TEXAS-MEXICO BORDER TRANSPORTATION MASTER PLAN

PLAN MAESTRO DE TRANSPORTE FRONTERIZO

CHIHUAHA COAHUILA NUEVO LEÓN TAMAULIPAS TEXAS

DRAFT

Texas Department of Transportation

Chapter 1
Introduction

Contents

Chapter 1 Introduction 1-1
1.1 Background 1-1
1.2 Purpose of the BTMP 1-7
1.3 BTMP Development Process 1-8
1.4 Organization of the BTMP 1-9

Tables

Table 1.4-1. List of BTMP Chapters 1-9

Figures

Figure 1.1-1. Importance of Texas-Mexico Border for Movement of Goods in North America 1-3
Figure 1.3-1. BTMP Development Process 1-8

Chapter 1 Introduction

1.1 Background

Texas and Mexico share a long history that includes economic, cultural, and social relations. The economic relationship has evolved from the rural, missionary agriculture of the late 1600s to the binational supply chains that produce automobiles, jet aircrafts, and advanced electronics today.

The Texas-Mexico border connects the people and commerce of the United States and Mexico. The two countries share a 1,954-mile common border—64 percent (1,254 miles) is shared between Texas and Mexico.

The 1,254-mile Texas-Mexico border follows the Rio Grande River from El Paso to the Gulf of Mexico—a distance longer than that from Dallas to Washington, DC, or from Dallas to Mexico City. Along its length, 29 bridges connect more than 7 million residents[1] and businesses in a vibrant, complex, and growing binational border region.

North America's Busiest Trade Gateway

The U.S.-Mexico border is North America's busiest trade gateway. Mexico is the largest trading partner of the U.S., and 68 percent of trade between the two countries passes through the Texas-Mexico border.

The amount of trade between the U.S. and Mexico more than tripled between 1994 and 2019, increasing from $173 billion to $615 billion.[2] Texas-Mexico trade has also grown rapidly, increasing by 267 percent from $58 billion in 1994 to $213 billion in 2019.[3] That is more than the entire U.S. trades with any single country in Europe. It translates into over $24 million of trade each hour crossing the Texas-Mexico border.

In 2019, Texas traded with Mexico more than three times the amount Texas traded with China, the state's second-largest trading partner. Driven by sustained trade growth, in March 2019 and again in February 2020, Laredo overtook the Port of Los Angeles as the top international trade gateway in the U.S.[4]

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1 U.S. Census Bureau, Instituto Nacional de Estadística y Geografía (INEGI).

2 Inflation adjusted to 2019 dollars, U.S. Census Bureau, Foreign Trade "Trade in Goods with Mexico."

3 Inflation adjusted to 2019 dollars, BTS historical archives.

4 Analysis of U.S. Census Trade Data by WorldCity, as reported by FreightWaves.

The 1994 North American Free Trade Agreement (NAFTA)—which liberalized trade between the two countries—helped catalyze this growth and significantly strengthened the economic ties between the U.S. and Mexico. Today, the bilateral relationship goes beyond trade and includes close commercial, cultural, and educational ties. The relationship between the U.S. and Mexico has a direct impact on the lives and livelihoods of millions of people.

Economic Importance

The Texas-Mexico border is a key contributor to the local, regional, state, and national economies of the U.S. and Mexico. The border facilitates the efficient flow of people and trade.

The U.S.-Mexico border has strengthened the competitiveness of both U.S. and Mexico and created jobs in both countries. U.S.-Mexico trade supports more than 5 million jobs across the U.S., and Texas-Mexico trade supports more than 382,000 jobs in Texas.[5] Economic activity in the Texas border region contributes $116.4 billion in U.S. dollars (2018), while economic activity in Mexico border states contributes approximately 3.7 trillion pesos ($169.5 billion in U.S. dollars, 2018).[6] Of this, almost one-half of the gross domestic product (GDP) in Texas border counties and approximately two-thirds of the GDP in Mexico border states are dependent on international trade.[7]

Much of this economic strength is related to maquiladora production, where businesses in Mexico and the U.S. are partners in cross-border manufacturing through a process known as production sharing, meaning the two countries work together to build products. A full 40 percent of the content in U.S. imports from Mexico is produced in the U.S.[8] This economic vitality from maquiladoras, logistics services, and other trade-related businesses continues to underpin rapid population growth, strong employment gains, and burgeoning trade. The figure below (**Figure 1.1-1**) illustrates the importance of the Texas-Mexico border for North American supply chains.

The economy of the Texas-Mexico border region is growing rapidly. Growth in regional employment and cross-border trade continues, driven by the overall North American population and economic growth and border region commercial and social ties.

Between 1990 and 2019, the border region also experienced 97 percent employment growth—from 1.5 million to 2.9 million jobs. Increased manufacturing and trade have pushed employment growth.

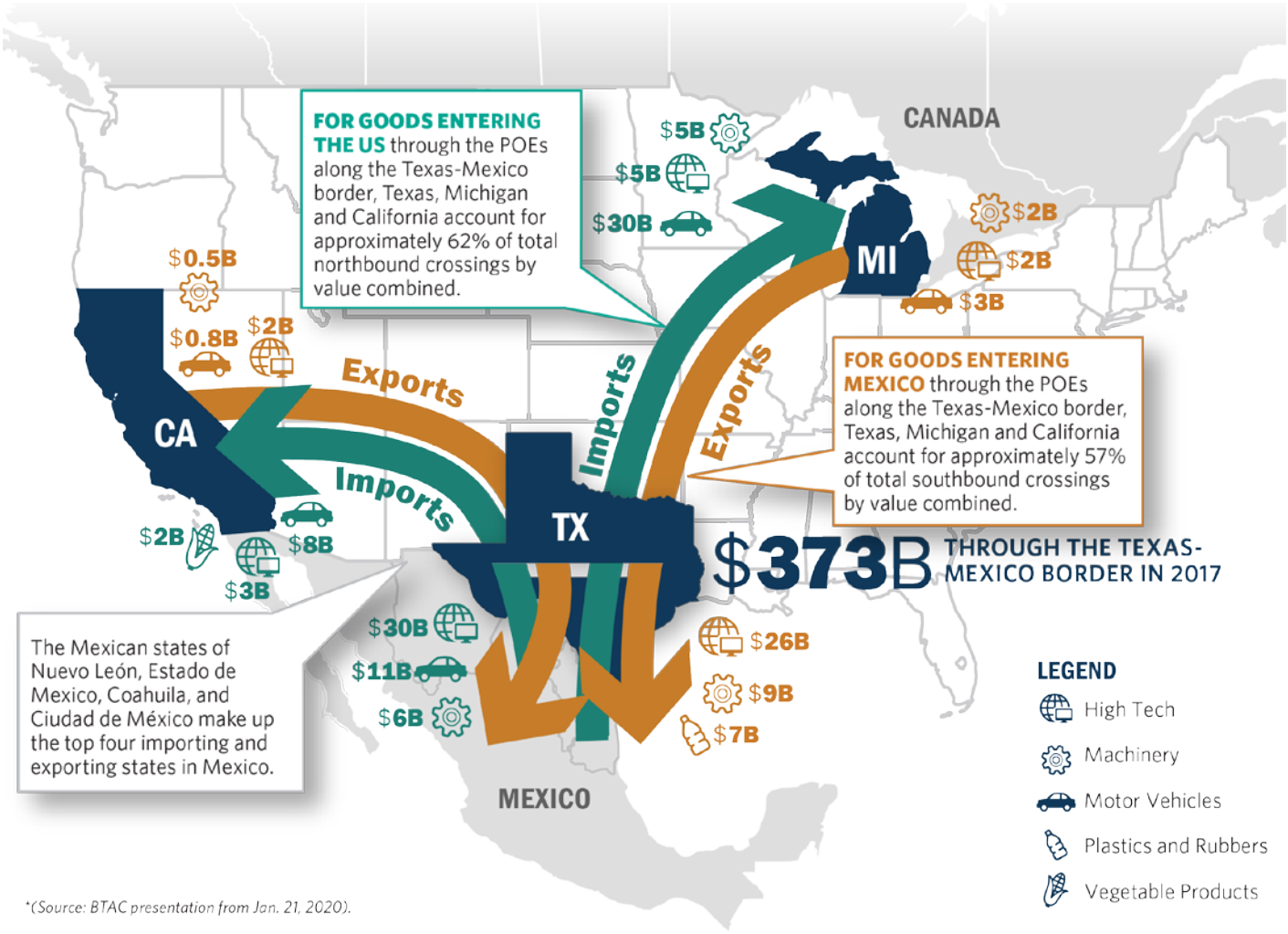
[5] Texas 85th Legislature, House Resolution 1025 (2017).

[6] U.S. Bureau of Economic Analysis GDP by county and metropolitan area, INEGI system of National Accounts of Mexico

[7] U.S. Bureau of Economic Analysis GDP by county and metropolitan area, INEGI System of National Accounts of Mexico.

[8] Wilson Center Mexico Institute, Working Together: Economic Ties between the United States and Mexico, https://www.wilsoncenter.org/publication/working-together-economic-ties-between-the-united-states-and-mexico#sthash.J2HChZQe.dpuf.

Figure 1.1-1. Importance of Texas-Mexico Border for Movement of Goods in North America



*(Source: BTAC presentation from Jan. 21, 2020).

Population

The Texas-Mexico border region is growing—outperforming the U.S. and Mexico in population growth. The region added about 3 million residents from 1990 to 2019.

The Texas-Mexico border region includes areas of Texas, Chihuahua, Coahuila, Nuevo León, and Tamaulipas within 60 miles of the border. Between 1990 and 2019, the regional population grew 70 percent from 4.4 million to 7.4 million—this growth outpaced national trends in the U.S. (32 percent growth) and Mexico (54 percent growth) during this time.

Transportation Infrastructure

Transportation infrastructure is the foundation for local, regional, national, and binational connections. The binational multimodal transportation infrastructure connects the cultural and commercial fabric of the Texas-Mexico border region and beyond.

The common link that sustains people and goods movement between the U.S. and Mexico is the binational multimodal transportation system. The U.S. and Mexico share 49 border crossings, of which 29 are located in the Texas-Mexico border region.[9] Of the 29 border crossings located in the Texas-Mexico border region,

- 28 process personal vehicle movements,
- 24 process pedestrian movements,
- 14 process commercial movements, with several of them processing two or more of these types of movements.
- Five freight rail crossings, and
- numerous pipeline crossings (especially in the Rio Grande Valley), aviation, and maritime systems provide options to move people and goods.

Moving People

In 2019, more than 32 million cars, more than 19 million pedestrians, and more than 90,000 passenger buses crossed the Texas-Mexico border.[10]

The number of personal vehicle passengers moving northbound across the border decreased between 1996 and 2019, while the number of bus passengers and pedestrians increased during this period. Northbound personal vehicle passengers decreased by 46.5 percent from 118.1 million in 1996 to 63.2 million in 2019. Meanwhile, northbound bus passengers increased by 5 percent from 1.6 million in 1996 to 1.7 million in 2019, and northbound pedestrians increased by 17.5 percent from 16.9 million in 1996 to 19.9 million pedestrians in 2019.[11]

Passenger vehicles crossing northbound from Juarez to El Paso at the Bridge of the Americas. October 2020.

[9] The border crossing in Santa Teresa, NM is analyzed as part of the BTMP because it is within the El Paso's Metropolitan Planning Organization (MPO) planning area boundary.

[10] BTS Border Crossing Entry Data, Northbound 2019.

[11] BTS Border Crossing Entry Data, Northbound, 1996–2019.

The Texas-Mexico border facilitates more than 45 percent of the 188 million people crossing the border between the U.S. and Mexico, including people using personal vehicles, buses, and pedestrians.[12]

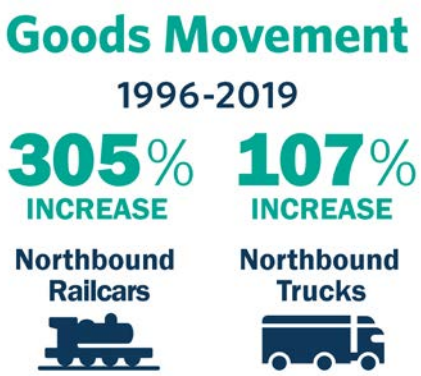
For example, daily student movements in the Juarez-El Paso region depends on a network of bridges and bus services: every morning college students from Juarez journey to the University of Texas at El Paso via multiple bus connections. Yet, people crossings have experienced a steady decline of 38 percent (northbound) between 1996 and 2019 over the Texas-Mexico border—driven mainly by the reduction in crossings of people using personal vehicles.[13]

Future demand for cross-border travel will change as the Texas border region adds over 400,000 residents by 2050 and the Mexico border region adds over 300,000 residents by 2030, thereby placing pressure on the port of entry (POE) facilities and connecting transportation corridors.[14] This growth will also lead to increased congestion across the transportation system, including at border crossings, highways, airports, pipelines, maritime, and rail connections.

Moving Goods

In 2019, over $421 billion in goods were traded across the Texas-Mexico border.[15]

Goods movement increased significantly between 1996 and 2019. Northbound truck crossings increased by 107 percent from 2.2 million in 1996 to 4.5 million in 2019, and northbound railcar moves increased by 305 percent from 251,769 in 1996 to 1 million in 2019.[16]



Of the $421 billion in U.S.-Mexico trade that crossed the Texas-Mexico border in 2019, about half (51 percent or $213 billion) was direct trade between Texas and Mexico, while the other half (49 percent or $208 billion) passed through Texas POEs with origins or destinations in other U.S. states and Canadian provinces.[17]

[12] BTS Border Crossing Entry Data, Northbound 2019.

[13] The largest decline in personal vehicle crossings occurred between 2001 and 2012. After 2012, the number of personal vehicle crossings has generally increased slowly.

[14] Texas Demographic Center, 2019–2050 forecast.

[15] BTS Transborder Freight Data, 2019.

[16] BTS Border Crossing Entry Data, 1996–2019.

[17] *Ibid* footnote 15.

Trade with Mexico includes both parts and finished products, such as automobiles, vegetables, furniture, and clothing. Trade through this critical border reaches businesses and homes throughout the U.S., Mexico, and Canada. For example, most of the avocados consumed in the U.S. are grown in Michoacán in central Mexico. At the Costco in Mexico City, consumers buy globally sourced products, including apples grown by farmers in Washington State and New York. The border transportation system makes these connections possible—allowing companies from both sides of the border to flourish and for people to access work, school, shopping, and social opportunities.

Trucks queue for inspection at the World Trade Bridge in Laredo in April 2017. Source: U.S. Customs and Border Protection

Planning for the Future of the Border

The border transportation infrastructure must be positioned to meet current and future challenges and opportunities.

Given the past, current, and projected trends, planning for the future of the border transportation infrastructure is critical to sustaining the movement of people and goods and continued economic prosperity of the binational border region, the states, and the nations. Numerous challenges could affect the future, along with many opportunities. One opportunity is the U.S.-Mexico-Canada Agreement (USMCA), which will replace NAFTA and is anticipated to generate certainty in the binational trade relation, encouraging investment in infrastructure, facilities, and operations along the U.S.-Mexico border. Other potential opportunities come with U.S.-China trade relations and the impacts of COVID-19, both of which are resulting in reshoring manufacturing back to Mexico and the U.S. given uncertainties and supply chain risks.

A key challenge is intensifying congestion that will result from growth in cross-border movements of people and goods. Improving the capacity and operations of the existing binational border crossing and multimodal transportation infrastructure is critical to alleviating traffic congestion, facilitating international trade, reducing environmental impacts, and improving the quality of life for residents in the border region.

The *Texas-Mexico Border Transportation Master Plan* (BTMP) will serve as a blueprint to prepare for the future.

Through a collaborative and data-driven process, the Texas Department of Transportation and its binational partners and stakeholders are jointly developing the BTMP to identify needs and strategies to address the challenges and opportunities today and in the future for cross-border movement of people and goods along the Texas-Mexico border.

1.2 Purpose of the BTMP

The BTMP builds on the long-standing coordination and collaboration relationship between Texas and Mexico regarding binational planning, programming, and implementation of policies, programs, and projects to facilitate efficient and safe cross-border movement of people and goods. The BTMP builds on three regional border master plans developed between 2012 and 2013. The plans are for the following regions:

- El Paso/Santa Teresa/Chihuahua Region
- Laredo/Coahuila/Nuevo León/Tamaulipas Region
- Rio Grande Valley/Tamaulipas Region

The BTMP is a comprehensive, multimodal, binational long-range plan. It identifies transportation issues, needs, challenges, opportunities, and strategies for moving people and goods efficiently across the Texas-Mexico border, the border regions, and beyond. The BTMP outlines potential transportation investment strategies that support binational, state, regional, and local economic competitiveness. Therefore, the BTMP takes a holistic approach to border planning, developing one plan for the entire Texas-Mexico border.

The BTMP serves as a blueprint for binational collaboration, coordination, partnerships, and decision-making regarding investment strategies to address cross-border multimodal transportation system challenges by:

- Outlining the Texas-Mexico border story and laying out the binational vision and how the plan supports local, regional, state, national, and binational goals and objectives for facilitating cross-border movement of people and goods.
- Identifying and designating a binational and multimodal transportation system critical to the safe and efficient cross-border movement of people and goods along the Texas-Mexico border and beyond.
- Providing an assessment of past, present, and future transportation needs and challenges facing the cross-border movement of people and goods along the Texas-Mexico border region and beyond.
- Assessing the economic importance of cross-border movement of people and goods and the economic impact of border delays and congestion on the binational, national, state, regional, and local levels.
- Identifying robust policy, program, and project investment strategies and planning activities to facilitate the continued safe and efficient cross-border movement of people and goods along the Texas Mexico border region and beyond.
- Outlining a comprehensive action plan for implementing recommendations in the short, medium, and long terms to address current and future needs of cross-border movement of people and goods along the Texas-Mexico border and beyond.

1.3 BTMP Development Process

The development of the BTMP is based on a comprehensive data-driven and analysis process, as well as extensive consultation and consensus-building with binational stakeholders. The BTMP development process is shown in **Figure 1.3-1**.

Figure 1.3-1. BTMP Development Process

The development of the BTMP was informed by input from a wide variety of binational stakeholder groups. The key groups that participated in the development of the plan are:

- Border Trade Advisory Committee (BTAC)
- Binational Regional Steering Committees (BNRSCs)
- Texas Department of Transportation Internal Border Task Force
- Private and public sector through Stakeholder Workshops, surveys, and interviews
- General public through public meetings

Additional details regarding the stakeholder engagement framework and the participation of these groups in the development of the BTMP are provided in **Chapter 9**.

1.4 Organization of the BTMP

The BTMP consists of the 11 chapters listed in **Table 1.4-1**.

Table 1.4-1. List of BTMP Chapters

No.	Chapter Name	Chapter Overview
1	Introduction	Purpose and development of BTMP; organization of BTMP
2	Goals, Objectives, and Institutions	Mission and vision; goals and objectives of the BTMP; institutions and overview of planning and implementation processes
3	Texas-Mexico Border: Past and Present	Trends and current conditions on population, employment, income, education, movement of people and goods and supply chains
4	Binational Multimodal Transportation Network Designation	BTMP regions; spheres of influence; criteria and process for multimodal corridor designations; final multimodal transportation network
5	Needs Assessment and System Performance	Overview of current issues and needs; strengths, weaknesses, opportunities, and threats; key elements of the multimodal networks and performance
6	Future Forecasts for the Border Region	Future scenario and forecast for the movement of people and goods
7	Economic Importance of the Border	Economic profiles; key supply chains; economic impact of border delays
8	Identification of Future Needs and Strategies	Future performance of the binational transportation system; economic impacts of future border conditions; identification of future needs; strategies
9	Stakeholder Engagement	Purpose; organization; membership; engagement summary
10	Recommendations	Prioritization process; project, policy and program recommendations; impacts on performance and economic impacts of recommendations
11	Implementation Plan	Implementation framework; availability of funds; implementation plan for projects; policies and programs

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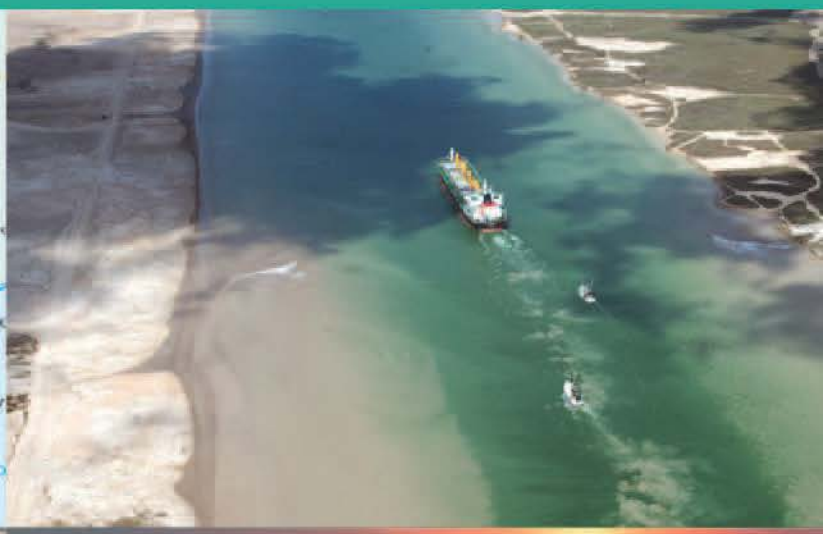

Chapter 2

Goals, Objectives, and Institutions

Contents

Chapter 2 Goals, Objectives, and Institutions 2-1
2.1 Vision and Mission 2-1
2.2 Goals and Objectives 2-1
2.3 U.S.-Mexico and Texas-Mexico Border Policy Development, Planning and Infrastructure Development, and Management Processes 2-4
2.4 Conclusion 2-28

Tables

Table 2.2-1. BTMP Goals and Objectives 2-2
Table 2.3-1. Federal Agencies Involved in Development of Binational Policies 2-6
Table 2.3-2. State Agencies Involved in Development of Policies Affecting the Border 2-7
Table 2.3-1. U.S. and Mexico Binational Stakeholders 2-15
Table 2.3-4. Approach to Border Management, Program, and Project Development and Implementation 2-19
Table 2.3-5. Funding Considerations for Border Management, Program, and Project Development and Implementation 2-22

Figures

Figure 2.2-1. Alignment of BTMP Goals and Objectives with Existing Plans in the U.S. and Mexico 2-3
Figure 2.3-1. Overview of U.S. Border Planning Process 2-11
Figure 2.3-2. Overview of Mexico Border Planning Process 2-13
Figure 2.3-3. Northbound Border-crossing Process for Passenger Vehicles, Pedestrians, and Bicyclists 2-23
Figure 2.3-4. Northbound Border-crossing Process for Commercial Vehicles 2-24

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Chapter 2 Goals, Objectives, and Institutions

This chapter outlines the goals and objectives of the *Texas-Mexico Border Transportation Master Plan* (BTMP). This chapter also describes the institutions and agencies that facilitate the efficient movement of people and goods across the Texas-Mexico border. They are responsible for setting policies and managing, operating, planning, implementing, and overseeing binational collaboration and cooperation across the Texas-Mexico border. These institutions, agencies, and stakeholders played a key role in the development of the BTMP. They will be responsible for implementing and achieving the goals, objectives, and recommendations of the BTMP.

2.1 Vision and Mission

The vision and mission provide overarching guidance for the BTMP and, at the same time, frame the development of the goals and objectives.

Vision

To collaboratively foster integrated and efficient binational transportation mobility of people and goods across the Texas-Mexico border and to promote economic development that benefits the binational Texas-Mexico border region and the United States and Mexico.

Mission

To develop and implement a trade, economic development, and transportation strategy and public policy that facilitates U.S.-Mexico border trade and cross-border movement of people, creates efficient corridors, and enhances the connections in the binational border region, within the U.S. and Mexican states that form the Texas-Mexico border region, and between the two nations that share this border.

2.2 Goals and Objectives

The goals and objectives of the BTMP (**Table 2.2-1**) provide strategic direction regarding how to identify and address the multimodal transportation system and infrastructure needs of the Texas-Mexico border region. In particular:

- The goals represent aspirational areas on which the BTMP should focus
- The objectives represent specific, measurable priorities for the BTMP

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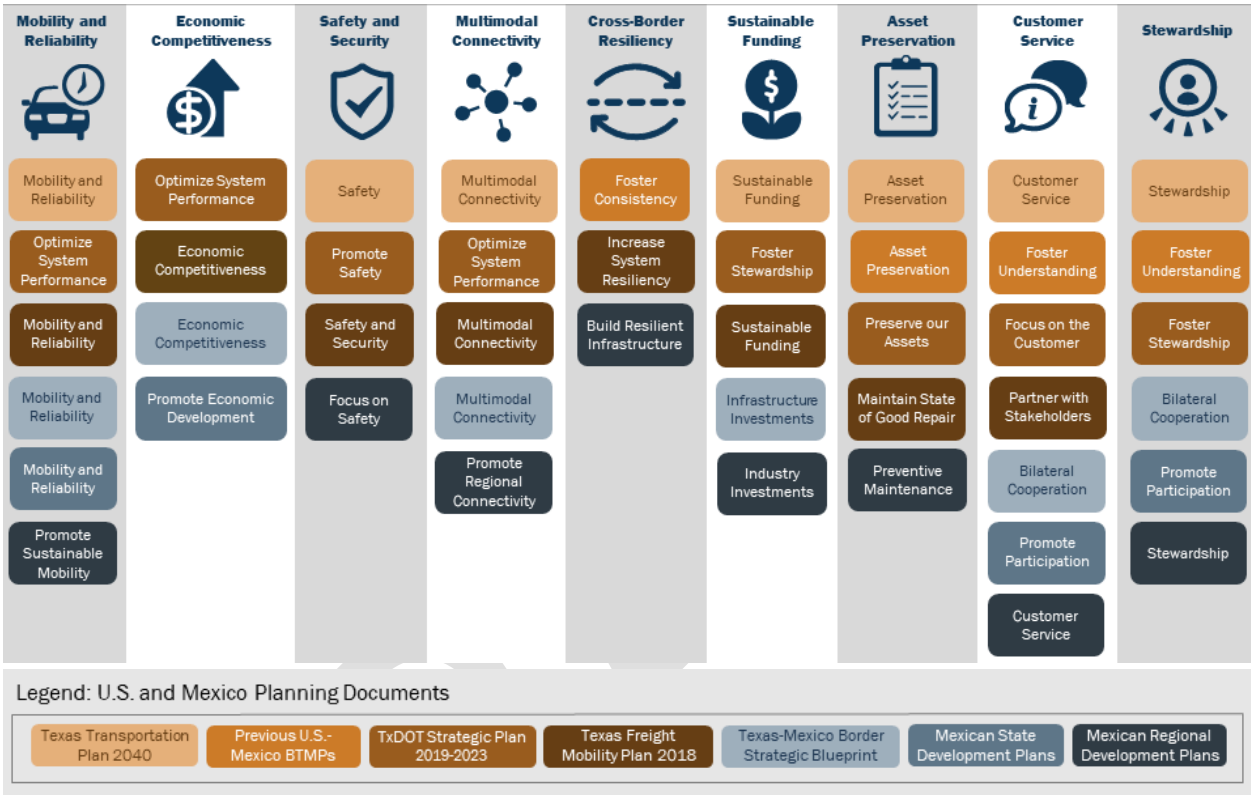
Table 2.2-1. BTMP Goals and Objectives

Goals	Objectives
Mobility and Reliability *Reduce congestion and improve system efficiency and performance on the binational transportation system*	▪ Improve cross-border travel time reliability for greater efficiency of cross-border movement of people and goods. ▪ Improve the capacity of the multimodal, binational transportation system to accommodate future growth in movement of people and goods.
Economic Competitiveness *Improve the contribution of the binational transportation system for economic competitiveness, productivity, and development in the border regions and beyond*	▪ Support gross domestic product (GDP) growth and economic growth in the border regions and the states. ▪ Support job creation and retention in the border regions and the states. ▪ Support continued growth in trade value in the border regions and the states.
Safety and Security *Improve binational, multimodal transportation safety and security*	▪ Reduce the number of crashes on the binational transportation system that result in fatalities and injuries, including those at ports of entry. ▪ Enhance the secure movement of people and goods.
Multimodal Connectivity *Provide binational transportation options and improved system connectivity for all modes*	▪ Improve first- and last-mile connectivity for seamless movement of people and goods. ▪ Provide for multimodal options for the cross-border movement of people and goods.
Cross-border Resiliency *Maintain the capacity of the system to continue operations after disasters and emergency events*	▪ Ensure the safe and expeditious evacuation of people from the area in the event of a disaster. ▪ Improve redundancy of the binational transportation system.
Sustainable Funding *Identify and sustain funding sources for the binational transportation system*	▪ Identify funding for the binational transportation system. ▪ Leverage alternative funding sources to pay for improvements to the binational transportation system. ▪ Identify multimodal cost-benefit impact to infrastructure improvements to optimize investment.
Asset Preservation *Maintain and preserve cross-border region infrastructure that supports multimodal, binational movement of people and goods*	▪ Ensure infrastructure related to the cross-border movement of people and goods is maintained in a state of good repair.
Customer Service *Understand and incorporate customer feedback in decision-making processes and be transparent in all agency communications*	▪ Improve the provision and distribution of information to users about the border. ▪ Actively solicit and incorporate customer feedback in binational transportation planning processes. ▪ Educate government agencies and related officials in the U.S. and Mexico about the border environment and the role and responsibilities of the different agencies facilitating binational trade and travel.
Stewardship *Manage environmental and agency resources responsibly and foster accountability and transparency in cross-border investment and decision-making*	▪ Improve binational coordination of infrastructure development. ▪ Reduce the environmental impact throughout the binational transportation system. ▪ Consider community impacts and opportunities through improvements to the multimodal, binational transportation system. ▪ Sustain and grow the job base in border communities and promote workforce development. ▪ Inform and engage the public about environmental and investment decisions related to the binational transportation system.

The goals and objectives of the BTMP align with the priorities listed in planning documents in both the U.S. and Mexico.

In particular, they align with the transportation and mobility plans on the U.S. side and with the transportation and mobility plans on the Mexican side, as shown in **Figure 2.2-1**.

Figure 2.2-1. Alignment of BTMP Goals and Objectives with Existing Plans in the U.S. and Mexico



2.2.1 Purpose of Goals and Objectives

The goals and objectives serve as the foundation for identifying needs and for prioritizing projects, programs, and policies.

The identification of needs is presented in **Chapter 5**, and the approach to identifying and prioritizing strategies is presented in **Chapter 8**.

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2.3 U.S.-Mexico and Texas-Mexico Border Policy Development, Planning and Infrastructure Development, and Management Processes

Prior to 9/11, Mexico primarily took a hands-off approach in managing its northern border, with nearly no entry processing required for most of the southbound travelers and a limited law-enforcement focus on the border. After 9/11, both countries have increased their level of collaboration, establishing a series of high-level forums and mechanisms to discuss issues related to the border. Among others, the two countries have partnered in the following initiatives:

- Creation of the North American Development Bank in 1994[1]
- Creation of the Executive Steering Committee (with top-level leadership from both governments) and related binational committees for various aspects of border management in 2010 as part of the 21st Century Border initiative
- Creation of the U.S-Mexico High Level Economic Dialogue in 2013

The movement of people and goods across the U.S.-Mexico border is shaped by policy and planning, but the user experience is related to the efficiency of operations at the border crossings.

In order to understand the institutional framework surrounding the Texas-Mexico border, it is important to describe the processes to develop and implement policies and plans, as well as the characteristics of the management, operations, program, and project implementation at the border. These different elements and the institutions involved in them are described below, defining the roles they play and providing an overview of the processes followed by those institutions. This includes the binational coordination of activities to make the border work effectively on a daily basis and the efforts to prepare it to respond to major disruptive events. The institutions identified below are responsible for implementing actions to attain the goals and objectives of the BTMP; therefore, their role in the success of the BTMP is vital.

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[1] Established by the Border Environment Cooperation Agreement of November 1993 as part of the North American Free Trade Agreement (NAFTA).

2.3.1 Overview of Policy Development along the U.S.-Mexico Border and the Texas-Mexico Border

The development of policies that impact the U.S.-Mexico border follows a hierarchical relation, reflecting the binational nature of the relationship. Federal agencies in both countries oversee the overarching policies that impact the border region. States and local agencies have a more limited role, primarily complementing federal-level policies and their implementation.

An analysis of the development of policies for the Texas-Mexico border begins with a description of how policies are developed at the federal level, to then identify how those policies impact the Texas-Mexico border and how state and local agencies on the two sides of the border complement and support the implementation of these federal policies.

Federal Level. Binational relations between the U.S. and Mexico are overseen by the U.S. Department of State (DOS) on the U.S. side and by the Secretaría de Relaciones Exteriores (SRE) on the Mexican side. These two federal agencies are in charge of implementing foreign policies, which need to be approved by each country's federal Congress. Specific foreign policies at the national level that impact the U.S.-Mexico border include:

- **Trade policy:** regulating the trade relations between the two countries, including free-trade agreements such as the North American Free Trade Agreement (NAFTA) and the United States–Mexico–Canada Agreement (USMCA)
- **Immigration policy:** regulating the legal entry of foreigners into a country.
- **Labor policy:** regulating the employment of foreign workers
- **Infrastructure policy:** regulating the construction of infrastructure that connects countries
- **Security policy:** regulating the secure movement of people and goods between countries
- **Transportation policy:** regulating the transportation systems that connect countries
- **Incident response to environmental emergencies:** coordinating the response to environmental incidents and disasters occurring in neighboring countries

The federal agencies supporting the development and implementation of these binational policies are presented in **Table 2.3-1**.

Domestic policy initiatives (not meant to be applied at the binational level) can affect the movement of people and goods between the countries. These domestic initiatives are presented to Congress for approval by other federal agencies in each country.[2] Domestic policies that affect the U.S.-Mexico border region must be implemented through binational mechanisms such as those presented in **Section 2.3.2**.

[2] These include limits on vehicle weights for commercial trucks in each country.

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Table 2.3-1. Federal Agencies Involved in Development of Binational Policies

Policy Type	U.S. Federal Agencies	Mexican Federal Agencies
Trade	Department of State (DOS), Department of Homeland Security—Customs and Border Protection (CBP), Department of Commerce (DOC), Trade Representative (USTR), and Environmental Protection Agency (EPA)	Secretaría de Economía (SE), Secretaría de Desarrollo Agrario, Territorial y Urbano (SEDATU), Secretaría de Hacienda y Crédito Público—Servicio de Administración Tributaria (SAT), Secretaría de Agricultura y Desarrollo Rural—Servicio Nacional de Sanidad, and Inocuidad y Calidad Agroalimentaria (SENASICA)
Immigration	Department of Justice (DOJ), Department of Homeland Security—Customs and Border Protection (CBP) and Immigration and Customs Enforcement (ICE)	Secretaría de Relaciones Exteriores (SRE) and Secretaría de Gobernación—Instituto Nacional de Migración (INM)
Labor	Department of Homeland Security—Customs and Border Protection (CBP) and Department of Labor (DOL)	Secretaría de Relaciones Exteriores (SRE), Secretaría de Hacienda y Crédito Público—Servicio de Administración Tributaria (SAT), Secretaría de Gobernación—Instituto Nacional de Migración (INM), and Secretaría de Economía (SE)
Infrastructure	Department of Homeland Security—Customs and Border Protection (CBP), Department of Transportation (USDOT), International Boundary and Water Commission (IBWC), and General Services Administration (GSA)	Secretaría de Hacienda y Crédito Público—Instituto de Administración de Avalúos de Bienes Nacionales (INDAABIN), Secretaría de Comunicaciones y Transportes (SCT), and Comisión Internacional de Límites y Aguas entre México y Estados Unidos (CILA)
Security	Department of Justice (DOJ), Department of Homeland Security—Customs and Border Protection (CBP), Department of Homeland Security—Border Patrol (BP) Immigration and Customs Enforcement (ICE), Department of State (DOS)	Secretaría de Seguridad y Protección Ciudadana—Centro Nacional de Inteligencia (CNI), Secretaría de la Defensa Nacional (SEDENA), and Secretaría de Gobernación—Instituto Nacional de Migración (INM)
Transportation	Department of Transportation (USDOT)	Secretaría de Comunicaciones y Transportes (SCT) and Secretaría de Comunicaciones y Transportes—Caminos y Puentes Federales (CAPUFE)
Incident Response to Environmental Disasters	Environmental Protection Agency (EPA)	Secretaría de Medio Ambiente y Recursos Naturales—Procuraduría Federal de Protección al Ambiente (PROFEPA) and Secretaría de Gobernación (SEGOB)

The binational policies developed at the federal level are applicable to the Texas-Mexico border. Although these federal-level policies provide the overarching regulations for the Texas-Mexico border, there is a role for state and local agencies to develop policies that affect the movement of people and goods across this border. This role is identified as the state-level policy making, as described below.

State Level. The role of the States on both sides of the Texas-Mexico border is primarily to support the implementation of the policies generated at the federal level. However, they also have a role in developing and implementing policies that impact the cross-border movement of people and goods. Policies issued at the state level should not contradict similar policies issued at the federal level.

On the Texas side, the Texas Secretary of State serves as a senior advisor, as the Governor's Liaison for Texas Border and Mexican Affairs, and as Chief International Protocol Officer for Texas.[3] Also, the Texas State Legislature oversees transportation policy issues with the help of the Texas Transportation Commission and the Texas Department of Transportation.

On the Mexican side, the Congress of the States bordering with Texas is responsible for statewide policy issues (including those related to the border) with the help of agencies such as the Secretariats for Economic Development, Trade, or Public Works.

The state agencies involved in development of policies that affect the border are presented in Table 2.3-2.

Table 2.3-2. State Agencies Involved in Development of Policies Affecting the Border

Policy Type	Texas State Agencies	Mexican State Agencies
Trade, Consumer Protection and Economic Development	Texas state government – representatives and senators, Texas Secretary of State, Texas Department of Agriculture, Attorney General of Texas, Texas Public Utility Commission, Texas Department of Economic Development, Texas Railroad Commission	State Congresses in border Mexican states, Secretaría de Economía y Turismo de Tamaulipas, Secretaría de Economía y Turismo Coahuila, Secretaría de Economía y Trabajo de Nuevo León, Secretaría de Innovación y Desarrollo Económico de Chihuahua, Promotora de Industria Chihuahuense
Labor	Texas Workforce Commission, Texas Department of Housing and Community Affairs	Secretaría de Economía y Trabajo de Nuevo León
Infrastructure[4]	Texas Transportation Commission, Texas Department of Transportation, Texas Department of Public Safety, Texas Commission on Environmental Quality, Texas Historical Commission, Texas Department of Agriculture, Texas Alcoholic Beverage Commission, Texas Parks and Wildlife Department	Secretaría de Obras Públicas de Tamaulipas, Secretaría de Desarrollo Urbano y Medio Ambiente de Tamaulipas, Secretaría de Obras Públicas y Transporte de Coahuila, Secretaría de Desarrollo Sustentable de Nuevo León, Secretaría de Comunicaciones y Obras Públicas Chihuahua
Transportation	Texas state government – representatives and senators, Texas Transportation Commission, Texas Department of Transportation, Texas Railroad Commission	Secretaría de Obras Públicas y Transporte de Coahuila, Secretaría de Comunicaciones y Obras Públicas Chihuahua
Health, Environment and Natural Resources	Texas Commission on Environmental Quality, Texas Water Development Board, Texas Department of State Health Services, Texas Parks and Wildlife Department, Texas Health and Human Services Commission, General Land Office of Texas, Texas Railroad Commission	Secretaría de Desarrollo Urbano y Medio Ambiente de Tamaulipas, Secretaría de Desarrollo Sustentable de Nuevo León

[3] The Secretary of State also serves as the chair of the Border Trade Advisory Committee, which acts as a forum for agency transportation decisions affecting trade and the movement of freight at the Texas border, and leads the Interagency Workgroup on Border Issues, a roundtable to develop a profile of border and cross-border activities, initiatives and policies.

[4] Most of the agencies listed in Texas under this category participate in the State's approval process for the construction of bridges over the Rio Grande River.

Local Level. The primary role of local agencies on both sides of the Texas-Mexico border is to support the implementation of policies developed at the federal and state levels. These local agencies are acutely aware of the daily operations at the border and can identify, suggest, and/or recommend policies to state or federal agencies for their implementation. Also, they can develop plans or protocols for their local departments (such as fire or law enforcement) to actively support border-crossing operations or to respond to incidents, emergencies, or disasters occurring at or near the border crossings.[5] These initiatives should not contradict similar policies issued at the federal or state level.

Given the hierarchical nature of developing policy for the Texas-Mexico border, there needs to be constant and continuous communication and coordination, not only between the federal levels of the two countries but also among the federal, state, and local levels within each country. Therefore, there is a need for additional joint management initiatives (like those mentioned later in this chapter) to effectively align the priorities of the different stakeholders and develop policies that address the ever-changing nature of the border.

Policy making on both sides of the Texas-Mexico border should be better understood and any differences in policies reconciled so that the development and implementation of policies can be truly harmonized.

One way to achieve this harmony is to have a high-level, binational coordination and harmonization group that looks into this particular topic.

2.3.2 Overview of Planning Processes along the Texas-Mexico Border

The U.S. and Mexican governments have worked actively to improve and expand numerous mechanisms for creating a cross-border infrastructure that is modern, is safe, and facilitates efficient flows of people and trade. The two key mechanisms to achieve these objectives are the following:

- U.S.-Mexico Joint Working Committee on Transportation Planning (JWC): Created in 1994, this binational group's main purpose is to foster collaboration and cooperation between U.S. and Mexico with regard to land transportation planning and the facilitation of efficient, safe, and economical cross-border movement of people and goods.
  - Membership includes transportation professionals from the U.S. Federal Highway Administration (FHWA) and SCT. The JWC also includes representatives from DOS, SRE, the four U.S. border state Departments of Transportation (DOTs), and the six Mexican border states. GSA and CBP also participate in JWC meetings.
- U.S.-Mexico Binational Bridges and Border Crossings Group (BBBXG): Established in 1981, this binational group's main purpose is to facilitate collaboration and cooperation on operational matters involving existing and proposed international bridges and border crossings and their related infrastructure, as well as exchanges of technical information and the discussion of policy issues.
  - Membership includes delegates from the U.S. and Mexican governments, as well as participation from the 10 U.S. and Mexican border states, including California, Arizona,

[5] Some local agencies across the Texas-Mexico border are taking an active role in organizing the response of the border-crossing stakeholders to the COVID-19 pandemic.

DRAFT

Texas, and New Mexico in the U.S., and Baja California, Sonora, Chihuahua, Coahuila, Nuevo León, and Tamaulipas in Mexico. This group meets twice a year to improve the efficiency of existing crossings and coordinate planning for new ones.

These two binational groups provide the framework for the U.S.-Mexico border transportation planning process and guide border transportation management and investment decisions.

Planning for the Construction of New Border Crossings or Changes to Existing Ones. JWC and BBBXG meetings include discussions on planning for and constructing new border crossings. For a new border crossing to open, a significant amount of binational cooperation between the U.S. and Mexico must occur. Both countries need to coordinate the complexities that a new crossing involves, including a Presidential Permit (for bridges built after 1972[6]), U.S. Coast Guard and IBWC[7] approval on the U.S. side, as well as approvals from the Mexican state and federal governments on the Mexican side (through the Grupo Intersecretarial de Puentes y Cruces Fronterizos). The proposed new border crossing should also be presented to BBBXG to assess its binational feasibility and to establish a formal, diplomatic dialogue between the two countries regarding the project. A brief summary of the permitting process in each country is provided below.

U.S. Permits. The key requirement for the construction of a new border crossing or for changes to existing approved facilities along the U.S.-Mexico border is the Presidential Permit. DOS (through the Secretary of State's office) has been designated to receive all applications for issuing or amending Presidential Permits for constructing, connecting, operating, or maintaining the international boundaries of the U.S. for certain cross-border projects, including land border crossings with Mexico. After reviewing the application, the U.S. Secretary of State provides an opinion to the President regarding whether the issuance or amendment serves the foreign policy interests of the U.S. Any decision to issue, deny, or amend a permit is made solely by the President of the United States.[8]

In addition to the federal approval process, there is also a State of Texas approval process for a Presidential Permit for international bridges in Texas. The State of Texas, through TxDOT, has identified the process and requirements for approving the financing and construction of transportation projects on international bridges over the Rio Grande River. The Texas Transportation Code, Section 201.612, states that a political subdivision or private entity authorized to construct, or finance the construction of, a bridge over the Rio Grande River must obtain approval from the Texas Transportation Commission and the U.S. The Code directs TxDOT to allow an applicant to concurrently seek approval from the Commission and the U.S.

To obtain the Commission's approval for a project, the political subdivision or private entity must submit an application directly to TxDOT for consideration. Factors that are considered by the Commission include the local sponsor's financial resources, whether the bridge is consistent with the state and regional transportation plans, and the bridge's potential effect on the economy of the region, the environment, traffic congestion, and the free flow of trade.

Border crossings along the Texas-Mexico border that were built before 1972 are not subject to the Presidential Permit requirement described above.

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6 Prior to the International Bridges Act of 1972, approval to construct an international bridge was granted by individual Acts of Congress.

7 The International Boundary and Water Commission (IBWC) is another binational group that meets regularly to define border crossings.

8 Under Executive Order 13867 of April 10, 2019.

DRAFT

Mexico Permits. Approvals for a new border crossing or significant changes to an existing facility fall under SRE's jurisdiction through its Sub Secretariat for North America. Although final approval is issued by SRE, it must inform the Office of the Presidency through its office of Cabinet Coordination for Investment and Growth, which provides acknowledgment and support based on SRE's recommendation. Proposals for new and improved facilities are reviewed and considered by the Inter-Sectorial Group for Ports and Border Services. The group includes SAT, INM, SENASICA, INDAABIN, and SCT, but it is headed by SRE. The group is also tasked with coordinating with state and local agencies regarding new border facilities, procurement processes, and administration. Proposals for new facilities must be approved by the group before they can be elevated to binational groups.

Border Master Plans. Another important topic of discussion at JWC is border master plans. Border master plans are defined and supported by JWC. Under its guidelines, these comprehensive, binational long-range plans should help:

- Inventory transportation and port of entry (POE) infrastructure that facilitates trade
- Prioritize and promote planned POEs and related transportation projects
- Support decision making
- Allocate limited funding resources
- Ensure continued dialogue and coordination on future POEs and support transportation infrastructure needs and projects

The JWC members play a key role in developing border master plans in the U.S. The state DOTs develop these plans following JWC guidance. The development of the BTMP followed planning and programming processes established in the U.S. and Mexico. An overview of the border planning process is provided below as well as the specific processes followed in each country.

Border Planning Process

Border planning and infrastructure development along the U.S.-Mexico border can be divided into two categories: inside the border crossings and outside the border crossings. Inside the border crossings, the focus of the planning process is on identifying the infrastructure and systems required to effectively move people and goods between the two countries. Outside the border crossings, the emphasis is on identifying the transportation infrastructure to improve the connectivity of the border crossings with the rest of the transportation networks.

U.S. Planning Process

In the U.S., federal agencies are in charge of leading the planning process inside and outside the border crossings. Inside the border crossings, CBP is the leading planning agency. Outside the border crossings, USDOT issues guidance to the state DOTs regarding how to develop their transportation plans.

An overview of the U.S. border planning process is shown in **Figure 2.3-1**. The process involves federal and state agencies, as described below.

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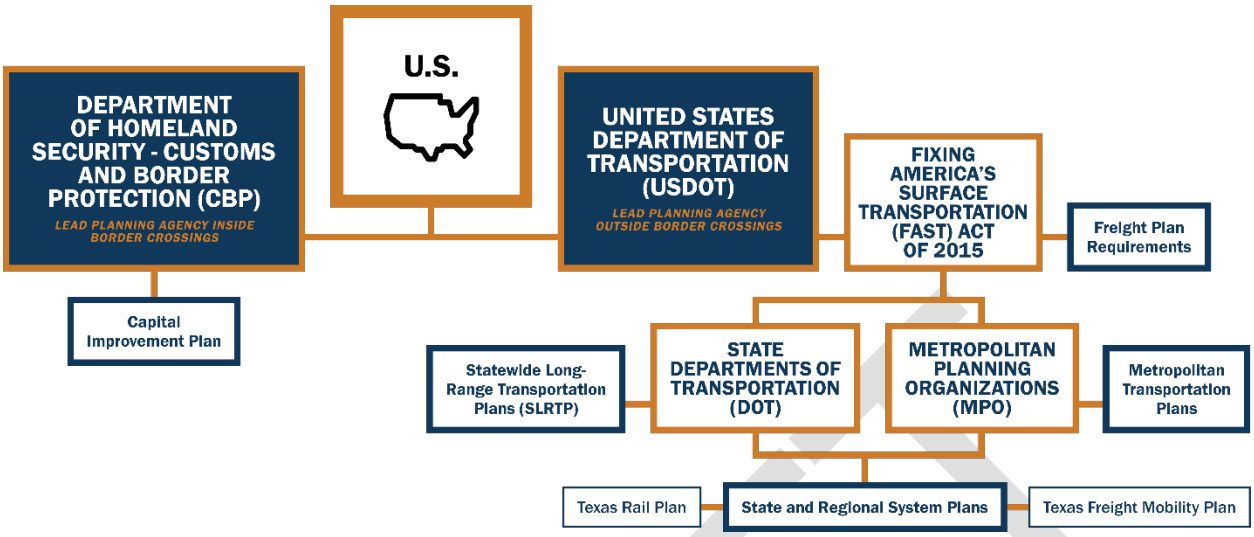
Figure 2.3-1. Overview of U.S. Border Planning Process



Federal

Inside the border crossings, CBP develops a 5-year planning document for land POE capital investments. This plan is of particular relevance not only to the Texas-Mexico border infrastructure planning efforts but also to the infrastructure planning efforts for the entire U.S.-Mexico border.

Outside the border crossings, federal guidance on transportation planning processes is provided by USDOT, as defined in the latest transportation legislation, referred to as the Fixing America's Surface Transportation (FAST) Act of 2015. This act includes guidance to state DOTs regarding how to prepare their statewide long-range transportation plan (SLRTP) and the metropolitan planning organizations (MPOs) to prepare metropolitan transportation plans. The FAST Act also provides guidance to state DOTs and MPOs to develop state and regional system plans, including the *Texas Freight Mobility Plan* and *Texas Rail Plan*, among others. This federal guidance provides flexibility for all state DOTs and MPOs to prepare SLRTPs and metropolitan transportation plans that reflect the unique transportation system characteristics, mode, needs and deficiencies, performance-based planning and analysis, engagement of the public and private stakeholders, and funding and financing in their states and/or regions. The FAST Act also sets forth freight plan requirements.

Texas

Strategic Plan. Although not a requirement under the FAST Act, the TxDOT *Strategic Plan*, prepared every 4 years, is used by the agency to guide the strategic direction of the department and its overall operations, direction, performance, and future expectations. The TxDOT *Strategic Plan* is used to guide the development of the *Texas Transportation Plan* (TTP), which is the state's long-range transportation plan, and other statewide system plans such as the *Texas Freight Mobility Plan* and *Texas Rail Plan*, among others. The *Strategic Plan* is a statewide planning document used to maintain consistency with the vision, goals, objectives, performance expectations, planning analysis, and financial expectations for the state's multimodal transportation system. This is an agency-wide document that sets direction for the agency and its planning efforts.

Texas Transportation Plan. Other transportation planning efforts by TxDOT are required under the federal legislation, the FAST Act. The *Texas Transportation Plan 2040* (TTP 2040) is currently being updated to the TTP 2050. The current TTP 2040 and upcoming TTP 2050 are used by TxDOT to

DRAFT

guide planning and programming decisions for developing, integrating, and operating the state transportation system. This BTMP was developed by TxDOT to provide a detailed, critical, and prioritized list of border-crossing projects, policies, programs, and funding strategies to incorporate and support the TTP 2050.

Unified Transportation Program. The *Unified Transportation Program* is TxDOT's 10-year programming document to authorize and guide transportation project development and construction on Texas' intermodal transportation network. It is updated, and adopted by the Texas Transportation Commission, annually.

Statewide Transportation Improvement Program. The *Statewide Transportation Improvement Program* (STIP), prepared every 4 years and updated every 2 years, includes outcomes from both statewide and regional plans such as TTPs, metropolitan transportation plans, and transportation improvement programs (TIPs)[9] and defines capital projects for short-term implementation (4-year cycles). This process is designed to meet the state's long-range transportation trends, performance expectations and targets, improvement strategies, and investment priorities to develop the long-range transportation investment and implementation program.

State System Plans. State system plans, also prepared in 4-year cycles and required to be prepared by state DOTs under the FAST Act, represent the different systems that make up the multimodal statewide transportation system. In Texas, these include the *Texas Freight Mobility Plan* and *Texas Rail Plan*, among others. These system plans are used to inform the TTP with detailed information about the specific modes and systems.

Metropolitan transportation Plans. Metropolitan transportation plans are prepared by the 25 MPOs in Texas on a 5-year planning cycle and also follow FAST Act federal guidance and requirements, similar to those identified for state planning. In large part, this regional planning process is conducted by the MPOs independently from TxDOT's TTP planning process and is used to identify the region's potential transportation future. The MPOs coordinate with TxDOT on the development of their regional transportation plans to ensure consistency, resource sharing, and direction. In addition, the outcomes of these regional plans are used to inform the SLRTP, STIP, MPO TIPs, system plans (for example, the *Texas Freight Mobility Plan* and *Texas Rail Plan*), and associated documents and processes listed above as being developed by TxDOT.

DRAFT

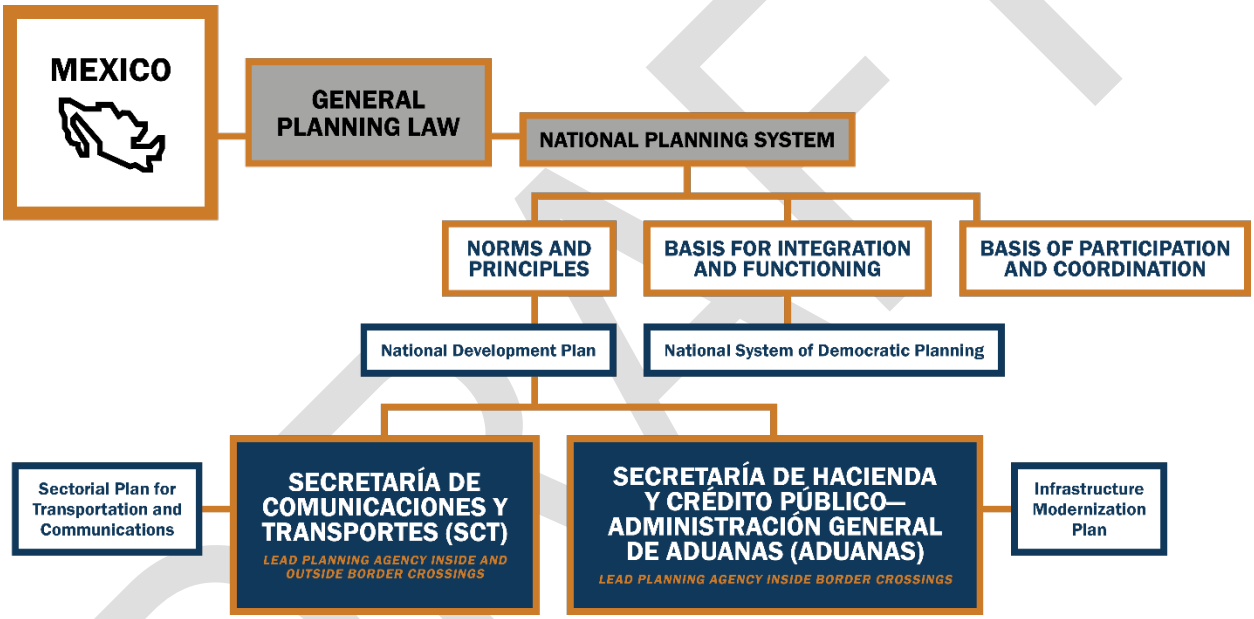
[9] The STIP is made up of 25 metropolitan and 3 rural TIPs.

Mexico Planning Process

In Mexico, federal agencies are also in charge of leading the planning process inside and outside the border crossings. The *National Development Plan* is a planning document applicable to the entire nation and provides the infrastructure priorities for the country. Inside the border crossings, the Secretaría de Hacienda y Crédito Público—Administración General de Aduanas (Aduanas) and SCT coordinate closely on planning matters.[10] Outside the border crossings, SCT is in charge of transportation infrastructure planning through its sectorial plan.

An overview of Mexico's border planning process is shown in **Figure 2.3-2**. This process is federally centered, and the majority of the financial resources for transportation investments in the country are executed through federal agencies.

Figure 2.3-2. Overview of Mexico Border Planning Process



Mexico's national planning system was established in the "General Planning Law" (Ley General de Planeación) issued on January 5, 1983, which established the following:

- Norms and principles (including the *Plan Nacional de Desarrollo*, or *National Development Plan*)
- Basis for integration and functioning (National System of Democratic Planning)
- Basis of participation and coordination

The planning process in Mexico is federally based, meaning that plans provide overarching, nationwide direction for all planning efforts.

The *National Development Plan* describes the type of programs that should be developed under each administration to provide more clarity to different aspects of the government work programs, including sectorial plans (for key federal agencies), institutional (for quasigovernmental agencies),

[10] The responsibility of Aduanas is to plan for supporting infrastructure and systems, while the responsibility of SCT is to plan for international bridge infrastructure and the connectivity of border crossings to the local networks.

regional, and special. At a minimum, a set of goals, objectives, strategies, feasibility criteria, coordination, and evaluation is developed as part of the *National Development Plan*.

One of the key sectorial plans affecting the Texas-Mexico border and identified in Mexico's *National Development Plan* is the *Sectorial Plan for Transportation and Communications*. This document is produced by SCT and includes the strategies, tactics, and investments to address transportation issues in Mexico that are anticipated to be implemented during the remainder of an administration's time in office. The plan includes new international bridges and initiatives connecting the border crossings to the national transportation networks.[11]

Another plan of relevance to the Texas-Mexico border is the *Infrastructure Modernization Plan* for Aduanas. This plan identifies the future programs and projects to be implemented by this agency inside the border crossings.

2.3.3 Institutions and Agencies Involved in the Texas-Mexico Border

Bilateral institutional relationships are a key component of the Texas-Mexico border due to the geographic extent of the region and close ties between the communities on each side of the border.

A significant number of institutions and agencies are involved in the planning, management, and oversight of border-related affairs at the Texas-Mexico border. These institutions and agencies cover all levels of the government (federal, state, and local), as well as the private sector. Each of these institutions has been an active participant in developing the goals and objectives of the BTMP.

The planning, development, financing, management, and operation of the U.S and Texas-Mexico border is a complex undertaking that involves close bilateral collaboration, cooperation, and communication among more than 50 binational public-sector agencies and numerous private-sector stakeholders.

The institutions and agencies that are key to the cross-border movement of people and goods between Texas and Mexico are listed in **Table 2.3-1**. These include strategic federal, state, and local agencies, the private sector, associations, and community and other groups in both the U.S. and Mexico.

[11] As part of the current administration's planning efforts, a National Agreement of Investment in Infrastructure was developed by the federal government in conjunction with the private sector. This agreement represents the commitment of the private sector to invest in infrastructure in Mexico. The agreement lists 101 transportation projects, including tolled highways connecting to the Texas-Mexico border and new border crossings.

DRAFT

Table 2.3-3. U.S. and Mexico Binational Stakeholders

Federal Agencies | U.S. and Mexico	
Federal Agencies | U.S.	**Federal Agencies | Mexico**
▪ Department of Transportation—Federal Highway Administration (FHWA)	▪ Secretaría de Comunicaciones y Transportes (SCT)
▪ Department of Transportation—Federal Motor Carrier Safety Administration (FMCSA)	▪ Secretaría de Comunicaciones y Transportes—Instituto Mexicano del Transporte (IMT)
▪ Department of Homeland Security—Customs and Border Protection (CBP)	▪ Secretaría de Relaciones Exteriores (SRE)
▪ General Services Administration (GSA)	▪ Secretaria de Hacienda y Crédito Público—Administración General de Aduanas (Aduanas)
▪ Food and Drug Administration (FDA)	▪ Secretaria de Gobernación—Instituto Nacional de Migración (INM)
▪ Trade Development Agency (USTDA)	▪ Secretaría de Comunicaciones y Transportes—Caminos y Puentes Federales (CAPUFE)
▪ Department of State (DOS)	▪ Secretaria de Hacienda y Crédito Público—Instituto de Administración de Avalúos de Bienes Nacionales (INDAABIN)
▪ International Boundary and Water Commission (IBWC)	▪ Comisión Internacional de Límites y Aguas entre México y Estados Unidos (CILA)
▪ Department of Transportation—Federal Railroad Administration (FRA)	▪ Secretaría de Bienestar (BIENESTAR)
▪ Pipeline and Hazardous Materials Safety Administration (PHMSA)	▪ Instituto Nacional de Estadística y Geografía (INEGI)
▪ Department of Agriculture (USDA)	▪ Secretaria de Energía (SENER)
▪ Army Corps of Engineers (USACE)	▪ Secretaria de Hacienda y Crédito Público—Servicio de Administración Tributaria (SAT)
▪ Environmental Protection Agency (EPA)	▪ Secretaria de Economía (SE)
▪ Trade Representative (USTR)	▪ Secretaria de Seguridad y Protección Ciudadana (SEGURIDAD)
▪ Department of Commerce (DOC)	▪ Secretaria de Agricultura y Desarrollo Rural—Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria (SENASICA)
▪ Department of Justice (DOJ)	▪ Secretaria de Desarrollo Agrario, Territorial y Urbano (SEDATU)
▪ Department of Homeland Security—Immigration and Customs Enforcement (ICE)	▪ Secretaria de la Defensa Nacional (SEDENA)
▪ Department of Labor (DOL)	▪ Secretaria de Medio Ambiente y Recursos Naturales—Procuraduría Federal de Protección al Ambiente (PROFEPA)
▪ Department of Homeland Security—Border Patrol (BP)	▪ Secretaria de Seguridad y Protección Ciudadana—Centro Nacional de Inteligencia (CNI)
	▪ Secretaría de Gobernación (SEGOB)

DRAFT

State Agencies | U.S. and Mexico	
State Agencies | U.S.	State Agencies | Mexico
▪ Texas State Government – Representatives and Senators	▪ Estado de Coahuila de Zaragoza
▪ New Mexico State Government – Representatives and Senators	▪ Estado de Nuevo León
▪ Texas Department of Transportation	▪ Estado de Tamaulipas
▪ New Mexico Department of Transportation	▪ Estado de Chihuahua
▪ Texas Department of Public Safety	▪ Secretaría de Obras Públicas de Tamaulipas
▪ New Mexico Department of Public Safety	▪ Secretaría de Economía y Turismo de Tamaulipas
▪ New Mexico Border Authority	▪ Secretaría de Desarrollo Urbano y Medio Ambiente de Tamaulipas
▪ Texas Transportation Commission	▪ Secretaría de Obras Públicas y Transporte de Coahuila
▪ Texas Railroad Commission	▪ Secretaria de Economía y Turismo Coahuila
▪ Texas Secretary of State	▪ Secretaría de Economía y Trabajo de Nuevo León
▪ Texas Commission on Environmental Quality	▪ Secretaría de Desarrollo Sustentable de Nuevo León
▪ Texas Department of Agriculture	▪ Corporación para el Desarrollo de la Zona Fronteriza de Nuevo León (CODEFRONT)
▪ Texas Historical Commission	▪ Secretaría de Comunicaciones y Obras Públicas Chihuahua
▪ Texas Alcoholic Beverage Commission	▪ Secretaria de Innovación y Desarrollo Económico de Chihuahua
▪ Texas Department of Economic Development	▪ Promotora de Industria Chihuahuense
▪ General Land Office of Texas	▪ State Congresses in border Mexican states
▪ Attorney General of Texas	▪ Centro SCT in Mexican border states
▪ Texas Education Agency	
▪ Texas Health & Human Services Commission	
▪ Texas Higher Education Coordinating Board	
▪ Texas Department of Housing & Community Affairs	
▪ Texas Parks & Wildlife Department	
▪ Texas Public Utility Commission	
▪ Texas Department of State Health Services	
▪ Texas Military Forces	
▪ Texas Water Development Board	
▪ Texas Workforce Commission	

DRAFT

Local Agencies | U.S. and Mexico	
Local Agencies | U.S.	**Local Agencies | Mexico**
▪ Local Metropolitan Planning Organizations	▪ Municipios within the border region
▪ Regional Mobility Authorities	▪ Institutos Municipales de Investigación, Planeación y/o Desarrollo Urbano from municipios within the border region
▪ Local county and city governments within the border region	
▪ Economic Development Corporations part of county and city governments within the border region	

Private Sector | U.S. and Mexico	
Private Sector | U.S.	**Private Sector | Mexico**
▪ Bridge owners (for some border crossings)	▪ Bridge owners (for some border crossings)
▪ U.S. trucking companies	▪ Mexican trucking companies
▪ U.S. railroad companies (Class I railroads and short lines)	▪ Mexican railroad companies
▪ U.S. airport operators	▪ Mexican airport owners
▪ U.S. seaport owners and terminal operators	▪ Mexican seaport owners (in joint venture with federal government) and terminal operators
▪ U.S. brokers and logistics companies	▪ Mexican brokers and logistics companies
▪ U.S. passenger bus companies	▪ Mexican passenger bus companies
▪ U.S. pipeline owners and operators	

DRAFT

Community Groups, Associations and Other Groups | U.S. and Mexico	
Community Groups, Associations, and Other Groups | U.S.	**Community Groups, Associations, and Other Groups | Mexico**
▪ The Borderplex Alliance	▪ Cámara Nacional de Comercio (CANACO)
▪ NASCO Coalition	▪ Consejo Mexicano del Transporte (CMET)
▪ Border Trade Alliance	▪ Cámara Nacional de Aerotransportes (CANAERO)
▪ El Paso Community Foundation	▪ Cámara Nacional del Autotransporte de Pasaje y Turismo (CANAPAT)
▪ Border Industrial Association	▪ Asociación Mexicana de Ferrocarriles (AMF)
▪ Local and Regional Chambers of Commerce	▪ Cámara Nacional de Autotransporte de Carga (CANACAR)
▪ Rio Grande Valley Partnership	▪ Asociación Mexicana de Ingeniería de Vías Terrestres (AMIVTAC)
▪ Non-profit or non-affiliated Economic Development Corporations in the border region	▪ Asociación Nacional de Productores de Autobuses, Camiones y Tractocamiones (ANPACT)
▪ U.S. Chamber of Commerce in Mexico	▪ Fideicomiso de Puentes Fronterizos de Chihuahua (Promofront)
▪ Texas Trucking Association	
▪ Texas International Produce Association	

2.3.4 Overview of Management, Program, and Project Implementation along the Texas-Mexico Border

Implementation of key transportation infrastructure facilitates and supports the cross-border movement of people and goods through international border crossings and bridges.

The cross-border movement of people and goods is shaped by policy and planning. However, as people and goods move across the border, the operations and management inside the border crossing and the infrastructure immediately surrounding the border crossings are what constitute the user experience. For this reason, it is important to analyze the management, program and project development, and implementation of initiatives from three perspectives: border-crossing operations, border-crossing infrastructure and support facilities, and infrastructure linking the border crossing with the transportation networks in each country.

Border Management, Program, and Project Development and Implementation

Inside the border crossings, operations are carried out by federal agencies from both countries, which are also responsible for implementing and funding border-crossing infrastructure programs and projects. Outside the border crossings, state and local agencies are primarily responsible for planning, programming, constructing, maintaining, and operating the local transportation networks that link border crossings to the rest of the transportation system.

Table 2.3-4 provides a brief description of agencies responsible for the management of border crossings and for the program and project development and implementation inside and outside border crossings, along with a summary description of their responsibilities.

DRAFT

Table 2.3-4. Approach to Border Management, Program, and Project Development and Implementation

Aspect	Approach on U.S. Side	Approach on Mexico Side
Border management and operations	At the border crossing, the Office of Field Operations within CBP is the federal agency that manages the lawful access of people and goods into the U.S. At each one of the U.S. border crossings, CBP provides statutorily required immigration, customs, and agricultural inspection services that are required to conduct trade and travel. Other agencies also present at the border crossing facilities include USDA, which conducts agricultural inspections, and FMCSA, which conducts safety inspections of vehicles entering the U.S. CBP, as the agency leading border-crossing operations, has integrated the Resource Optimization Strategy at border crossings[12] as a long-term strategy for improving border-crossing operations. The Resource Optimization Strategy identifies staffing requirements and funding strategies to fund the staff, as well as initiatives to streamline the business processes to facilitate border crossing. Specific initiatives described in the Resource Optimization Strategy include expanding air traveler technologies, implementing biometrics, automating forms collection, eliminating duplicative processes, and implementing alternative funding programs such as the Donation Acceptance Program.	Aduanas is the federal agency in charge of supervising, controlling, and taxing the entry and exit of goods through the Mexican border crossings, as well as the transportation modes used to move these goods. Aduanas is the agency leading border-crossing operations on the Mexican side, and therefore most of the programs and projects at the border crossings are funded and implemented by it. However, a few of them might be implemented by other agencies or the private sector.[13] Other agencies also present at the border crossing facilities include INM for immigration-related topics and CAPUFE to collect revenue on tolled border crossings.

[12] CBP's document is titled "Resource Optimization Strategy (ROS) at POEs," where a POE (port of entry) is an administrative definition used by this agency that represents a collection of one or more border crossings.

[13] Some of the border crossings are operated, on the Mexican side, by the private sector. At these border crossings, the responsibility to implement the programs and projects designed by Aduanas (and listed in the *Infrastructure Modernization Plan*) falls on them.

Table 2.3-4. Approach to Border Management, Program, and Project Development and Implementation

Aspect	Approach on U.S. Side	Approach on Mexico Side
Border infrastructure and support facilities	The federal government, through GSA, is the owner of most of the infrastructure inside the border crossings. [14] In most cases, the ownership and operation is shared with the cities or counties where the border crossing is located. In some cases, local jurisdictions build the infrastructure and lease it to GSA, or GSA leases the infrastructure to third parties such as the State of Texas, the county where the border crossing is located, or the private sector. Therefore, the responsibility for building and maintaining border-crossing infrastructure and support facilities falls primarily on GSA, though, in some cases, co-owners, operators, and lessees also share this responsibility.	The federal government through INDAABIN is the owner of most of the infrastructure inside the border crossings. [15] In most cases, the ownership and operation are shared with other federal agencies like CAPUFE, state governments where the border crossing is located, or the private sector. The responsibility for building and maintaining border-crossing infrastructure and support facilities falls primarily on INDAABIN, though in most cases co-owners and operators also share this responsibility.
Roadway infrastructure	Outside the border crossings, the responsibility for constructing and maintaining roadway infrastructure connecting the border crossings with the rest of the state falls on TxDOT's three border districts—El Paso, Laredo, and Pharr—as well as on local agencies.	Mexican municipalities are normally responsible for constructing and maintaining the roadway network outside the border crossings, though in some cases the Mexican States are responsible for maintaining such infrastructure. Beyond urban areas, the Mexican States and the federal government (through SCT) are responsible for constructing and maintaining roadway assets linking population centers and other Mexican states. States and municipios have limited funding available to build or maintain new sections of highways, and therefore the federal government (through SCT) is normally the source of financing for this type of transportation infrastructure. [16]
Rail infrastructure	The construction and maintenance of rail infrastructure leading to and from the border crossings falls mainly on the private sector, primarily the Class I railroads. Three Class I railroads operate in Texas: BNSF Railway (BNSF), Kansas City Southern Railway (KCS), and Union Pacific Railroad (UP). Short lines are also responsible for certain segments of the rail network.	The construction and maintenance of rail infrastructure leading to and from the border crossings falls mainly on the federal government through SCT. [17] Even though Ferromex and Kansas City Southern Mexico (KCSM) are private railroad companies operating near the Texas-Mexico border, they are not financially responsible for the improvements to the infrastructure over which they operate.

[14] CBP owns a couple border crossings along the Texas-Mexico border.

[15] CBP owns a couple border crossings along the Texas-Mexico border.

[16] In some cases, the federal government issues concessions for constructing, operating, and maintaining transportation assets, such as highways.

[17] In some cases, the private sector may build and maintain rail infrastructure after reaching an agreement with SCT.

Table 2.3-4. Approach to Border Management, Program, and Project Development and Implementation

Aspect	Approach on U.S. Side	Approach on Mexico Side
Seaport infrastructure	Most of Texas' commercial deep-water ports and shallow-draft commercial ports are operated by port authorities and navigation districts in Texas. Port authorities and navigational districts are political subdivisions formed to operate ports and other transportation infrastructure and therefore are responsible for constructing and maintaining this type of infrastructure. The private sector owns one deep-water seaport in Texas[18] and is therefore responsible for its infrastructure.	Most of Mexico's commercial ports are owned by the federal government through SCT, though the public-private partnership scheme has been popular in recent years through the creation of the Administración Portuaria Integral (API). APIs are a public-private joint venture in charge of planning, programming, and executing all necessary actions to operate and develop a seaport. The responsibility for constructing and maintaining seaport infrastructure falls on the federal government and its partners via the APIs.
Airport infrastructure	The most common airport ownership involves traditional municipal or county governments, who are therefore responsible for constructing and maintaining the infrastructure at those airports.	The most common airport ownership in Mexico involves a traditional concession to the private sector known as an airport group, though some airports are owned and operated by the federal government (through SCT) or the state where it is located. As a result, the private sector is the main party responsible for building and maintaining infrastructure in Mexican airports, though the federal and state governments are also involved in those airports that are owned and operated by them.
Pipeline infrastructure	Pipelines in Texas are privately owned, operated, and maintained by a variety of oil and gas companies. Therefore, the responsibility to build and maintain this infrastructure falls on the private sector.	Pipelines in Mexico are primarily owned by the federal government (through SENER), and therefore the responsibility to build and maintain this infrastructure falls mainly on the federal government. However, there are a few privately owned pipelines close to the Texas-Mexico border, and, in those cases, the responsibility to build and maintain infrastructure falls on the private sector. The energy reform introduced in Mexico over the last few years is anticipated to increase the participation of the private sector in constructing and operating pipelines in Mexico.

[18] The Port of Texas City is the state's only privately owned deep-water port.

The funding sources for program and project implementation along the Texas-Mexico border, inside and outside the border crossings, are presented in **Table 2.3-5**.

Table 2.3-5. Funding Considerations for Border Management, Program, and Project Development and Implementation

Aspect	Approach on U.S. Side	Approach on Mexico Side
Border management and operations	At the border crossings, budget appropriations to GSA and CBP, as well as to the supporting agencies (such as USDA and FMCSA), allow the continued operation of these facilities.	At the border crossings, budget appropriations to Aduanas, as well as to the supporting agencies (such as INM and CAPUFE), allow the continued operation of these facilities.
Border infrastructure and support facilities	Similarly, budget appropriations to GSA and CBP allow these agencies to pay for the construction and maintenance of these facilities, though third parties such as the State of Texas, Counties, Cities, and the private sector might also contribute based on the ownership structure of a particular border crossing. Alternative sources of funding include the Donation Acceptance Program and competitive federal grants such as INFRA and BUILD.	Budget appropriations to INDAABIN and Aduanas allow the construction and maintenance of some of these facilities, though third parties such as the States and the private sector are parties with major responsibilities based on the ownership structure of border crossings in Mexico.
Transportation infrastructure linking border crossing with other transportation networks	Each particular transportation network is funded differently based on the ownership of the facility. For example, the main responsibility for roads falls on TxDOT (through its Unified Transport Program) and local agencies, while the main responsibility for rail infrastructure falls on the private sector.[19]	The federal government is the primary party responsible for funding transportation infrastructure in Mexico for roads, rail lines, seaports (through SCT), and pipelines (through SENER). The private sector is the primary party responsible for funding airport infrastructure in Mexico.

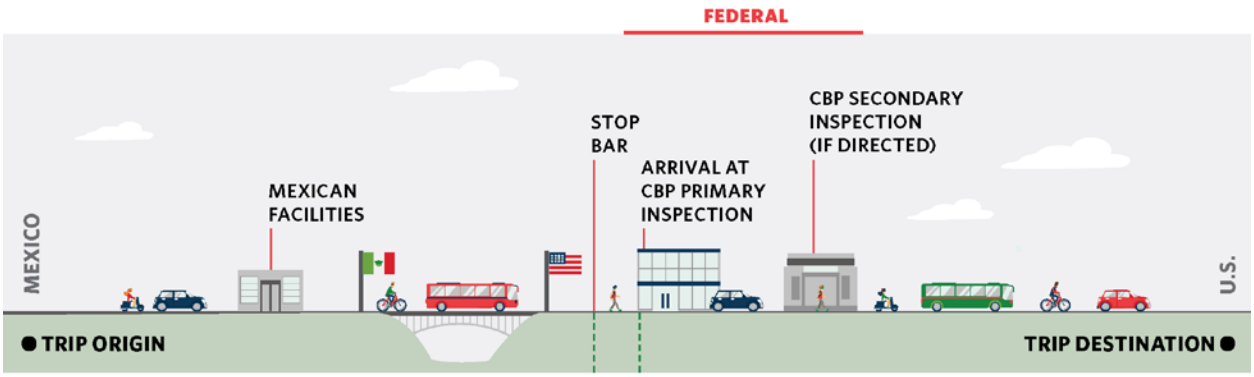
Users of border crossings along the U.S.-Mexico border directly relate their crossing experience to the efficiency in the operation of the border crossings. This experience is directly related to the processes that need to be followed to allow the movement of people and goods between the two countries. Therefore, it is important to understand the border crossing processes that occur when people and goods cross the border. A summary of those processes is provided below by type of crosser.

Processes for Movement of People (Passenger Vehicles, Pedestrians, and Bicyclists). For passenger vehicles, pedestrians, and bicyclists traveling northbound (**Figure 2.3-3**), travelers will pay tolls, usually at those border crossings that have an international bridge, before they proceed to the U.S. federal compound. At the U.S. federal compound, travelers must go through primary and sometimes secondary inspections. At the primary inspection booths, CBP officers ask the individuals who want to enter the U.S. to show proper documentation (that is, proof of citizenship or visa) and state the purpose of their visit. At the secondary inspection station, a much more thorough investigation of the identity of those wanting to enter the U.S., as well as of the purpose of their visit, is performed. During this step, individuals might also have to pay duties on their declared items. When the process is completed, access to the U.S. is either granted or denied.

[19] An exception is the South Orient Line, which is owned by the State of Texas. This rail line crosses the Texas-Mexico border at Presidio.

For passenger vehicles, pedestrians, or bicyclists traveling southbound, the crossing process has only one Mexican Aduanas inspection station. Generally, travelers will need to pay tolls at the same border crossings where tolls were assessed in the northbound direction. The process in Mexico is a red-light/green-light decision, in which a traveler is randomly selected for a secondary inspection if they get a red light.

Figure 2.3-3. Northbound Border-crossing Process for Passenger Vehicles, Pedestrians, and Bicyclists



Processes for Movement of Goods (Commercial Vehicles and Trucks). For northbound crossings (**Figure 2.3-4**), once a shipment is at the border with the truck and an authorized driver, the process flows through three main potential physical inspection areas: Mexican export lot, U.S. federal compound, and U.S. state safety inspection facility. At the Mexican export lot, a driver with the required documentation proceeds into the Mexican Customs (Aduanas) compound. For audit and interdiction purposes, Aduanas conducts inspections consisting of a physical review of the cargo of randomly selected outbound freight prior to its export. Shipments that are not selected proceed to the exit gate, cross the border, and continue on to the U.S.[20]

At the U.S. federal compound, the driver of the truck presents identification and shipment documentation to the processing agent at the CBP primary inspection booth. The CBP inspector uses a computer terminal to cross-check the basic information about the driver, vehicle, and cargo. The CBP inspector then makes a decision to refer the truck, driver, or cargo for a more detailed secondary inspection of any or all of these elements, or—alternatively—releases the truck to the exit gate. A secondary inspection includes any inspection that the driver, cargo, or conveyance undergoes between the primary inspection and the exit gate of the U.S. federal compound. Personnel from CBP usually conduct these inspections, which can be done by physically inspecting the conveyance and the cargo or by using nonintrusive inspection equipment (such as x-rays).

Within the compound, other federal agencies such as FMCSA and the Food and Drug Administration (FDA) have personnel and facilities to perform other inspections when required. A vehicle safety inspection could be conducted at either the federal compound (by FMCSA) or the state safety inspection facility depending on practice. State police inspect conveyances to determine whether they are in compliance with U.S. safety standards and regulations.[21] If their initial visual inspection finds any violation, they direct the truck to proceed to a more detailed inspection at a special facility.

[20] Several international crossings along the Texas-Mexico border are tolled. Before crossing into the U.S., commercial vehicles pay tolls and proceed to the U.S. federal compound.

[21] In the case of Texas, this inspection is conducted by the Department of Public Safety.

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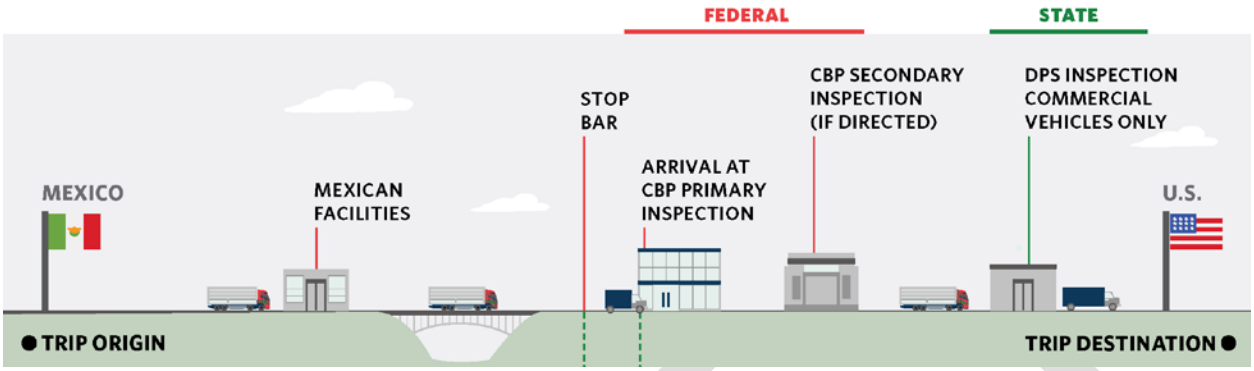
For southbound truck movements, the process has only one Aduanas inspection station. The process in Mexico is a red-light/green-light decision, in which a loaded commercial vehicle is randomly selected for a secondary inspection if it gets a red light. Empty vehicles cross with no need to stop at an Aduanas booth.

Figure 2.3-4. Northbound Border-crossing Process for Commercial Vehicles



Joint Management Efforts

Many partners, both public and private, support, own, develop, finance, fund, operate, and maintain the multimodal transportation system that facilitates efficient and safe cross-border flows of people and goods in the Texas-Mexico border region. This system is complex, multidimensional, dynamic, and extremely important to the U.S. and Mexican economies. The goals and objectives for this system must be unified among all the partners for this region to be successful.

The rest of this chapter summarizes the joint management efforts, initiatives, and ongoing collaboration among the different agencies and stakeholders to make the border work effectively on a daily basis and to prepare it to respond to major disruptive events.

The integrity of this multimodal border region transportation system relies on the communication, cooperation, coordination, and collaboration of these federal, state, and local jurisdictions and the private sector.

Despite the large number of parties responsible for the management and operation, program and project development, and implementation at the Texas-Mexico border, as well as the differences between how these topics are approached in each country, there is a strong willingness from all parties involved to cooperate to make the border work effectively on a daily basis. This willingness to cooperate is particularly true at the individual border-crossing level, where staff from local, state, and federal agencies work hand in hand to provide the services needed for the users of the border. A clear example is the close communication between port directors (from CBP) and administradores de aduana (from Aduanas) in some areas of the U.S.-Mexico border, which allows them to implement actions on both sides of the border to expedite the movement of people and goods.

Situations like the major disruption to the border operations caused by COVID-19 show that there are areas of improvement for these joint management efforts. In particular, there need to be more instances in which local, state, and federal agencies and other border stakeholders come together to discuss policies, strategies, procedures, and protocols to address the ever-changing issues that personnel at the border crossings face day to day.

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An example of cooperation and communication among the different border stakeholders that has been working effectively is the El Paso Bridges Steering Committee. This committee is dedicated to improving POEs in the El Paso/Santa Teresa/Chihuahua region and comprises more than 20 regulatory agencies, businesses, nonprofit organizations, and stakeholders from both sides of the border. The committee aims to streamline the border-crossing process for commercial vehicles in a safe and secure manner. The border-crossing process for passenger vehicles and pedestrians will be addressed subsequently.

The committee focuses on achieving efficiency and consistency through identifying major obstacles and delivering consistent levels of quality to improve operations across projects. Participating agencies include, but are not limited to, the City of El Paso, El Paso County, CBP, TxDOT, the Consulate General of Mexico, the El Paso Community Foundation, the Borderplex Alliance, and more. The group meets regularly and has identified more than 50 projects that address challenges in the region's POEs.

Resiliency Planning and Joint Incident Management and Emergency Response

Two areas in which binational collaboration plays a significant role are (1) resiliency planning and (2) incident management and emergency response at and around border crossings.

Resiliency Planning

Resiliency planning for the border is the responsibility of federal agencies on both sides of the border. On the U.S. side, border emergency management and international communication in case of unforeseen events is under the purview of the Department of Homeland Security (DHS) through several of its divisions including Cybersecurity and Infrastructure Security Agency (CISA), the Science and Technology Directorate (S&T), the Federal Emergency Management Agency (FEMA), and the Office of Emergency Communications (OEC).

CISA is tasked with protecting U.S. critical infrastructure. CISA's responsibility is to coordinate and assist federal, state, local, and tribal agencies in preventing and addressing physical and cyber threats by providing them with the necessary information and tools.[22] CISA also provides competitive grant programs for innovation or technology improvements related to governance, planning, coordination, and training along the border.[23] For emergency communication needs along the southern border, CISA coordinates the activities of the Southwest Border Communications Working Group (SWBCWG), a local agency coordination group, and assists in limited cross-border communications coordination with Mexico through the U.S.-Mexico High-Level Consultative Commission on Telecommunications.[24]

[22] https://www.cisa.gov/

[23] https://www.cisa.gov/border-interoperability-demonstration-project

[24] https://www.cisa.gov/international-cross-border-emergency-communications-efforts

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Initiatives to enhance technology deployment are spearheaded by S&T. From 2011 to 2017, S&T collaborated on the Canada-U.S. Enhanced (CAUSE) Resiliency experiment series, a five-event, scenario-based approach to simulate the use of interoperable and emerging technologies during cross-border emergencies. The experiment series was used to enhance cross-border emergency management capabilities in coordination with Canada by identifying improvements on situational awareness by sharing information, risk planning, alert and warning systems, and radio and wireless networks, as well as digital volunteer deployments.[25] A similar effort has not been undertaken on the border with Mexico.

OEC's responsibility is to collect and disseminate information, insights, and products from and to all DHS agencies on resiliency planning, emergency prevention, management, and communication in addition to supporting the development of tools, studies, and protocols for the use of emergency responders operating in border regions.

FEMA coordinates resiliency planning, preparedness, and response efforts with its international counterparts, supported by its Emergency Management Institute on the development and programming of international training courses, sessions, and workshops on planning for cross-border disasters such as flooding, tornadoes, and facility fires, among others.[26]

Environmental contingencies are addressed and planned for through the partnership between EPA and SEMARNAT as established in the U.S.-Mexico Border 2020 Program and the 15 Sister Cities Binational Emergency Response Plans that have been produced for all border towns since 2008.[27]

Emergency response and management in Mexico is under the purview of SEGOB through its Coordinación General de Protección Civil and the Sistema Nacional de Protección Civil (SINAPROC). They are both supported by research and tools developed at the Centro Nacional de Prevención de Desastres (CENAPRED). SINAPROC is tasked with coordinating with FEMA in preparedness and response training for local and state entities and is supported by the U.S. Agency for International Development (USAID) with resources to develop its capabilities.[28]

However, international cooperation in matter of emergency response has been centered around chemical hazards and law enforcement topics, while the full spectrum of binational cooperation still has ample room for improvement.

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[25] https://www.dhs.gov/sites/default/files/publications/881_CAUSE-V_Binational-After-Action-Report_180514-508.pdf

[26] https://www.fema.gov/blog/2016-12-13/planning-cross-border-disasters

[27] Programa Ambiental México- Estados Unidos: Frontera 2020/ Border 2020. Secretaria de Medio Ambiente y Recursos Naturales & United States Environmental Protection Agency.

[28] Estudio de la OCDE sobre el Sistema Nacional de Protección Civil en México. OCDE Publishing. 2013. Pages 198–203.

Joint Incident Management and Emergency Response

State and local agencies have a key role in responding to such incidents. Individual roles for these agencies depend on the type of roads that lead to and from the border crossings and the agencies' jurisdictions for traffic operation. In most cities, even if the roads are state-maintained, they might be operated by the Cities. In such cases, local law enforcement agencies respond to incidents around border crossings. Since most of the U.S.-Mexico border crossings are located in the middle of urban areas, in particular along the Texas-Mexico border where they are often downtown or in central business districts, local law enforcement agencies are much more involved during incident management.

The *U.S.-Mexico Joint Contingency Plan for Preparedness for and Response to Environmental Emergencies in the Inland Border Area* is the binational instrument that addresses emergencies caused by releases, spills, fires, or explosions of hazardous substances.[29] This plan provides a binational coordination mechanism to ensure appropriate and effective cooperative planning, preparedness, and response measures between the U.S. and Mexico for environmental emergencies affecting the inland border area and to develop notification systems. This plan also identifies the Joint Response Team as the policy- and decision-making body with overall responsibility for the maintenance and effective implementation of the plan for both the U.S. and Mexico.

The Office of Emergency Management within the Office of Solid Waste and Emergency Response of EPA is the coordinating authority for the U.S. for this *Inland Border Plan*. For Mexico, the coordinating authority for this plan is SEMARNAT through the Office of the Procuraduría Federal de Protección del Ambiente (PROFEPA), in partnership with the Coordinador General de Protección Civil, from SEGOB.

Under the auspice of the Joint Response Team, many Cities along the U.S.-Mexico border have signed sister city agreements. As part of these agreements, border Cities have developed contingency plans to respond to hazardous materials emergencies at and around border crossings. These plans are known as sister city contingency plans. The list of Cities along the Texas-Mexico border that have such sister city contingency plans, and the date when they were signed, is provided below.[30] Note that some of these plans were signed more than 20 years ago and most likely need to be updated due to the ever-changing conditions at the border.

- El Paso, Texas—Ciudad Juárez, Chihuahua—Sunland Park, New Mexico—Ysleta del Sur Pueblo (signed 2007, updated 2009)
- Presidio, Texas—Ojinaga, Chihuahua (signed 2004, updated 2013)
- Del Rio, Texas—Ciudad Acuña, Coahuila (signed 2001, updated 2013)
- Eagle Pass, Texas—Piedras Negras, Coahuila (signed 1998, updated 2013)
- Laredo, Texas—Nuevo Laredo, Tamaulipas (signed 1998)
- McAllen, Texas—Reynosa, Tamaulipas (signed 2000)
- Brownsville, Texas—Matamoros, Tamaulipas (signed 2002, pending final signatures by all parties)

[29] https://archive.epa.gov/emergencies/docs/chem/web/pdf/final_us_draft_us_mexico_jcp_january20_2006.pdf

[30] https://www.epa.gov/border2020/cross-border-contingency-plans-us-mexico-sister-cities

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On the U.S. side, border Cities, along with the Counties, have formed emergency management offices and centers, which work closely with state and federal emergency agencies such as FEMA and EPA. The purpose of the emergency operation centers is to provide a location where multiple levels of government, agencies, and organizations can coordinate decisions, resources, and public information on a strategic level. Emergency management centers are also responsible for the developing and implementing emergency plans, training, public outreach, and—most importantly—coordination of local, state, and federal officials while responding to major disasters.

2.4 Conclusion

In 2010, the U.S. and Mexico governments issued the Declaration of the 21st Century Border Initiative, which states, "a joint and collaborative administration of their common border is critical to transforming management of the border to enhance security and efficiency." In March 2020, members of the 21st Century Border Bilateral Executive Steering Committee approved the 21st Century Border Management Initiative Strategy. This strategy provides a renewed framework to collaborate more closely on promoting the shared border as a safe and competitive region. It highlights the role of an efficient managed border in the economic development and well-being of its surrounding communities. Central to the strategy is the expansion of trusted traveler programs (such as Viajero Confiable México, Global Entry, and NEXUS) and the Unified Cargo processing program.

The actions outlined in this strategy suggest maintaining the close binational coordination between CBP and Aduanas, and leverage and expand several existing programs that have shown to foster the joint management of the border.

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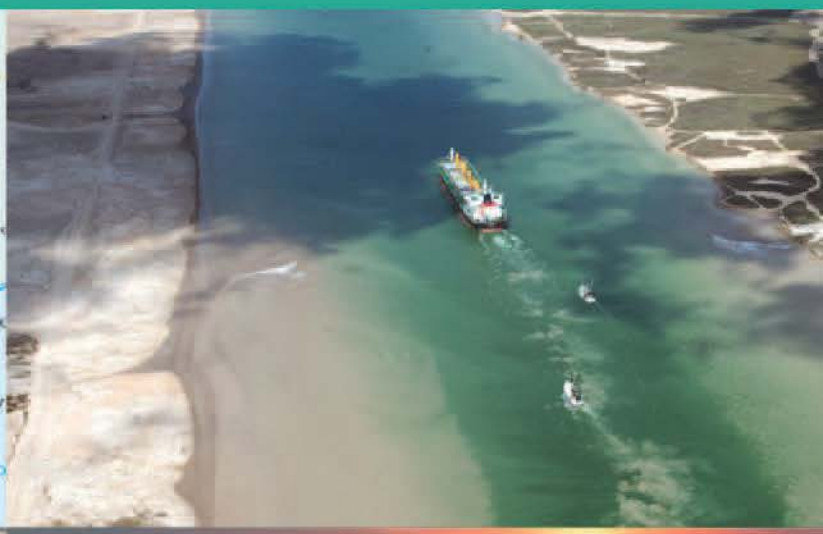
TEXAS-MEXICO BORDER TRANSPORTATION MASTER PLAN

PLAN MAESTRO DE TRANSPORTE FRONTERIZO

CHIHUAHA COAHUILA NUEVO LEÓN TAMAULIPAS TEXAS



Chapter 3

Texas-Mexico Border: Past and Present

Contents

Chapter 3 Texas-Mexico Border: Past and Present 3-1
3.1 Population 3-2
3.2 Employment 3-3
3.3 Income 3-4
3.4 Education 3-5
3.5 Texas-Mexico Border History 3-6
3.6 Binational and Multimodal Trade Overview 3-9
3.7 Highway and Roadway Network 3-13
3.8 Freight Rail Network 3-21
3.9 Aviation System 3-23
3.10 Pipeline Network 3-25
3.11 Maritime System 3-26
3.12 System Performance 3-27
3.13 Summary of Findings 3-43

Tables

Table 3.5-1. Number of Border Crossings on the Texas-Mexico Border by Investment Type Since Various External Events (Cumulative) 3-7
Table 3.5-2. Number of Border Facilities on the Texas-Mexico Border by Investment Type Since Various External Events (Cumulative) 3-7

Figures

Figure 3.1-1. Texas-Mexico Borderwide Population 3-2
Figure 3.1-2. Texas-Mexico Borderwide Population by Region 3-2
Figure 3.2-1. Texas-Mexico Borderwide Employment 3-3
Figure 3.2-2. Texas-Mexico Borderwide Employment by Region 3-3
Figure 3.3-1. Texas Borderwide Median Household Income 3-4
Figure 3.3-2. Texas Borderwide Median Household Income by Region 3-4
Figure 3.3-3. Mexico Border States Wage Distribution Against Minimum Wage 3-4
Figure 3.4-1. Texas Border Counties Education Trends (1990–2018) 3-5
Figure 3.4-2 Mexico Border Municipios Education Trends (1990–2015) 3-5
Figure 3.6-1. Value of Trade 1994–2019 (in 2019 dollars) 3-9
Figure 3.6-2. Texas-Mexico Cross-border Trade by Value and Flow 3-9
Figure 3.6-3. 1994 U.S.-Mexico Trade: Supply Chain Trade (Billions of Dollars) 3-10
Figure 3.6-4. 2019 Texas-Mexico Border: Supply Chain Trade (Billions of Dollars) 3-10
Figure 3.6-5. Value of Cross-border Trade by Texas Counties Origin and Destination 3-11
Figure 3.6-6. Value of Cross-border Trade by State of Origin and Destination 3-12

DRAFT

Figure 3.7-1. Existing U.S. and Mexico Highway Network 3-13
Figure 3.7-2. Texas Borderwide Lane Miles by Functional Class 3-14
Figure 3.7-3. Texas Borderwide Lane Miles by Region 3-14
Figure 3.7-4. Texas Borderwide Daily Passenger Vehicle-miles Traveled 3-14
Figure 3.7-5. Texas Borderwide Daily Passenger Vehicle-miles Traveled by Region 3-14
Figure 3.7-6. Texas Borderwide Daily Commercial Vehicle-miles Traveled 3-15
Figure 3.7-7. Texas Borderwide Daily Commercial Vehicle-miles Traveled by Region 3-15
Figure 3.7-8. Texas-Mexico Cross-border Truck Trade Value 3-15
Figure 3.7-9. Texas-Mexico Cross-border Truck Trade Value by Region 3-15
Figure 3.7-10. Texas-Mexico Cross-border Truck Trade Value by POE 3-16
Figure 3.7-11. Texas-Mexico Borderwide Northbound Trucks 3-17
Figure 3.7-12. Texas-Mexico Northbound Trucks by POE 3-17
Figure 3.7-13. Texas-Mexico Borderwide Cross-border Movement of People Northbound 3-17
Figure 3.7-14. Texas-Mexico Borderwide Northbound Personal Vehicles 3-18
Figure 3.7-15. Texas-Mexico Northbound Personal Vehicles by POE 3-18
Figure 3.7-16. Texas-Mexico Borderwide Northbound Pedestrians 3-19
Figure 3.7-17. Texas-Mexico Northbound Pedestrians by POE 3-19
Figure 3.7-18. Texas-Mexico Borderwide Northbound Buses 3-20
Figure 3.7-19. Texas-Mexico Northbound Buses by POE 3-20
Figure 3.8-1. Texas-Mexico Borderwide Rail Track Miles by Region 3-21
Figure 3.8-2. Texas-Mexico Rail Network 3-21
Figure 3.8-3. Texas-Mexico Cross-border Rail Trade Value 3-22
Figure 3.8-4. Texas-Mexico Cross-border Rail Trade Value by POE 3-22
Figure 3.8-5. Texas-Mexico Borderwide Northbound Rail Cars 3-23
Figure 3.8-6. Texas-Mexico Northbound Rail Cars by POE 3-23
Figure 3.9-1. Existing Texas and Mexico Aviation System 3-23
Figure 3.9-2. Texas-Mexico Passenger Aviation Travel Patterns 3-24
Figure 3.9-3 Texas-Mexico Cross-border Aviation Trade Value 3-24
Figure 3.9-4. Texas-Mexico Cross-border Aviation Trade Value by POE 3-24
Figure 3.10-1. Existing Texas and Mexico Pipeline Network 3-25
Figure 3.10-2. Texas-Mexico Cross-border Pipeline Trade Value 3-25
Figure 3.10-3. Texas-Mexico Cross-border Pipeline Trade Value by POE 3-25
Figure 3.11-1. Existing Texas and Mexico Seaports 3-26
Figure 3.11-2 Texas-Mexico Cross-border Maritime Trade Value 3-26
Figure 3.11-3 Texas-Mexico Cross-border Maritime Trade Value by POE 3-26
Figure 3.12-1. 50th-percentile Border Wait Time – Commercial Vehicle (Standard) 3-28
Figure 3.12-2. 90th-percentile Border Wait Time – Commercial Vehicle (Standard) 3-28
Figure 3.12-3. El Paso Region 50th-percentile Border Wait Times – Commercial (Standard) 3-28
Figure 3.12-4. El Paso Region 90th-percentile Border Wait Times – Commercial (Standard) 3-28
Figure 3.12-5. Laredo Region 50th-percentile Border Wait Times – Commercial (Standard) 3-29
Figure 3.12-6. Laredo Region 90th-percentile Border Wait Times – Commercial (Standard) 3-29
Figure 3.12-7. RGV Region 50th-percentile Border Wait Times – Commercial (Standard) 3-29
Figure 3.12-8. RGV Region 90th-percentile Border Wait Times – Commercial (Standard) 3-29

DRAFT

Figure 3.12-9. 50th-percentile Border Wait Time – Personal Vehicle (Standard) 3-30
Figure 3.12-10. 90th-percentile Border Wait Time – Personal Vehicle (Standard) 3-30
Figure 3.12-11. El Paso Region 50th-percentile Border Wait Times – Personal Vehicles (Standard) 3-30
Figure 3.12-12. El Paso Region 90th-percentile Border Wait Times – Personal Vehicles (Standard) 3-30
Figure 3.12-13. Laredo Region 50th-percentile Border Wait Times – Personal Vehicles (Standard) 3-31
Figure 3.12-14. Laredo Region 90th-percentile Border Wait Times – Personal Vehicles (Standard) 3-31
Figure 3.12-15. RGV Region 50th-percentile Border Wait Times – Personal Vehicles (Standard) 3-32
Figure 3.12-16. RGV Region 90th-percentile Border Wait Times – Personal Vehicles (Standard) 3-32
Figure 3.12-17. 50th-percentile Border Wait Time – Pedestrians (Standard) 3-32
Figure 3.12-18. 90th-percentile Border Wait Time – Pedestrians (Standard) 3-32
Figure 3.12-19. El Paso Region 50th-percentile Border Wait Times – Pedestrians (Standard) 3-33
Figure 3.12-20. El Paso Region 90th-percentile Border Wait Times – Pedestrians (Standard) 3-33
Figure 3.12-21. Laredo Region 50th-percentile Border Wait Times – Pedestrians (Standard) 3-33
Figure 3.12-22. Laredo Region 90th-percentile Border Wait Times – Pedestrians (Standard) 3-33
Figure 3.12-23. RGV Region 50th-percentile Border Wait Times – Pedestrians (Standard) 3-34
Figure 3.12-24. RGV Region 90th-percentile Border Wait Times – Pedestrians (Standard) 3-34
Figure 3.12-25. El Paso Region Congestion 3-35
Figure 3.12-26. Laredo Region Congestion 3-36
Figure 3.12-27. RGV Region Congestion 3-37
Figure 3.12-28. Texas Borderwide Highway Crashes with Injuries and Fatalities 3-38
Figure 3.12-29. Mexico Borderwide Highway Crashes with Injuries or Fatalities 3-38
Figure 3.12-30. Texas-Mexico Borderwide Rail Incidents 3-39
Figure 3.12-31. Texas-Mexico Rail Incidents – Texas Regions 3-39
Figure 3.12-32. Texas-Mexico Rail Incidents – Mexico Border States 3-39
Figure 3.12-33. Texas-Mexico Rail Incidents – Texas Border Region Rail Incidents by Type 3-39
Figure 3.12-34. Texas Borderwide Pavement Conditions (2010–2019) 3-40
Figure 3.12-35. Mexico Border States – Percent of Pavements Deficient (2010, 2012) 3-40
Figure 3.12-36. Texas Borderwide Bridge Conditions (2012–2019) 3-41
Figure 3.12-37. Texas-Mexico Border Crossing Ratings 3-42

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Chapter 3 Texas-Mexico Border: Past and Present

This chapter introduces the history and current conditions of the Texas-Mexico border—including socioeconomics, transportation infrastructure, and system performance as a basis for the *Texas-Mexico Border Transportation Master Plan* (BTMP). The Texas-Mexico borderwide region is defined as 60 miles north and south of the border.[1]

Texas and Mexico share a common border spanning 1,254 miles along the Rio Grande River. The border's natural landscape and geography are unique across its three border regions: El Paso/Santa Teresa/Chihuahua, Laredo/Coahuila/Nuevo León/Tamaulipas, and Rio Grande Valley/Tamaulipas.

Starting near El Paso and continuing to the Gulf of Mexico, the Texas-Mexico border anchors a diverse cultural, economic, and natural region unlike any other in North America.

Along its course, the border traverses high desert, plains, and agricultural valleys to the confluence of the Rio Grande. It ties together binational communities—enabling the people of Texas and Mexico to access education, shopping, and family on either side of the border. The border is the most important international trade gateway in the hemisphere and facilitates local cross-border manufacturing, as well as distant supply chains reaching from Ontario to Oaxaca.

The common link that binds this region together is the infrastructure that supports the cross-border movement of people and goods.

International bridges in this region date back to the early 20th century and facilitate social, cultural, and economic relations between the two countries.

Today, there are 29 border crossings (34 including rail) along the Texas-Mexico border that serve as a major gateway for all modes of transportation.[2] Borderwide socioeconomic changes, along with overall United States and Mexico production and consumption patterns, all impact travel demand on the border crossings, multimodal corridors, and supporting facilities. The following sections illustrate these socioeconomic trends, followed by trade, infrastructure, and system performance from the past to present.

[1] Note that all current figures in this chapter are 2019 values unless otherwise noted. The BTMP analysis uses the baseline year of 2017 for technical analysis due to data availability along multiple metrics. This is supplemented with more current 2018–2019 data where available. This chapter provides summary-level information that is further described and represented in the technical documentation. Additionally, references to "borderwide" region along the Texas-Mexico border refers to the 60-mile region north and south of the Texas-Mexico border.

[2] The BTMP also assesses the Santa Teresa border crossing in New Mexico due to Santa Teresa being included in the El Paso Metropolitan Planning Organization (MPO) Metropolitan Area Boundary (MAB).

3.1 Population

The Texas-Mexico borderwide region experienced rapid growth, urbanization, and industrialization between 1990 and 2019, driven by high birth rates, migration, increased trade, and economic development. During this time:

- **Borderwide population increased 70 percent (3.1 million).** Mexico border municipios added 1.8 million people and Texas border counties added 1.2 million people.
- **Growth outpaced national trends on both sides.** U.S. total population grew by 32 percent and Mexico grew by 54 percent versus 70 percent growth in the borderwide region.
- **Approximately 7.4 million people live along the Texas-Mexico border as of 2019.** As of 2019, 3 million live on the U.S. side and 4.4 million live on the Mexico side.
- **Growth continues to add pressure on POE facilities and connecting transportation corridors.**

Figure 3.1-1. Texas-Mexico Borderwide Population[3]

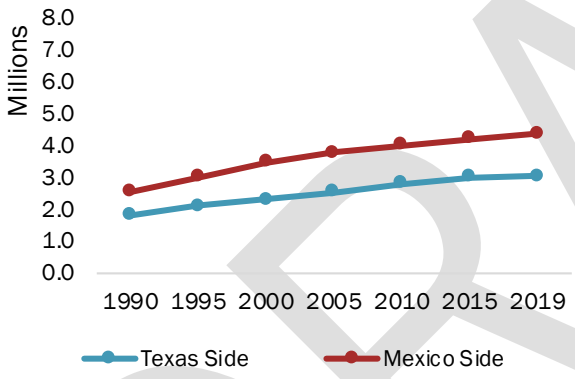
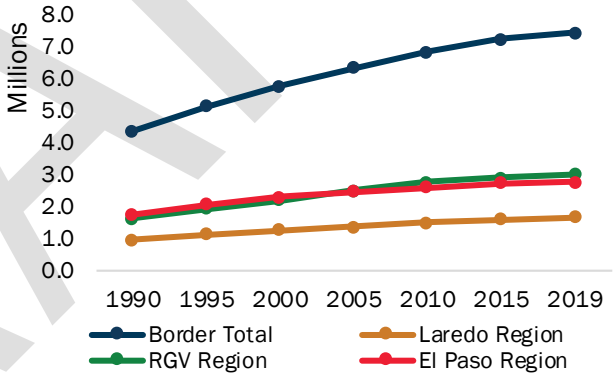
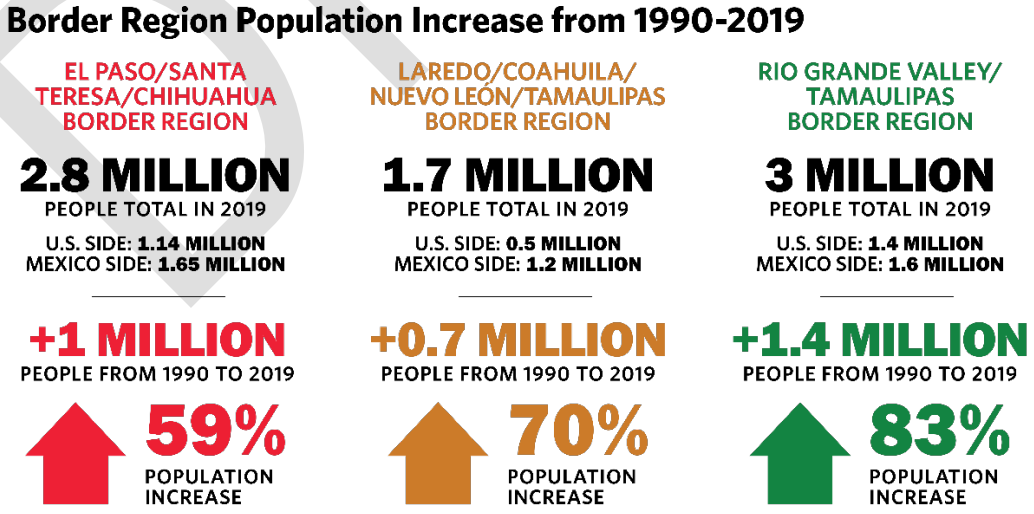


Figure 3.1-2. Texas-Mexico Borderwide Population by Region[4]





[3] U.S. Census Bureau (1990–2017), INEGI (1990–2017); Texas Demographic Center, 2018 Population Projections (2018–2019); CONAPO, Projections of the Population of the Municipalities of Mexico (2018–2019).

[4] U.S. Census Bureau (1990–2017), INEGI (1990–2017); Texas Demographic Center, 2018 Population Projections (2018–2019); CONAPO, Projections of the Population of the Municipalities of Mexico (2018–2019).

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3.2 Employment

Employment growth along the Texas-Mexico border outpaced U.S. and Mexico national growth rates between 1990 and 2019. During this time:

- NAFTA ratification led to increases in U.S. and Mexico consumption, production, and trade – and borderwide economic development to support the increased trade.
- Employment grew by 97 percent from 1.5 million in 1990 to 2.9 million in 2019.
- The Texas side grew 76 percent from 660,000 to 1.2 million, while the Mexico side grew 114 percent from 830,000 to 1.8 million during the same timeframe.

Figure 3.2-1. Texas-Mexico Borderwide Employment[5]

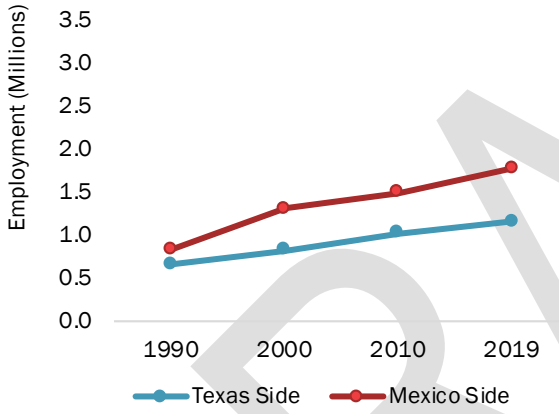
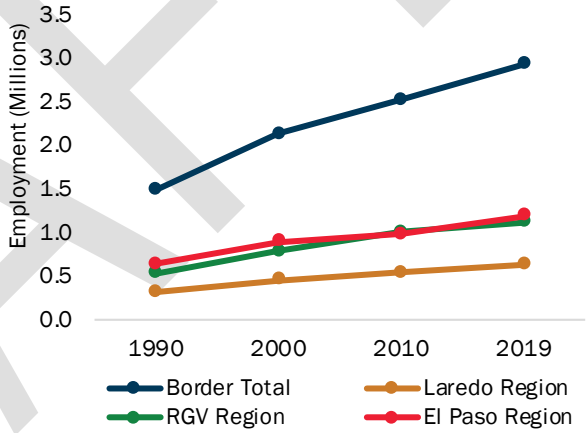
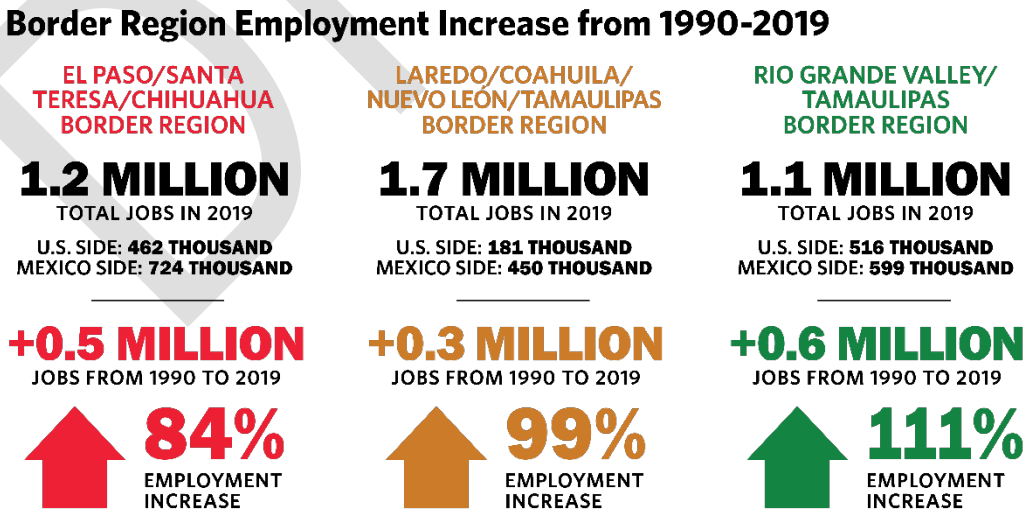


Figure 3.2-2. Texas-Mexico Borderwide Employment by Region[6]





[5] U.S. Census Bureau; INAFED (2015). Note: Texas employed defined as 16 years+, Mexico employed defined as 12 years+. 2019 interpolated from 2010–2015 annualized growth rate.

[6] U.S. Census Bureau; INAFED (2015). Note: Texas employed defined as 16 years+, Mexico employed defined as 12 years+. 2019 interpolated from 2010–2015 annualized growth rate.

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3.3 Income

Wage increases lifted more people out of poverty, attracted more residents, and fueled demand for people and goods movement across the border.[7]

- Incomes in Texas border counties increased 20 percent, outpacing U.S. national rate of 4 percent. Along the border, incomes rose from $33,457 in 1990 to $40,543 in 2018.
- Texas median household income increased in each border region – Laredo (36 percent), RGV (21 percent), and El Paso (16 percent) between 1990 and 2018.
- Incomes in Mexico border states also grew between 2010 and 2015, with all states experiencing higher earnings compared to minimum wage.
- People under the poverty line on the Texas side declined from 36 percent in 1990 to 23 percent in 2018. ¼ of Texas border households live in poverty compared to ⅕ nationally.

Figure 3.3-1. Texas Borderwide Median Household Income[8]

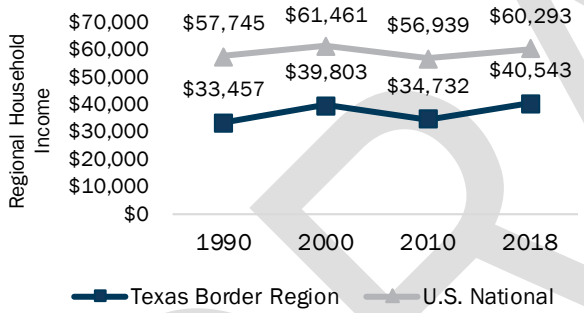


Figure 3.3-2. Texas Borderwide Median Household Income by Region[9]

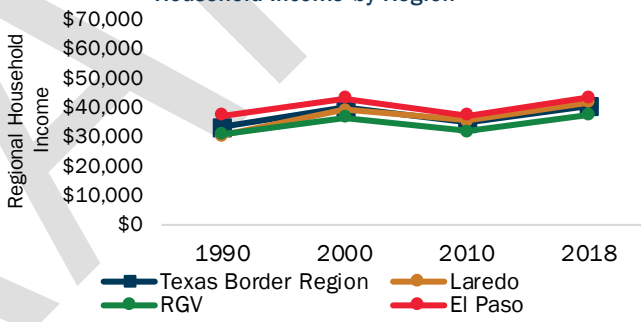
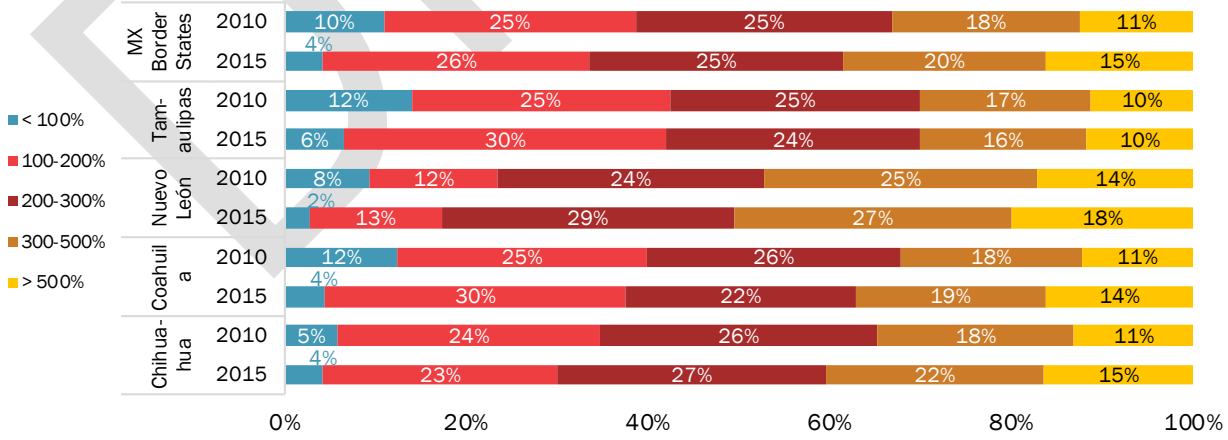


Figure 3.3-3. Mexico Border States Wage Distribution Against Minimum Wage[10]



[7] U.S. Census Bureau, Poverty and Median Income Estimates – Counties (1989–2018); U.S. Census Bureau, Population Estimates (1990–2018); CONEVAL (2010, 2015).

[8] U.S. Census Bureau; ACS Economic Characteristics Income and Families & Households data tools (1990–2018, in 2018 dollars). Data of HHI on the US-side of region includes Doña Ana County in New Mexico.

[9] U.S. Census Bureau; ACS Economic Characteristics Income and Families & Households data tools (1990–2018, in 2018 dollars). Data of HHI on the US-side of region includes Doña Ana County in New Mexico.

[10] INEGI (Anuario de Estadisticas por Entidad Federativa 2011), INEGI (Encuesta Intercensal 2015). Note for border region: in 2010 3.85% no income and 9.25% not specified; In 2015 1.09% no income and 9.98% not specified.

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3.4 Education

The Texas-Mexico border region is becoming more educated, signaling a strong workforce for border trade-dependent industries, pushing wage growth.

- Between 1990 and 2018, more people in the Laredo and Rio Grande Valley regions on the U.S. side graduated from high school (155 percent and 139 percent increase respectively), and the El Paso region saw increases in higher education attainment (127 percent).
- U.S. education trends are due to expansion of federal education programs, growth in enrollment in online courses, funding assistance from higher-education institutions, and workforce training programs.[11]
- Between 1990 and 2015, more Mexico border residents are completing primary, secondary, preparatory, and university education – almost tripling (189 percent) since 1990.
- Mexico educational advancements are in part due to Educación Media Superior Obligatoria 2012, making upper secondary education compulsory.[12]
- The number of Mexican students not completing secundaria decreased by over 69 percent in each region, while those completing secundaria rose in the Laredo (314 percent), RGV (279 percent), and El Paso (291 percent) regions.

Figure 3.4-1. Texas Border Counties Education Trends (1990–2018)[13]

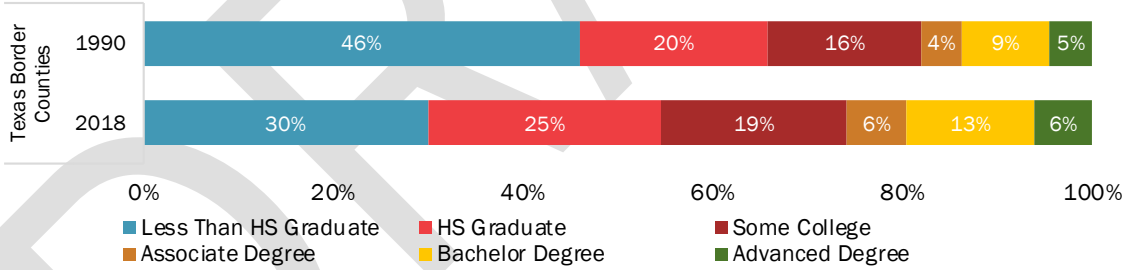
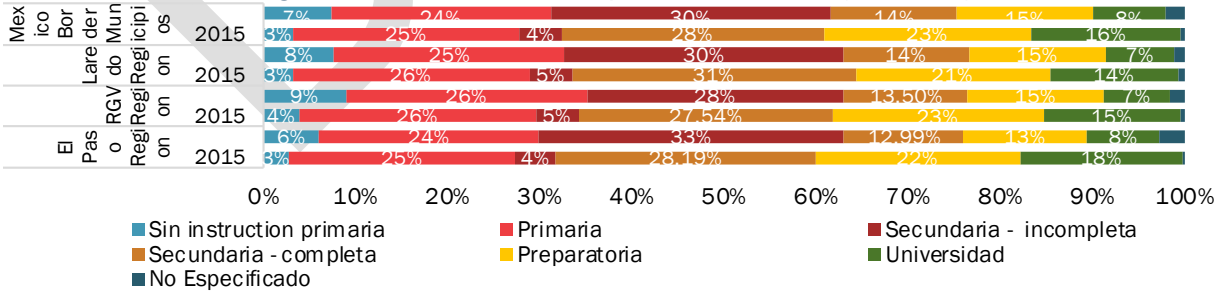


Figure 3.4-2 Mexico Border Municipios Education Trends (1990–2015)[14]



[11] https://www.ed.gov/news/press-releases/fact-sheet-focusing-higher-education-student-success; https://www.brookings.edu/blog/education-plus-development/2019/01/10/top-6-trends-in-higher-education/; https://raymarshallcenter.org/2017/02/17/growing-regional-opportunity-for-the-workforce-project-grow-final-evaluation-report/; http://ncee.org/wp-content/uploads/2011/08/Texas_Workforce.pdf; https://twc.texas.gov/files/businesses/office-employer-initiatives-program-overview-twc.pdf.

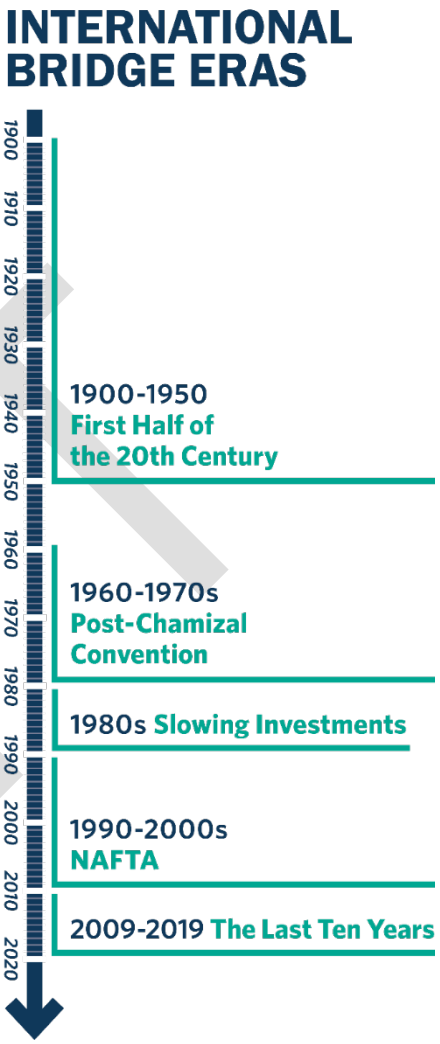
[12] OECD, Education Policy Outlook: Mexico 2018, www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Mexico-2018.pdf.

[13] U.S. Census Bureau (1990–2018). Note: Accounts for Population 25+.

[14] NEGI (1990–2015). Note: Accounts for Population 16+.

3.5 Texas-Mexico Border History

International bridge development began after the U.S.-Mexico Rio Grande Rectification Treaty of 1933. There are five distinct eras of border investments.



First Half of the 20th Century (1900–1950s)

- The International Boundary and Water Commission constructed the first bridges—Fort Hancock-El Porvenir and Ysleta-Zaragoza.
- Local municipalities purchased private bridges—Del Rio-Ciudad Acuña International and Eagle Pass in 1940s.
- In the 1950s, Weslaco-Progreso International Bridge was built, in addition to reconstruction of four pre-war bridges—B&M, Eagle Pass, Ysleta-Zaragoza, and Gateway to the Americas.
- Los Ebanos Ferry began operating in the 1950s.

Post-Chamizal Convention (1960–1970s)

- More border investments occurred between 1965 and 1979 following the resolution of U.S.-Mexico land disputes in the Chamizal Convention.
- In the 1960s, seven new crossings were constructed—Falcon Dam, McAllen-Hidalgo International, Rio Grande City-Camargo, Bridge of the Americas, Good Neighbor, Paso del Norte, and Amistad Dam.
- In the 1970s, three new crossings were constructed—Gateway International, Juárez-Lincoln, and Roma-Ciudad Miguel Alemán.
- Border facility investments began, allowing the U.S. Customs Service and other federal inspection agency stations to control entry into and out of the U.S.

Slowing Investments (1980s)

- Border crossing investment declined due to the U.S. recession and the Mexico debt crisis.
- In the 1980s, Presidio Bridge was the only one constructed. Three bridges were also improved—Eagle Pass, Del Río-Ciudad Acuña, and McAllen-Hidalgo International.

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North American Free Trade Agreement (NAFTA) (1990–2000s)

- Just prior to NAFTA's ratification, three bridge crossings were added—Laredo-Colombia Solidarity, Santa Teresa, and Free Trade.
- After NAFTA was signed, four additional new bridge crossings completed construction—Pharr-Reynosa International, Camino Real International, Veterans International, and World Trade.
- During these decades, Ysleta-Zaragoza was again reconstructed, and investments were made to improve three bridges—Bridge of the America, Weslaco-Progreso International, and Good Neighbor.
- Following the events of 9/11, the U.S. Customs Service was transformed into U.S. Customs and Border Protection, increasing border security.

The Last Ten Years (2009–2019)

- Since the Great Recession of 2008–2009, the Texas-Mexico border added three new non-commercial traffic crossings—Anzaldúas, Donna, and Tornillo-Guadalupe International Bridges.
- In 2015, the Brownsville West Rail Bridge was constructed—the first new rail crossing built across the Rio Grande River in over 100 years.
- During this decade, the Free Trade, Veterans International, and Presidio Bridges were expanded.
- However, the Laredo/Coahuila/Nuevo León/Tamaulipas Region has not seen a new crossing or improvements in existing crossings since 2000 and 1987, respectively.

Although trade is growing, border crossing investments have not kept pace.

- The passage of NAFTA more than tripled cross-border trade up to present day, but only 10 bridge crossings along the Texas-Mexico border were built or improved upon since 1994.
- September 11th fundamentally altered border security and operating procedures, but only three crossings were designed and built with those enhanced screening procedures in mind.
- Only one-third of border facilities constructed since 1980 have seen additional investment.
- The U.S.-Mexico-Canada Agreement (USMCA) and continued population growth places additional pressure on the border.

Table 3.5-1. Number of Border Crossings on the Texas-Mexico Border by Investment Type Since Various External Events (Cumulative)

External Event (All Investments Since)	New Construction	Reconstruction/ Replacement	Expansion
World War II	24	10	8
Chamizal Land Dispute Resolution (1964)	21	6	8
NAFTA (1990)	10	4	6
9/11 (2001)	3	2	5
Great Recession (2009)	3	1	4
COVID-19 (2020)	–	–	–

Table 3.5-2. Number of Border Facilities on the Texas-Mexico Border by Investment Type Since Various External Events (Cumulative)

External Event (All Investments Since)	New Construction	Reconstruction/ Replacement	Expansion/ Rehabilitation
World War II	28	6	12
Chamizal Land Dispute Resolution (1964)	24	6	12
NAFTA (1990)	13	6	12
9/11 (2001)	3	4	9
Great Recession (2009)	3	3	9
COVID-19 (2020)	–	–	–

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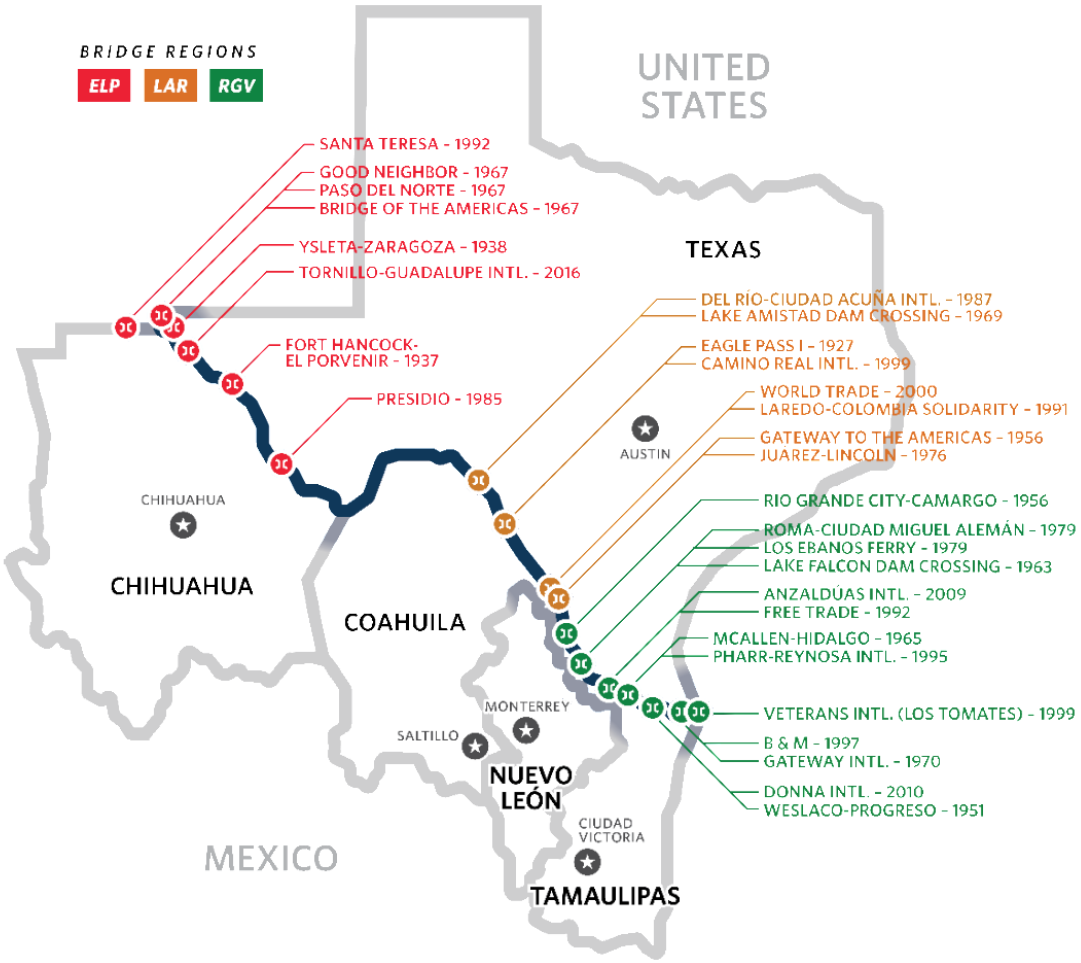
Many border crossings were constructed, reconstructed, or expanded over time. The map below provides the last year of investment for each of the 29 border crossings.



The next section provides an overview of Texas-Mexico cross-border trade, followed by binational and multimodal infrastructure system—including roadway, freight rail, aviation, pipeline, and maritime systems.

3.6 Binational and Multimodal Trade Overview

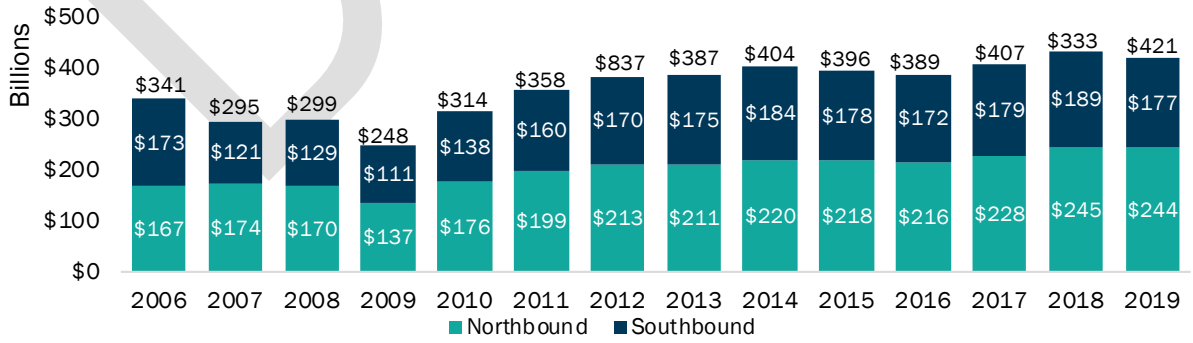
The Texas-Mexico border sustains North American goods movement touching all 50 U.S. states, Mexico states, Canadian provinces and international origins and destinations across the globe.

- **Since the ratification of NAFTA, trade across the Texas-Mexico border more than tripled, growing from $111 billion in 1994 to $421 billion in 2019.** During this time, the value of northbound flows increased faster than the value of southbound flows.
- **Between 1994 and 2019, cross-border truck trade increased by 226 percent and cross-border rail trade increased by 400 percent.** By truck, trade grew from $95 billion to $310 billion. Rail movements grew from $15 billion to $75 billion.
- **A majority of U.S.-Mexico trade is handled by the Texas-Mexico border.** Approximately 76 percent of U.S.-Mexico truck and rail trade were processed at a Texas POE in 2019.
- **The continued growth in trade strains the throughput capacity of border infrastructure.**

This section illustrates the total increase in the value of trade (**Figure 3.6-1**); trends in northbound and southbound trade (**Figure 3.6-2**); supply chain values for 1994 (**Figure 3.6-3**) and 2019 (**Figure 3.6-4**) cross-border trade connections to Texas counties (**Figure 3.6-5**), and to U.S. and Mexican states (**Figure 3.6-6**).

Figure 3.6-1. Value of Trade 1994–2019 (in 2019 dollars)[15]

Figure 3.6-2. Texas-Mexico Cross-border Trade by Value and Flow[16]



[15] U.S. Census Trade in Goods with Mexico 1994 and 2019, U.S. Census State Exports from Texas and State Imports to Texas 2019, BTS Historical Raw Data by Month 1994, and BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.

[16] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.

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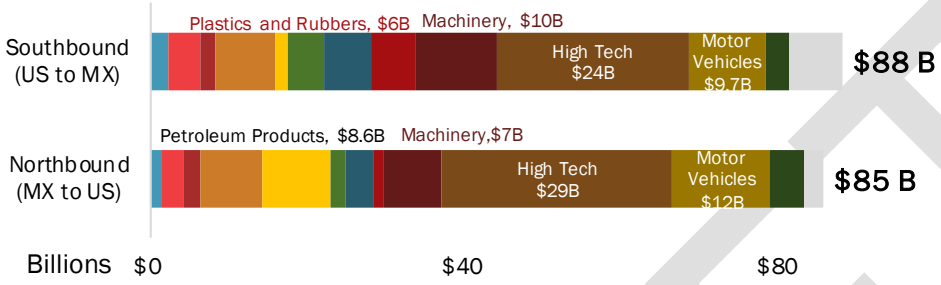
Cross-border supply chains support critical industries in the U.S. and Mexico and form the foundation of multimodal, binational trade. Motor Vehicles, High Tech, and Machinery are the top three supply chains by value from 1994 through 2019.

Figure 3.6-3. 1994 U.S.-Mexico Trade: Supply Chain Trade (Billions of Dollars)[17]



AGRICULTURAL AND NON-DURABLE GOODS

- Animal Products
- Fruits, Vegetables, and Grains
- Foodstuffs
- Textiles

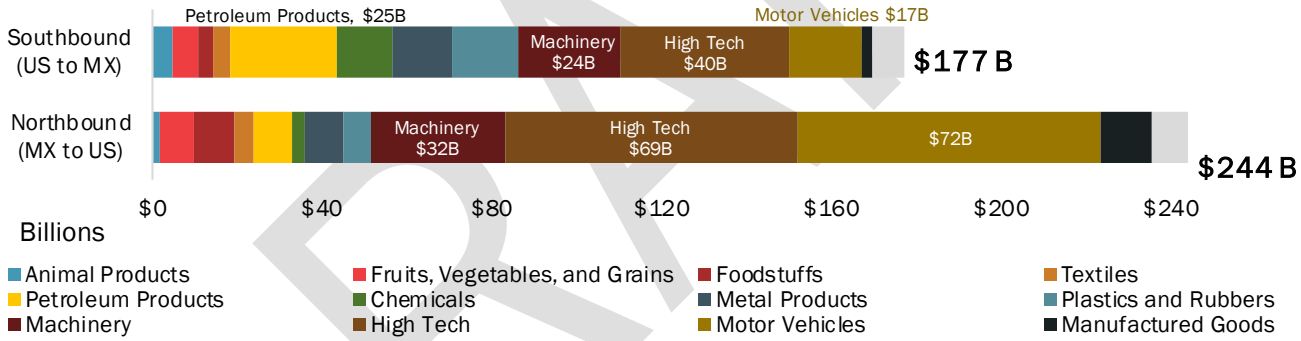
INDUSTRIAL PRODUCTS

- Petroleum Products
- Chemicals
- Metal Products
- Plastics and Rubber

DURABLE GOODS

- Machinery
- Motor Vehicles
- High Technology
- Manufactured Goods

Figure 3.6-4. 2019 Texas-Mexico Border: Supply Chain Trade (Billions of Dollars)[18]



Industries in all Texas counties rely on cross-border trade—from high tech industries in north and central Texas, diversified agriculture in the Panhandle, food processing in east Texas, and petroleum and manufacturing in west Texas.

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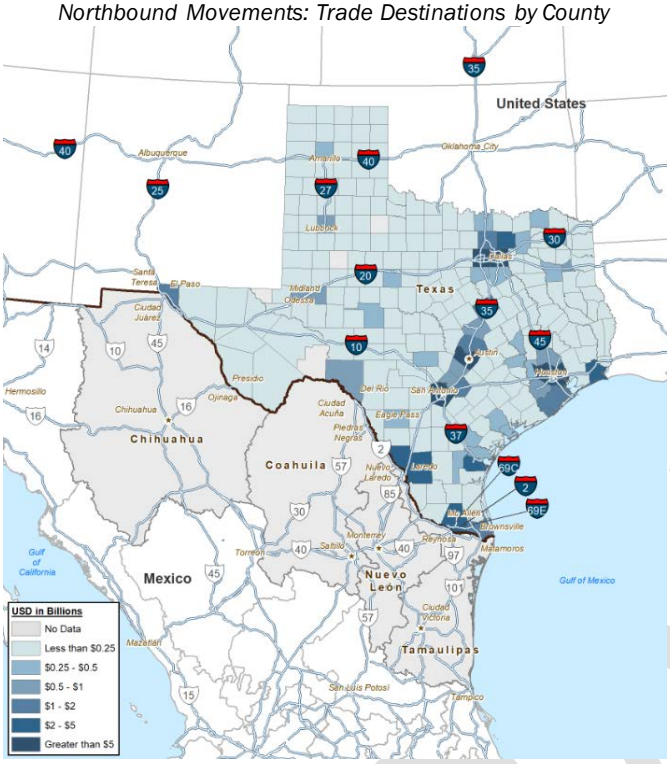
[17] U.N. Comtrade (1994), U.S. Census Bureau Trade Data (Trade Data Online). Values in 2019 dollars. Gray color for "Other".

[18] U.S. Census Bureau Trade Data (Trade Data Online), Freight Analysis Framework (FAF), and Bureau of Transportation Statistics Trans-Border Freight Data—all for 2019. Gray color for "Other".

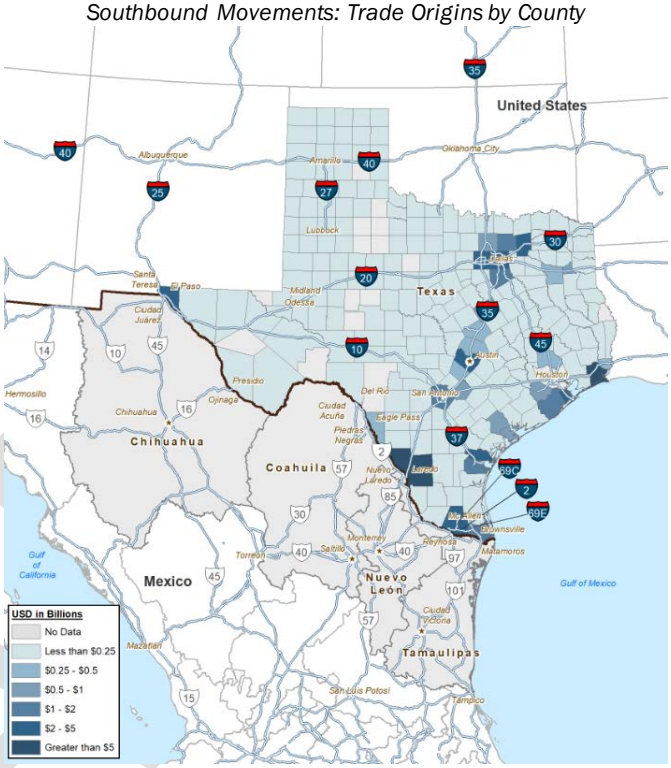
Figure 3.6-5 provides the amount of trade by each Texas county through the Texas-Mexico border.

Figure 3.6-5. Value of Cross-border Trade by Texas Counties Origin and Destination[19]

Northbound Movements: Trade Destinations by County



Southbound Movements: Trade Origins by County



Border trade touches every U.S. and Mexican state. It enables cross-border, bidirectional automotive supply chains to function seamlessly between Puebla and Michigan; it facilitates the movement of southbound Nebraska grain by unit train to breweries in Jalisco (and northbound refrigerated trucks carrying beer north); it allows consumers across the U.S. to buy fresh avocados from Michoacán; and for manufacturers in Nuevo León to procure industrial machinery built in Ohio.

Figure 3.6-6 illustrates the amount of trade by each state through the Texas-Mexico border. The darker shading indicates higher amounts of trade in each direction (northbound and southbound).

[19] U.S. Census Trade Data Online 2019 and Transearch. Approximation for Texas counties based on Transearch 2015 proportions.

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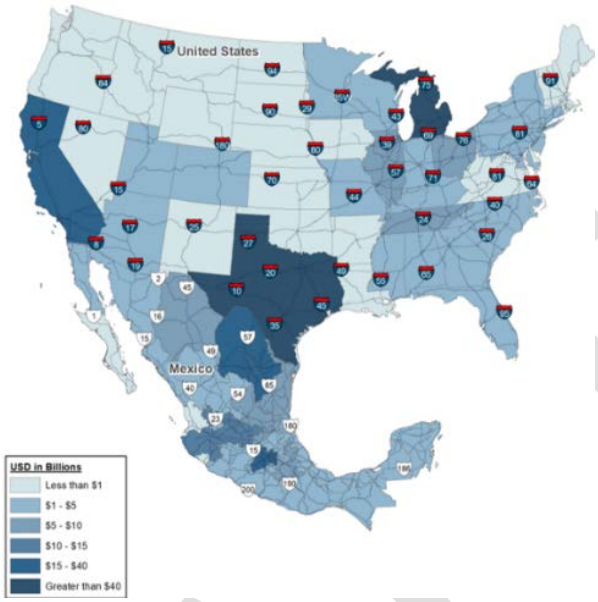
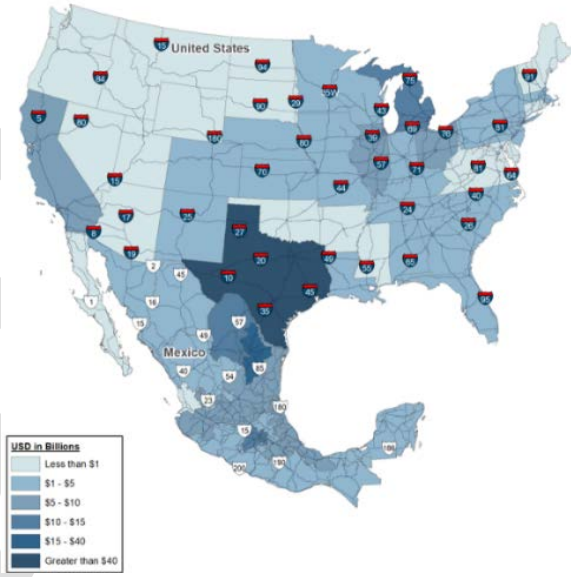
Figure 3.6-6. Value of Cross-border Trade by State of Origin and Destination[20]

Northbound Movements: Origins (MX) and Destinations (US)



Southbound Movements: Origins (US) and Destinations (MX)



A vast and binational multimodal infrastructure system supports integrated supply chains between the border crossings and local, regional, national and international destinations across North America and the world.

U.S.-Mexico trade through Texas ports of entry (POEs) occurs not only through truck and rail at land border crossings, but also through maritime, aviation, and pipeline. Together, these systems link local and global supply chains to consumers and manufacturers in the border region and across North America. The following sections provide profiles of each mode.

[20] U.S. Census Trade Data Online 2017, BTS Transborder Freight Data, Freight Analysis Framework v4, and Transearch.

3.7 Highway and Roadway Network

The highway system is the primary conduit for people and goods movement. Along the Texas-Mexico border, the highway network facilitates daily life for millions of residents and sustains local and global trade.

The Texas-Mexico borderwide region is served by a network of 30,200 lane miles. This includes interstates and freeways, rural and urban highways, arterials, and collector streets.

Border crossings underpin the regional economy. From daily commuting to work or school, short-distance trucking for long-haul trailers, and last-mile access to major warehouses, distribution centers, manufacturing facilities, and cross-docking, border crossings are key.

The highway and roadway system connects the "interior" with the "frontera" and beyond. On both sides of the border, the system carries out the vital function of enabling short- and long-distance goods and travelers to reach an expansive range of destinations.

The system is about three times denser on the Texas side of the border than in Mexico.

The highway and roadway system has struggled to evolve with changing needs, and system capacity has not kept pace with growth in demand.

Figure 3.7-1. Existing U.S. and Mexico Highway Network

3.7.1 Roadway Capacity

Between 2006 and 2018, roadway capacity in Texas border counties increased 14 percent from 25,891 lane miles to 29,951 lane miles.

- The Laredo region experienced the most growth in lane miles (48 percent).
- The El Paso region's lane miles grew by 37 percent during this period.
- The RGV region, which has the highest number of lane miles, saw a 26 percent increase.

Figure 3.7-2. Texas Borderwide Lane Miles by Functional Class[21]

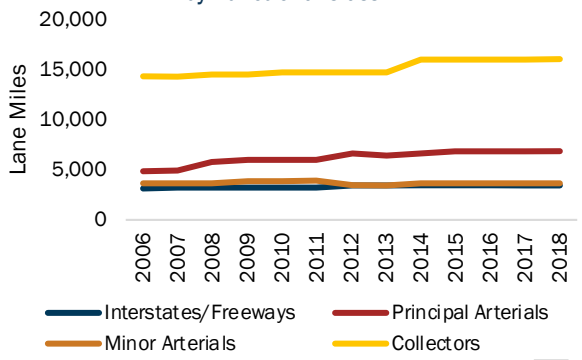
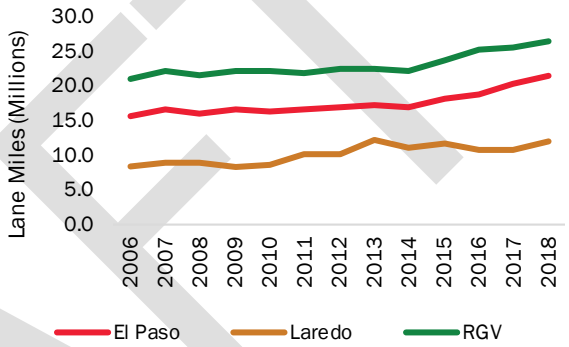


Figure 3.7-3. Texas Borderwide Lane Miles by Region[22]



3.7.2 Vehicle-miles Traveled

Between 2005 and 2018, passenger vehicle-miles traveled (VMT) in Texas border counties increased by 35 percent—growing twice as fast as capacity improvements.

- The Laredo region experienced the most growth in passenger VMT (44 percent).
- The El Paso region's passenger VMT grew by 38 percent during the same time.
- The RGV region experienced steady growth in passenger VMT of 29 percent.

Figure 3.7-4. Texas Borderwide Daily Passenger Vehicle-miles Traveled[23]

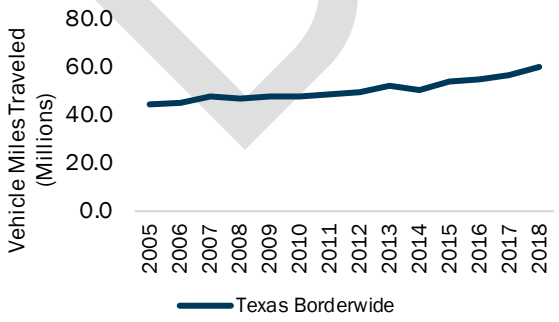
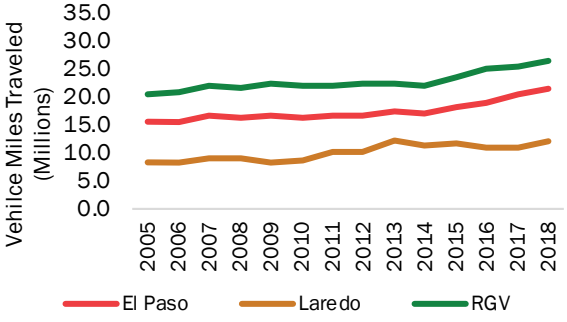


Figure 3.7-5. Texas Borderwide Daily Passenger Vehicle-miles Traveled by Region[24]



[21] TxDOT Roadway Inventory (2006–2018).
[22] TxDOT Roadway Inventory (2006–2018).
[23] TxDOT Roadway Inventory Data (2005–2018).
[24] TxDOT Roadway Inventory Data (2005–2018).

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Between 2005 and 2018, commercial VMT in the Texas borderwide region increased 17 percent.

- The Laredo region experienced the most growth in commercial VMT (51 percent).
- The El Paso region saw growth of 18 percent in commercial VMT.
- The RGV region's commercial VMT experienced an uptick starting in 2016.

Figure 3.7-6. Texas Borderwide Daily Commercial Vehicle-miles Traveled[25]

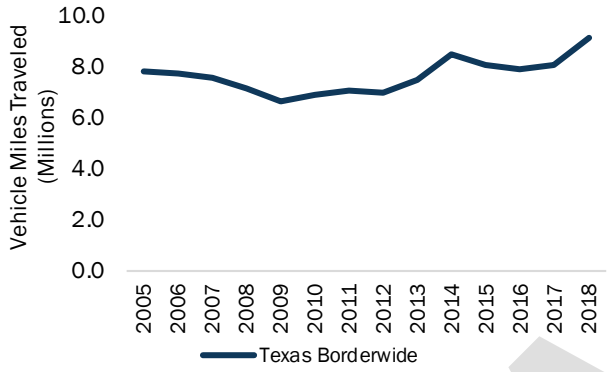
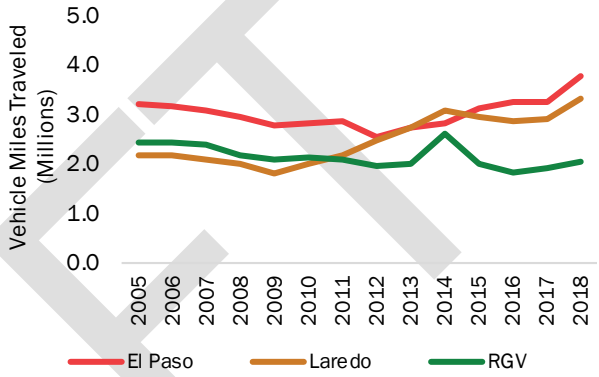


Figure 3.7-7. Texas Borderwide Daily Commercial Vehicle-miles Traveled by Region[26]



3.7.3 Cross-border Truck Trade

Between 2006 and 2019, Texas-Mexico border trade by truck rose 52 percent from $204 billion to $310 billion.

- Cross-border truck trade increased across all regions—Laredo (79 percent), El Paso (72 percent), and RGV (21 percent)—between 2006 and 2019.

Figure 3.7-8. Texas-Mexico Cross-border Truck Trade Value[27]

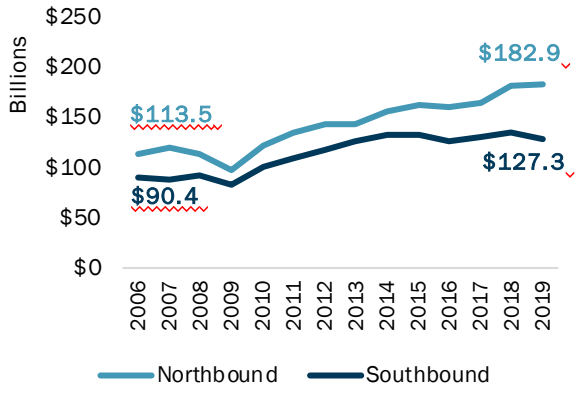
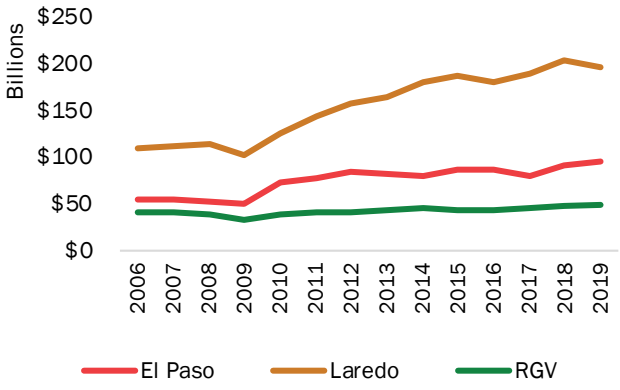


Figure 3.7-9. Texas-Mexico Cross-border Truck Trade Value by Region[28]



[25] TxDOT Roadway Inventory Data (2005–2018).
[26] TxDOT Roadway Inventory Data (2005–2018).
[27] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.
[28] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.

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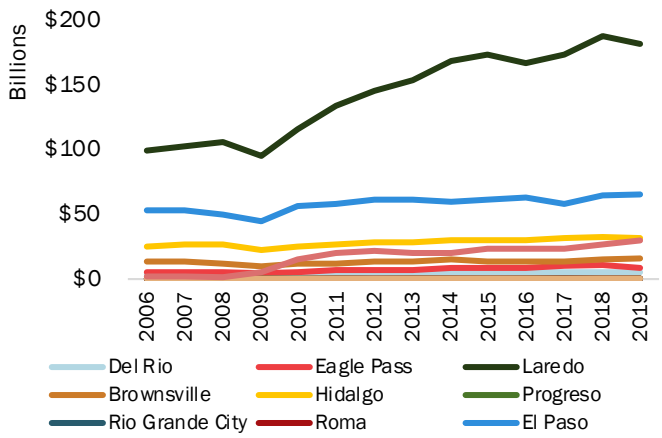
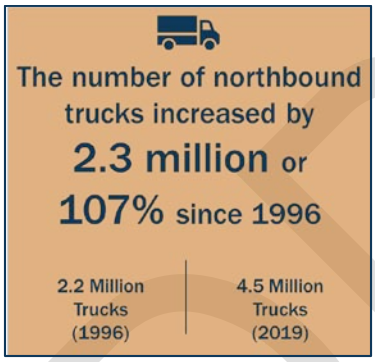
Figure 3.7-10. Texas-Mexico Cross-border Truck Trade Value by POE[29]



- Between 2006 and 2019, truck trade value increased at all but three POEs along the border.
- Truck trade value grew by $82.6 billion (83 percent) at the Laredo POE during this period.
- In the El Paso region, trade value at Santa Teresa POE grew twenty-fold.
- In the RGV region, Hidalgo POE grew the most in value ($7 billion) and Progreso POE grew the fastest (33 percent).

3.7.4 Northbound Trucks

Between 1996 and 2019, the number of trucks crossing the border more than doubled, growing by 107 percent. A total of 14 border crossings accommodate trucks.



- In the Laredo region, the number of truck crossings in the region increased by 135 percent between 1996 and 2019. The Laredo POE facilitates the most northbound trucks crossing the border.
- The RGV region saw 117 percent growth in northbound trucks, with Hidalgo POE (215 percent) growing the fastest.
- The El Paso region's northbound truck crossings rose by 43 percent, led by the Presidio POE (229 percent).

[29] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.

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Figure 3.7-11. Texas-Mexico Borderwide Northbound Trucks[30]

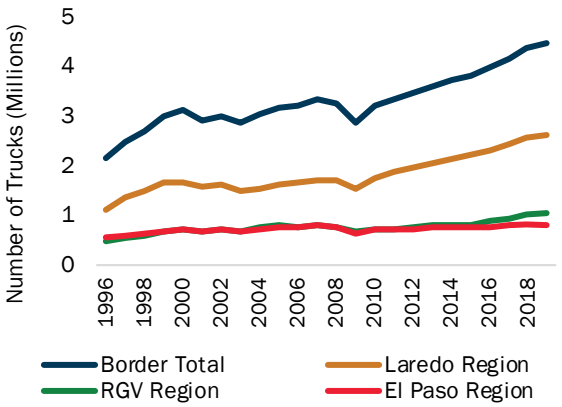
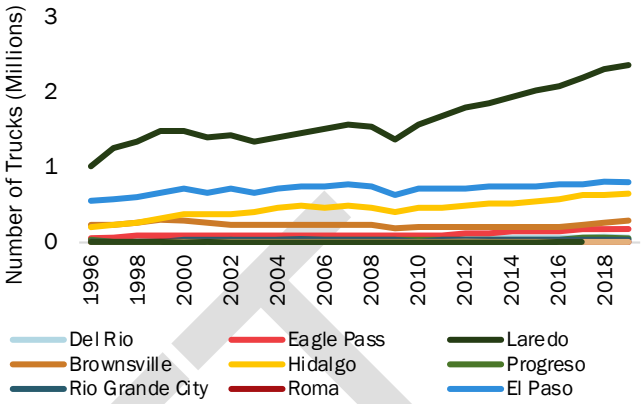


Figure 3.7-12. Texas-Mexico Northbound Trucks by POE[31]



The next section depicts northbound movements of people supported by highways and roadways.

3.7.5 Northbound Movements of People

Between 1996 and 2019, Texas-Mexico northbound movements of people by land POEs decreased by 3.8 percent.

- Millions of people cross the Texas-Mexico border annually, connecting the binational economies along the border and to points across the U.S., Mexico, and Canada.
- Between 1996 and 2019, northbound personal vehicles (–24 percent) and buses (–3 percent) crossing the border declined, while bicycles/pedestrians (17 percent) increased.
- Personal vehicle (62 percent) usage still accounts for the highest share of people moving northbound across the border, followed by bicycles/pedestrians (38 percent).

Figure 3.7-13. Texas-Mexico Borderwide Cross-border Movement of People Northbound

Mode	Borderwide Modal Share	Borderwide Change Since 1996
90,085 Buses 1,738,306 Passengers	0.2%	- 3%
19,876,063 Bicycles/Pedestrians	38.1%	17%
32,207,338 Cars 63,173,906 Passengers	61.7%	- 24%

[30] BTS Border Entry Data, 1996–2019.
[31] BTS Border Entry Data, 1996–2019.

3.7.6 Personal Vehicles

Although the population along the border grew by 70 percent between 1996 and 2019, northbound personal vehicles declined 24 percent across the border.

- Out of the 29 Texas-Mexico border crossings, 28 facilitate personal vehicles.
- The number of northbound personal vehicle crossings declined at all but three POEs but increased since 2011. El Paso, Laredo, and Brownsville POEs together handle over 20 million personal crossings, as of 2019.
- Long wait times drive down cross-border passenger vehicle movement.[32]
- Improved retail in Mexico and e-commerce also drive down cross-border trips.[33]
- High northbound crossing times also impact southbound crossing frequency. Perceived security concerns also diminish the desire or ability of people to travel to Mexico.[34]

Figure 3.7-14. Texas-Mexico Borderwide Northbound Personal Vehicles[35]

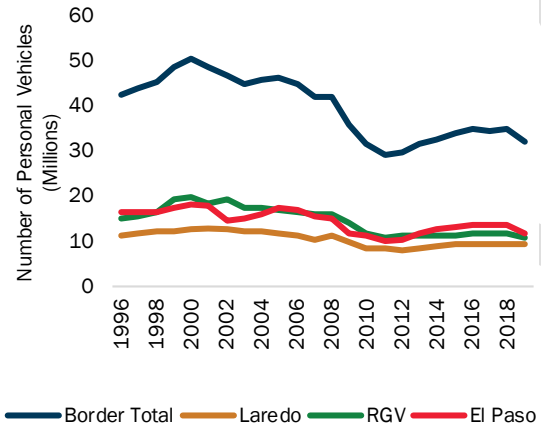
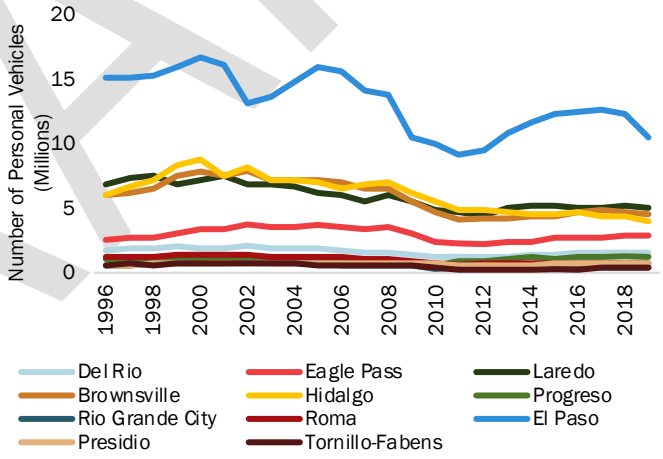


Figure 3.7-15. Texas-Mexico Northbound Personal Vehicles by POE[36]



[32] Stakeholder Consultation, Progreso International Bridge, March 11, 2020; Stakeholder Consultation, Acuña, March 10, 2020; Stakeholder Consultation, U.S. Customs and Border Protection; Stakeholder Consultation, Del Rio Economic Development Corporation Board, March 3, 2020.
[33] Stakeholder Consultation, U.S. Customs and Border Protection; Stakeholder Consultation, Del Rio Economic Development Corporation Board, March 3, 2020.
[34] Stakeholder Consultation, Laredo Economic Development Corporation, February 27, 2020; Stakeholder Consultation, City of Del Rio, February 26, 2020; Stakeholder Consultation, B&M Bridge Company, March 9, 2020.
[35] BTS Border Entry Data, 1996–2019
[36] BTS Border Entry Data, 1996–2019

DRAFT

3.7.7 Bike and Pedestrians

Northbound bike/pedestrian movements increased by 17 percent from 1996–2019.

- Out of the 29 Texas-Mexico border crossings, 23 facilitate bike/pedestrian crossings.
- Across the entire border region, northbound bike and pedestrian movements increased between 1996 and 2002, but have since then decreased to levels similar to the late 1990s.
- Between 1996 and 2019, northbound bike and pedestrian movements increased in the Laredo (10 percent) and El Paso (80 percent) regions, but decreased in the RGV region (–13 percent).
- More passengers are opting to bike or walk as personal vehicle wait times increase.[39]

Figure 3.7-16. Texas-Mexico Borderwide Northbound Pedestrians[37]

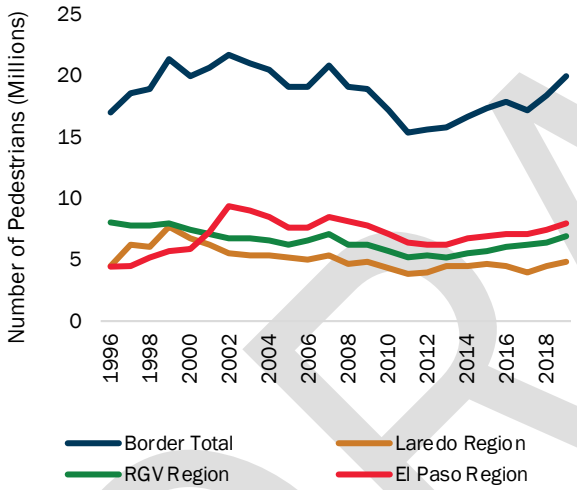
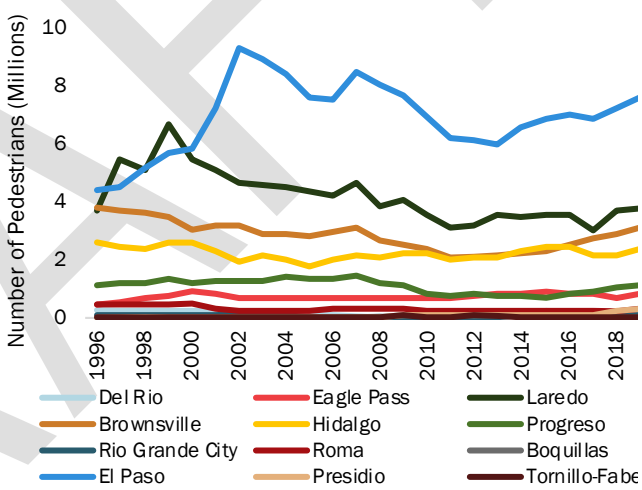


Figure 3.7-17. Texas-Mexico Northbound Pedestrians by POE[38]



3.7.8 Buses

The number of northbound cross-border buses increased by 3 percent between 1996 and 2019, with periods of sharp increases and decreases.

- Northbound buses crossing the border increased in the El Paso (259 percent) and Laredo (13 percent) regions, but declined in the RGV region (–45 percent).
- Trends in bus passengers varied across POEs, with most POEs seeing a decline in bus crossings, but a few—Laredo, Brownsville, El Paso, and Presidio—experienced increases.

[37] BTS Border Entry Data, 1996–2019.
[38] BTS Border Entry Data, 1996–2019.
[39] Stakeholder Consultation, Progreso International Bridge, March 11, 2020; Stakeholder Consultation, B&M Bridge Company, March 9, 2020; Stakeholder Consultation, City of Del Rio, February 26, 2020.

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Figure 3.7-18. Texas-Mexico Borderwide Northbound Buses[40]

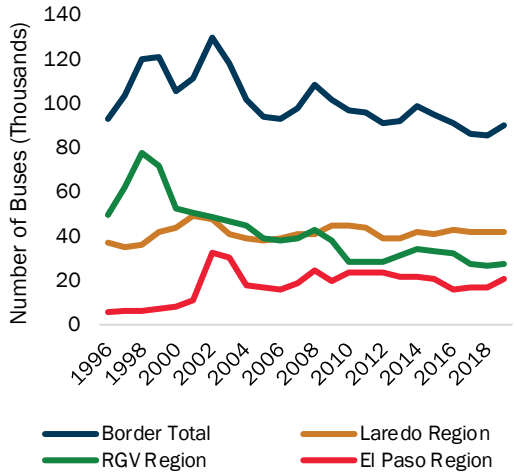
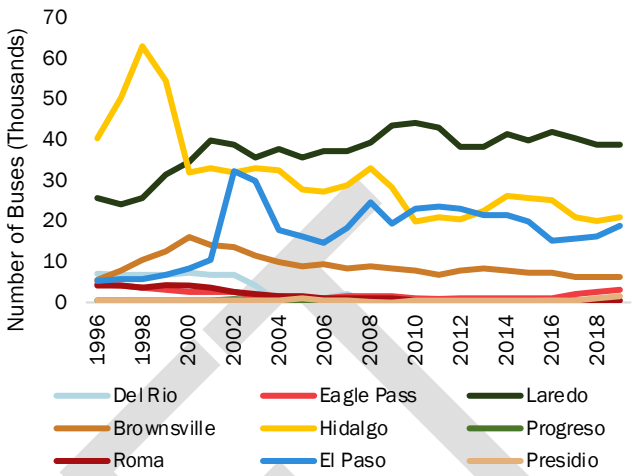


Figure 3.7-19. Texas-Mexico Northbound Buses by POE[41]



3.7.9 Summary

The highway and roadway network and 29 border crossings support the movement of people and goods—including buses, bicycles, pedestrians, personal vehicles, and commercial vehicles. The Texas-Mexico border handled over 80 million people and 4.5 million trucks northbound in 2019 and the highway and roadway network is a critical component to facilitating the safe, efficient, and reliable movement of people and goods. The next sections illustrate the other Texas-Mexico modes of transportation.

DRAFT

[40] BTS Border Entry Data, 1996–2019.
[41] BTS Border Entry Data, 1996–2019.

3.8 Freight Rail Network

In 2015, the West Rail Bridge in Brownsville became the first rail bridge built in more than 100 years across the U.S.-Mexico border.

- **Five rail crossings along the Texas-Mexico border facilitate trade through North America.**
- **Intermodal rail yards in El Paso, Laredo, and Brownsville support multimodal freight movements. No intermodal facilities are available in northern Mexico.**
- **Unified cargo processing in Laredo creates efficiency in cross-border rail trade.**
- **From 2003 to 2020, Texas-Mexico border counties and municipios experienced a 28 percent increase in rail track miles.** The RGV region experienced the highest growth of 102 percent, followed by Laredo region at 59 percent, and the El Paso region at 32 percent growth.
- **The Texas-Mexico border trade by rail rose 59 percent between 2006 and 2019, driven mainly by northbound increases.** This includes a northbound increase of 81 percent, and a southbound increase of 30 percent in the same time period.
- **Between 1996 and 2019, northbound railcars increased 305 percent, from 251,769 to 1,020,921 railcars.** The El Paso region saw a 415 percent increase in railcars, followed by 351 percent in the Laredo region and 95 percent in the RGV region.

Figure 3.8-1. Texas-Mexico Borderwide Rail Track Miles by Region[42]

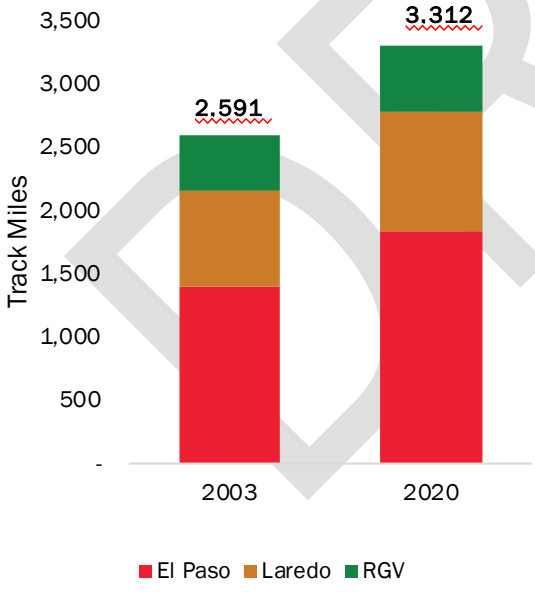


Figure 3.8-2. Texas-Mexico Rail Network

[42] Calculations from Archived Oak Ridge National Laboratory 2003 GIS Layers, BTS 2020 GIS Layers.

3.8.1 Cross-border Rail Trade

Between 2006 and 2019, Texas-Mexico rail trade rose by 59 percent. Northbound movements increased by 81 percent and southbound trade increased 30 percent.

- Rail trade value across the Laredo POE increased by 38 percent between 2006 and 2019, despite a 41 percent decrease after the Great Recession in 2009.
- Meanwhile, at the Eagle Pass POE, the value of cross-border rail trade grew by 154 percent.
- Brownsville POE saw a 39 percent decrease in cross-border rail trade value during this period.
- Eagle Pass POE rail trade value increased, by 63 percent.

Figure 3.8-3. Texas-Mexico Cross-border Rail Trade Value[43]

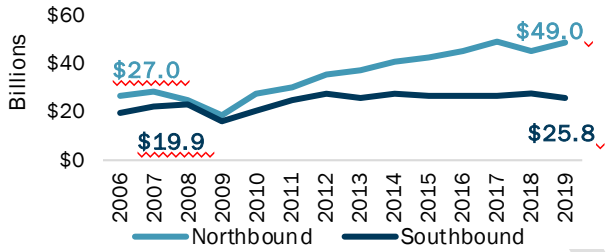
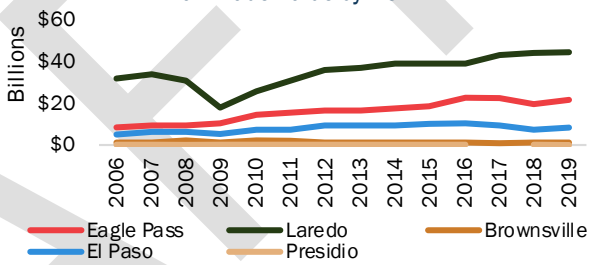


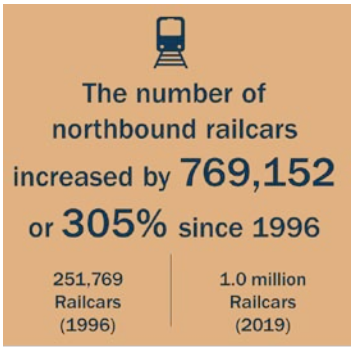
Figure 3.8-4. Texas-Mexico Cross-border Rail Trade Value by POE[44]



3.8.2 Northbound Rail Cars

Between 1996 and 2019, northbound rail cars from Mexico to Texas increased by 305 percent from 251,769 to 1,020,921 railcars.

- In the Laredo region, the number of northbound rail cars increased by 351 percent between 1996 and 2019. The Laredo POE facilitates the most northbound rail cars crossing the border.
- Brownsville POE experienced 95 percent growth in northbound rail cars.
- The El Paso region's northbound rail car crossings rose by 415 percent.



[43] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars. Note: BTS Transborder data manually corrected, which was showing rail values for Del Rio, Hidalgo, Progreso, Rio Grande City, Roma, Fabens, Presidio, and Santa Teresa POEs.

[44] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars. Note: BTS Transborder data manually corrected, which was showing rail values for Del Rio, Hidalgo, Progreso, Rio Grande City, Roma, Fabens, Presidio, and Santa Teresa POEs.

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Figure 3.8-5. Texas-Mexico Borderwide Northbound Rail Cars[45]

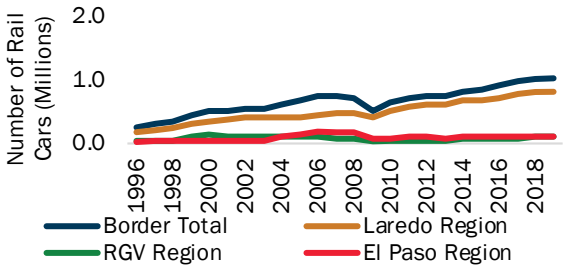
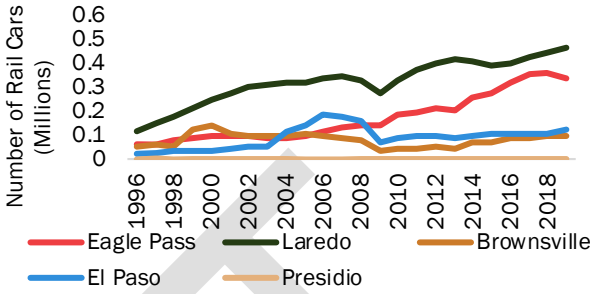


Figure 3.8-6. Texas-Mexico Northbound Rail Cars by POE[46]



3.9 Aviation System

- **Fifteen airports in Texas have regularly scheduled flights to 31 airports throughout Mexico.** The aviation system enables business and personal travel and cargo movement on numerous U.S. and Mexican carriers.
- **Texas-Mexico passenger air travel rose faster than air cargo between 1990 and 2019.** During this time, Texas-Mexico passenger air travel rose 123 percent while air cargo rose only 9 percent.

Figure 3.9-1. Existing Texas and Mexico Aviation System

[45] BTS Border Entry Data, 1996–2019.
[46] BTS Border Entry Data, 1996–2019.

Figure 3.9-2. Texas-Mexico Passenger Aviation Travel Patterns[47]

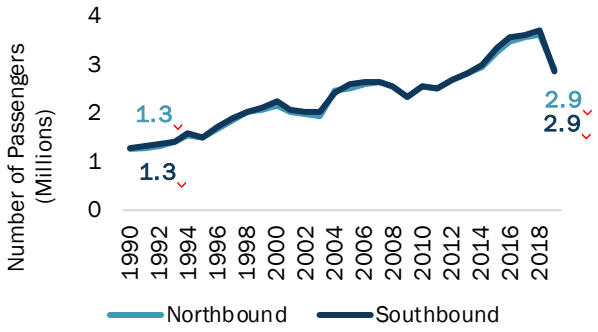


Figure 3.9-3 Texas-Mexico Cross-border Aviation Trade Value[48]

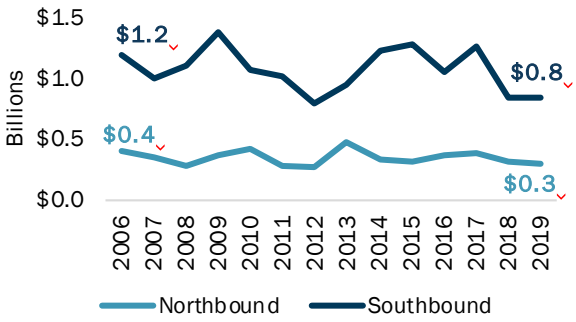
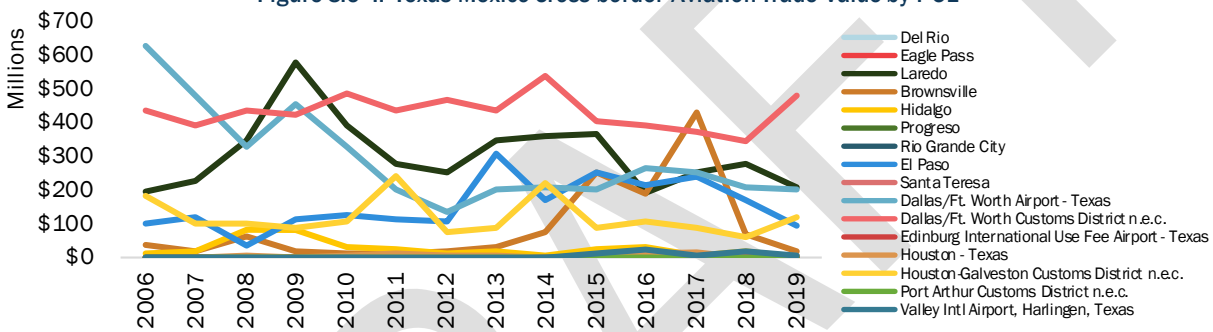


Figure 3.9-4. Texas-Mexico Cross-border Aviation Trade Value by POE[49]



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[47] Source: USDOT BTS, Air Carrier Statistics (1990–2019)
[48] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.
[49] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.

3.10 Pipeline Network

- The pipeline network across the Texas-Mexico border is predominantly used for outflows to Mexico.
- Thirteen import and export pipeline terminals exist along the border and are most concentrated along the Gulf of Mexico near seaports.
- There are 5,500 pipeline miles in the Texas-Mexico borderwide region, including 4,000 miles of natural gas pipelines, 400 miles of crude oil pipelines, and 1,100 miles of other pipelines.
- The Texas-Mexico border trade by pipeline rose 400 percent between 2006 and 2019, driven by southbound increases. This includes a northbound increase of 422 percent and a southbound increase of 67 percent.

Figure 3.10-1. Existing Texas and Mexico Pipeline Network

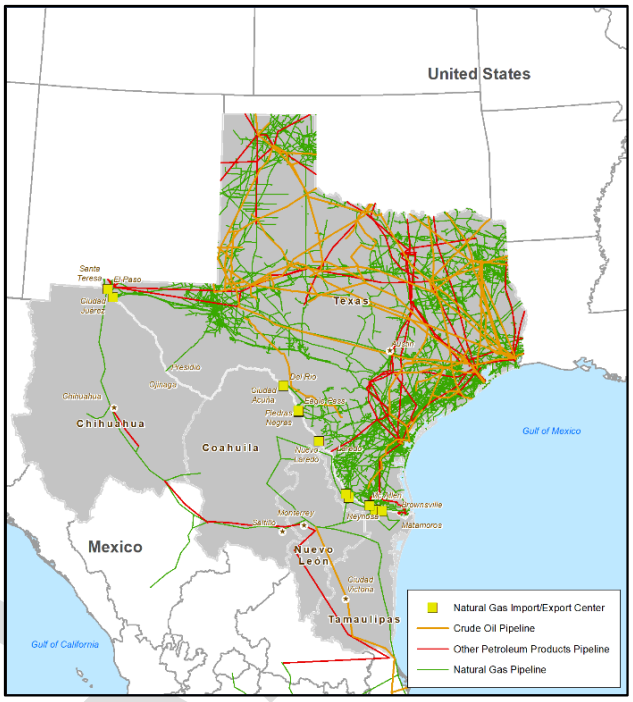


Figure 3.10-2. Texas-Mexico Cross-border Pipeline Trade Value[50]

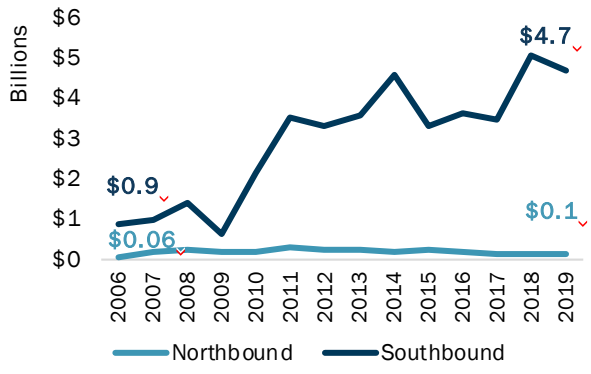
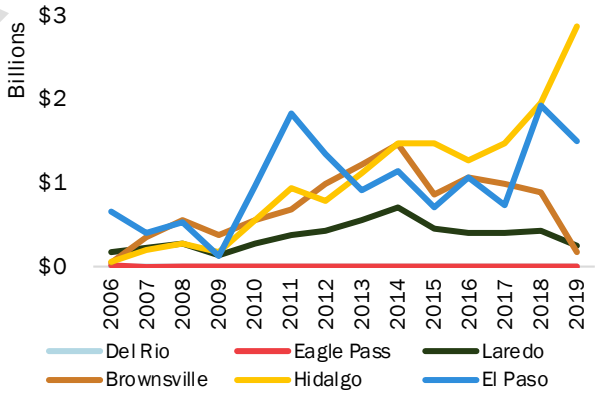


Figure 3.10-3. Texas-Mexico Cross-border Pipeline Trade Value by POE[51]



[50] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.
[51] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars.

3.11 Maritime System

- Eleven Mexico seaports and seven Texas seaports currently support maritime trade between Mexico and Texas—primarily bidirectional movement of petroleum products.
- Short sea shipping across the Gulf of Mexico alleviates congestion at land border crossings.
- Between 2006 and 2019, maritime trade between Texas and Mexico seaports rose 111 percent southbound and declined 63 percent northbound.

Figure 3.11-1. Existing Texas and Mexico Seaports

Figure 3.11-2 Texas-Mexico Cross-border Maritime Trade Value[52]

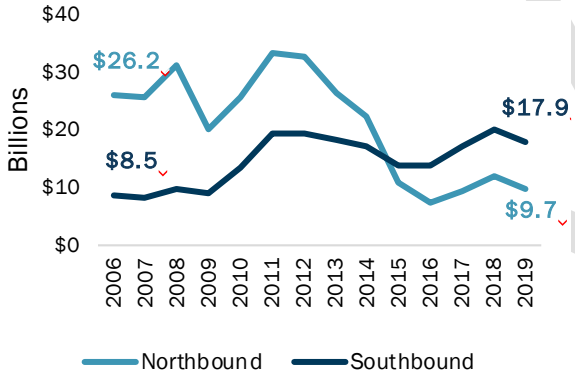
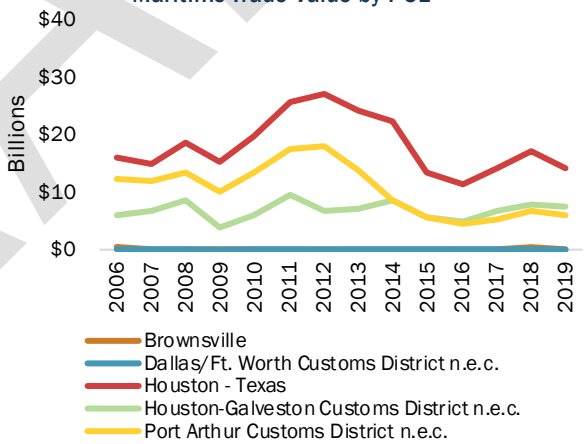


Figure 3.11-3 Texas-Mexico Cross-border Maritime Trade Value by POE[53]



Highway and roadway, freight rail, aviation, and pipeline are all critical components of the Texas-Mexico binational multimodal infrastructure system supporting the movement of people and goods between border crossings and destinations across North America and the world. The next section provides system performance for roadway and rail from past to present to highlight some of the main issues facing land-based infrastructure.

[52] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars. Note: BTS Transborder data manually corrected, which was showing maritime values for Del Rio, Eagle Pass, Laredo, Hidalgo, El Paso, and Santa Teresa POEs.

[53] BTS Transborder Freight Data (2006–2019), values adjusted to 2019 dollars. Note: BTS Transborder data manually corrected, which was showing maritime values for Del Rio, Eagle Pass, Laredo, Hidalgo, El Paso, and Santa Teresa POEs; Dallas/Ft. Forth Airport values also manually classified as Dallas/Ft. Worth Customs District n.e.c.

3.12 System Performance

The previous sections detail socioeconomic drivers of border transportation demand, as well as binational transportation conditions for each mode. This section assesses binational system performance for roadway and rail from past to present through three representative BTMP goals: Mobility and Reliability, Safety and Security, and Asset Preservation. Additional information on all goals can be found in the technical appendix.

3.12.1 Mobility and Reliability

The BTMP seeks to reduce congestion and improve system efficiency and performance on the binational transportation system. This includes improving cross-border travel time reliability and improving the capacity of the system to accommodate future growth. Mobility and reliability are measured based on border and roadway delays.

3.12.2 Border Delay – Northbound Wait Times

- **Commercial vehicles:** While median wait times remained relatively steady between 2003–2019, 90th-percentile wait times more than doubled (over 21 minutes) across the entire border region.
- **Passenger vehicles:** Median wait times increased 213 percent (17 minutes) across the border between 2003-2019.
- **Bicycles/Pedestrians:** Median wait times increased slightly in the Laredo and RGV regions, while remaining stable in the El Paso region during the same time period.

The BTMP uses U.S. Customs and Border Protection's northbound wait times to measure across all 29 border crossings, modes, and lane types from 2003–2019. This is only a portion of the total experienced border crossing time.[54] *Although southbound data is unavailable, anecdotal evidence indicates wait times going into Mexico are significantly lower than northbound crossings.*

[54] The data is collected manually by border officers through observation of the end of queues on the U.S. side and estimating expected wait times. This does not include wait times on the Mexico side of the border nor CBP and other agencies' inspection times. CBP data also does not include information on the northbound crossing for all hours of the day for all border crossings.

Commercial Vehicle Wait Times (Northbound)

Between 2003 and 2019, 90th-percentile wait times more than doubled for the entire border—84 percent increase (over 16 minutes) in the El Paso region, 58 percent increase (over 14 minutes) in the Laredo region, and over 186 percent (over 29 minutes) increase in the RGV region.

Figure 3.12-1. 50th-percentile Border Wait Time – Commercial Vehicle (Standard)

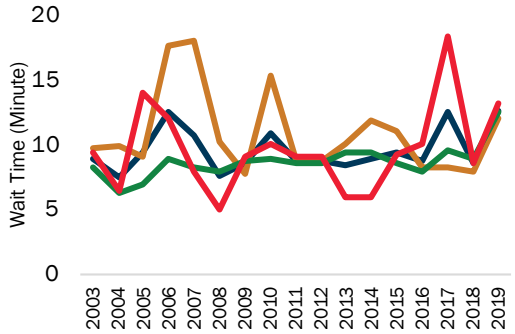
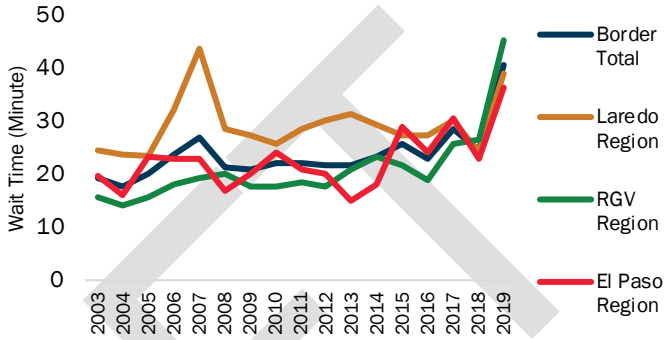


Figure 3.12-2. 90th-percentile Border Wait Time – Commercial Vehicle (Standard)



El Paso/Santa Teresa/Chihuahua

- Bridge of the Americas saw 90th-percentile wait times triple (40 minutes) between 2003–2019.
- 90th-percentile wait times increased by 117 percent (35 minutes) at Ysleta-Zaragoza Bridge and 120 percent at Santa Teresa (12 minutes).
- Presidio is the only border crossing in the El Paso region that experienced a decrease.

Figure 3.12-3. El Paso Region 50th-percentile Border Wait Times – Commercial (Standard)

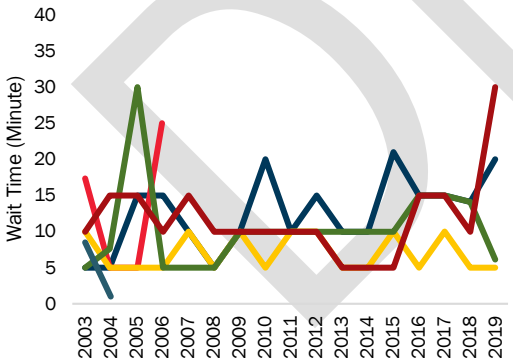
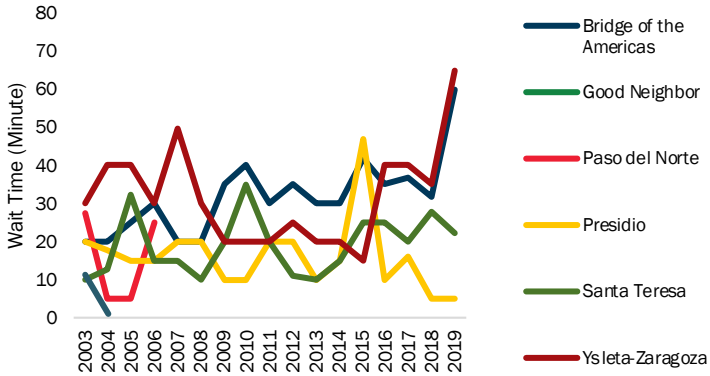


Figure 3.12-4. El Paso Region 90th-percentile Border Wait Times – Commercial (Standard)



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Laredo/Coahuila/Nuevo León/Tamaulipas

- 90th-percentile wait times doubled (35 minutes) at Del Rio-Ciudad Acuña International.
- Laredo-Colombia Solidarity Bridge's 90th-percentile wait times increased 117 percent (14 minutes).
- Camino Real International and World Trade Bridge also saw small wait time increases.

Figure 3.12-5. Laredo Region 50th-percentile Border Wait Times – Commercial (Standard)

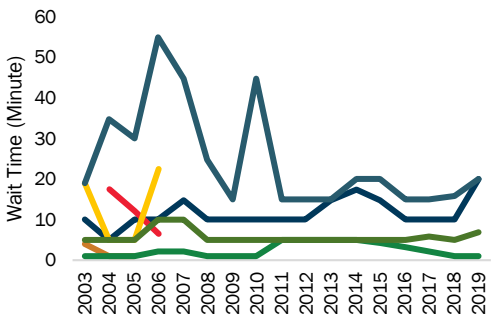
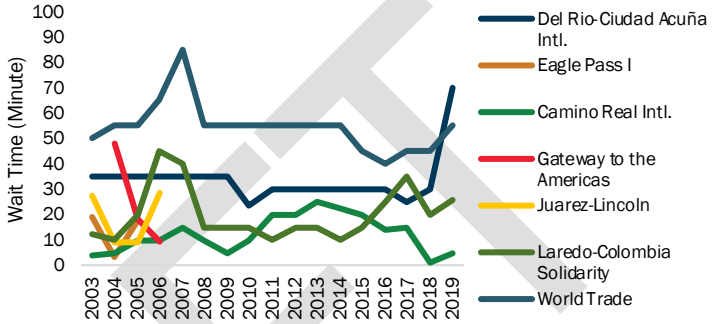


Figure 3.12-6. Laredo Region 90th-percentile Border Wait Times – Commercial (Standard)



Rio Grande Valley/Tamaulipas

- Pharr-Reynosa International's 90th-percentile wait times increased 410 percent (82 minutes).
- Weslaco-Progreso (50 minutes) and Free Trade Bridge (30 minutes) saw 90th-percentile wait times increase by 333 percent and 300 percent, respectively.
- 90th-percentile wait times increased by 60 percent (15 minutes) at Veterans International.
- Roma-Ciudad Miguel Alemán and Rio Grande City-Camargo also experienced small increases in 90th-percentile wait times.

Figure 3.12-7. RGV Region 50th-percentile Border Wait Times – Commercial (Standard)

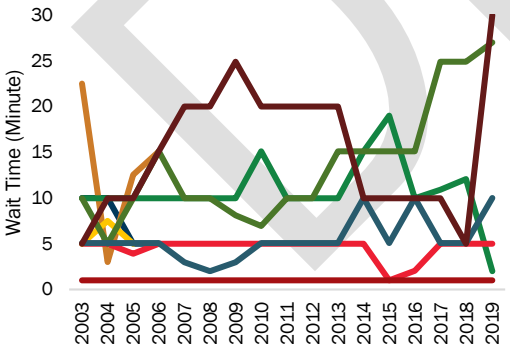
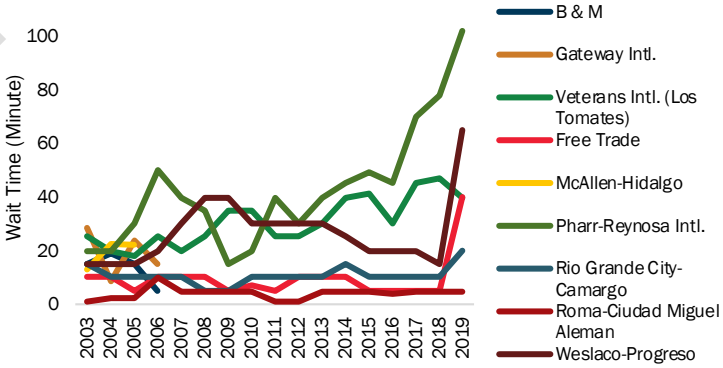


Figure 3.12-8. RGV Region 90th-percentile Border Wait Times – Commercial (Standard)



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Personal Vehicle Wait Times (Northbound)

Between 2003 and 2019, median wait times increased 212 percent (17 minutes) across the border. Laredo and RGV region wait times increased more than 260 percent (17 and 21 minutes, respectively) and El Paso region wait times increased over 120 percent (over 12 minutes).

Figure 3.12-9. 50th-percentile Border Wait Time – Personal Vehicle (Standard)

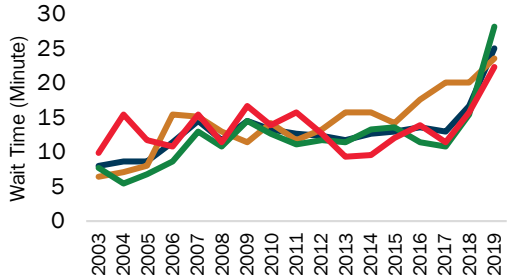


Figure 3.12-10. 90th-percentile Border Wait Time – Personal Vehicle (Standard)

El Paso/Santa Teresa/Chihuahua

- At Santa Teresa, median wait times grew by 600 percent (30 minutes).
- Median wait times increased by 25 minutes at three border crossings—Bridge of the Americas (100 percent), Paso del Norte (167 percent), and Ysleta-Zaragoza (167 percent).
- Tornillo-Guadalupe International Bridge's median wait times tripled (10 minutes), and Presidio Bridge's median wait times doubled (5 minutes).
- Median wait times at Fort Hancock-El Porvenir and Good Neighbor remained steady between 2007 and 2019.

Figure 3.12-11. El Paso Region 50th-percentile Border Wait Times – Personal Vehicles (Standard)

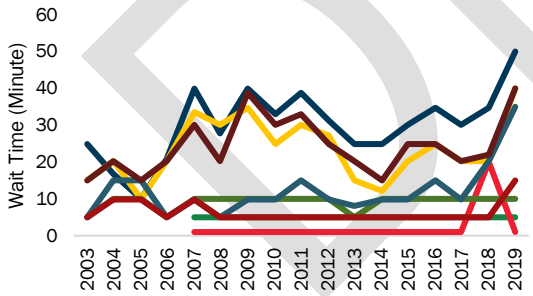
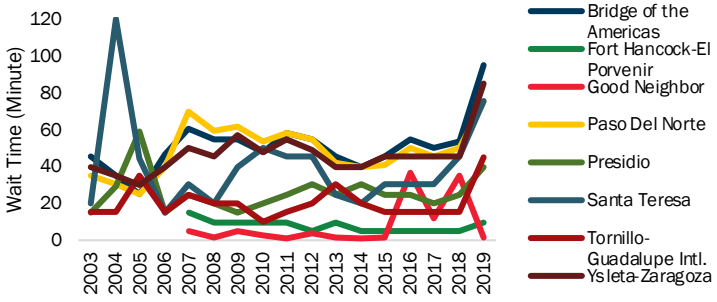


Figure 3.12-12. El Paso Region 90th-percentile Border Wait Times – Personal Vehicles (Standard)



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Laredo/Coahuila/Nuevo León/Tamaulipas

- Two border crossings saw median wait times increase by 30 minutes or more—Juarez-Lincoln (700 percent) and Gateway to the Americas (30 percent).
- Laredo-Colombia Solidarity experienced the highest median wait time increase of 700 percent (18 minutes).
- Median wait times increased three-fold at Eagle Pass Bridge I (15 minutes) and four-fold at Del Rio-Ciudad Acuña International (20 minutes).
- Camino Real International also experienced small increases (7 minutes) in median wait times during this time.
- World Trade Bridge, which did not record median wait times between 2006 and 2018, is the only border crossing in the Laredo region that did not see median wait times increase.

Figure 3.12-13. Laredo Region 50th-percentile Border Wait Times – Personal Vehicles (Standard)

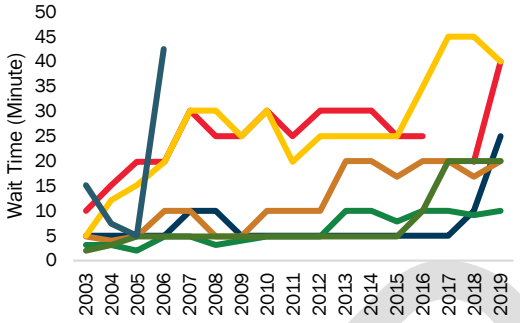
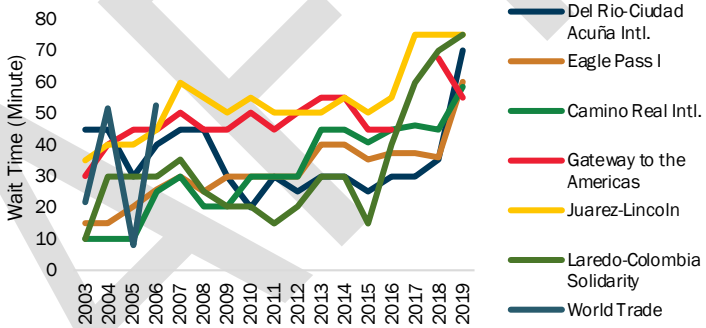


Figure 3.12-14. Laredo Region 90th-percentile Border Wait Times – Personal Vehicles (Standard)



Rio Grande Valley/Tamaulipas

- At three border crossings—B&M, Gateway International, and Veterans International—median wait times increased by 300 percent (30 minutes).
- Rio Grande Valley experienced the highest median wait time increase of 650 percent (13 minutes).
- Two border crossings saw median wait times increase by 400 percent—Weslaco-Progreso International (20 minutes) and Roma-Ciudad Miguel Alemán (8 minutes).
- Free Trade Bridge saw median wait times double (10 minutes) during this period.
- Median wait times increased at McAllen-Hidalgo International by 167 percent (25 minutes) and at Pharr-Reynosa International by 50 percent (5 minutes).
- Anzalduas International saw median wait times increase by 133 percent (20 minutes) between 2009 and 2019, while median wait times at Donna International grew by 133 percent between 2010 and 2019.

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Figure 3.12-15. RGV Region 50th-percentile Border Wait Times – Personal Vehicles (Standard)

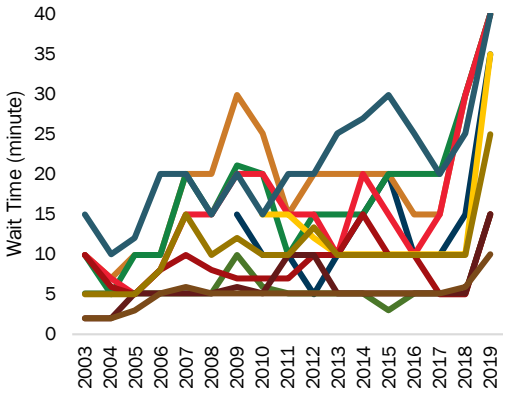
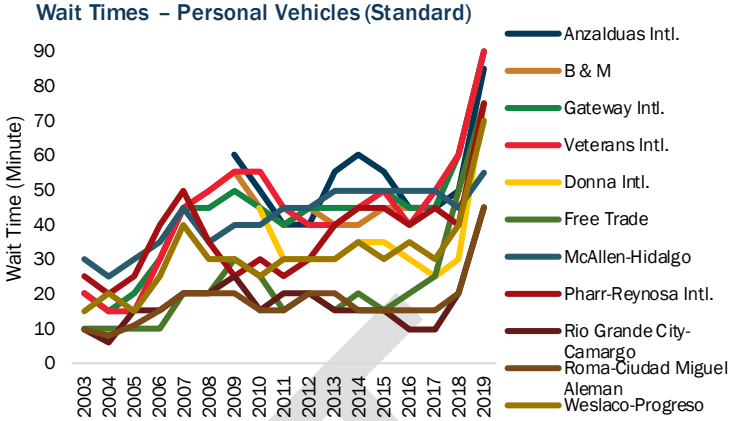


Figure 3.12-16. RGV Region 90th-percentile Border Wait Times – Personal Vehicles (Standard)



Bike/Pedestrian Wait Times (Northbound)

Between 2003 and 2019, the Laredo and RGV regions experienced a steady increase in wait times. El Paso border crossing wait times remained stable.

Figure 3.12-17. 50th-percentile Border Wait Time – Pedestrians (Standard)

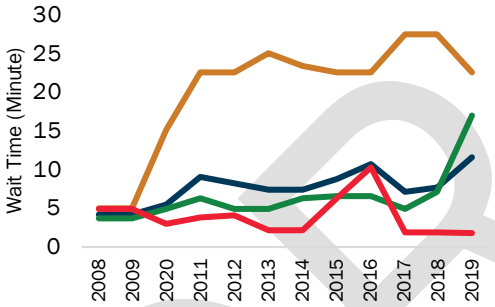
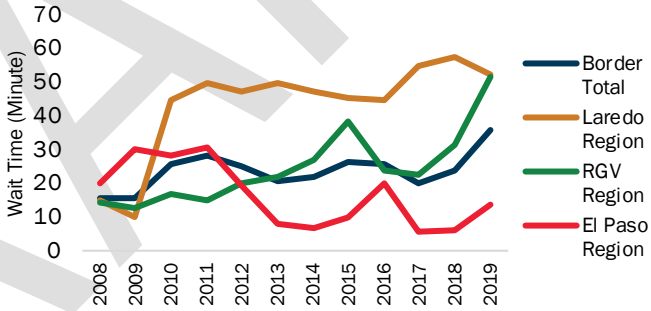


Figure 3.12-18. 90th-percentile Border Wait Time – Pedestrians (Standard)



El Paso/Santa Teresa/Chihuahua

- Paso del Norte saw 90th-percentile increase of 12 percent (25 minutes) between 2008 and 2019.
- 90th-percentile border wait times decreased at Bridge of the Americas (10 minutes) and Ysleta-Zaragoza (15 minutes) between 2010 and 2019.
- At Santa Teresa, 90th-percentile wait times decreased slightly between 2013 and 2019.
- Tornillo-Guadalupe International's 90th-percentile wait times remained steady between 2014 and 2019.

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Figure 3.12-19. El Paso Region 50th-percentile Border Wait Times – Pedestrians (Standard)

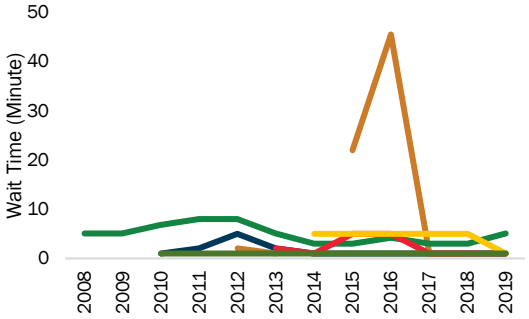
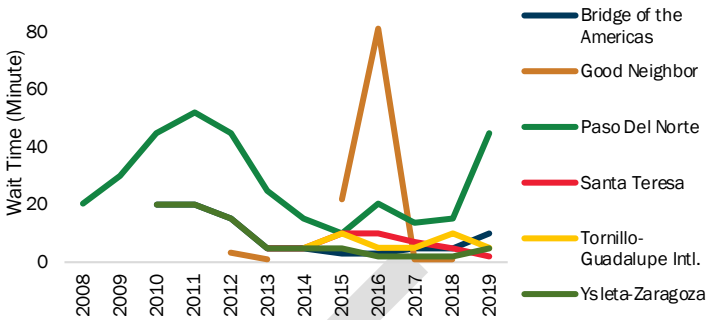


Figure 3.12-20. El Paso Region 90th-percentile Border Wait Times – Pedestrians (Standard)



Laredo/Coahuila/Nuevo León/Tamaulipas

- Gateway to the Americas saw a 90th-percentile wait time increase of 133 percent (20 minutes) between 2008 and 2019.
- Juarez-Lincoln saw a 27 percent 90th-percentile increase (15 minutes) between 2011 and 2019.

Figure 3.12-21. Laredo Region 50th-percentile Border Wait Times – Pedestrians (Standard)

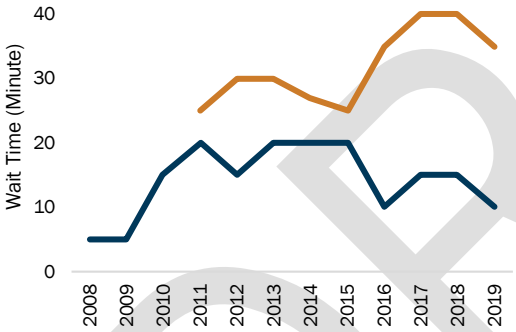
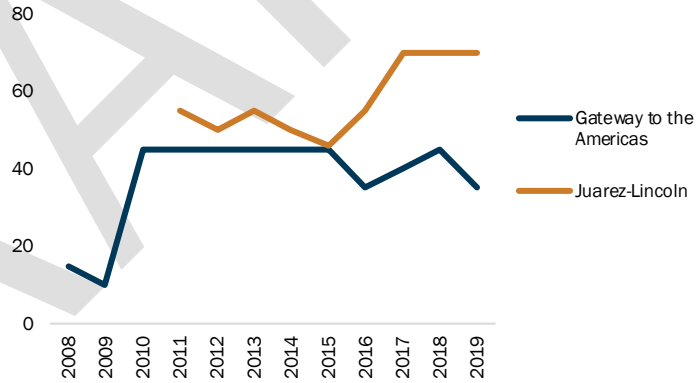


Figure 3.12-22. Laredo Region 90th-percentile Border Wait Times – Pedestrians (Standard)



Rio Grande Valley/Tamaulipas

- 90th-percentile wait times tripled or more at three border crossings between 2008 and 2019—McAllen-Hidalgo increased by 267 percent (40 minutes), Gateway International wait times increased by 200 percent (40 minutes), and Weslaco-Progreso increased by 213 percent (17 minutes).
- At Donna International, 90th-percentile wait times increased by 780 percent (70 minutes), between 2011 and 2019.
- B&M Bridge experienced a 33 percent decrease (15 minutes) in 90th-percentile wait time between 2015 and 2019.

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Figure 3.12-23. RGV Region 50th-percentile Border Wait Times – Pedestrians (Standard)

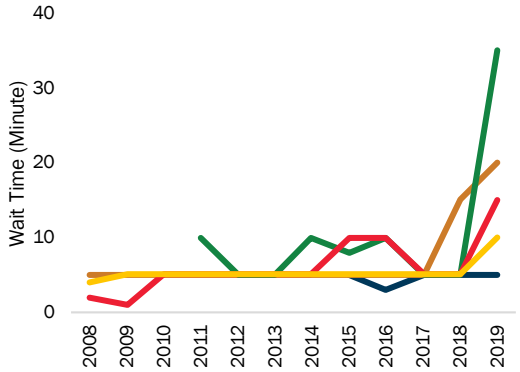
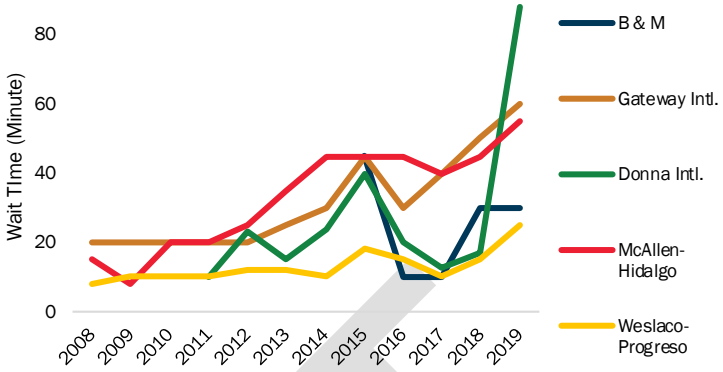


Figure 3.12-24. RGV Region 90th-percentile Border Wait Times – Pedestrians (Standard)



3.12.3 Roadway Delay (Congestion)

- Roadway congestion in the Texas-Mexico borderwide region is concentrated in the urban areas and around border crossings.
- The El Paso region experiences highest congestion on the I-10 corridor (in El Paso) and Federal Highway (FH) 45 (in Juarez).
- The Laredo region's most congested corridors are north-south I-35 (in Laredo) and FH 85 (in Nuevo Laredo). I-69 in Laredo also experiences congestion.
- The RGV region's most significant congestion occurs on I-69 C and I-69 E and on I-2.

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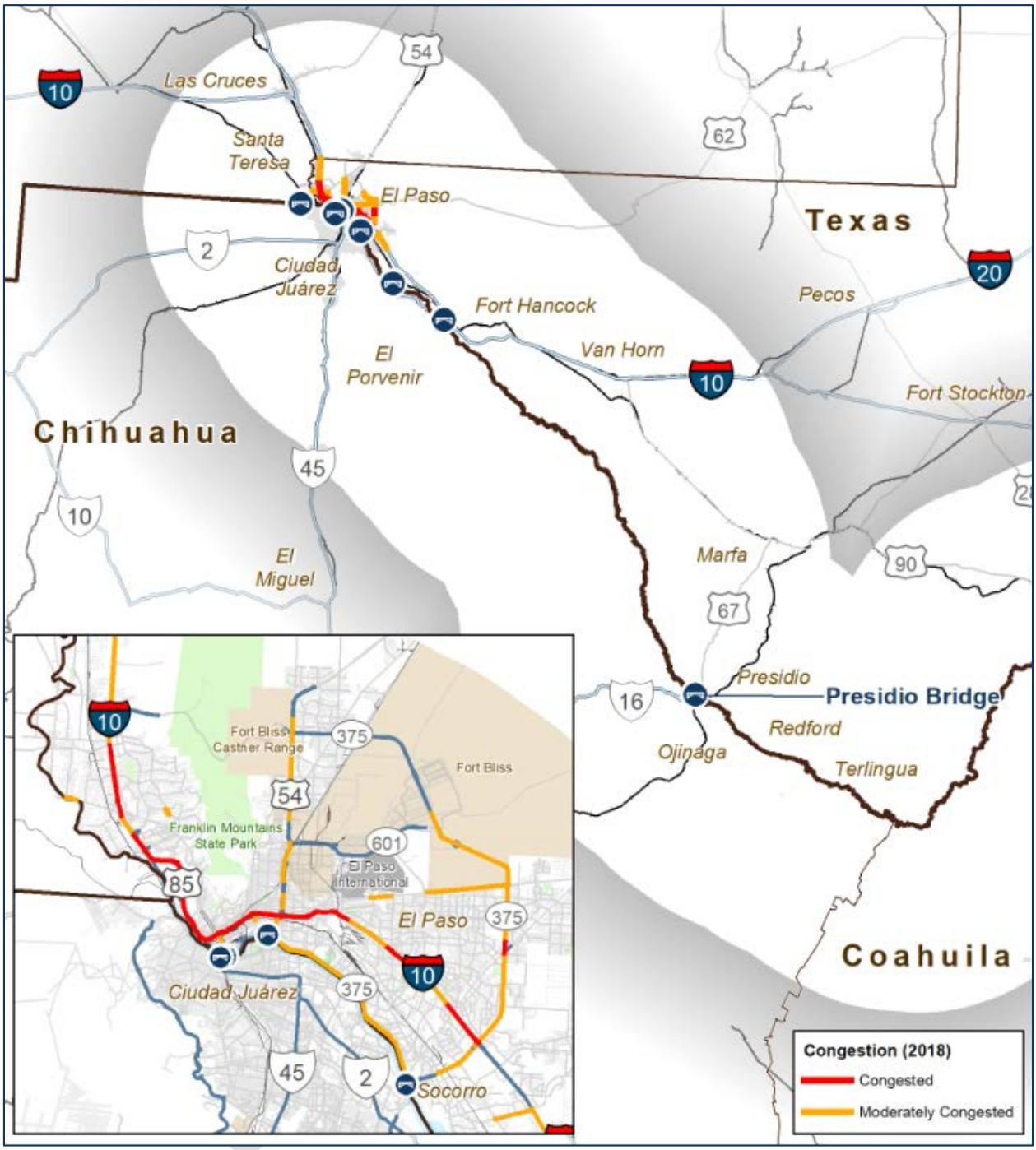
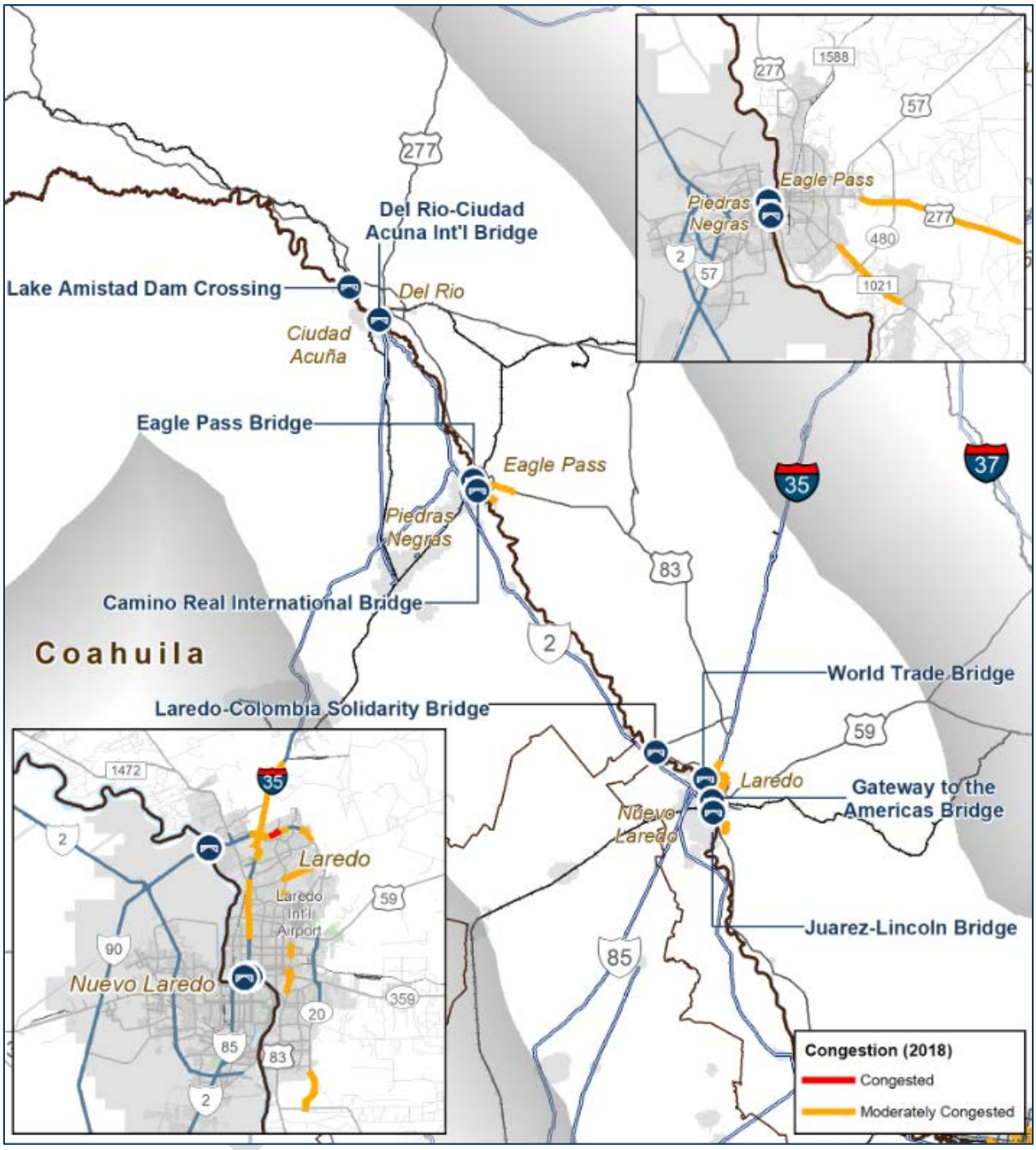
Figure 3.12-25. El Paso Region Congestion



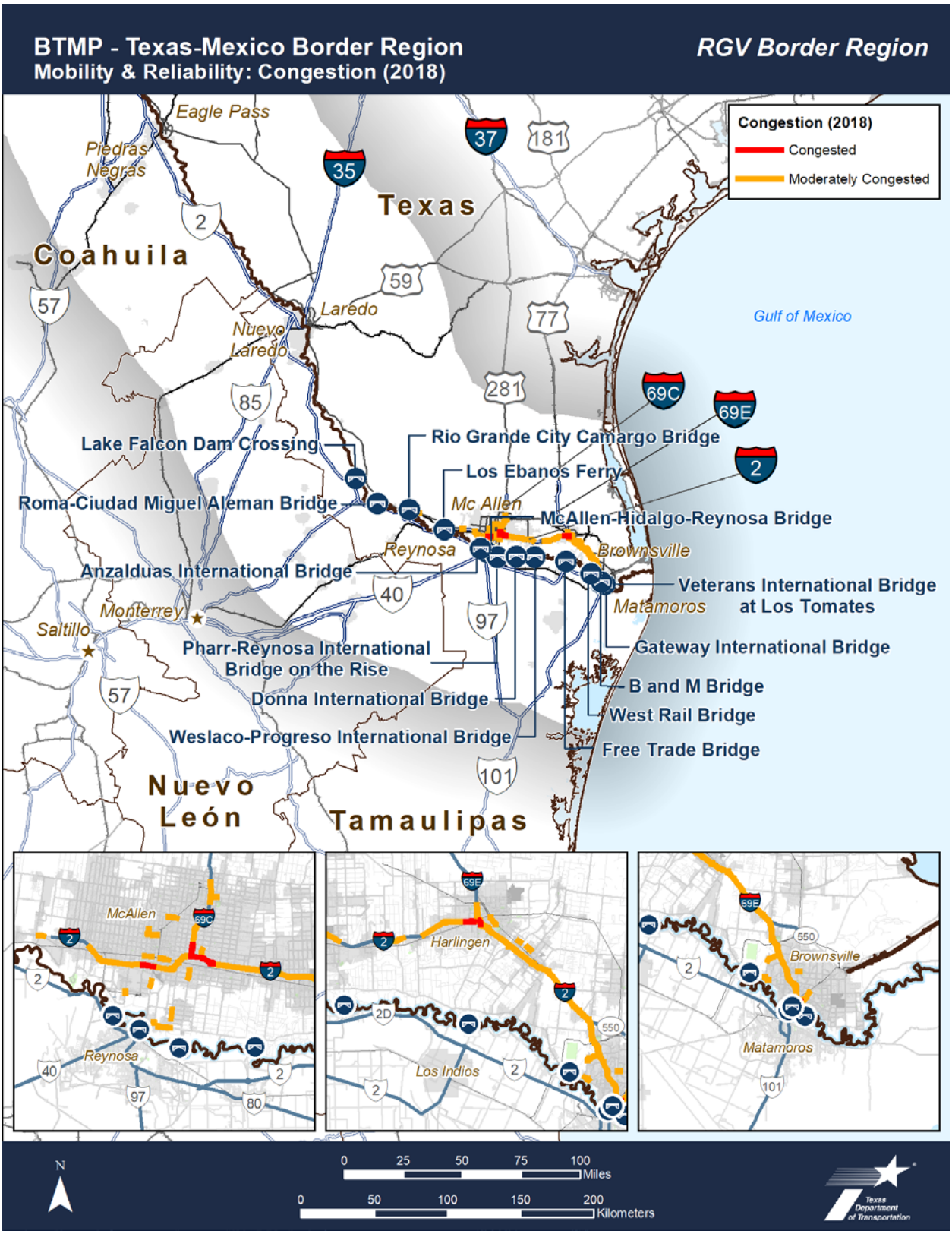
Source: TxDOT Congestion Data 2018.

Figure 3.12-26. Laredo Region Congestion



Source: TxDOT Congestion Data 2018.

Figure 3.12-27. RGV Region Congestion



Source: TxDOT Congestion Data 2018.

3.12.4 Safety and Security

The BTMP seeks to reduce the number of crashes on the binational transportation system that result in fatalities and injuries, including those at POEs. Additionally, the plan is also focused on enhancing the secure movement of people and goods. Safety and security are measured based on roadway incidents and rail incidents.

Roadway Incidents

- **Corridors and local connectors to border crossings have higher crash rates across the Texas border region.** This may be attributable to facility age and design, as many roadways were designed to accommodate lower traffic volumes and do not effectively accommodate today's size of commercial trucks, interactions of trucks and passenger vehicles on the road, at-grade rail crossings, and other issues.
- **On the Texas-side of the border, roadway crashes increased 25 percent between 2008 and 2017.** Fatality rates fell while serious injury rates increased slightly over the same time period. Fatalities are rare, occurring in less than less than half a percent (0.4 percent) of all crashes. Approximately 30 percent of crashes result in injury.
- **On the Mexico-side of the border, roadway crashes declined 42 percent between 2015 and 2017.** Fatality rates are approximately 5 percent of all crashes as of 2017. Note: There may be underreporting of minor highway incidents as compared to U.S. data.

Figure 3.12-28. Texas Borderwide Highway Crashes with Injuries and Fatalities[55]

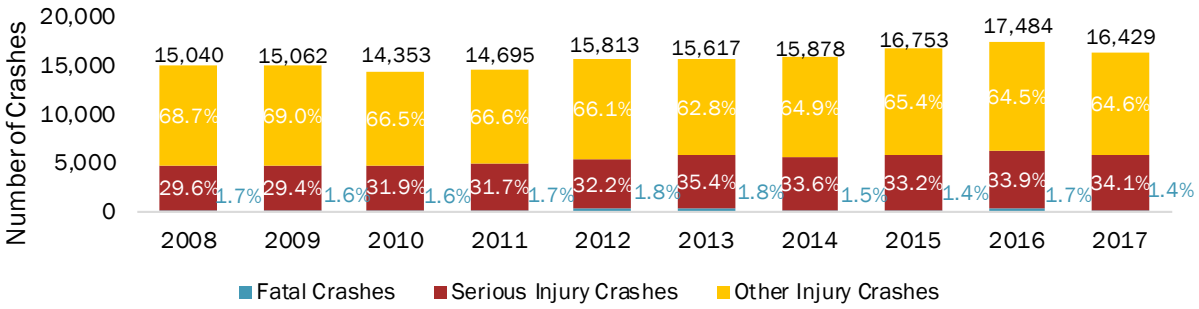
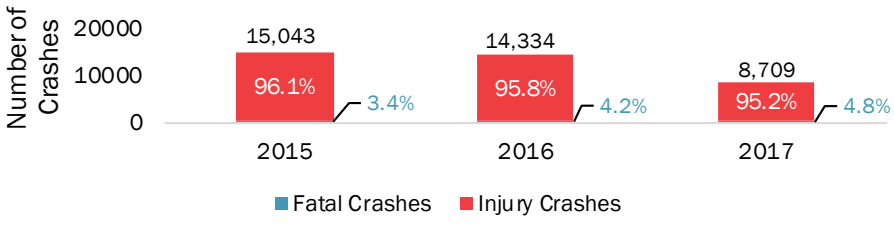


Figure 3.12-29. Mexico Borderwide Highway Crashes with Injuries or Fatalities[56]



[55] TxDOT Crash Record Information System (CRIS), 2008–2017.
[56] Mexico Federal Police (2015–2019) and INEGI (2015–2017).

Rail Incidents

- **Between 2008 and 2017, rail incidents declined 78 percent on the Texas side and remained constant on the Mexico side of the borderwide region.**
- **Injury to rail employees on-duty make up two-thirds to half of all incidents. Trespassing incidents made up a quarter of all incidents.**
- **Half of rail incidents in Texas border counties occur at at-grade rail crossings, with the majority of total incidents in El Paso and Webb counties.**
- **Among at-grade crossing incidents in Texas border counties, 35 percent involved a truck and trailer, 32 percent involved cars, and 20 percent involved pickup trucks.** In 84 percent of incidents, rail equipment struck a highway user. In the remaining 16 percent, highway users struck rail equipment. In most incidents, motorists did not stop (44 percent) or stopped on the crossing (29 percent).

In the U.S., railroads are required to report rail incidents to the U.S. Federal Railroad Administration including at-grade crossing incidents, rail equipment incidents, and death, injury, and occupational illnesses. Rail incidents in Mexico are reported from insurance claims and may result in underreporting of minor incidents.

Figure 3.12-30. Texas-Mexico Borderwide Rail Incidents[57]

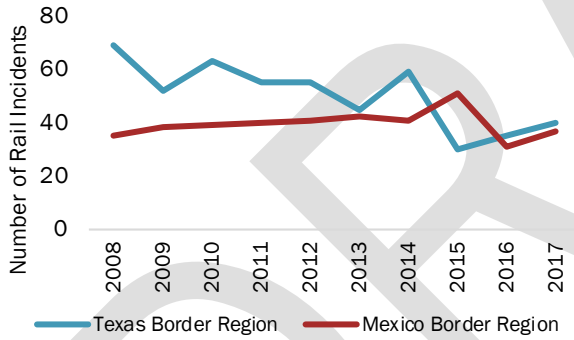


Figure 3.12-31. Texas-Mexico Rail Incidents – Texas Regions[58]

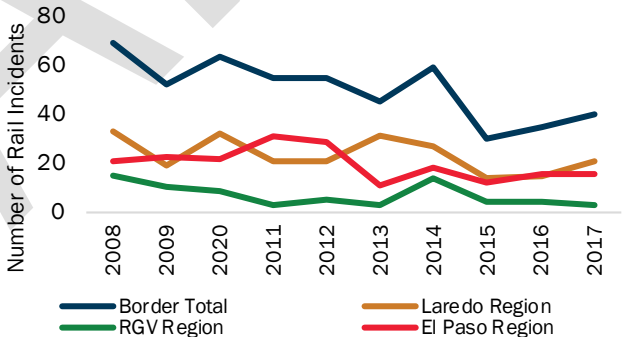


Figure 3.12-32. Texas-Mexico Rail Incidents – Mexico Border States[59]

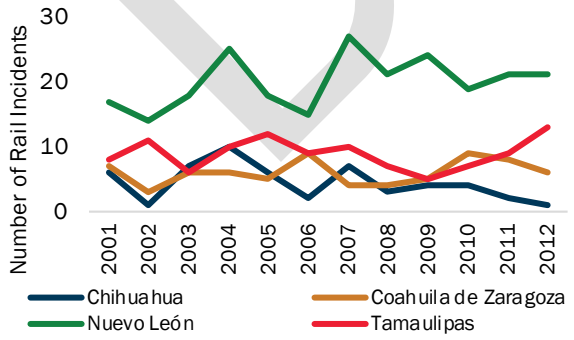
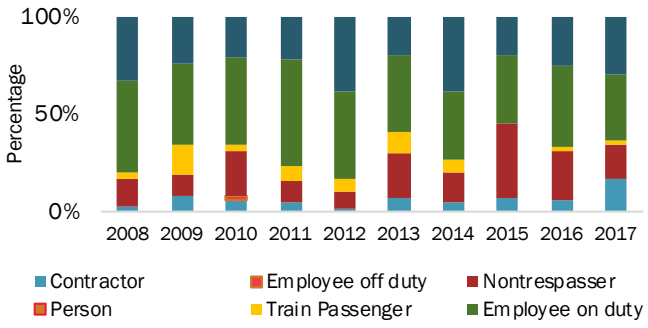


Figure 3.12-33. Texas-Mexico Rail Incidents – Texas Border Region Rail Incidents by Type[60]



[57] FRA Safety Database (2008–2017) by county; Agencia Reguladora del Transporte Ferroviario (2008–2017).
[58] FRA Safety Database (2008–2017) by county.
[59] Agencia Reguladora del Transporte Ferroviario (2008–2017).
[60] FRA Safety Database (2008–2017) by county.

3.12.5 Asset Preservation

The BTMP seeks to maintain and preserve cross-border region infrastructure that supports the binational multimodal movement of people and goods. The objective is to ensure infrastructure related to cross-border movement of goods and people is maintained in a state of good repair. Asset preservation is measured by pavement conditions, bridge conditions, and border crossing conditions.

Pavement Conditions

- **Between 2010 and 2019, pavement conditions on the Texas borderwide region stayed relatively consistent, with the most improvement in the Laredo region between 2015 and 2016.**
- **Within the Mexico border states, pavement conditions are of higher quality than the national averages.** Nuevo León has the lowest percentage of deficient pavements within the border region as a whole. Tamaulipas and Chihuahua saw a slight increase in deficient pavements, while Coahuila and Nuevo León both experienced declines in deficient pavements.

TxDOT tracks pavement condition on its on-system network with pavement conditions assigned a value between 0 and 100. Scores greater than or equal to 70 indicates the pavement is in good or better condition. In Mexico, pavement condition is tracked by the percent of pavements that are deficient.

Figure 3.12-34. Texas Borderwide Pavement Conditions (2010–2019)[61]

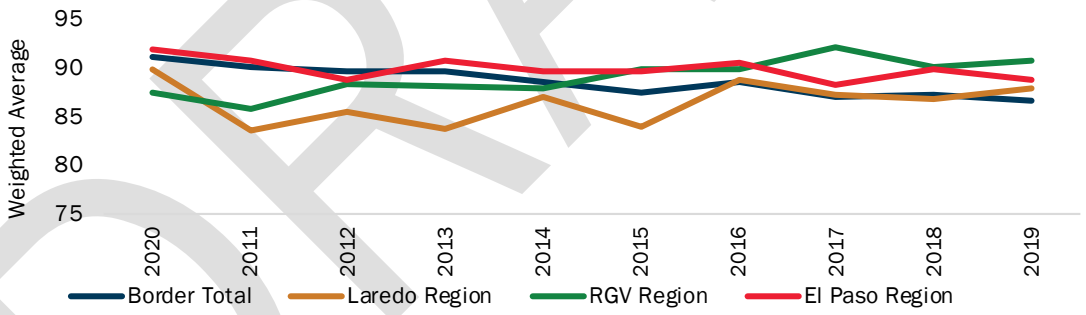
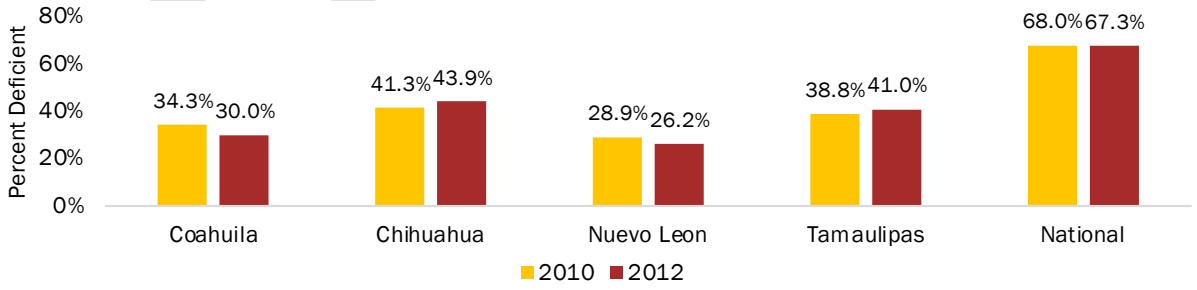


Figure 3.12-35. Mexico Border States – Percent of Pavements Deficient (2010, 2012)[62]



[61] TxDOT Historic Pavement Conditions Data.
[62] DOF National Infrastructure Program 2014–2018, Published April 2014.

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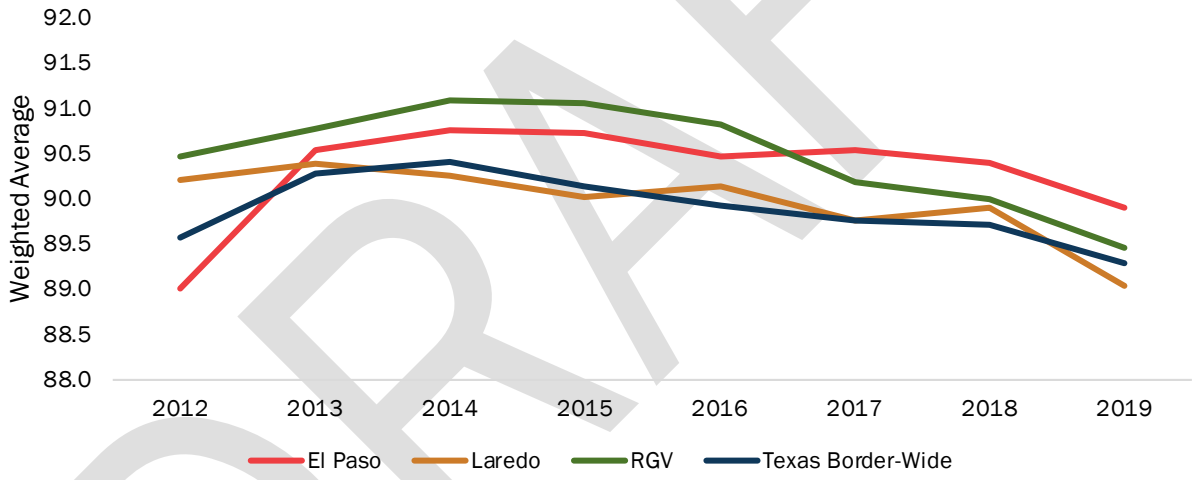
Bridge Conditions

- Bridge conditions in the Texas border counties increased between 2012 and 2014 and have been declining since 2014.
- As of 2019, bridge conditions in the El Paso and RGV regions are higher than the average score in the Texas borderwide region, while bridge conditions scores in Laredo are lower.
- In 2019, El Paso bridges on average rated 89.91, Laredo 89.04, and RGV 89.46. The Texas borderwide score is 89.29.

TxDOT tracks domestic bridge conditions on roadways within the Texas borderwide region. Bridge condition score is based on the most severe primary component condition rating. The primary bridge components are deck, superstructure, and substructure. Culverts that are twenty feet in length or longer are considered bridges. Data is unavailable on the Mexico side of the border.

Figure 3.12-36. Texas Borderwide Bridge Conditions (2012–2019)[63]



[63] TxDOT Historic Pavement Conditions Data.

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Border Crossing Conditions

- All Texas-Mexico border crossings are currently in good or fair condition—with the exception of Fort Hancock-El Porvenir.
- From an asset preservation view, most border crossing structures do not require major repairs.
- Due to increased trade volumes and border delays, some structures may require investments to ensure infrastructure is able to meet transportation demands.

The U.S. Federal Highway Administration developed border crossing conditions based on the National Bridge Inventory rating system based on the condition of the bridge deck, superstructure, and substructure.[64] *These ratings include only public bridges. TxDOT rated privately-owned bridges in the El Paso region and privately-owned bridges in the RGV region are tentatively shown as fair.*

Figure 3.12-37. Texas-Mexico Border Crossing Ratings[65]

[64] *Good condition* means there are no problems or minor problems. *Fair condition* means the primary structure is sound with minor issues in cracking, spalling, or scour. *Poor condition* means there is advanced section loss, deterioration, spalling, or scour.

[65] National Bridge Inventory, FHWA, TxDOT.

3.13 Summary of Findings

The Texas-Mexico border is dynamic and ever-evolving, supporting the majority of U.S.-Mexico trade and facilitating the movement of people and goods through 29 border crossings, along with multimodal corridors and supporting POE facilities. The next chapter outlines the binational multimodal corridor designation process, which will be used in future chapters to analyze border infrastructure assets, identify network and system needs, and develop strategies to address current and future demands.

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