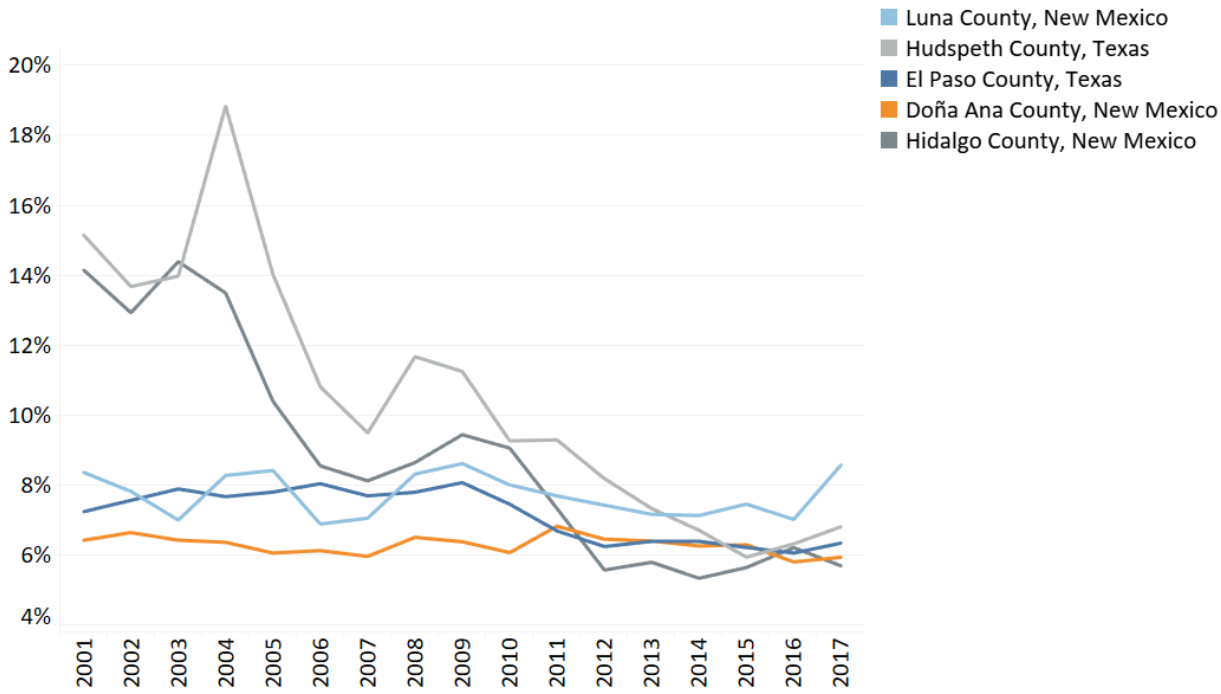
Note: *Data is for the population 3 years and over enrolled in school.*
Source: *U.S. Census Bureau.*

As border enforcement deployment actions have increased in the El Paso Sector, the number of students enrolled in college has not increased. However, the money spent by county governments on education has also decreased significantly in recent years in the pilot mapping counties.

D. Education Spending as a Share of County Gross Domestic Product

Figure 83 displays education spending as a share of county gross domestic product (GDP). In all the pilot mapping counties, the percentage of GDP accounted for by education spending has decreased since 2001. Hudspeth County displays the steepest downward curve. In 2001, education spending accounted for 15% of GDP in Hudspeth County, while in 2017 it was 7%. The same is true for Hidalgo County where education spending share was 14% in 2001 and 5% in 2017. In El Paso, Doña Ana, and Luna counties, education spending has remained relatively stable. The figure below shows that education spending in El Paso has decreased slightly since 2001 but less so than Hidalgo and Hudspeth.

Figure 83. Education Spending as a Share of County Gross Domestic Product (%)



Source: *U.S. Census Bureau.*

VI. Cross Border Flows Indicators

The El Paso Sector encompasses a population of just over one million people. If we include the population in Ciudad Juárez, that is a population of approximately 2.5 million people. Therefore, people are constantly moving around in this region and cross border traffic is a big part of it. Millions of people cross the border yearly through the ports of entry in the El Paso Sector. Hundreds of thousands of trucks make their way back and forth as part of the manufacturing industry in Ciudad Juárez. Maintaining a secure border while keeping wait times low is essential for cross border flows. The U.S. Bureau of Transportation and the U.S. Census Bureau provide data on exports and imports, and commercial and non-commercial border traffic through these ports of entry.

The project team has collected this data and provided the following figures, which depict recent international trade trends and illustrate the significance of it. Throughout the pilot mapping counties, there are four ports of entry in El Paso County, Doña Ana County and Luna County where commercial and non-commercial traffic crosses the border daily. In El Paso County, there are three ports of entry, the Santa Fe Bridge, the Cordoba Bridge of the Americas, and the Ysleta bridge, but only the Cordoba Bridge of the Americas and the Ysleta bridge have commercial traffic. The Santa Fe bridge only sees non-commercial border traffic. Across the border from El Paso, in Ciudad Juárez, the export-oriented manufacturing industry (*IMMEX*) generates much of the international trade through the ports of entry in El Paso. The North American Free Trade Agreement (*NAFTA*) accelerated much of this international trade when it was enacted in 1994. Since then, border enforcement actions have also increased in order to keep up with the exponential increase in cross border flows. A secure border is essential in maintaining the constant flow of legal goods through these ports of entry. The same is true for southern Doña Ana County, where the Santa Teresa Port of Entry sits across the border from a Foxconn manufacturing plant in San Jeronimo, Chihuahua where computers and electronics are manufactured. The Columbus Port of Entry is in Luna County and borders Palomas, Chihuahua. This port of entry sees mostly pedestrian border crossings.

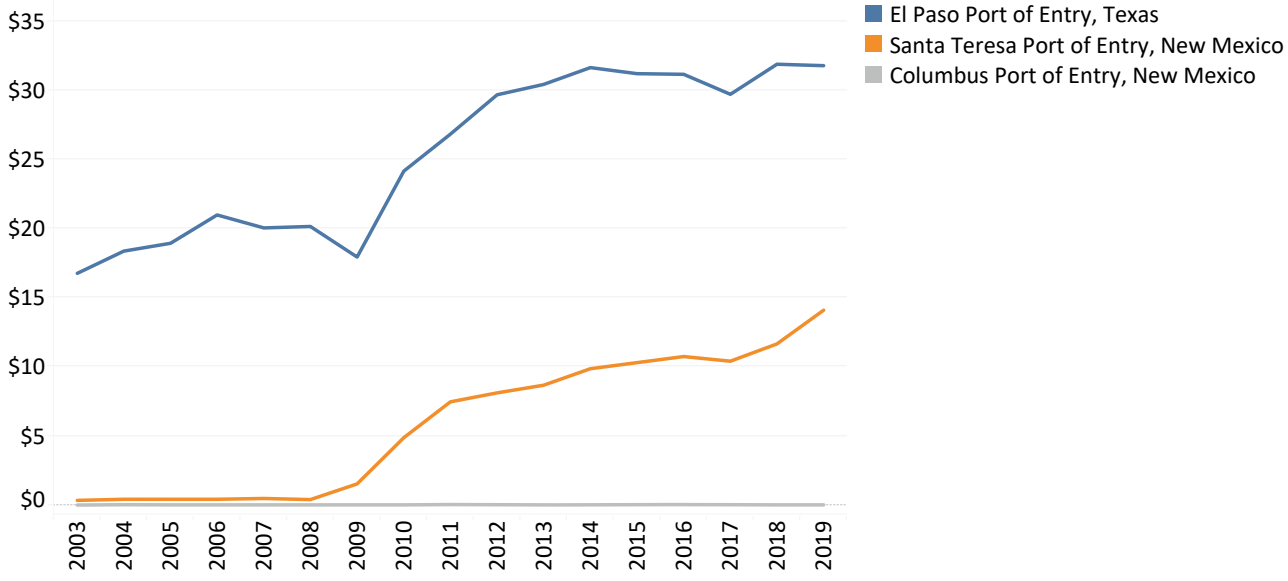
According to previous research, "as a result of additional security measures, trading companies have been confronted with additional costs relating to transport, handling, insurance, and customs. These costs tend to make international trade more expensive and reduce trade flows".[48] Previous research also showed, using a multi-country computable model, that adding one CBP agent at each land border crossing, on average per crossing, would increase efficiency and on average would generate an increase of $350,000 in U. S. GDP and 3.58 additional jobs to the U.S. economy.[49]

A. Exports

In the El Paso Sector, there are ports of entry in El Paso County, Doña Ana County and Luna County that see large numbers of export traffic. In El Paso, the Bridge of the Americas and the Ysleta Port of Entry are the largest in terms of value of goods because only these two bridges see commercial traffic as well. The Santa Fe bridge in downtown El Paso only sees non-commercial traffic (pedestrians, personal vehicle and bus passengers). Just across the border in Ciudad Juárez, the export manufacturing industry *(IMMEX*) is the main driver of international trade in El Paso County and Doña Ana County. Factories in Ciudad Juárez require computer electronic products, as well as electrical equipment, and appliances and components. Therefore, many intermediate goods are exported through the ports of entry in El Paso County and Doña Ana County.

Figure 84 depicts recent trends in exports through the ports of entry in the El Paso Sector starting in 2003 to 2019. In 2018, a total of $32 billion in exports crossed the border through the El Paso Port of Entry. Total exports through the El Paso Port of Entry increased from $17 billion in 2003 to $32 billion in 2019. The overall status of the U.S. economy impacts the Ciudad Juárez *IMMEX* industry, so dips in the U.S. economy decrease exports flows. Therefore, in 2009, total export flows decreased significantly, but have seen constant growth since then. Exports through these ports of entry decreased significantly in 2009 but have then increased only to drop slightly in 2017. The Santa Teresa Port of Entry is in southern Doña Ana County across the border from San Jeronimo, Chihuahua, where a large Foxconn manufacturing plant makes Dell computers and other electronics. The Foxconn plant began operations in 2009, and since then, exports through the Santa Teresa Port of Entry have markedly increased from below $1 billion in 2003 to $12 billion in 2019.

Figure 84. Total Exports by Port of Entry, USD Billion

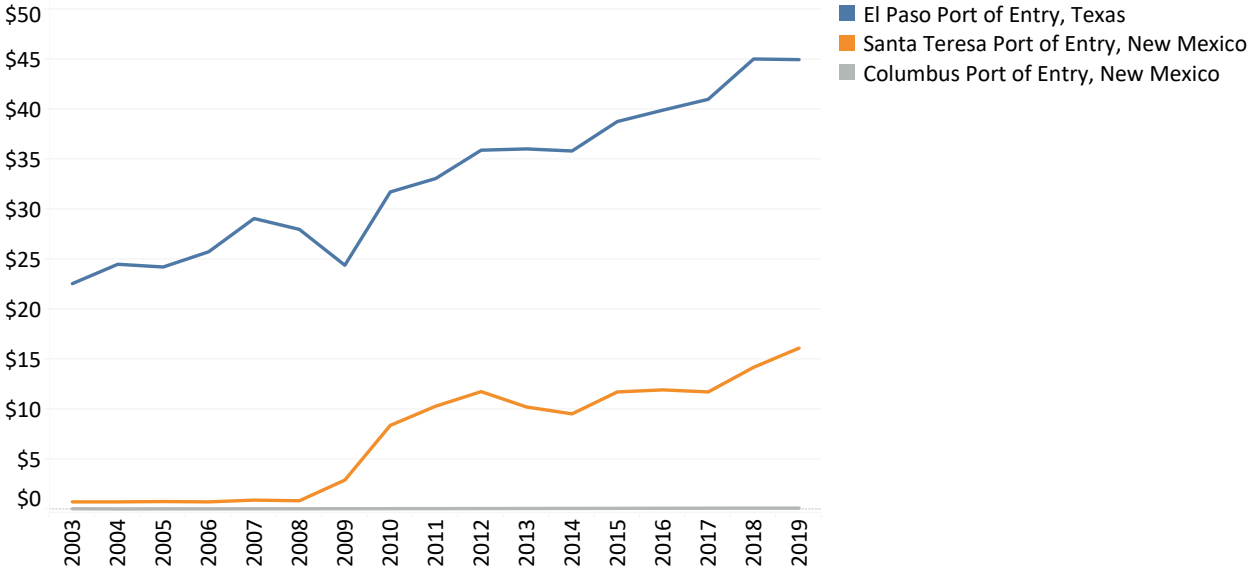


Source: *U.S. Census Bureau.*

B. Imports

Intermediate goods used in further production processes in the U.S. and finished goods make their way from Ciudad Juárez back to El Paso as imports. Imports have followed a similar trend to exports in the region. Imports decreased in 2009 and have shown constant growth since then. Total imports through the El Paso Port of Entry increased from $24 billion in 2003 to $45 billion in 2019.

Figure 85. Total Imports by Port of Entry, USD Billion



Source: *U.S. Census Bureau.*

The Santa Teresa Port of Entry sees slightly more imports than exports, though. It displays the same general trend, however, as total exports. Total imports began to increase shortly after the Foxconn opening and reached $22 billion in 2019. Total exports and total imports make their way across the border either by truck or train. Personal vehicles make up a large part of cross border traffic. The Columbus Port of Entry does not see much commercial traffic.

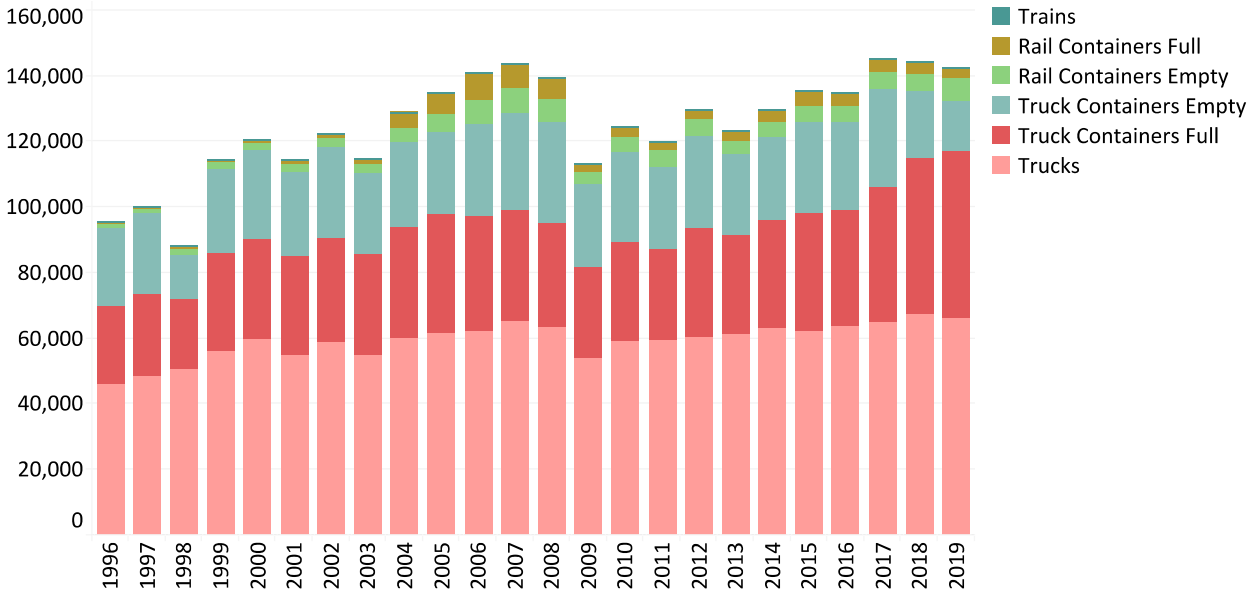
Cross border flows involve billions of dollars in commodities that make their way through El Paso and into Ciudad Juárez for manufacturing. Then, import commodities, either as finished goods or as intermediate goods used in further manufacturing process, make their way make in El Paso to go to markets across the U.S. Cross- border flows involve commercial and non-commercial traffic, and pedestrian traffic. Commercial traffic involves trucks and trains that carry empty or full containers and cross the border daily. Non-commercial cross border flows involve only the number of personal vehicles and buses. Lastly, pedestrians only include the personal vehicle passengers, bus passengers, and pedestrians.

C. Commercial Cross Border Traffic

Commercial traffic includes the trucks and trains, with either full or empty containers, that cross the border into and out of the U.S. The figure below depicts recent trends in commercial traffic through the El Paso Port of Entry. As you can see below, over 80% of commercial traffic is personal vehicles.

Since 1996, commercial border crossing has been increasing in absolute terms. However, the number of trucks has not increased that much since 1996. The number of trucks crossing the border through the El Paso Port of Entry increased consistently from 1996 leading up to 2000. Since then, the number of trucks crossing the border in El Paso has remained relatively stable. Trucks make up most commercial traffic as they haul containers back and forth through the El Paso and Santa Teresa ports of entry. The figure below depicts commercial border traffic trends from 1996 to 2019. Full truck containers cross the border heading northbound more than empty truck containers. Southbound commercial cross border traffic data is not publicly available.

Figure 86. Commercial Border Traffic through El Paso Port of Entry

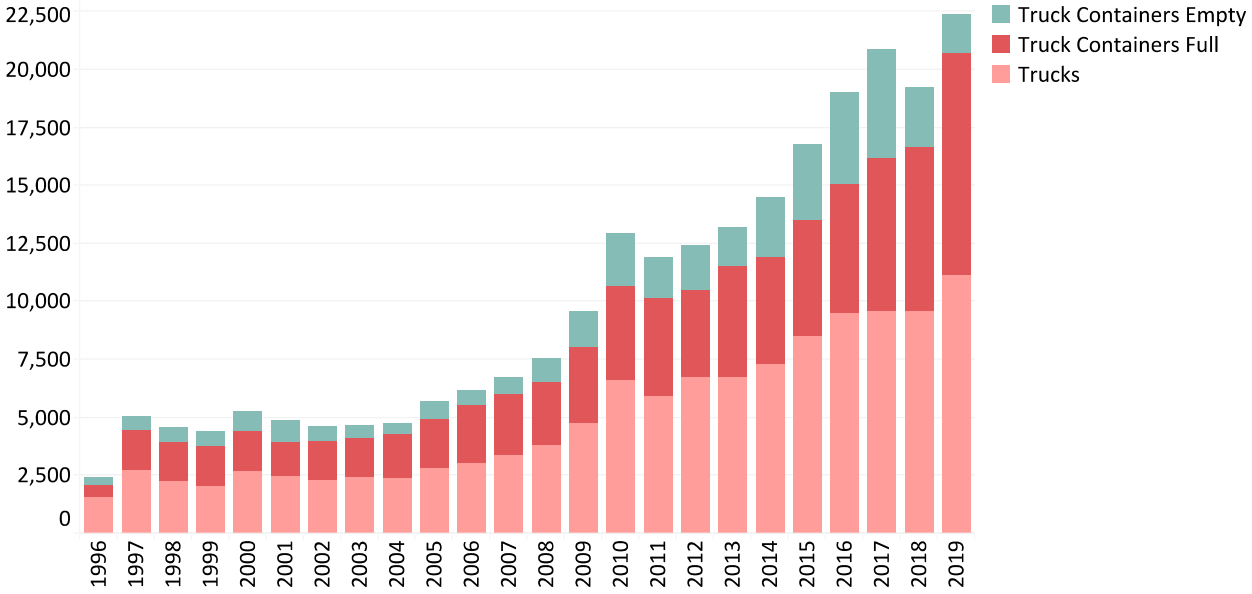


Source: *U.S. Department of Transportation.*

Trains also cross the border through El Paso, however, trains have always been a very small part of commercial border traffic. Data show empty rail container crossings are greater than full rail container crossings. Several miles west, the Santa Teresa Port of Entry also sees a significant amount of commercial cross border traffic.

Figure 87 depicts commercial border traffic trends starting in 1996 to 2019 through the Santa Teresa Port of Entry. This data only shows cross border traffic heading north bound through the Santa Teresa port of entry. Commercial border traffic increased markedly in 2010. In 2009, the Foxconn manufacturing campus in San Jeronimo, Chihuahua opened, and commercial border traffic increased significantly after. Most truck containers are full.

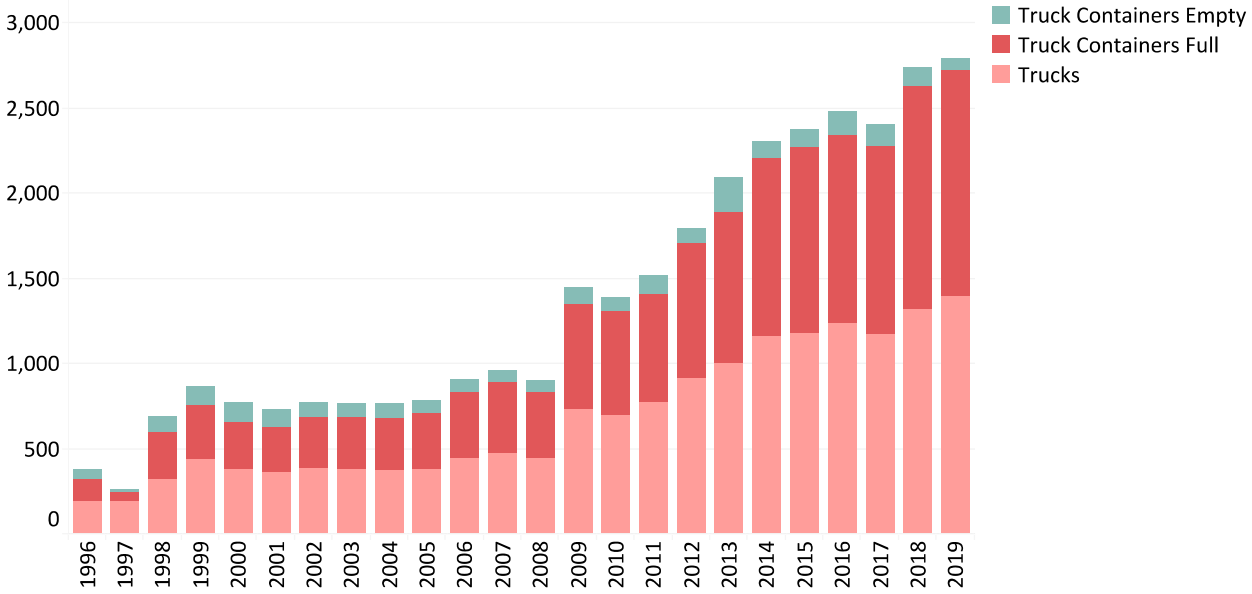
Figure 87. Commercial Border Traffic through Santa Teresa Port of Entry



Source: *U.S. Department of Transportation.*

Figure 88 depicts commercial border traffic through the Columbus POE in Luna County displaying similar trends as in Santa Teresa POE but with a more pronounced inflection occurring a year earlier in 2009.

Figure 88. Commercial Border Traffic through Columbus Port of Entry



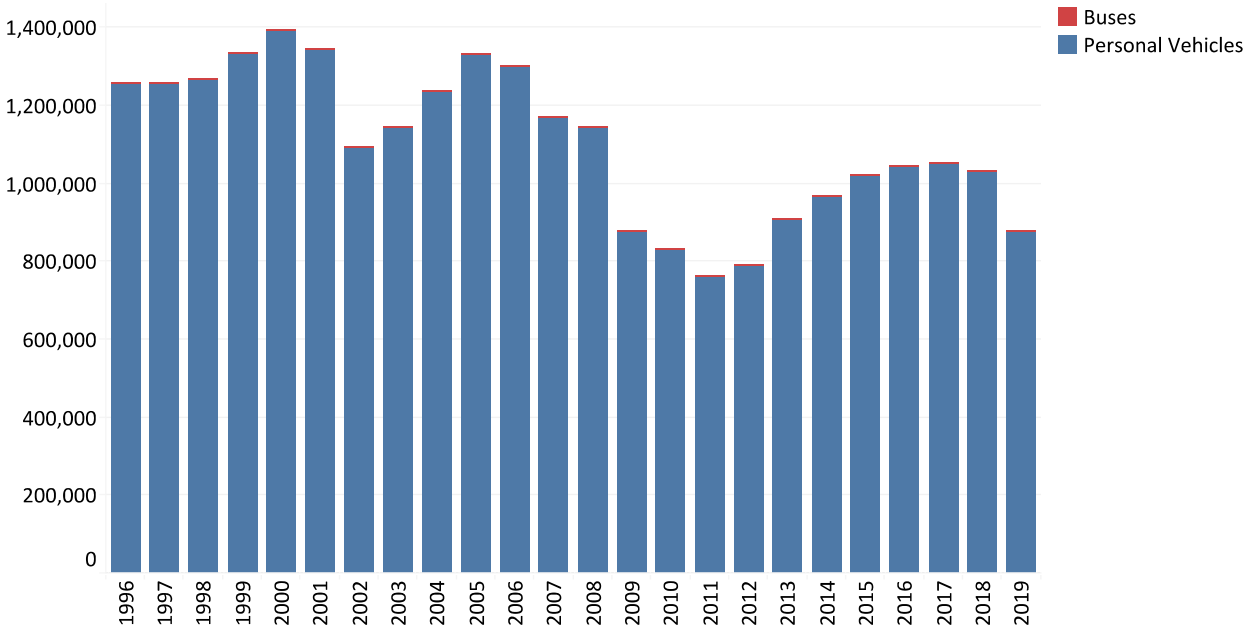
Source: *U.S. Department of Transportation.*

D. Non – Commercial Border Traffic

Many residents of El Paso County work in Ciudad Juárez, while many residents of Ciudad Juárez work in El Paso. This accounts for a significant amount of personal vehicle border crossings through the El Paso Port of Entry. Non-commercial traffic includes all personal vehicles and buses that cross the border through the ports of entry in the *USBP* El Paso Sector. The following figures below depict non-commercial border traffic trends from 1996 to 2019 for El Paso, Santa Teresa, and Columbus ports of entry (*PoEs*). In El Paso, the Bridge of the Americas and the Ysleta Port of Entry are the largest in terms of volume of cars and buses crossing the border through El Paso. The Santa Fe bridge in downtown El Paso only sees non-commercial traffic (pedestrians, personal vehicle and bus passengers).

Figure 89 depicts non-commercial border crossings through the El Paso Port of Entry. In El Paso County, personal vehicles are by far the most common mode of transportation through the El Paso *PoEs*. Personal vehicles make up more than 90% of all non-commercial traffic. Residents of Ciudad Juárez and El Paso cross the border daily for work, shopping and other leisure activities. Data is not publicly available on the number of U.S. Citizens and El Paso County residents that live and work in Ciudad Juárez, however, non-commercial border traffic has been declining since 1996. Buses crossing the border here generally involve those traveling to the U.S. through El Paso and Ciudad Juárez from other parts of either the Mexican State of Chihuahua or the rest of Mexico.

Figure 89. Non-Commercial Border Traffic through El Paso Port of Entry

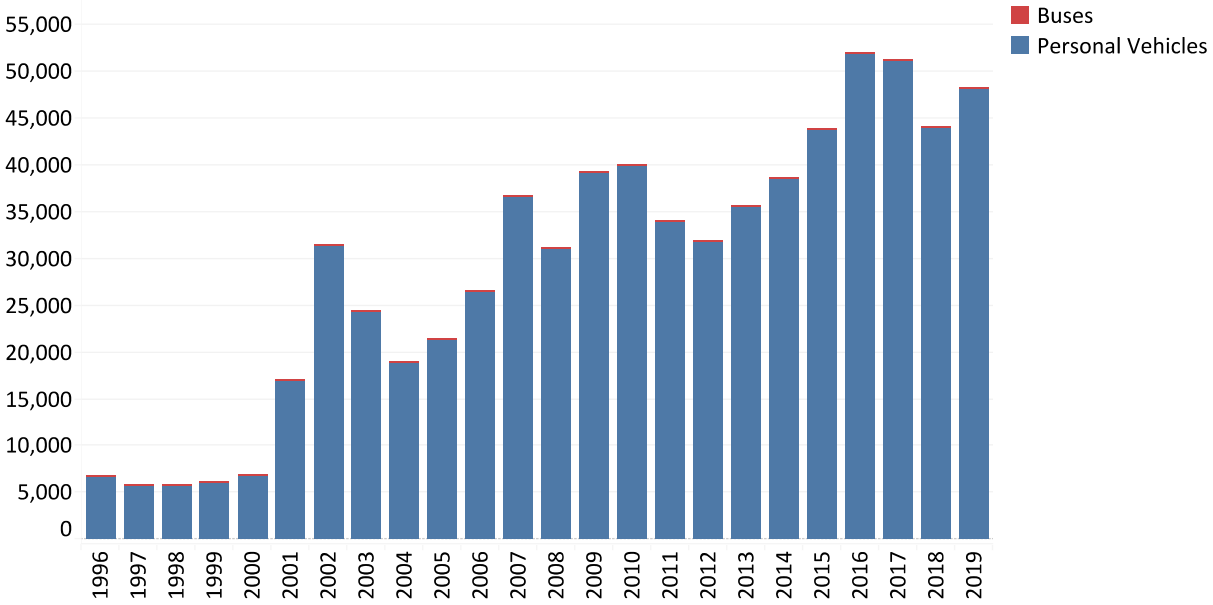


Source: *U.S. Department of Transportation.*

The Santa Teresa Port of Entry is located approximately 25 miles from El Paso County heading west into southern Doña Ana County. Through the Santa Teresa Port of Entry, personal vehicles are also the most common mode of transportation. The figure below depicts Santa Teresa *PoE* non-commercial border

crossings from 1996 to 2018. The Santa Teresa Port of Entry is sometimes used as an alternative to the El Paso Port of Entry in terms of non-commercial border traffic.

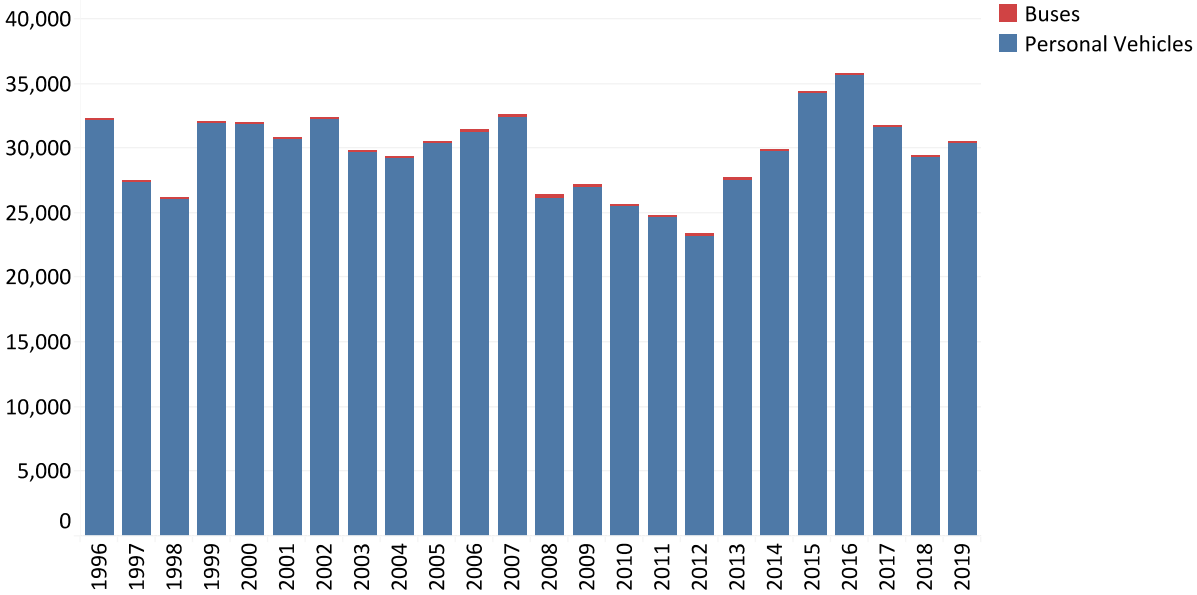
Figure 90. Non-Commercial Border Traffic through Santa Teresa Port of Entry



Source: *U.S. Department of Transportation.*

The Columbus *PoE* is located approximately 60 miles west of Santa Teresa. In Luna County, the Columbus *PoE* also sees mostly personal vehicle non-commercial border traffic. The increase in border enforcement action deployment within the *USBP* El Paso sector has enabled residents of border communities to safely cross the border daily.

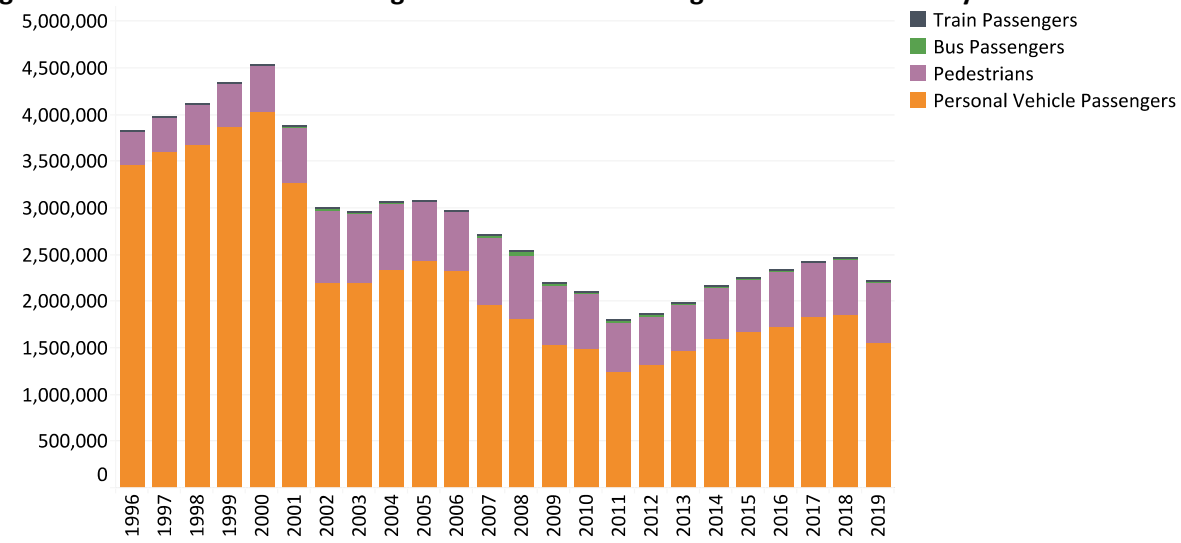
Figure 91. Non-Commercial Border Traffic through Columbus Port of Entry



Source: *U.S. Department of Transportation.*

In El Paso, more than half of all non-commercial border crossings involve personal vehicle passengers. Figure 92 depicts pedestrian and passenger border crossings through the El Paso Port of Entry starting in 1996 to 2018. Pedestrians are also a significant part of border crossings. Together, personal vehicle passengers and pedestrians make up over 98% of this type of border crossings through El Paso *PoEs.* Although personal vehicle passenger and pedestrian crossings increased since 2011, they have been in decline since 1996. Since 1996, this type of border crossing has decreased by 42%.

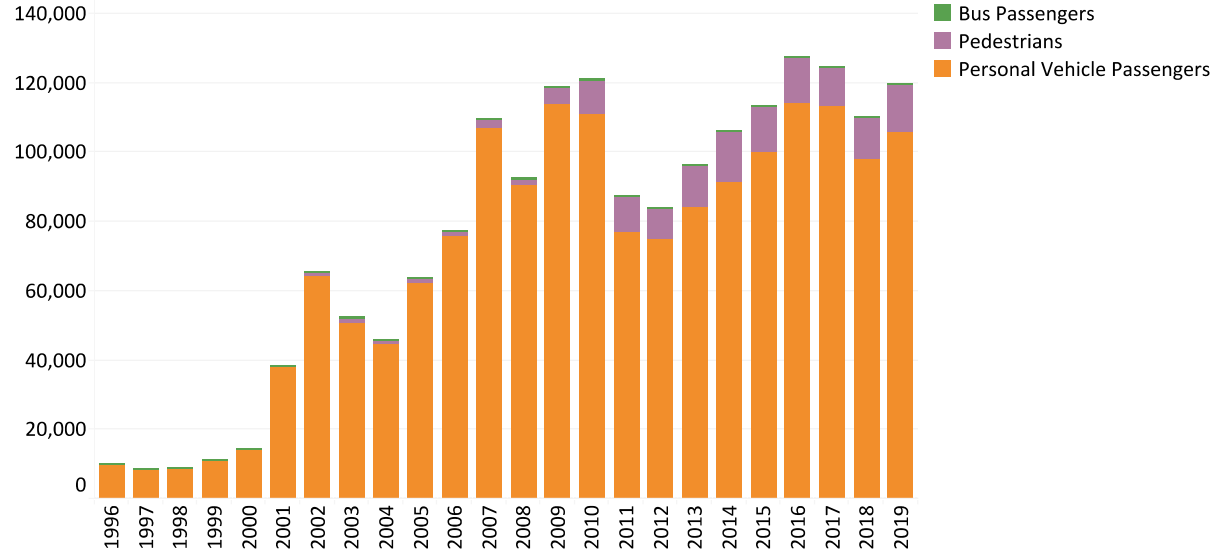
Figure 92. Pedestrians and Passengers Border Traffic through El Paso Port of Entry



Source: *U.S. Department of Transportation.*

Conversely, Figure 93 shows that in Santa Teresa, personal vehicle passengers and pedestrian border crossings have increased since 1996 by more than 1000%.

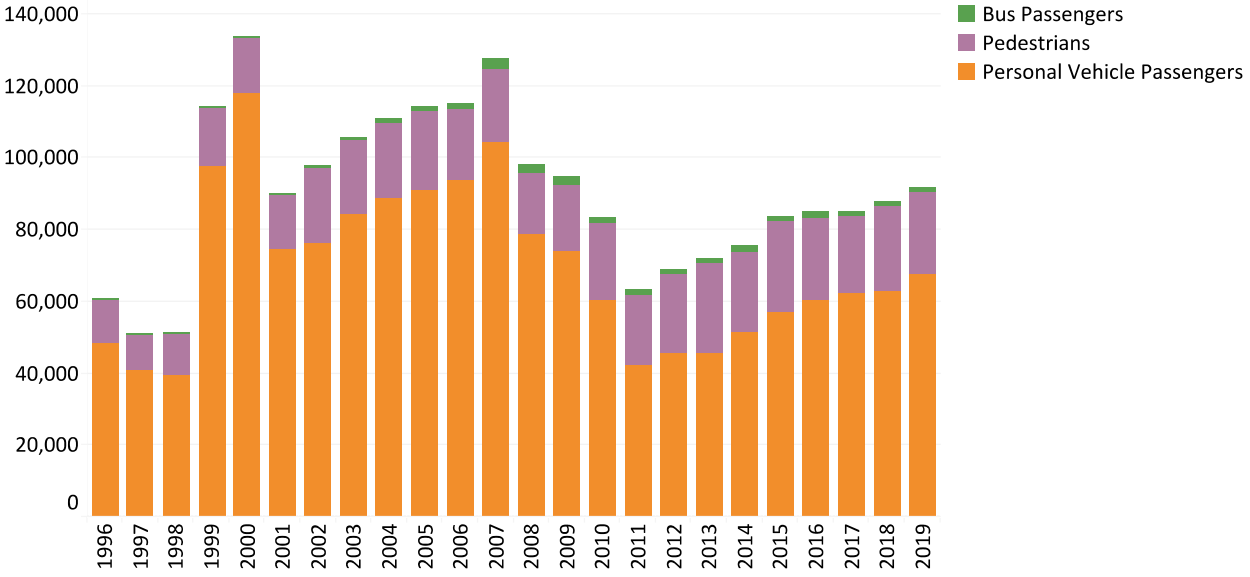
Figure 93. Pedestrians and Passengers Border Traffic through Santa Teresa Port of Entry



Source: *U.S. Department of Transportation.*

In Figure 94 the cross-border traffic through the Columbus POE s displayed.

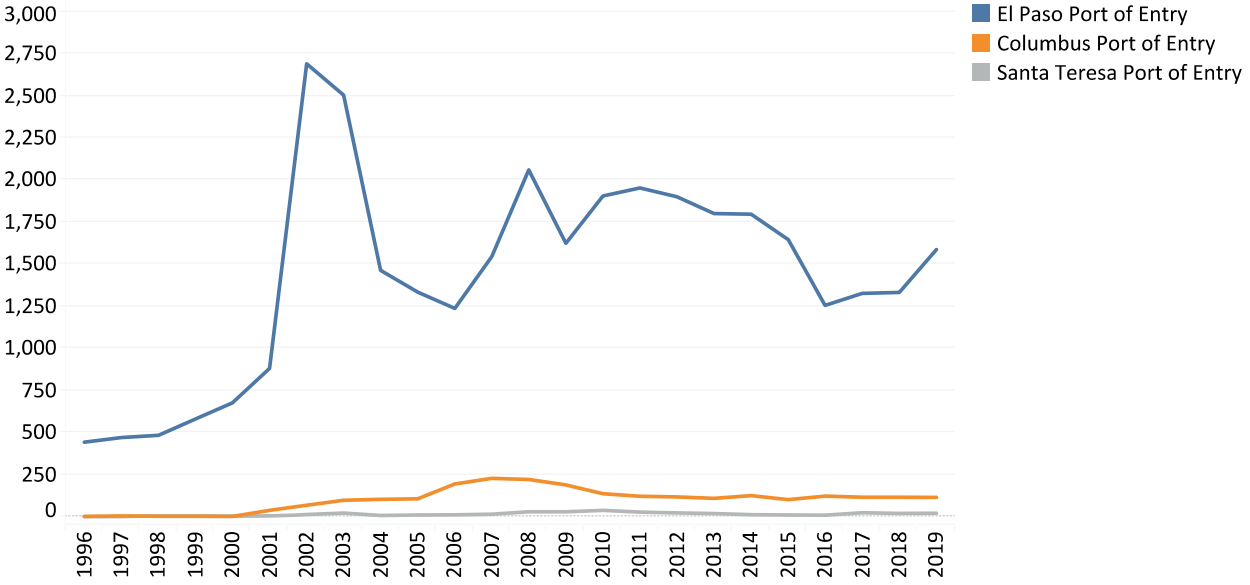
Figure 94. Pedestrians and Passengers Border Traffic through Columbus Port of Entry



Source: *U.S. Department of Transportation.*

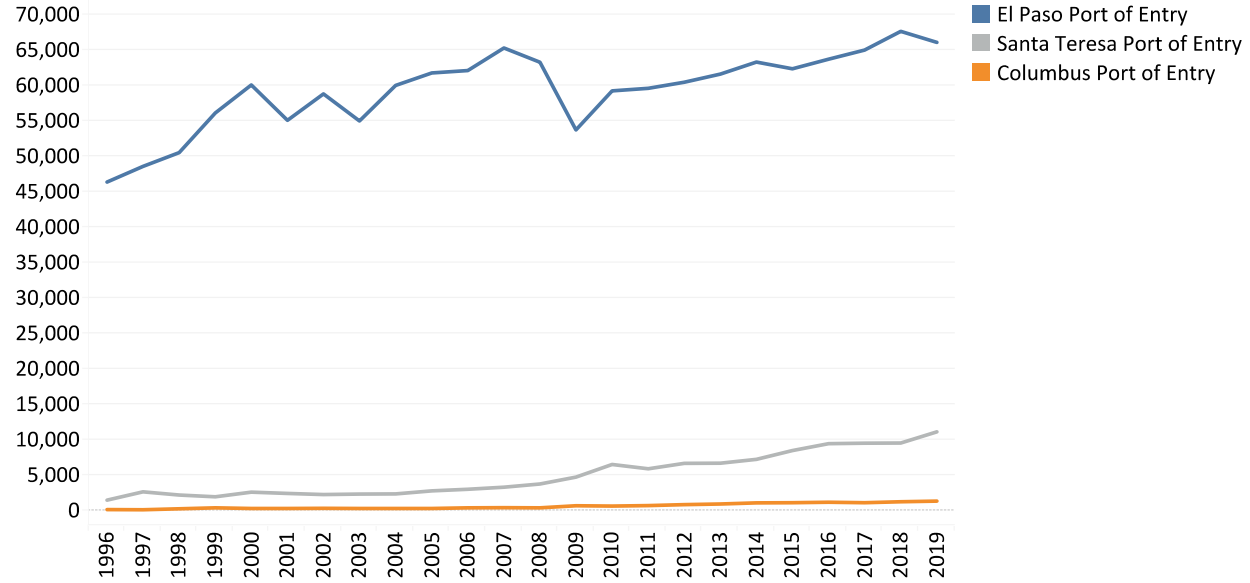
El Paso POE sees the most traffic for buses, trucks, and personal vehicles. The Figures 95-97 below compares border crossings for buses, trucks and personal vehicles, respectively, for the three POE's.

Figure 95. Buses Border Traffic through Ports of Entry



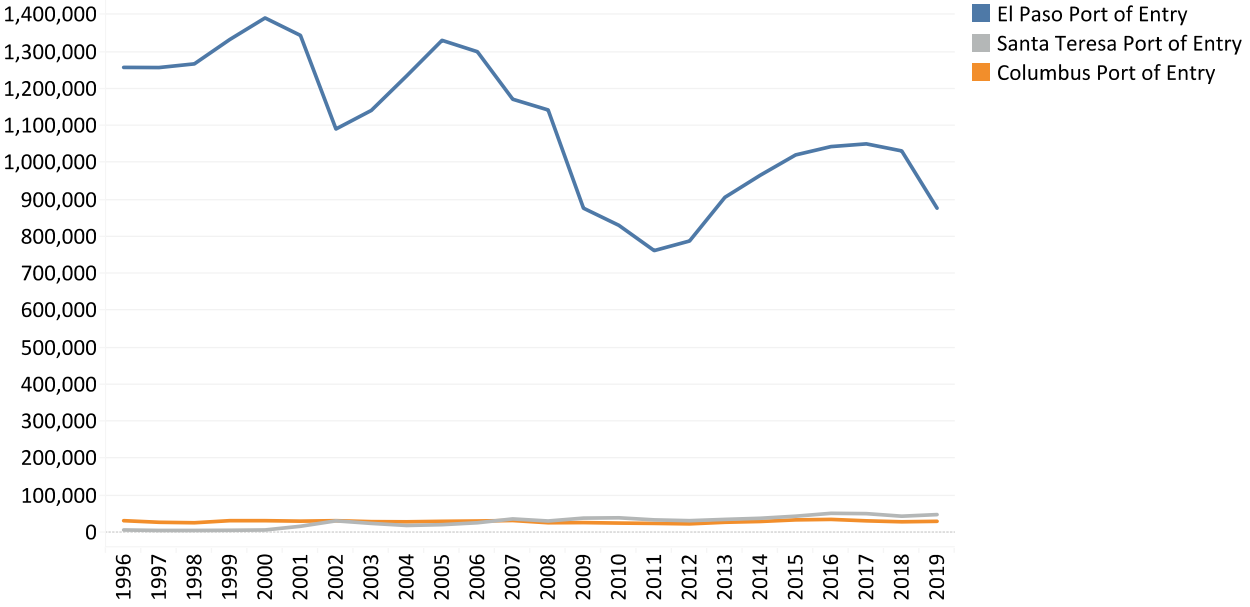
Source: *U.S. Department of Transportation.*

Figure 96. Trucks Border Traffic through Ports of Entry



Source: *U.S. Department of Transportation.*

Figure 97. Personal Vehicles Border Traffic through Port of Entries



Source: *U.S. Department of Transportation.*

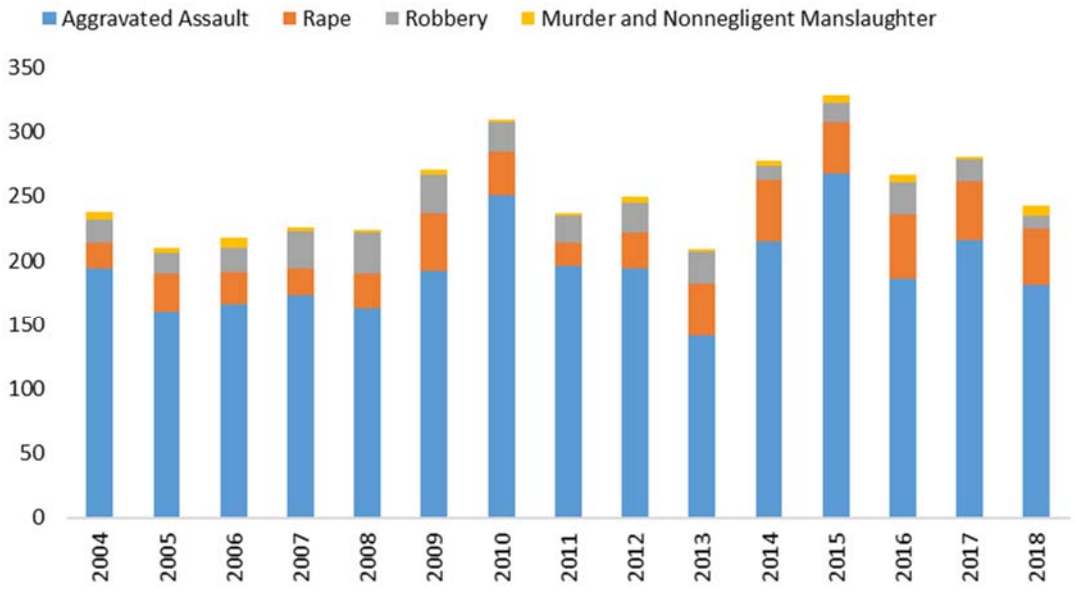
VII. Crime Indicators

In the following sections, crime indicators are presented to analyze crime trends over time. Violent crime data are presented for Doña Ana County, Hudspeth County, Hidalgo County, and Luna County since 2008, while data for El Paso County since 2004 are presented. Data for Hudspeth County starts as early as 2001, while data for El Paso County starts in 2004 and data for Doña Ana County starts in 2008. Due to the variability in the data sets across the various counties, the project team provides violent crime trends for each county individually.

A. Violent Crimes

A violent crime is a crime in which an offender uses or threatens to use force upon a victim. In El Paso County, peaks in violent crimes occurred in 2010 and 2015 with both years recording approximately 300 violent crimes per 100,000 population. Most violent crimes in El Paso County involves aggravated assault and reports of violent crimes in El Paso County increase during economic slowdowns. In 2008-2010, for example, violent crimes in El Paso increased significantly compared to other years, and again in 2014-2015. Data is not available in the 1990s when the "prevention through deterrence" strategy began. However, border enforcement actions have increased in recent years, which may be credited with keeping violent crimes low regionally.

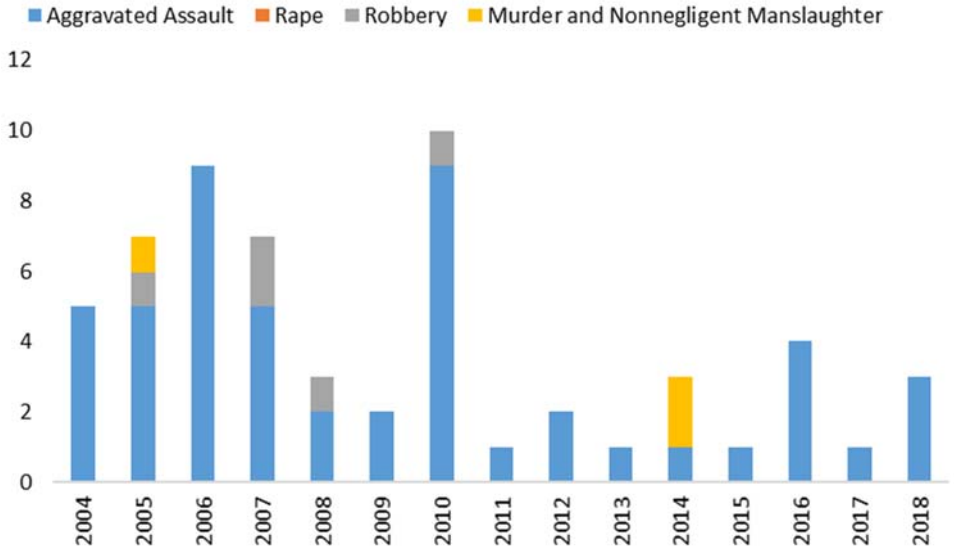
Figure 98. Violent Crimes by Type in El Paso County, Texas



Source: *Federal Bureau of Investigation.*

For Hudspeth County the number of violent crimes increased from 2004-2006 and decreased thereafter with a spike observed in 2010. Figure 99 summarizes the reporting of violent crimes in Hudspeth County from 2004 to 2018.

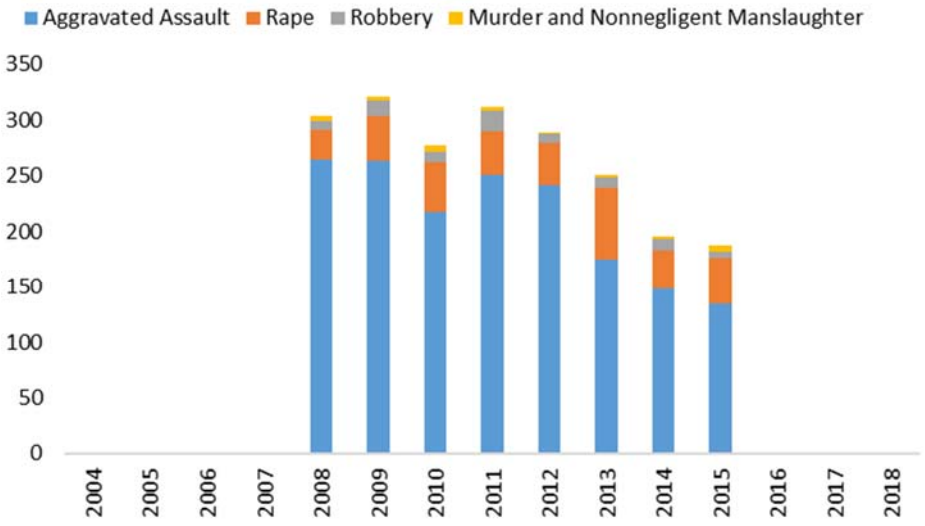
Figure 99. Violent Crimes by Type in Hudspeth County, Texas



Source: *Federal Bureau of Investigation.*

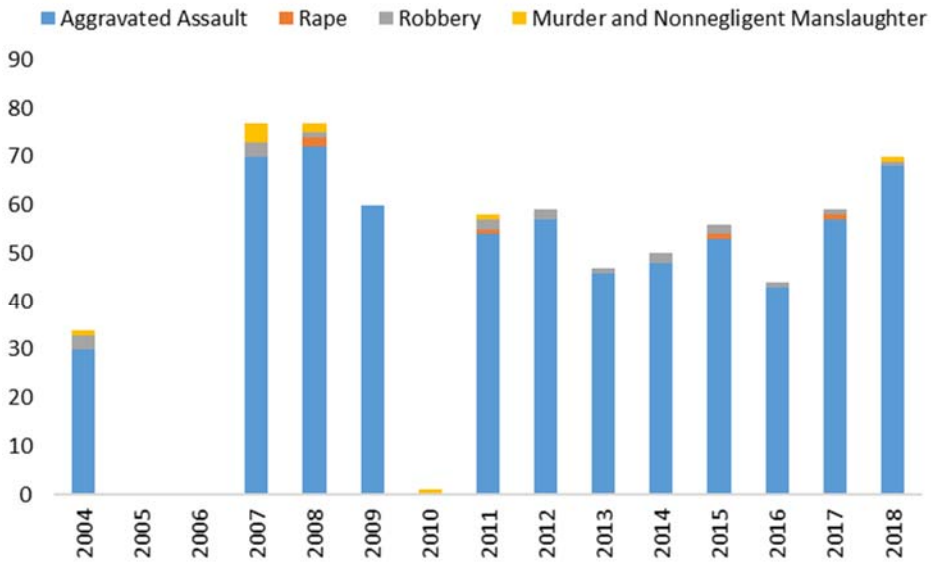
In Doña Ana County, violent crimes show a downward trend since 2008, although there are gaps in the data. Nevertheless, violent crimes in Doña Ana County have decreased considerably in recent years, according to the Federal Bureau of Investigation.

Figure 100. Violent Crimes by Type in Doña Ana County, Texas



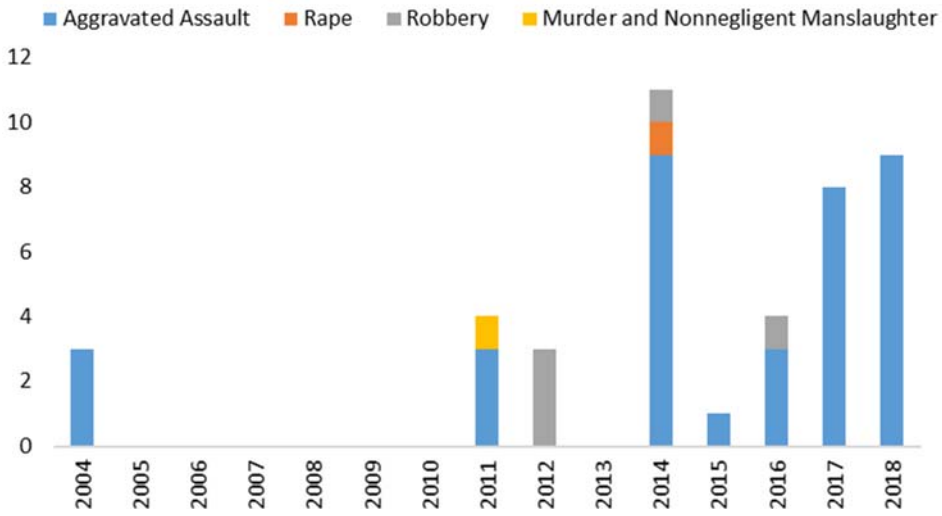
Source: *Federal Bureau of Investigation.*

There are some gaps in the data for Luna County as well. However, since 2013, Luna County crimes started to increase. Figures 101 and 102 depict the violent crimes by type for Luna County and Hidalgo County, respectively.



Source: *Federal Bureau of Investigation.*

Figure 102. Violent Crimes by Type in Hidalgo County, New Mexico

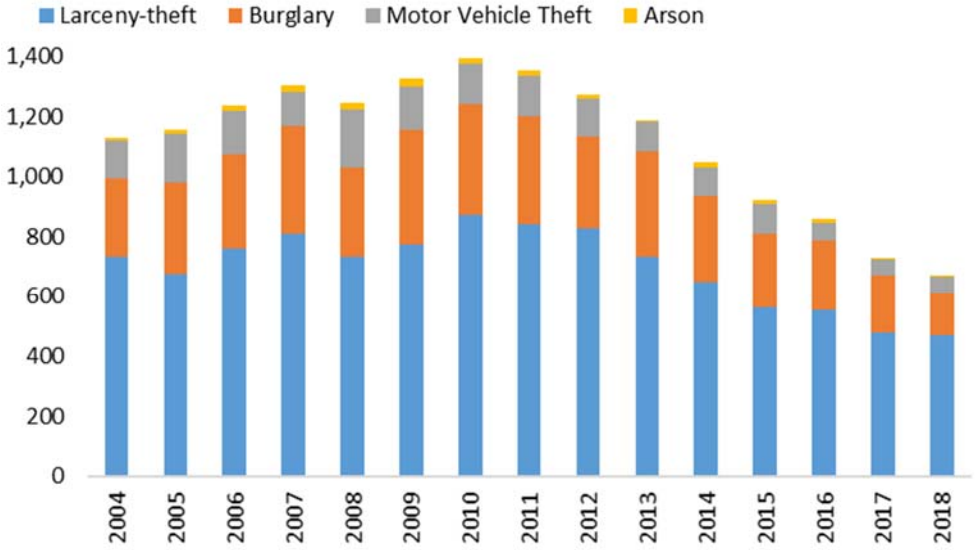


Source: *Federal Bureau of Investigation.*

B. Property Crimes

Property crime involves a loss of private property by a victim. Property crime also includes other crimes, such as burglary, larceny, theft, motor vehicle theft, arson, shoplifting, and vandalism. Generally, property crime involves economic loss to the victim and criminal motivation often is related to monetizing the stolen property, or some realization of some other economic benefit. Figure 103 depicts property crimes by type of crime for every 100,000 persons in El Paso County from 2004 to 2018. In El Paso County, property crimes have been decreasing consistently since 2010. From 2004 to 2010, property crimes in El Paso increased. Most property crimes in El Paso County involve larceny theft and burglary. Larceny theft in El Paso County made up over half of all property crimes every year since 2004.

Figure 103. Property Crimes by Type in El Paso County, Texas



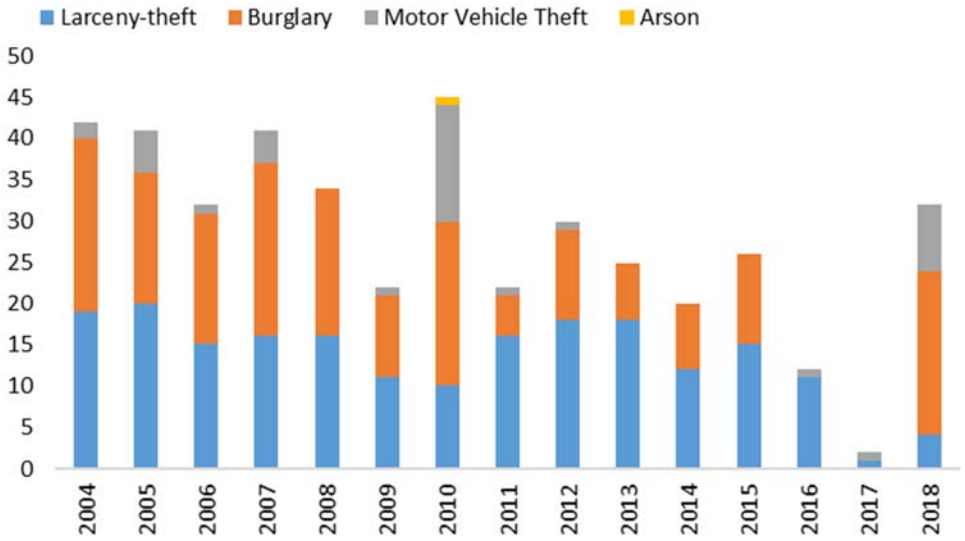
Source: *Federal Bureau of Investigation.*

In 2018, more than 90% of all property crime in El Paso County was attributed to two categories, *i.e.*, larceny/theft (70%) and burglary (21%). Nationwide property crimes are reported less frequently (only 1 in 3) than violent crimes and it is unknown whether reporting rates in El Paso are similarly under-reported.

El Paso County's neighboring city is Ciudad Juárez in the northern state of Chihuahua. Crime rates are significantly higher in Ciudad Juárez. However, the massive amount of border security infrastructure serves as a deterrent so that virtually no crime spills over to El Paso County. Therefore, the crime in El Paso County represents only the crime produced in the county.

As shown in Figure 104 for Hudspeth County, property crimes have trended downward for the last decade with spikes in burglary and motor vehicle theft in both 2010 and 2018.

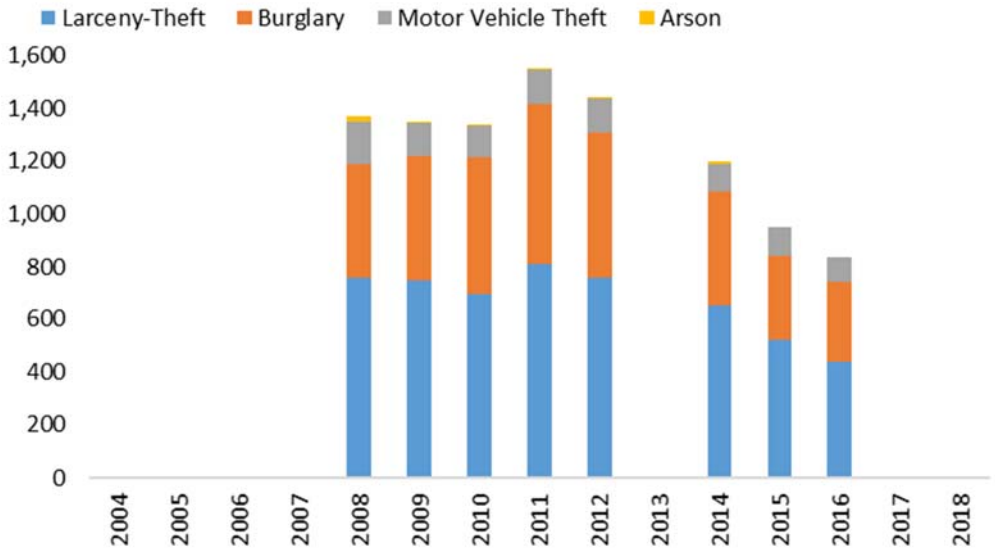
Figure 104. Property Crimes by Type in Hudspeth County, Texas



Source: *Federal Bureau of Investigation.*

In Doña Ana County, property crimes decreased by 46% from 2011 to 2016. In 2016, larceny/theft and burglary were 52% and 37% of property crimes, respectively, as shown in Figure 105.

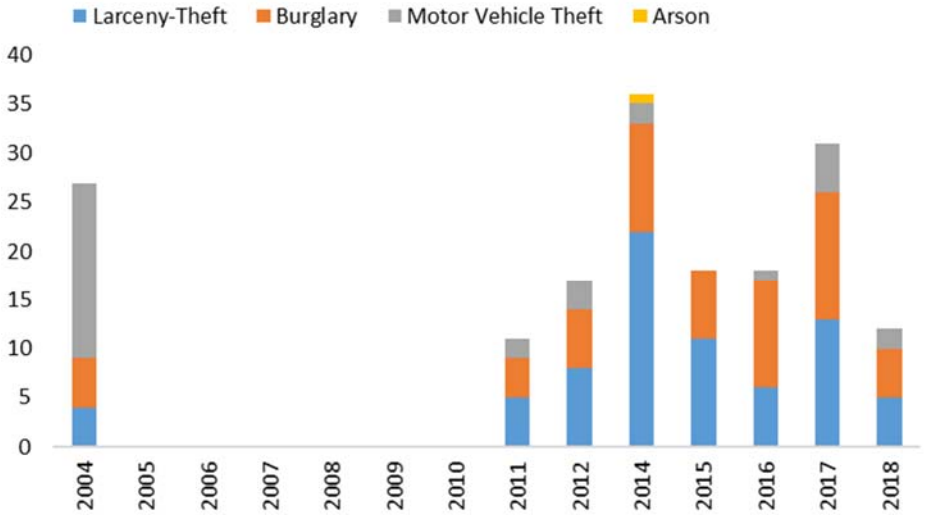
Figure 105. Property Crimes by Type in Doña Ana County, New Mexico



Source: *Federal Bureau of Investigation.*

Figure 106 shows property crimes in sparsely populated Hidalgo County. Property crime rates in Hidalgo County increased significantly in 2014 and 2017. Larceny/theft, burglary and motor vehicle theft are the most common property crimes in Hidalgo County.

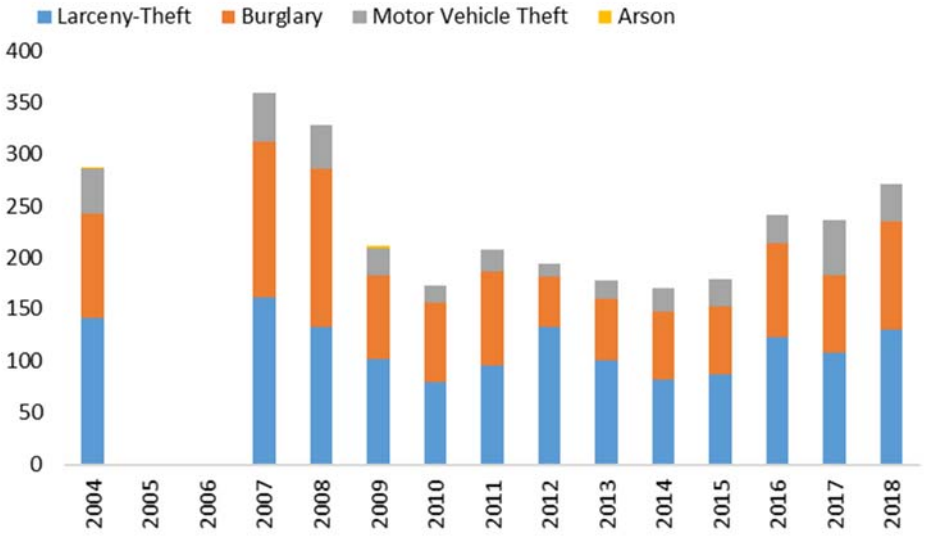
Figure 106. Property Crimes by Type in Hidalgo County, New Mexico



Source: *Federal Bureau of Investigation.*

In Luna County, property crimes decreased from 2007 to 2010 and remained stable until 2016 when a slight uptick was observed. Larceny/theft, burglary, and motor vehicle theft are the most frequently reported property crimes in Luna County.

Figure 107. Property Crimes by Type in Luna County, New Mexico



Source: *Federal Bureau of Investigation.*

Several confounding factors should be noted when interpreting crime data. First, the FBI crime database only includes crimes that were reported and often victims of crime who are not US citizens do not file police reports when victimized. Second, the rates of both violent and property crimes have plummeted in the US since the 1990's. These two factors make determining the effect of border security impacts on crime rates difficult at best.

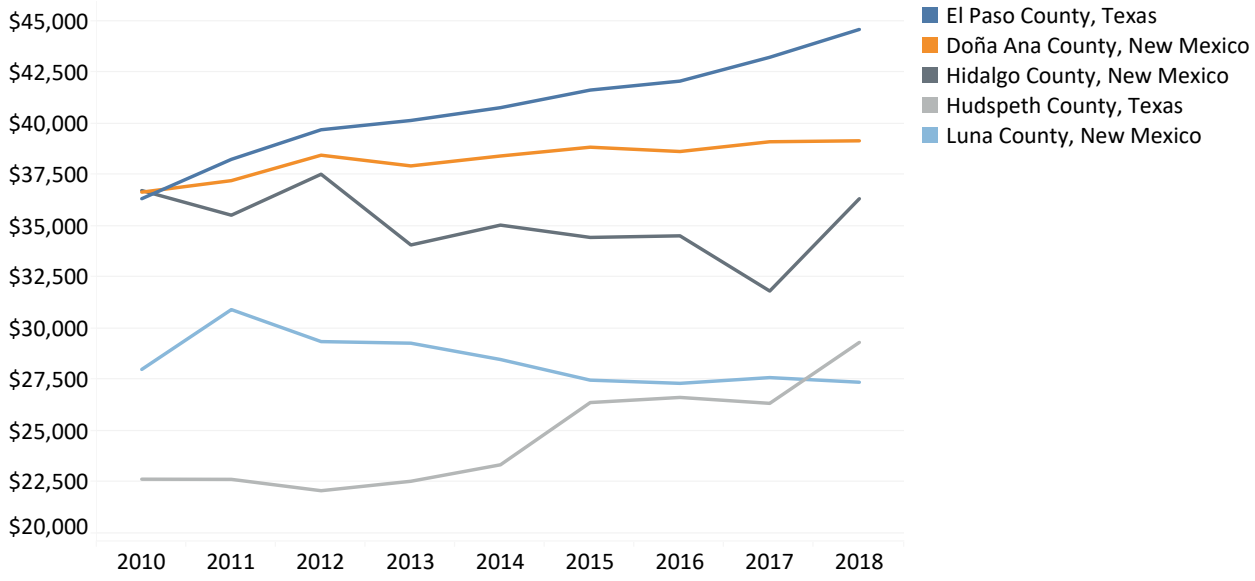
VIII. Economic Indicators

This section summarizes key economic indicators that describe the labor market within the counties that comprise the El Paso Sector. These indicators include household median income, labor, and wage data for the pilot mapping counties. The total employment by industry is also provided, as well as new construction permits to show economic activity in the El Paso Sector.

A. Median Income

Figure 108 below shows how median household income in the pilot mapping counties has increased since 2010. In El Paso County, median household income increased 23% from 2010 to 2018 ($36,000 to $43,500). In Hudspeth County, median household income increased by 29% during the same period (from $22,647 to $29,318). Median household income in Doña Ana County increased by only 7% from 2010 to 2018, going from $36,657 in 2010 to $39,164 in 2018. In Luna County, the median household income decreased by 2% from 2010 to 2018 ($27,997 to $27,377, respectively) and in Hidalgo County, median household income remained unchanged during the same period.

Figure 108. Median Household Income by County, USD



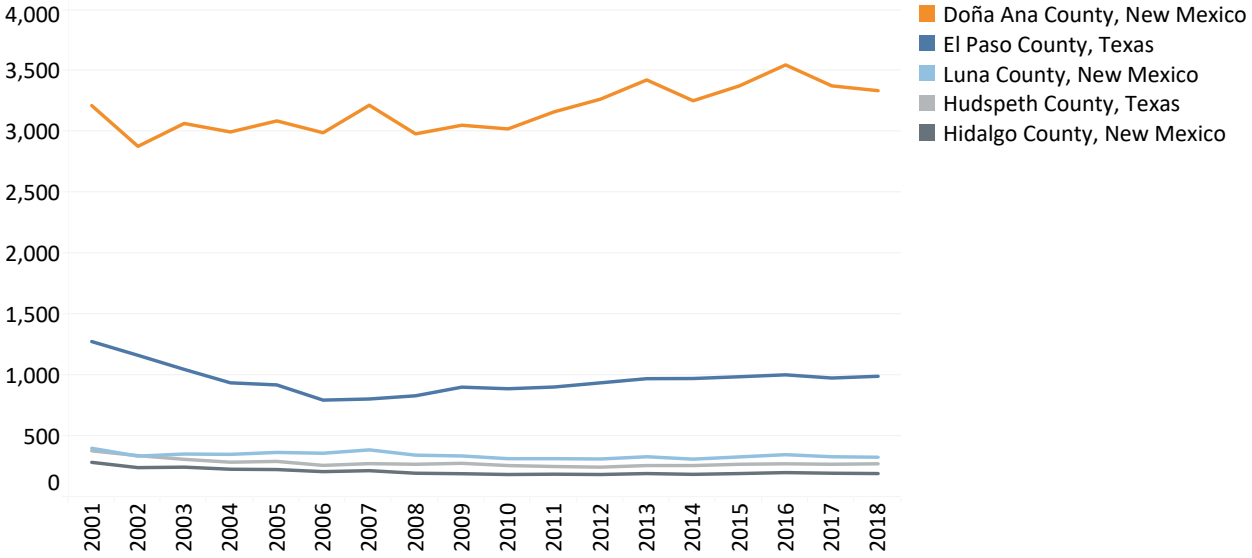
Source: *U.S. Census Bureau.*

Compared to data published by Statista regarding the national average in household income over the same period, El Paso and Hudspeth counties were prospering relative to the rest of the US. Doña Ana County was slightly underperforming whereas Luna and Hidalgo counties were lagging relative to the rest of the US when comparing average household income.

B. Labor

The increase in border security may not only impact the level of income for households in border communities but also the number of jobs. Figure 109 shows trends in total farm employment in the pilot mapping counties since 2001. Doña Ana County has the largest farm labor market in the mapping counties, but farm labor only represents a fraction (<5%) of total employment. Farm employment in the more densely populated and urban El Paso County is less than 1% of total employment. Total farm employment in Doña Ana County remained relatively constant with minor growth from 2001 to 2018. Total farm employment in the rest of the pilot mapping counties has remained essentially unchanged from 2001 to 2018, albeit a slight decrease in El Paso County.

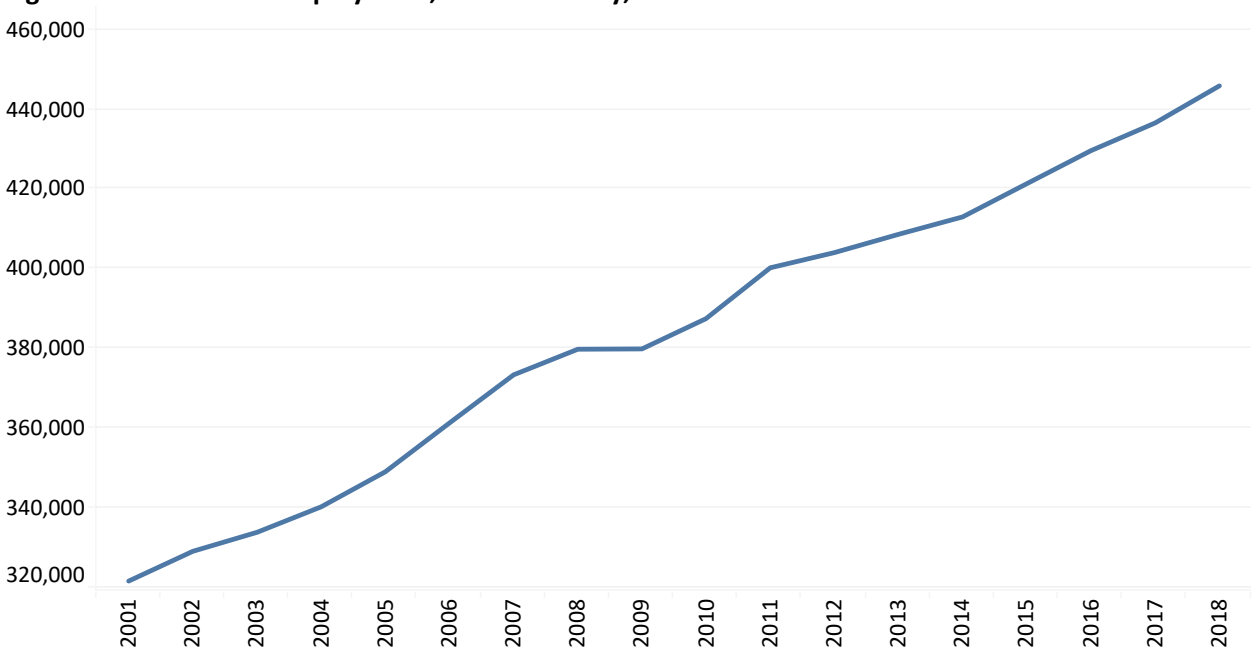
Figure 109. Farm Employment by County



Source: *U.S. Census Bureau.*

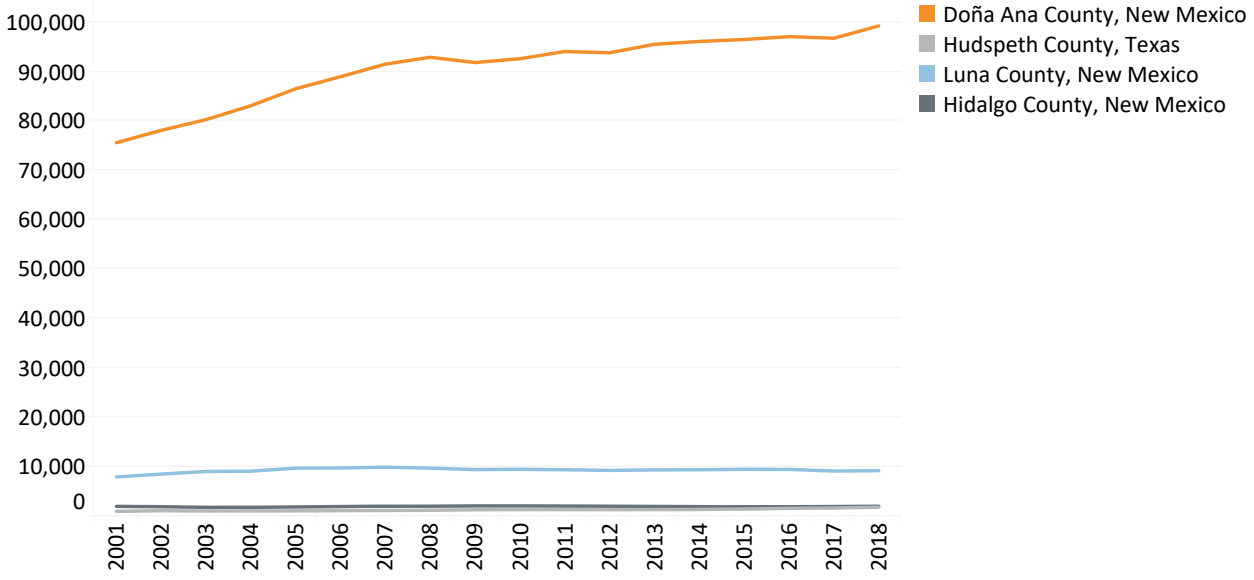
The data pertaining to total non-farm employment are depicted in Figures 110 (El Paso only) and 111 (remaining El Paso Sector counties) due to marked differences in scale. El Paso County shows the highest level of non-farm employment increasing from 321,000 to 445,000 over the period from 2001 to 2018. In Doña Ana County, non-farm employment grew steadily since 2001, as it increased from 76,000 in 2001 to 100,000 in 2018. The rest of the pilot mapping counties showed negligible growth, if any, from 2001 to 2018.

Figure 110. Non-Farm Employment, El Paso County, Texas



Source: *U.S. Census Bureau.*

Figure 111. Non-Farm Employment by County



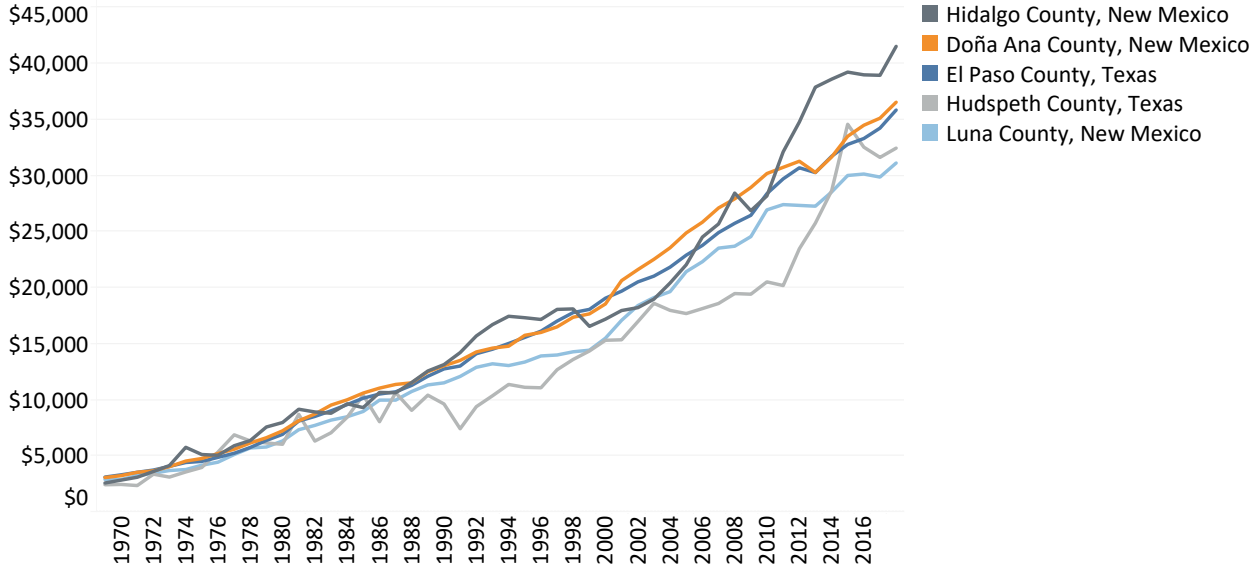
Source: *U.S. Census Bureau.*

It is not surprising that the more densely populated El Paso County, with its large urban area relative to the other mapping counties, has exhibited significant growth in non-farm employment. There has been a nationwide trend over the last two decades in the US with population in rural areas decreasing while the urban population has increased. Job growth in the US since 2008 has seen opportunities in metropolitan areas far outpace opportunities in rural areas.

C. Wages

Figure 112 depicts per capita personal income for all of the pilot mapping counties. Per capita personal income has increased steadily since 1970 and the overall trend aligns with the data for the US population during the same period. Examination of the data from the last two decades indicates the following increases by county from 1990 to 2018: El Paso County, 187% ($12,776 to $35,856); Doña Ana County 180% ($13,066 to $36,570); Hudspeth County, 237% ($9,643 to $32,472); Luna County, 170% ($11,521 to $31,140); Hidalgo County, 216% ($13,158 to $41,555). By comparison, US per capita personal income rose by 178% ($19,621 to $54,581) during the same period indicating all El Paso Sector counties were keeping pace or outperforming the overall US average with the exception of Luna County.

Figure 112. Per Capita Personal Income by County, USD

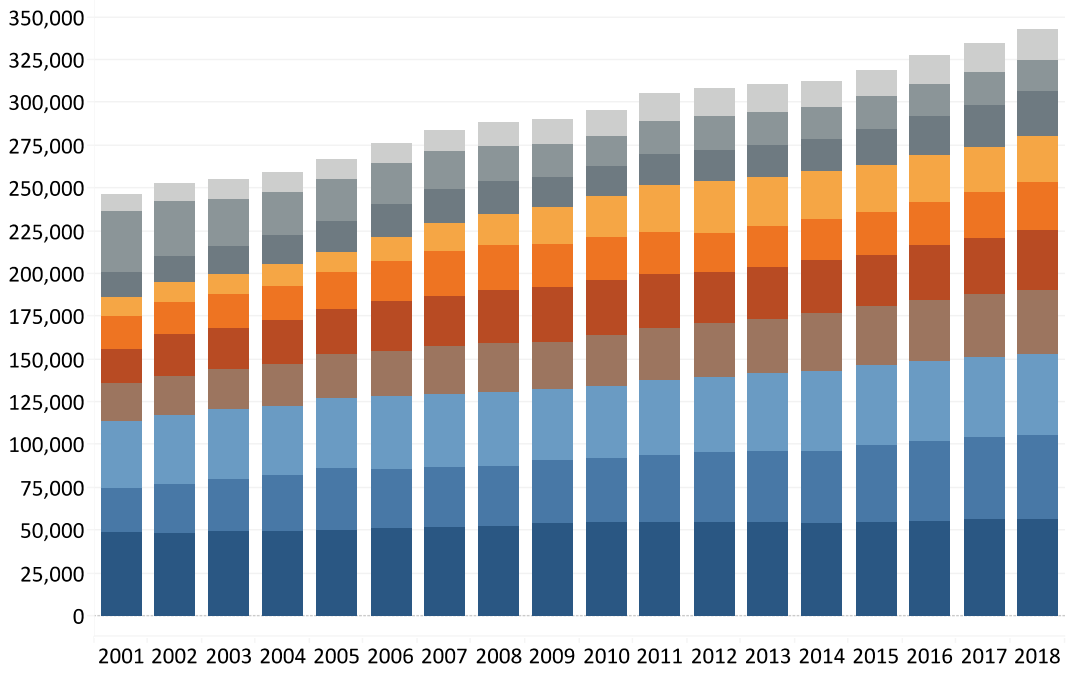


Source: *U.S. Bureau of Economic Analysis.*

D. Industry Profile

Figures 113-117 depict job distribution by industry classification (using NAICS codes) in the pilot mapping counties. According to the Bureau of Economic Analysis (BEA), employment has increased by 37% from 2001 to 2018. As depicted in Figure 113, the most frequent employer in El Paso County is related to civil service in either the state or local government which was responsible for approximately 9% of total employment in El Paso County in 2018. Employment in the US military in El Paso County has increased by 132% over the last two decades. The transportation and warehousing sector increased significantly as well with an 84% increase from 2001 to 2018. Employment in the manufacturing industry in El Paso County decreased by 48% from 2001 to 2018. Health care/ social assistance and retail trade are the second and third largest employment sectors.

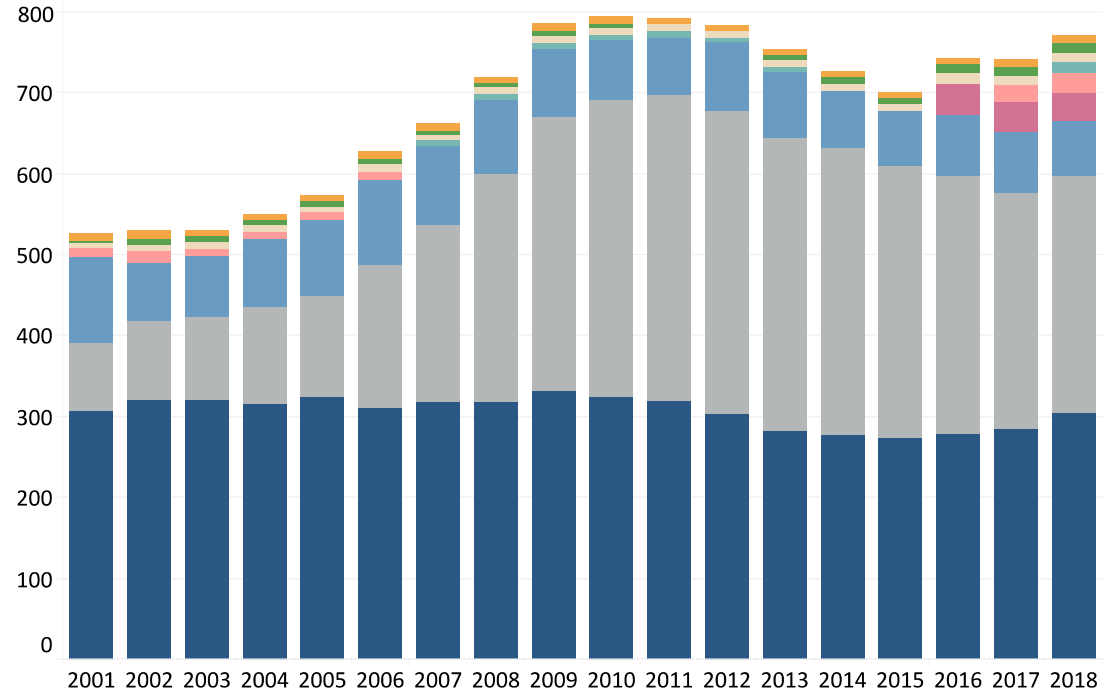
Figure 113. Top Job Concentration by Industry (NAICS Code) in El Paso County, Texas



Source: *U.S. Bureau of Economic Analysis.*

As shown in Figure 114, the most frequent employer in Hudspeth County is found in the government sector and civil service jobs (federal, state and local government) far outpace employment in all other sectors. Retail employment is the third biggest industry in terms of total employment in Hudspeth County.

Figure 114. Top Job Concentration by Industry (NAICS Code), Hudspeth County, Texas

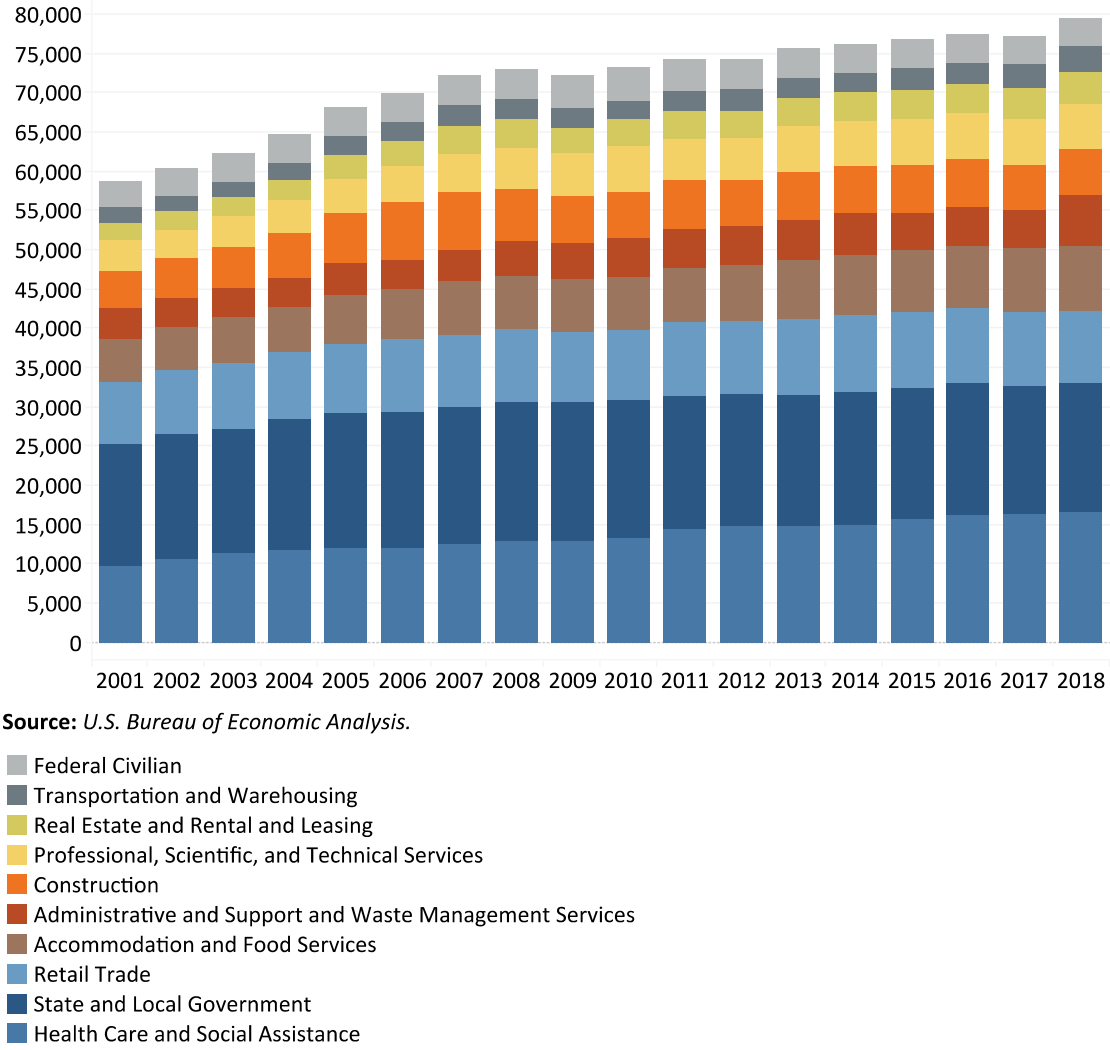


Source: *U.S. Bureau of Economic Analysis.*

Employment in the last two decades peaked in 2010 in Hudspeth County, and a slow decline was observed for several years until 2015 when declines in government employment were replaced by jobs in the mining, quarrying, and oil and gas extraction sectors. Management of companies and enterprises also appeared in 2017 and has to off-set the declining government employment opportunities.

As depicted in Figure 115, the top two areas of job concentration in Doña Ana County include health care/social assistance and state/local government. In 2018, the two industry sectors with the highest level of employment each employed approximately 12% of workers with retail representing another 7% of jobs in Doña Ana County. Doña Ana County is the second largest economy and has perhaps the most diversified mix of employment in the El Paso Sector.

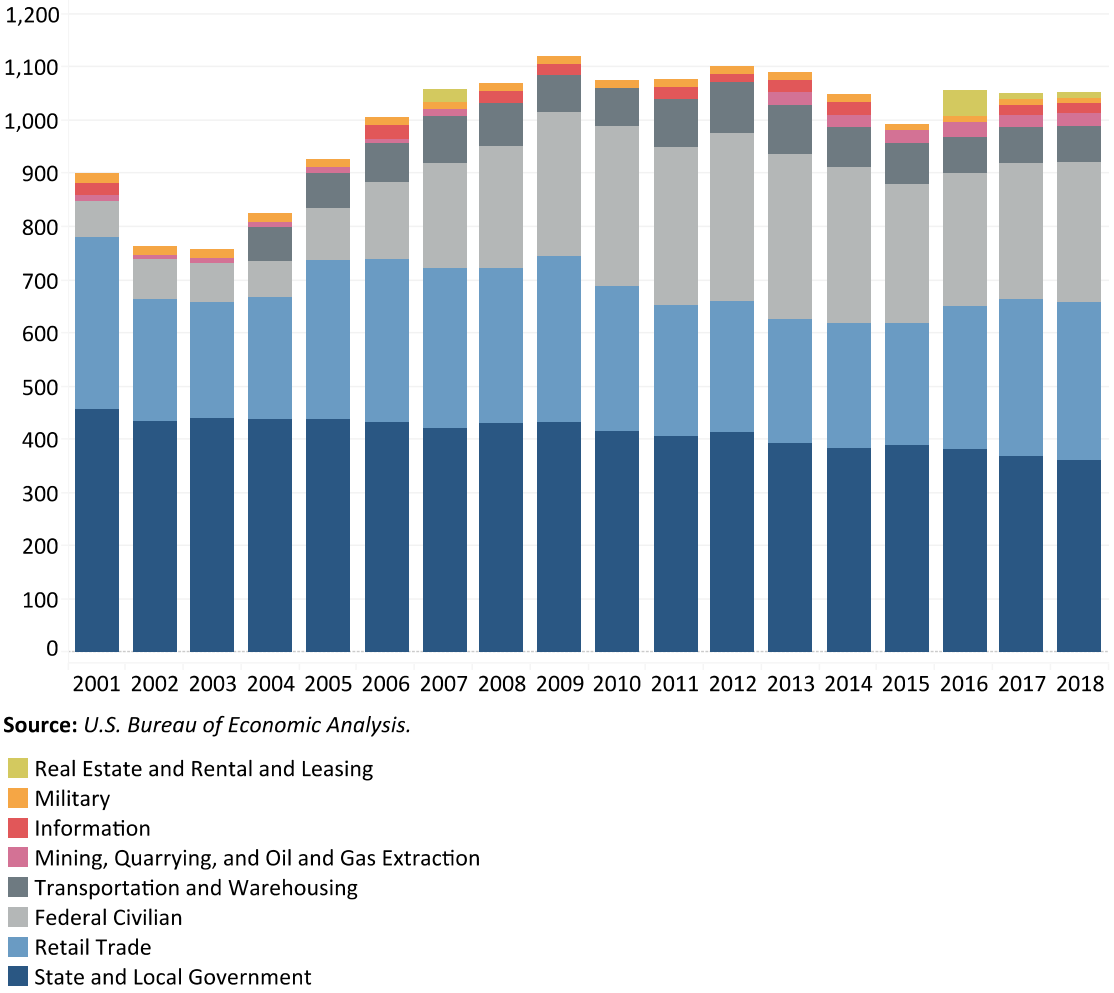
Figure 115. Top Job Concentration by Industry (NAICS Code), Doña Ana County, New Mexico



Source: *U.S. Bureau of Economic Analysis.*

Figure 11 shows that in Hidalgo County, civil service and retail jobs are also the most prevalent with the top three industry sectors being state/local government, retail trade, and federal civilian. The largest employment sector in Hidalgo County, *i.e.*, state/local government, accounted for approximately 18% of total employment in 2018 whereas the retail trade industry was responsible for nearly 14% of total employment in that year.

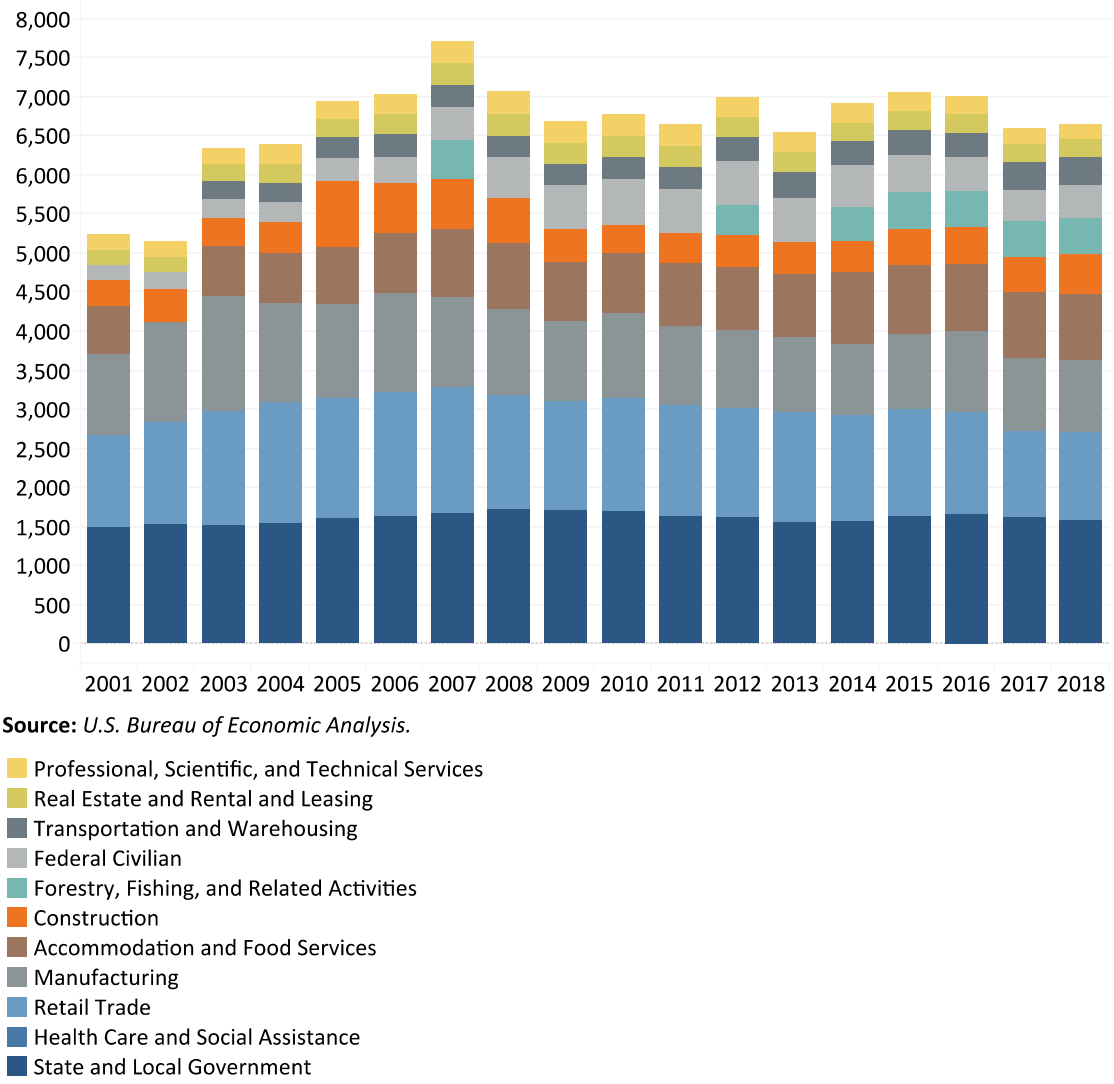
Figure 116. Top Job Concentration by Industry (NAICS Code), Hidalgo County, New Mexico



Source: *U.S. Bureau of Economic Analysis.*

As shown in Figure 117 the top three industries in terms of job concentration for Luna County include state/local government, health care/social assistance, and manufacturing.

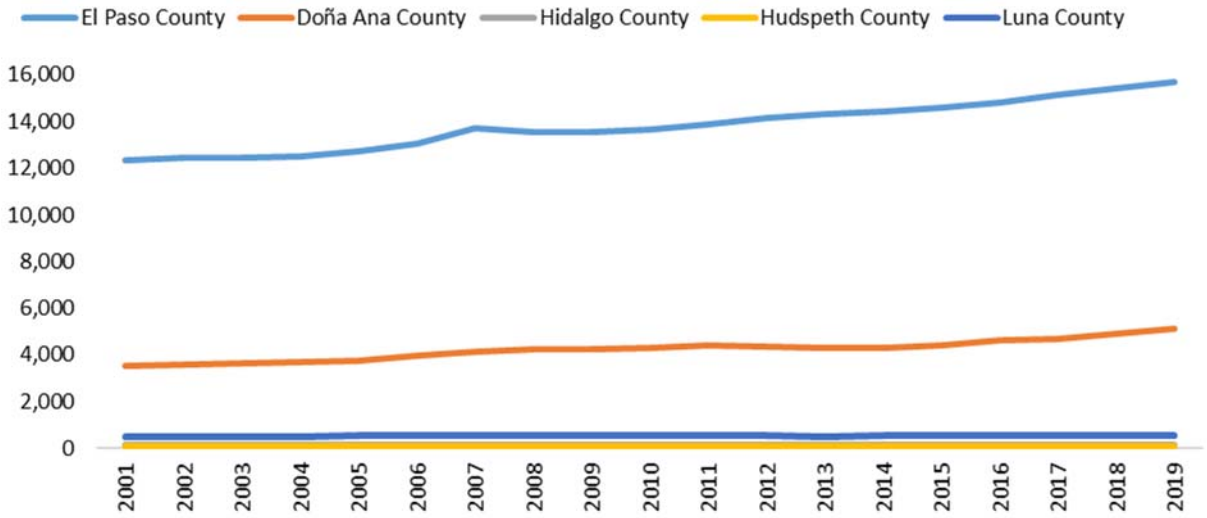
Figure 117. Top Job Concentration by Industry (NAICS Code), Luna County, New Mexico



Source: *U.S. Bureau of Economic Analysis.*

Figure 118 depicts the number of establishments in the pilot mapping counties. The number of business establishments in El Paso County increased by 25% from 2001 to 2018 (12,337 to 15,397). On average, in years between 2011 and 2018, the number of establishments in El Paso County has increased by 1% annually. The same is true in Doña Ana County, where the number of establishments increased from 3,523 in 2001 to 4,854 in 2018. In Luna County the number of establishments increased from 496 in 2001 to 535 in 2018 and in Hidalgo County during the same period the number of establishments increased from 158 to 165.

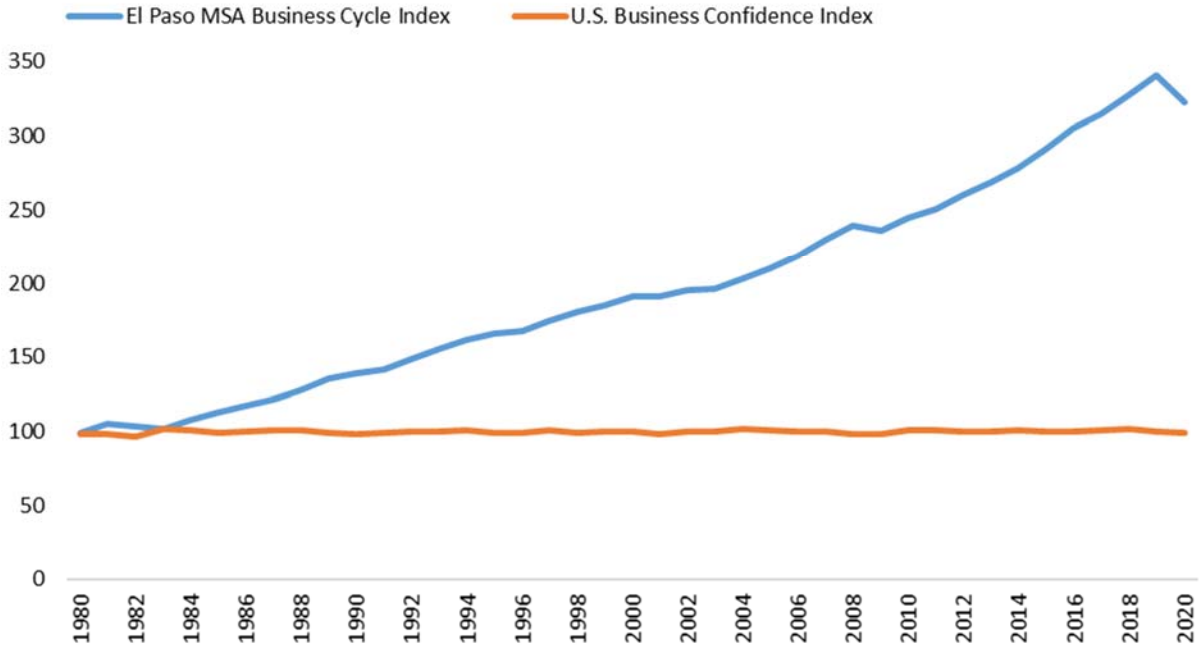
Figure 118. Number of Establishments by County



Source: *U.S. Bureau of Labor Statistics.*

The U.S. Federal Reserve Bank branch in Dallas produces the Metro Business-Cycle Indices for the five largest Texas metropolitan areas and metropolitan areas along the Texas-Mexico border, which reflect broad movements in local economic conditions. Beginning in 2001, long-term trend growth is calculated using real metro GDP. The border enforcement action deployment that started in El Paso in the early 1990s seems to have had an impact on the business confidence index for the El Paso metropolitan statistical area (MSA). Figure 119 shows the significant increase in business confidence since 1981. The figure below also shows the increase in business confidence in the El Paso MSA in contrast to the rest of the U.S.

Figure 119. U.S. Business Confidence Index and El Paso MSA Business Cycle Index



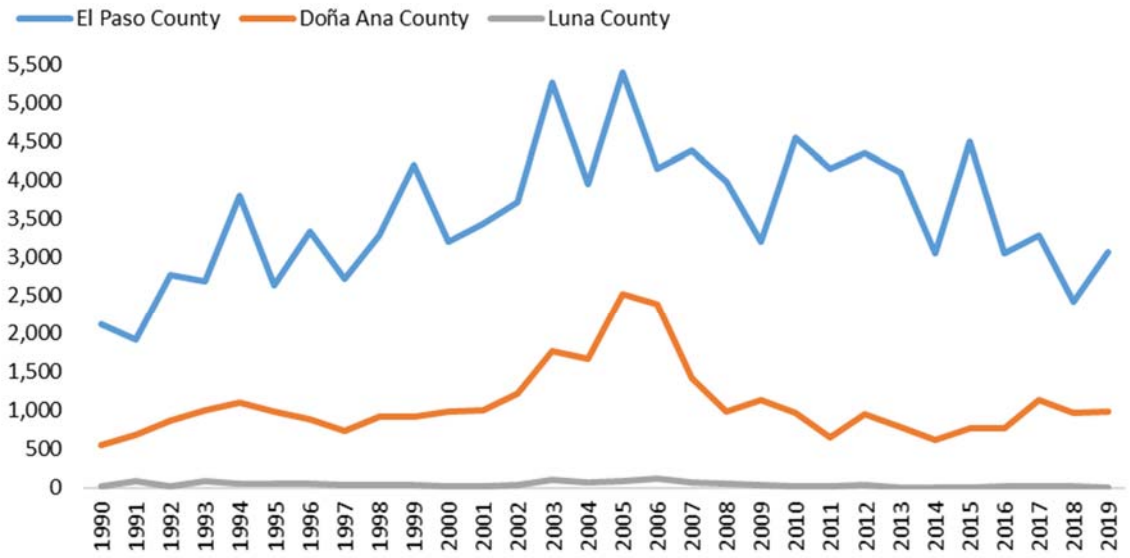
Note: *Data as of November 2020.*
El Paso MSA Business Cycle Index, October 1980 = 100.
U.S. Business Confidence Index, January 2012 = 100.
Source: *Organisation for Economic Co-operation and Development; Federal Reserve Bank of Dallas.*

E. New Construction Permits

Figure 120 shows new construction permits for El Paso County, Doña Ana County, and Luna County from 1990 to 2019. Since the border enforcement action deployment started in the 1990s, new construction permits in El Paso County increased considerably up until 2006. After that, new construction permits began to display a downward trend. Although the number of new construction permits are currently at a higher level than in 1990, they have decreased in since their peak in 2005.

A similar trend is observed in the data for Doña Ana County, except that after 1994 new construction permits decreased briefly only to increase again in 1997. In 2018, new construction permits in Doña Ana County were close to the level they were at in 1990.

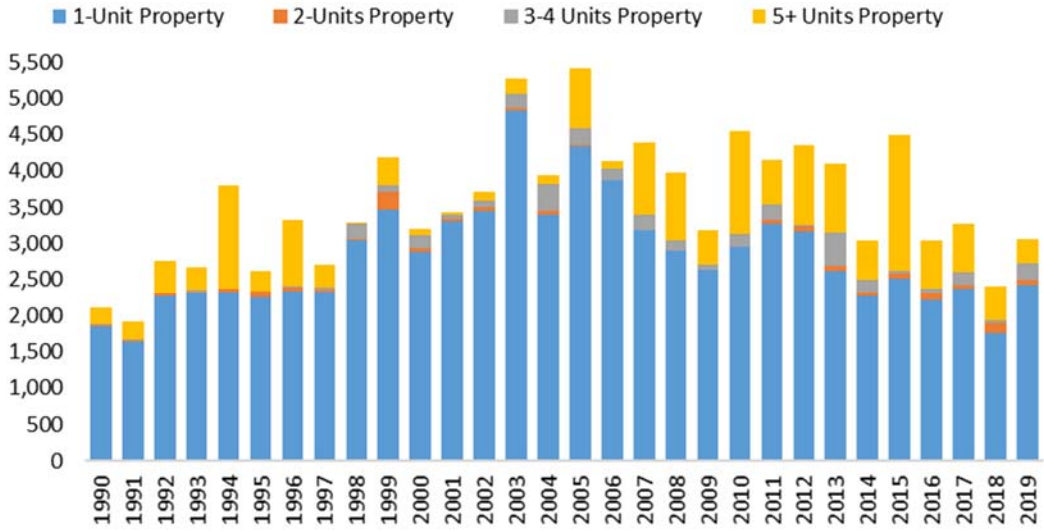
Luna County in New Mexico has very few construction permits given that it is a very small county in terms of population.



Note: *Data not available for Hudspeth County (Texas) and Hidalgo County (New Mexico).*
Source: *U.S. Census Bureau.*

New construction permits in El Paso County by type of property show that most construction projects involve 1-unit properties. In 2018, 1-unit properties made up 72% of total new construction permits projects. The data for new construction permits in El Paso County (1990 to 2019) are shown in Figure 121.

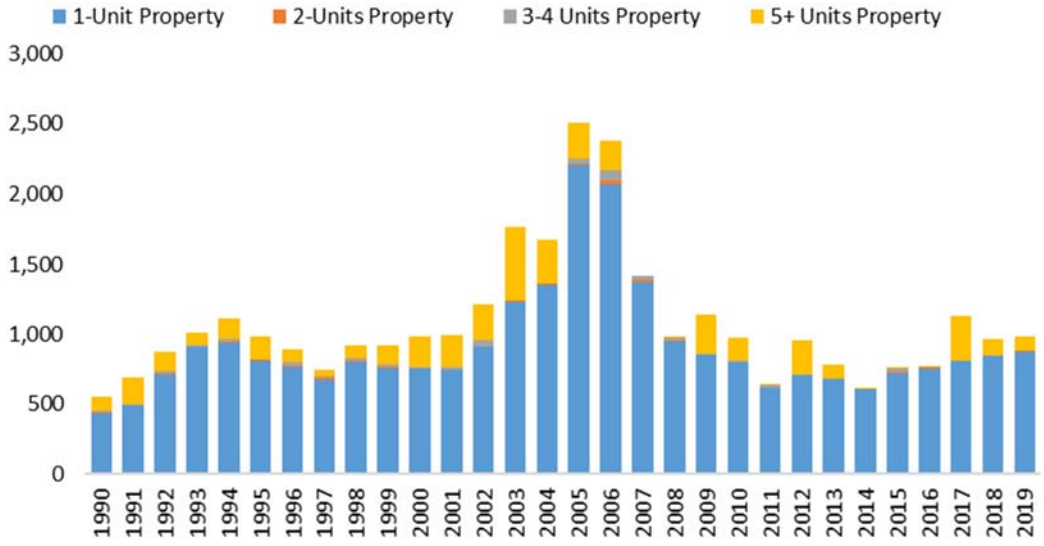
Figure 121. New Construction Permits, El Paso County, Texas



Source: *U.S. Census Bureau.*

Figure 122 shows new construction permits in Doña Ana County have been mostly consistent from 2005 to 2018 (despite increase from 2003-2007). Most permits in Doña Ana County are for 1-unit properties.

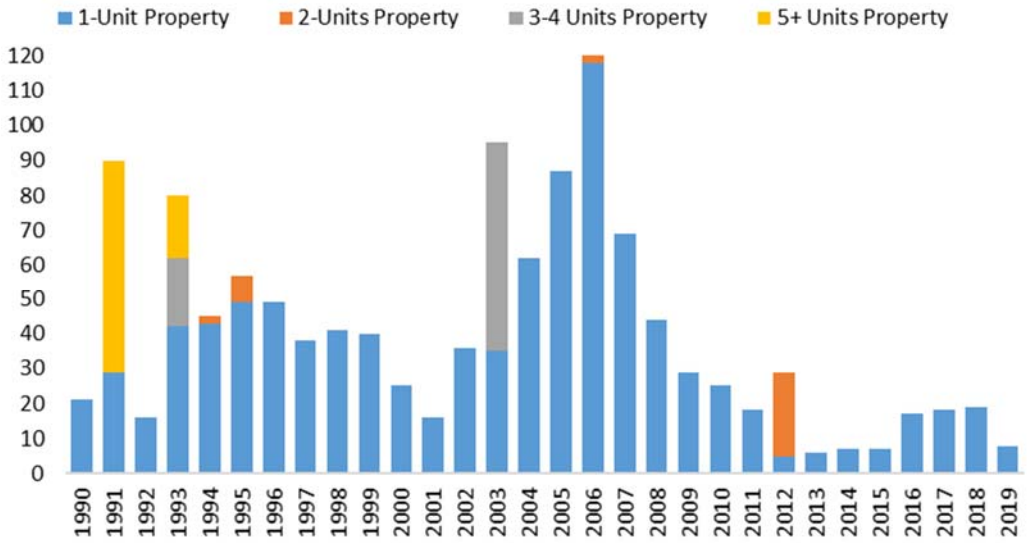
Figure 122. New Construction Permits, Doña Ana County, New Mexico



Source: *U.S. Census Bureau.*

As depicted in Figure 123, new construction permits in Luna County have decreased significantly in recent years and the majority of structure built are 1-unit properties.

Figure 123. New Construction Permits, Luna County, New Mexico

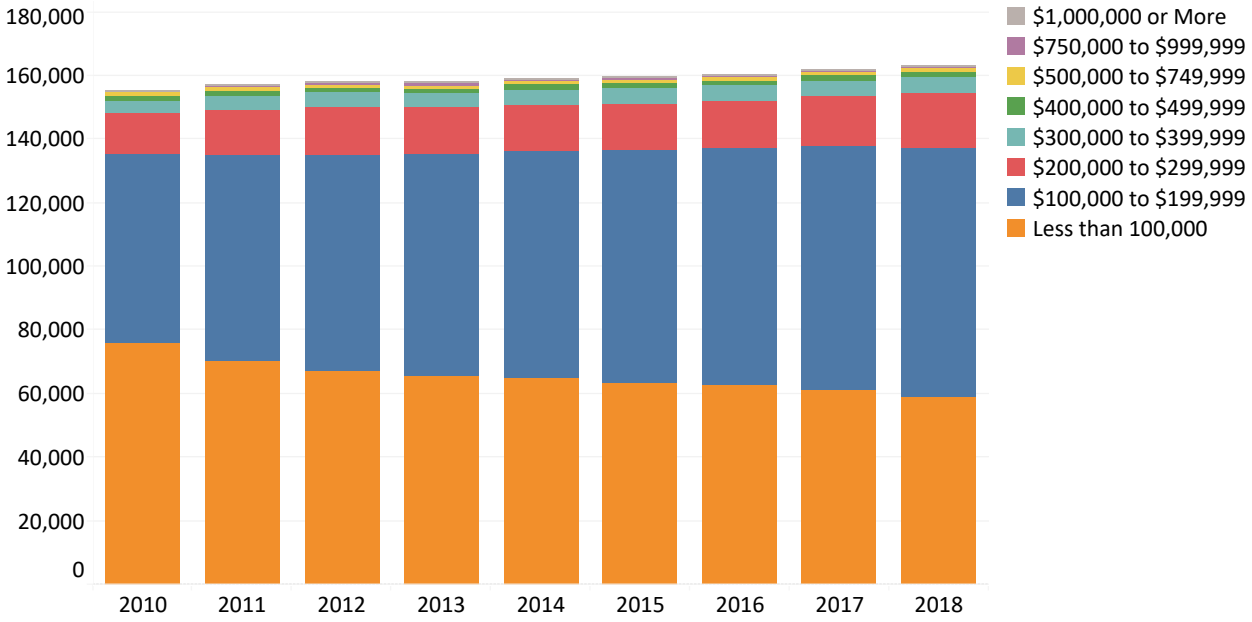


Source: *U.S. Census Bureau.*

F. Property Value

In El Paso County, most properties are valued between $100,000 to $199,999 and this property value category has increased its market share since 2010. Properties valued at less than $100,000 have seen a decreased market share since 2010, while remaining the second largest category. El Paso County property value data from 2010-2018 are summarized in Figure 124.

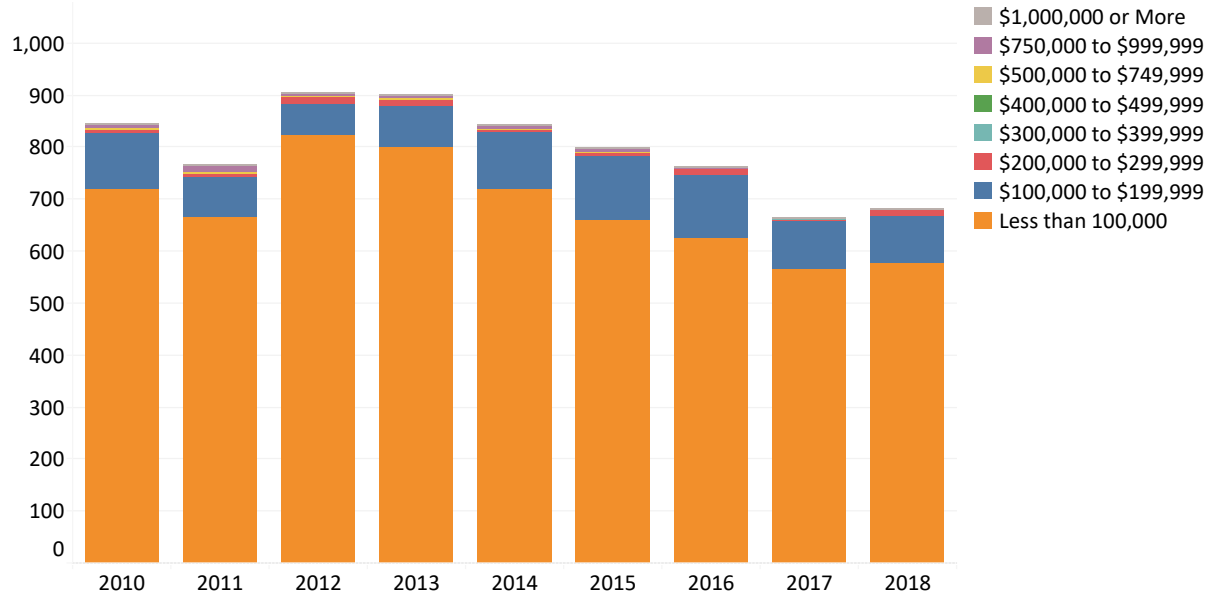
Figure 124. Number of Houses by Property Value, El Paso County, Texas



Source: *U.S. Census Bureau.*

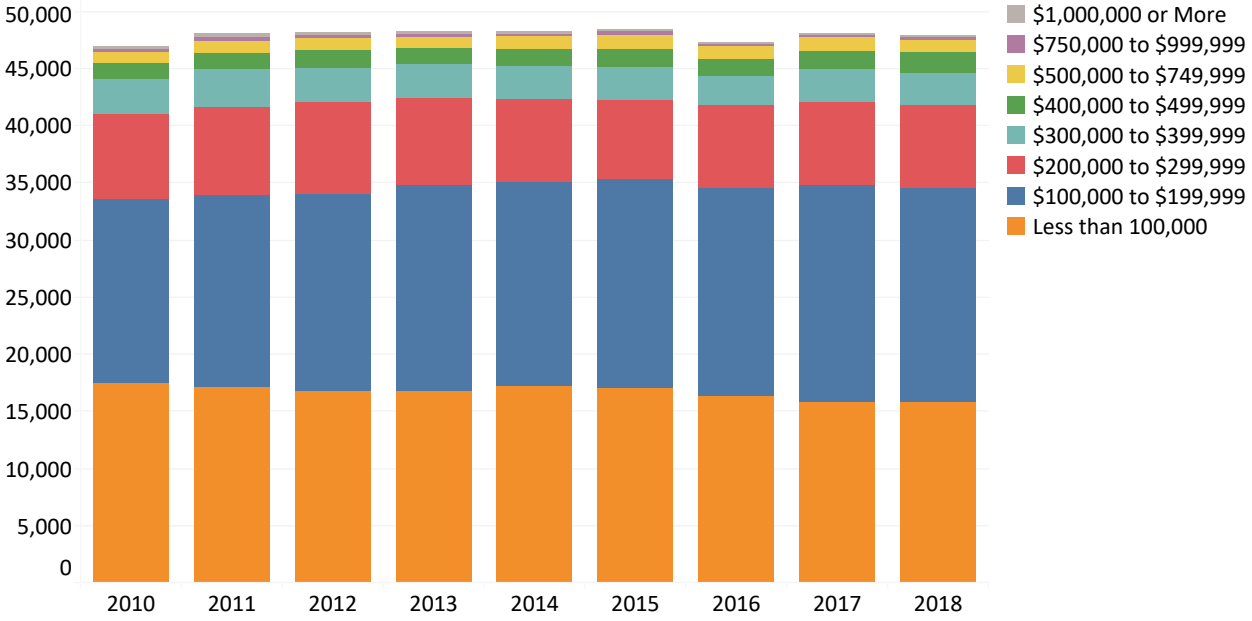
As shown in Figure 125, the vast majority of property in Hudspeth County was valued at less than $100,000 during the period of 2010-2018.

Figure 125. Number of Houses by Property Value, Hudspeth County, Texas



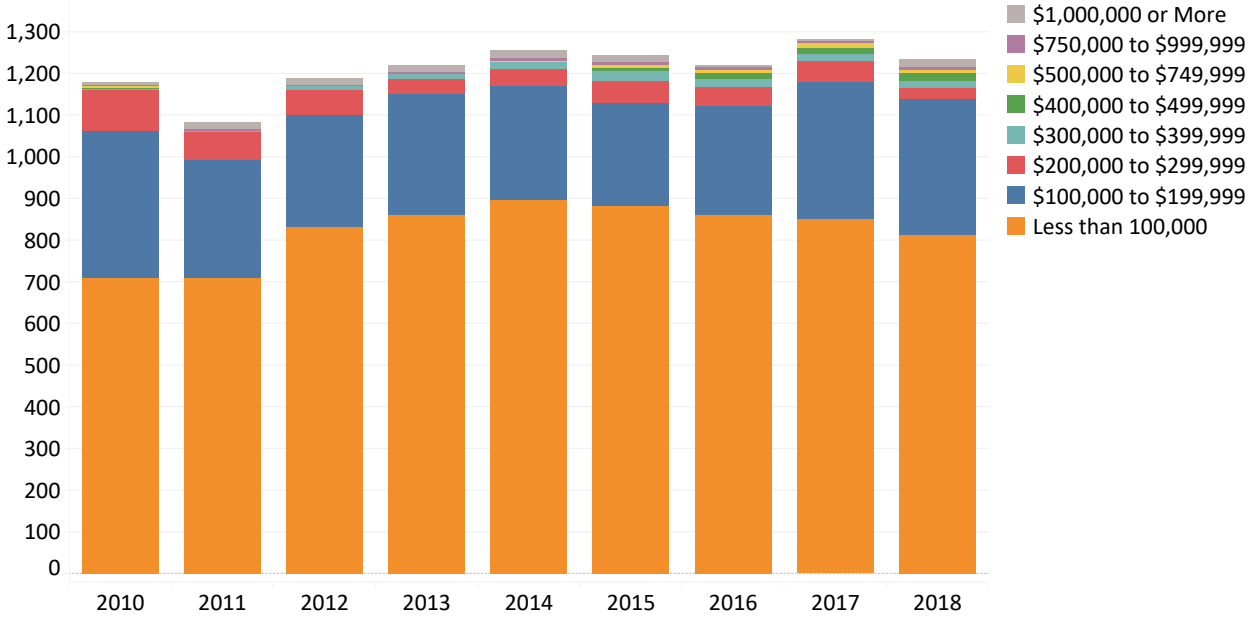
Source: *U.S. Census Bureau.*

Figure 126. Number of Houses by Property Value, Doña Ana County, New Mexico



Source: *U.S. Census Bureau.*

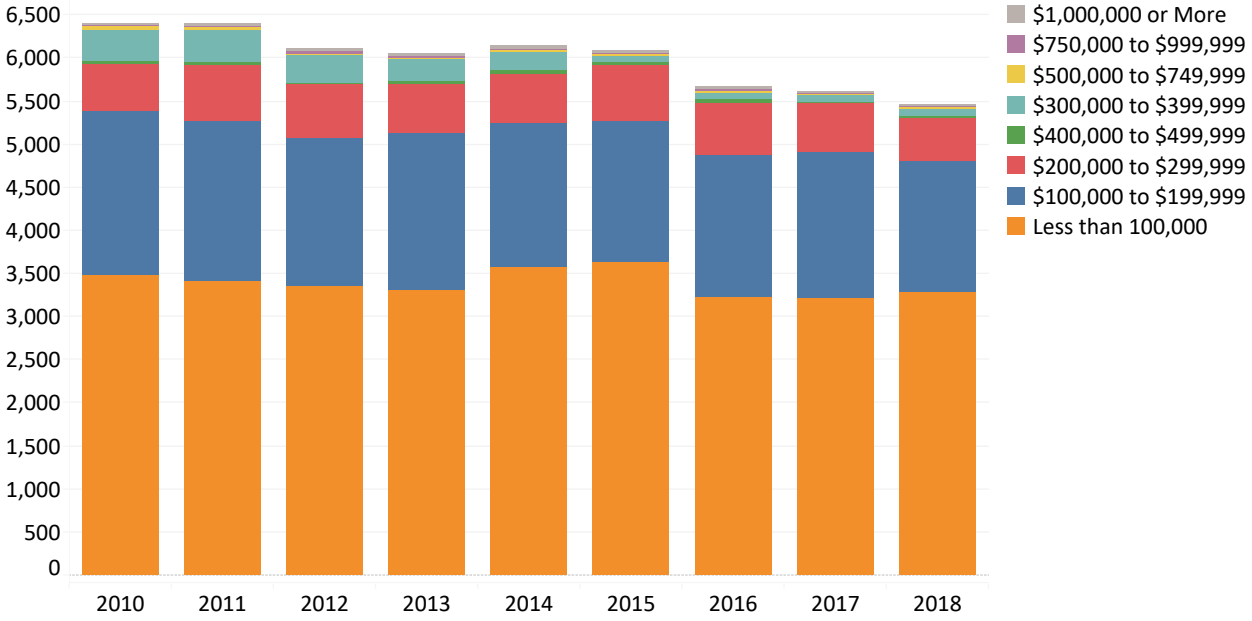
Figure 127. Number of Houses by Property Value, Hidalgo County, New Mexico



Source: *U.S. Census Bureau.*

The number of homes in Doña Ana County by valuation range has seen remarkable consistency from 2010 to 2018 with no single valuation range

Figure 128. Number of Houses by Property Value, Luna County, New Mexico

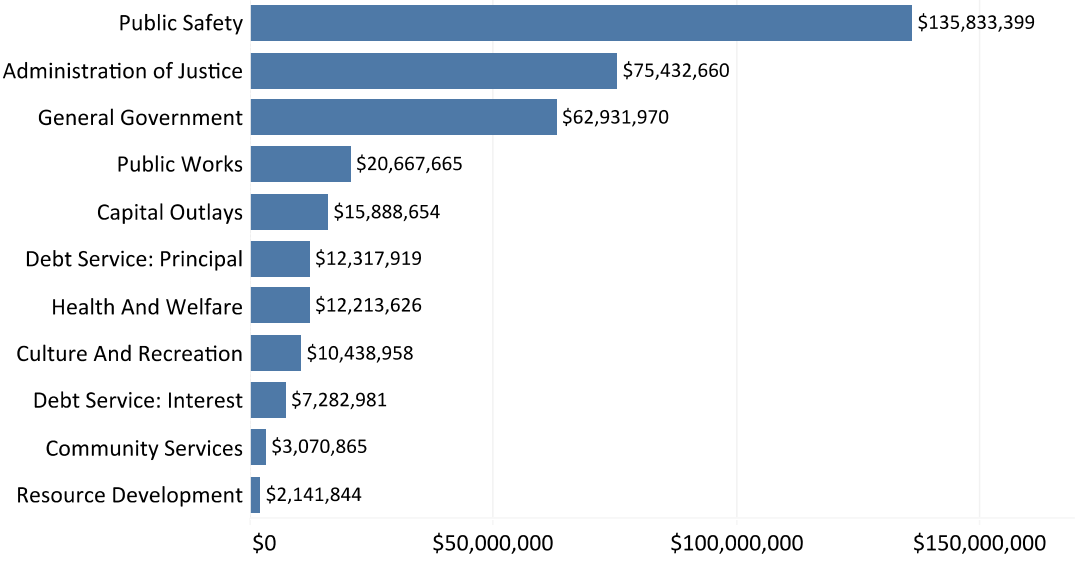


Source: *U.S. Census Bureau.*

G. Public Spending

In 2019 according to the El Paso Comprehensive Annual Financial Reports (*CAFR*), public spending on public safety in El Paso County was $135,833,399, while $75,432,660 was spent on administration of justice and $62,931,970 on general government. These three categories make up well more than half of all public spending. The data for public spending in El Paso County in 2019 are presented in Figure 129.

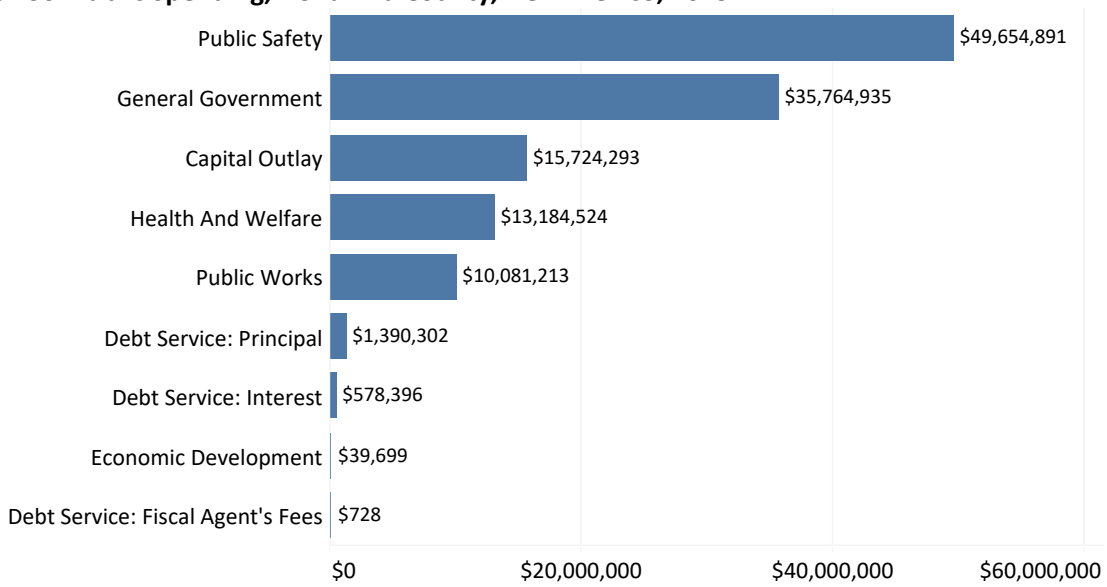
Figure 129. Public Spending, El Paso County, Texas, 2019



Source: *El Paso County Compehensive Annual Financial Report 2019.*

As shown in Figure 130, a similar trend is observed for Doña Ana County. In 2019, public spending in Doña Ana County involved mostly public safety and general government.

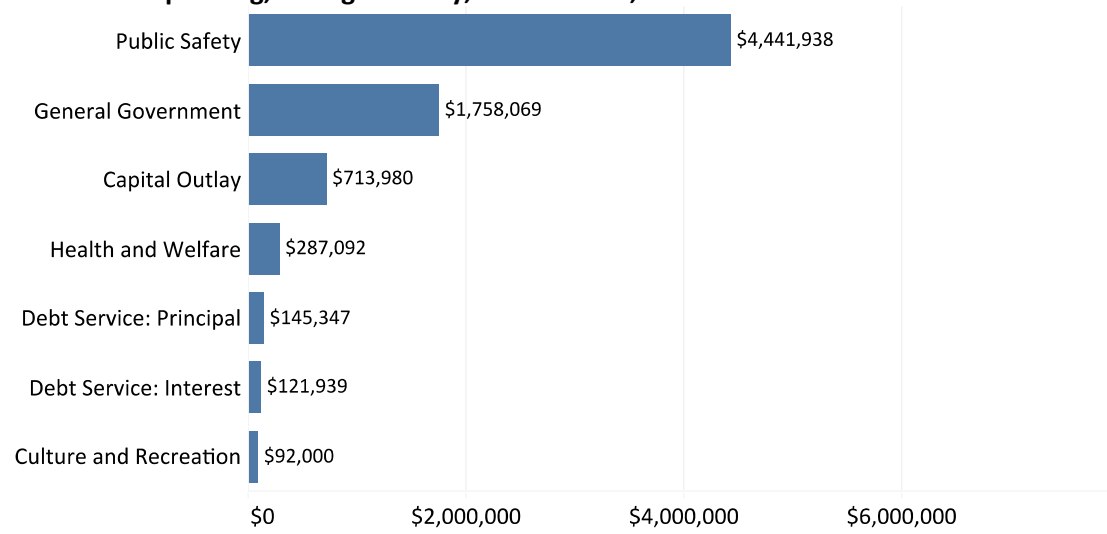
Figure 130. Public Spending, Doña Ana County, New Mexico, 2019



Source: *Doña Ana County Audit Financial Report 2019.*

As shown in Figure 131, public spending in Hidalgo County also involves public safety and in 2019, $4,441,938 was spent on public safety in Hidalgo County.

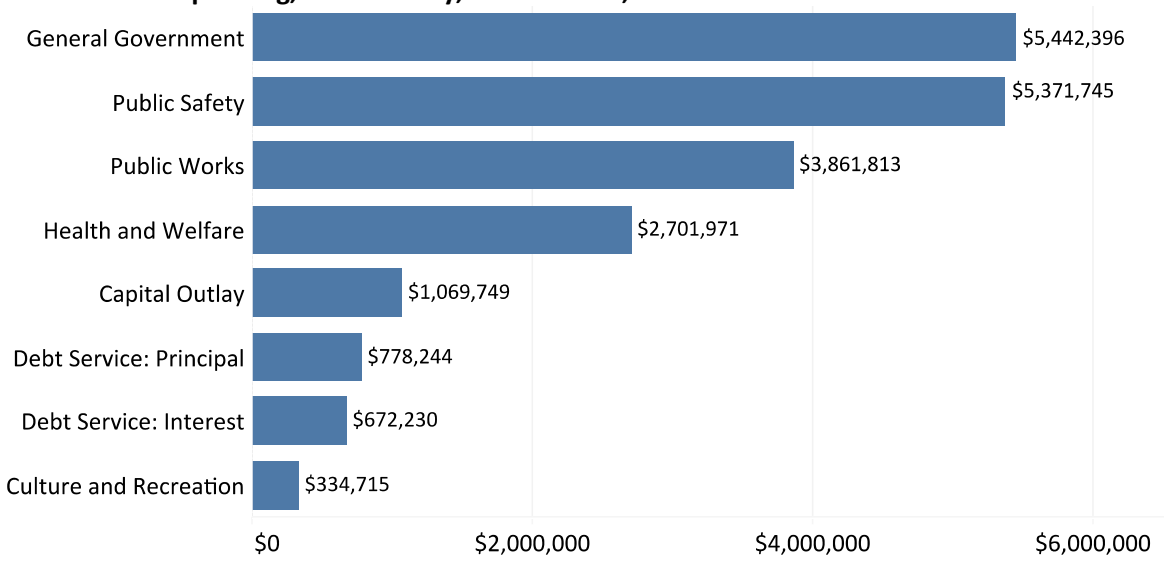
Figure 131. Public Spending, Hidalgo County, New Mexico, 2019



Source: *Hidalgo County Audit Financial Report 2019.*

The data for public expenditures in Luna County for 2019 related to public safety totaled $5,371,745 and are summarized in Figure 132.

Figure 132. Public Spending, Luna County, New Mexico, 2019



Source: *Luna County Audit Financial Report 2019.*

IX. Economic Impact of Border Security Spending on El Paso Sector

This chapter provides an estimated economic impact of border security spending in the counties that comprise the USBP El Paso Sector for the 2019 fiscal year. This report studies the economic effects of contract expenditures from the Department of Homeland Security (DHS) taking place in the El Paso Sector counties.

The group of counties considered in this study include: El Paso, Texas; Hudspeth, Texas; Doña Ana, New Mexico; Hidalgo, New Mexico; and Luna, New Mexico, and collectively these counties are referred to as the El Paso Sector. The economic impact of border security spending in the El Paso Sector is presented as the impact of the cumulative sum of all of these counties.

This chapter consists of six sections. Section A explains the methodology used to conduct the economic impact study. Section B describes the data source and selection criteria used to calculate the economic impact study. Section C provides a literature review of economic impact studies using contract spending. Section D provides an overview of border security contracts in the El Paso Sector for the 2019 fiscal year. Section E presents the results estimates of the economic impact that border security contracts had on the El Paso Sector in 2019. Section F includes a summary and concluding remarks.

A. Methodology

Input-output analysis was the methodology that the project team applied to estimate the economic impact of border security spending on the El Paso Sector. The input-output analysis technique is commonly used to estimate economic impacts of an economic activity in a regional economy. Input-output analysis can be used to measure the overall impact that a particular project has on a regional economy by assuming that the sector's reaction to an underlying change is equal to the entire sector's output (Chmura Economics & Analytics 2009). The following simplified assumptions are required for an input-output analysis:

1. Constant Returns to Scale: An increase in the number of inputs will result in a proportional increase in the number of outputs. Likewise, a decrease in inputs will result in a proportional decrease in outputs.
2. No Supply Constraints: This methodology assumes there are no limitations regarding production amounts for a product. There are also no limits to resources and employment.
3. Fixed Input Structure: Changes in the economy will have an impact on the product produced, however they will not impact the products or services that are used for producing the product.
4. Static Model: The model assumes a steady state. In other words, factors in the model do not change over time.

The project team applied the input-output analysis software Economic Impact Analysis for Planning (IMPLAN) to estimate the economic impact of border security-related contract spending in the El Paso Sector. IMPLAN estimates variables that are typically affected following an event, such as: output, value-added, labor income, and employment. Total economic impact reported in IMPLAN is the sum of the following effects:

- Direct effect: Initial spending of the contracts executed

- Indirect effect: Secondary economic activity generated by business purchases made by the contractors
- Induced effect: Economic activity generated by household income because of direct and indirect impacts, for example, workers for whom jobs are created have new income to spend on consumer goods and services

Input-output analysis allows for estimating multiplier ratios. These ratios are useful in predicting how a change in one sector will affect a regional economy. The multiplier ratio results for employment and output for each region are covered in further detail later in the report. A limitation of using IMPLAN software is that it does not capture the effects relating to social implications or migration impacts of border security spending within the El Paso Sector. The potential social and migration effects due to border security spending are beyond the scope of this report.

B. Data and Contract Selection Criteria

The project team used DHS contract awards data to estimate the economic impact of border security spending in the El Paso Sector in 2019. This section describes the data source utilized in this report and the contract selection criteria applied to retrieve contract-spending data.

USAspending website was the data source used to retrieve contract data in this report. USAspending is a source for accessible and searchable contract awards data spent by federal agencies by state, congressional district, county, city, and zip code. This website allows selecting the following fields to retrieve contract data by federal agency by year according to award type, awarding agency and sub-agency, location, date type, and date range. The description for each of these fields as well as the selection under each category follows.

Award Type

Award type includes contracts, contract Indefinite Delivery Vehicles (IDVs), grants, direct payments, loans, insurance, and other financial assistance, as well as sub-contracts and sub-grants. Awarding agency and sub-agency includes a variety of agencies associated with a department or establishment of the U.S. government. Under the location field, you may select either recipient location or place of performance.

Recipient Location

Recipient location refers to the location where the funding is awarded, which may differ from where the award is spent. Place of performance means the location where the principal service will be spent, thus, this analysis was based on the place of performance criteria. It is important to consider the place of performance contracts data in order to capture the true economic contribution of a production at a particular place as noted by IBRC (2011).

The place of performance data included in the USAspending data set describes the direct purchase of inputs from production activity. Production and spending activity used in this report take place in the

counties of El Paso, Texas; Hudspeth, Texas; Doña Ana, New Mexico; Luna, New Mexico; and Hidalgo, New Mexico.

Date Type and Range

Upon selection of date type, you can choose either data based on the last modified date, which captures the date the action is issued or when a binding agreement was reached. Lastly, the date range selection may span up to one year. Fiscal year, in this case, refers to the fiscal year in which the action date of the prime award occurs, beginning on October 1st and ending on September 30. Thus, October 1st, 2019 is the first day of the 2020 fiscal year.

The criteria that the project team selected from USAspending for each of the aforementioned categories was: contract award amounts for the Department of Homeland Security (1) executed in the United States (2) within Texas and New Mexico (3) based on place of performance (4) by action date (5) during Fiscal Year 2019.

After retrieving contract-spending data by DHS in the States of Texas and New Mexico, the project team filtered the contract spending data to the counties of El Paso, Texas; Hudspeth, Texas; Dona Ana, New Mexico; Luna, New Mexico; and Hidalgo, New Mexico.

Some entities gathered contract-spending information performed by federal agencies to estimate economic impact studies of security and defense industries in local economies similarly to this report. For example, the Strategic Development Group in Illinois and the Indiana Business Research Center at the Kelley School of Business of Indiana University gathered contract data from USAspending source in a manner similar to that employed by the project team. The next section provides further detail of these reports and describes additional similar economic impact studies.

C. Literature Review

Input-output analysis and contract spending data by federal agency have been widely utilized in the literature to estimate the economic impact of security spending related contracts on some local economies. This section provides a summary of previous reports that estimated the economic impact of federal government contract spending within the Department of Homeland Security and Department of Defense.

Virginia Tech's Department of Urban Affairs and Planning (2005) conducted an economic impact study of federal contracting in homeland security on Arlington County, Virginia. The analysis provided homeland security procurement patterns and trends from 2001 to 2004, including the type of private sector firms providing the products and services to the Department of Homeland Security and their top contractors using data retrieved from the Federal Procurement Data System Next Generation website (https://fpds.gov/)[50].

The Indiana Business Research Center (IBRC) and Indiana University's Kelley School of Business (2011) used IMPLAN to estimate the economic benefits of defense contracts on the state of Indiana in 2010. The input-output analysis provided estimates of the total economic output, employment, compensation, and government revenues generated by defense contracts. In addition, it provided the wages paid by defense agencies to service members and employees[51].

Strategic Development Group (2018) analyzed the Department of Defense (DoD) contract and grant spending on the state of Illinois in 2016. The report used IMPLAN to estimate the economic impacts associated with DoD payroll spending in terms of employment, value added, output, and local and state tax revenues[52].

Business Development Advisors (2017) performed an economic impact analysis of military spending on the State of Louisiana in terms of military facility and command activity, defense contracting, and military retiree spending in 2016. The report used IMPLAN software and considered the direct, indirect, and induced effects on the State of Louisiana in order to calculate total output, employment, state and local tax impact, and total labor income estimates[53].

D. El Paso Sector Key Border Security Industry Sectors by Spending

The following section presents an overview of the top sectors executing contracts with the Department of Homeland Security in the counties of El Paso, Texas; Hudspeth, Texas; Doña Ana, New Mexico; Hidalgo, New Mexico; and Luna, New Mexico altogether for the Fiscal Year 2019. Table 12 presents a summary table of these counties as an aggregate for all five counties.

Table 12. El Paso Sector Total Contract Awards in Fiscal Year 2019, Billion USD

Fiscal Year	Number of Contracts for All Industries	Total Value of Contracts
2019	409	$1.22

Source: *The Hunt Institute using USASpending.gov data.*

As shown in Table 13 below, for the fiscal year of 2019, the Department of Homeland Security spent $1.22 billion in the El Paso Sector. The process, physical distribution, and logistics consulting services industry dominated El Paso Sector's border security-related contracting with 47% of the total value of contracts awarded. This industry includes establishments that mainly participate in providing operating advice and assistance to businesses and other organizations. Security guards and patrol services rank second with 28% of total value, followed by other heavy and civil engineering construction industry at 10%. The heavy and civil engineering construction industry includes establishments engaged in projects that may include new work, reconstruction, rehabilitation, and repairs. Together, the top 3 industry sectors make up about 84% of the total value of contracts awarded within the El Paso Sector.

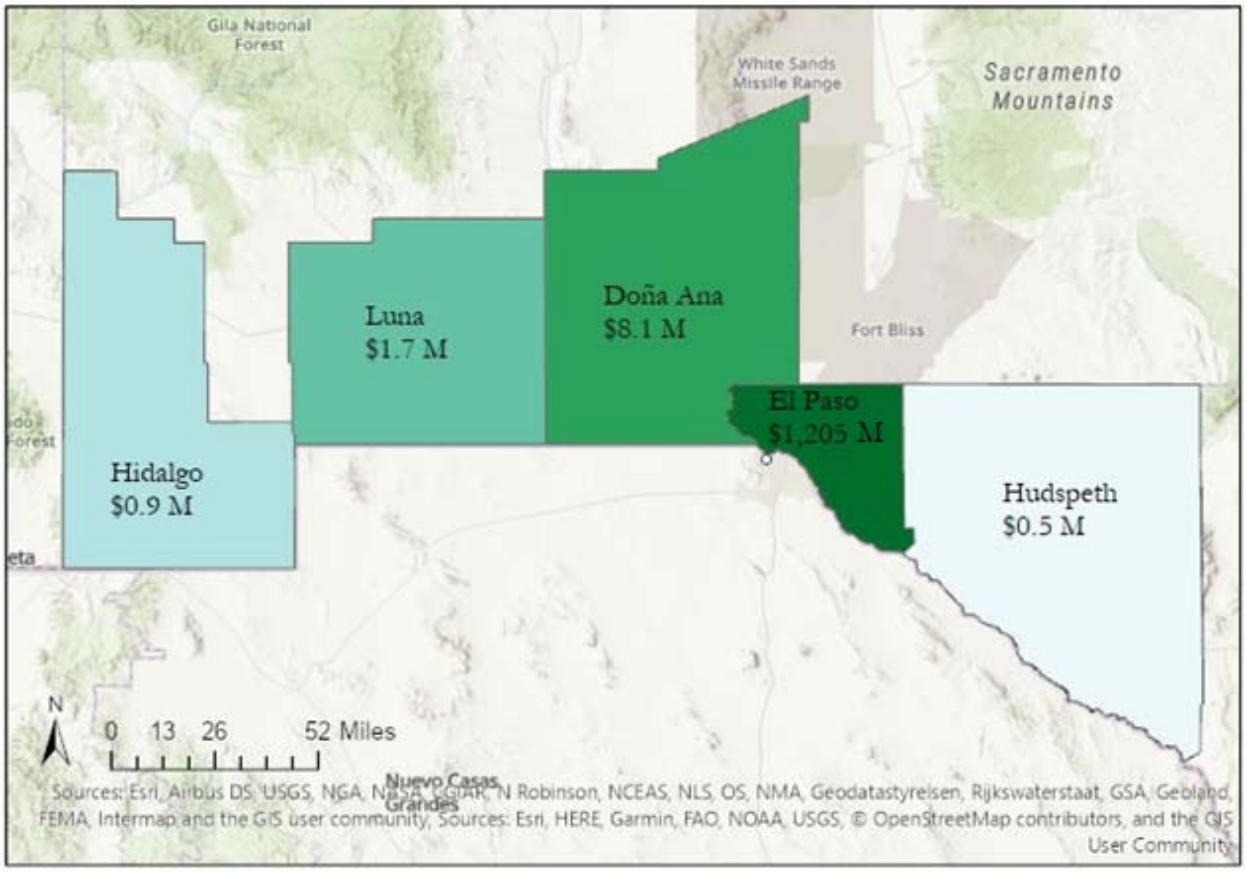
Table 13. El Paso Sector Top 10 Border Security Industry Sectors by Spending, Million USD

Rank	Industry Sector	Value of Contracts	Share	Number of Contracts
1	Process, Physical Distribution, and Logistics Consulting Services	$567.2	46.6%	10
2	Security Guards and Patrol Services	$336.3	27.6%	16
3	Other Heavy and Civil Engineering Construction	$124.3	10.2%	4
4	Facilities Support Services	$81.6	6.7%	42
5	Janitorial Services	$49.1	4.0%	29
6	Site Preparation Contractors	$7.7	0.6%	5
7	All Other Professional, Scientific, and Technical Services	$4.2	0.3%	3
8	Electrical Contractors and Other Wiring Installation Contractors	$3.4	0.2%	6
9	Soap and Other Detergent Manufacturing	$3.0	0.2%	7
10	Research and Development in the Physical, Engineering, and Life Sciences (Except Nanotechnology and Biotechnology)	$3.0	0.2%	3
	All Others	$36.5	3.0%	284
	Total	**$1,216**	**100%**	**409**

Source: *The Hunt Institute using USASpending.gov data.*
Remark: *Due to rounding, numbers presented may not add up precisely to the totals.*

The map below displays the value of contracts awarded by the Department of Homeland Security for projects taking place within each of the El Paso Sector counties. As shown in the map, El Paso County claimed the highest portion of the value of border security contracts awarded with $1.2 billion. The value of contracts awarded to border security projects in the rest of the counties was significantly smaller, with Doña Ana County ranking second at approximately $8.1 million. Luna County ranked third with a value of contracts awarded of around $1.7 million. Hidalgo County and Hudspeth County claimed the smallest portion of the value of contracts awarded, with around $0.9 million and $0.05 million, respectively.

Map 11. Total Contract Award Value by El Paso Sector, Fiscal Year 2019



Source: *The Hunt Institute using ArcGIS.*
Note: *M denotes million dollars.*

E. Economic Impact of Border Security Contract Spending

This section presents the economic impact results of border security spending made by the Department of Homeland Security in El Paso Sector for fiscal year 2019. The economic impacts are estimated in terms of jobs, output, household income, and value added attributed to Homeland Security contracting. The economic impacts for each variable are displayed by four types of effects: direct, indirect, induced, and total.

Table 14 presents a summary of the economic impact of Homeland Security contract due to this spending in the El Paso Sector. El Paso Sector generated about 24,498 jobs in total in fiscal year 2019. The total economic output was about $2.15 billion, the added annual household income was about $0.87 billion, and the value added was about $1.13 billion.

The employment multiplier ratio for the El Paso Sector is 1.19. This ratio indicates that addition of 100 jobs in the El Paso Sector resulted in an additional 19 jobs ((1.19 × 100) − 100) due to Homeland Security contract spending within the El Paso Sector.

Table 14. Economic Impact of Border Security Contract Spending in Fiscal Year 2019, Billion USD

Impact Type	Direct	Indirect	Induced	Total
Employment	17,102	3,288	4,108	24,498
Output	$1.22	$0.40	$0.53	$2.15
Labor Income	$0.59	$0.13	$0.15	$0.87
Value Added	$0.65	$0.20	$0.28	$1.13

Source: *The Hunt Institute using IMPLAN.*

Table 15 shows the top employment-generating industries in the El Paso Sector attributed to Homeland Security contracting. The Investigation and Security Services industry generated the highest number of jobs of 7,390 with a total contract value of about $339.31 million. The Management Consulting Services came in second with a total of 6,870 jobs generated and the highest total contract value of about $569.77 million. Services to Buildings ranked third with a total of 1,446 jobs generated and a total contract value of about $49.16 million, followed by Construction of New Highways and Streets and Facilities Support Services industries with a total of 848 and 517 jobs generated, respectively. The top two industries combined accounted for most of the jobs generated in fiscal year 2019.

Table 15. Top 5 Job-Generating Industries from Homeland Security Contract Spending, Million USD, Fiscal Year 2019

Industry	Total Contract Value (Millions)	Direct	Indirect	Induced	Total
Investigation and Security Services	$339.31	7,266	97	28	7,390
Management Consulting Services	$569.77	6,745	109	16	6,870
Services to Buildings	$49.16	1,246	128	71	1,446
Construction of New Highways and Streets	$126.46	848	0	0	848
Facilities Support Services	$85.08	491	24	3	517

Source: *The Hunt Institute using IMPLAN.*

Table 16 shows the top output-generating industries in the El Paso Sector attributed to Homeland Security contracting. The Management Consulting Services industry generated the highest total economic output of $584.79 million with a total contract value of about $569.77 million. The Investigation and Security Services came in second with a total economic output of $348.09 million with a total contract value of $339.31 million. Construction of New Highways and Streets ranked third with a total economic output of $128.18 million, followed by and Facilities Support Services and Real Estate with a total economic output of about $90.41 million and $66.80 million, respectively.

Table 16. Top 5 Output-Generating Industries from Homeland Security Contract Spending, Million USD, Fiscal Year 2019

Industry	Total Contract Value	Direct	Indirect	Induced	Total
Management Consulting Services	$569.77	$574.11	$9.29	$1.40	$584.79
Investigation and Security Services	$339.31	$342.24	$4.55	$1.30	$348.09
Construction of New Highways and Streets	$126.46	$128.18	0	0	$128.18
Facilities Support Services	$85.08	$85.72	$4.23	$0.46	$90.41
Real Estate	$0.29	$0.29	$36.76	$29.75	$66.80

Source: *The Hunt Institute using IMPLAN.*

Conclusion

In 1994, the U.S. attorney general and the Commissioner of the Immigration and Naturalization Service (*INS*) announced the "prevention through deterrence" strategy to strengthen the enforcement of immigration laws and to close the available corridors known for unauthorized immigration crossings along the southern US border. This strategy enabled the *INS* to better manage and control the border ensuring that attempts to cross illegally would be prevented, while those crossing legally would encounter minimal delays at ports of entry.[i] A key feature of this strategy was the concentration of personnel, surveillance technology, fencing, and other infrastructure directly on the border to discourage unauthorized flows. Data collected and depicted in this report shows that this strategy reduced the number of illegal alien apprehensions at the southern border.

Overall, changes in regulations and operation strategies have discouraged unauthorized migration flows as the number of illegal alien apprehensions at the southern border has continuously decreased, except for 2019. This change to the pattern has been attributed more to considerations from other regions, in particular from Central America, than from a shift in internal policies. One consideration is a shift in national origins and structure of illegal alien apprehended migrants during the past two decades. While in 2000 illegal apprehended migrants from Mexico accounted for over 98% at the southern border, in 2019 this group accounted for 20%. In El Paso Sector the share decreased from 99% in 2000 to approximately 8% in 2019. In particular, illegal apprehended migrants from Guatemala, Honduras, Brazil, and El Salvador increased considerably in 2019 making up roughly 85% of all apprehensions in El Paso Sector.

Another consideration is the demographic profile of illegal alien apprehension that has changed in recent years. In 2012, single adults made up 90% of the approximately 357,000 illegal alien apprehensions at the southern border, while members of family units accounted for 3% and unaccompanied alien children for 7%. [54] By 2019 however, apprehensions of persons in family units share was 56% at 474,000, outnumbering all family unit apprehensions from 2012 to 2018 combined. The national origins of these illegal alien apprehensions have also shifted within family unit apprehensions. In particular, national origins for family unit apprehensions in El Paso Sector shifted from mostly Mexican (80%) of all 11,116 family unit apprehensions) to mostly Salvadoran, Guatemalan, and Honduran (91%) of all family unit apprehensions in 2019.[55]

Lastly, domestic migration flows from county to county help understand the interconnectedness at the national and international levels. Mapping counties are primarily small in population and experience relatively low international inflows with the exception of Hudspeth County in New Mexico. Data collected and depicted also show that most of the mapping counties are undergoing negative domestic migration flows, except for Hudspeth, Texas, and Hidalgo, New Mexico.

The cumulative economic effects of border security contract spending in the El Paso Sector consider only a selective number of counties. The estimated economic impact of border security spending within those counties altogether demonstrated an evidently significant economic impact for the year 2019.

The dollar amount of contracts awarded in El Paso Sector was mostly concentrated in the Process, Physical Distribution, and Logistics Consulting Services, Security Guards and Patrol Services, and Other Heavy and Civil Engineering Construction industries. The greater economic impacts of Homeland Security contract spending also took place within those industries.

List of Abbreviations

AI	Artificial Intelligence
BSFIT	Border Security Fencing, Infrastructure, and Technology
CBP	U.S. Customs and Border Protection
CRS	Congressional Research Service
DHS	U.S. Department of Homeland Security
DRO	Office of Detention and Removal
ICAD	Integrated Computer-Aided Detection System
ICE	U.S. Immigration and Customs Enforcement
IDVs	Indefinite Delivery Vehicles
IIRIRA	Illegal Immigration Reform and Immigrant Responsibility Act
IMPLAN	Economic Impact Analysis for Planning
INA	Immigration and Nationality Act
INS	Immigration and Naturalization Service
ISIS	The Integrated Surveillance Intelligence System
MSA	Metropolitan Statistical Area
PC&I	Procurement, Construction, and Improvements
PPA	Programs, Projects, and Activities
SBI	Secure Border Initiative
SBInet	The Secure Border Initiative Network
SFA	Secure Fence Act
UAC	Unaccompanied Alien Children
USBP	U.S. Border Patrol
USD	United States Dollars
VBT	Total Vehicle Barrier

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Figure 132 Public Spending, Luna County, New Mexico, 2019

Glossary

Age-specific fertility rate
"The number of births during a year to women in a particular age group, usually per 1,000 women in a 5-year age group at midyear."
Source: U.S. Census Glossary

Civilian noninstitutionalized population
"All U.S. civilians not residing in institutional group quarters facilities such as correctional institutions, juvenile facilities, skilled nursing facilities, and other long-term care living arrangements."
Source: U.S. Census Glossary

Educational attainment
"Refers to the highest level of education completed in terms of the highest degree or the highest level of schooling completed."
Source: U.S. Census Glossary

Infant mortality rate
"The number of deaths of infants under 1 year of age from a cohort of 1,000 live births."
Source: U.S. Census Glossary)

Public health insurance
"Public health insurance includes plans funded by governments at the federal, state, or local level. The major categories of public health insurance are Medicare, Medicaid, the Children's Health Insurance Program (CHIP), CHAMPVA or VA coverage, State-specific plans and Indian Health Service (IHS)."
Source: U.S. Census

Total fertility rate
"The average number of children that would be born per woman if all women lived to the end of their childbearing years and bore children according to a given set of age-specific fertility rates"
Source: U.S. Census Glossary

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