Welcome to the Binational Regional Steering Committee Meeting

- The meeting will start at 8:30 a.m. CST
- Please turn off your video and mute your phones
- We will be using the Mentimeter polling application during this meeting
  - You may find it helpful to load www.menti.com into the browser of your device now. The meeting code is: 97 58 86

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via text (512-975-5604) or in the chat box

Texas-Mexico Border Transportation Master Plan

Binational Regional Steering Committee
Rio Grande Valley/Tamaulipas Region

Agenda

1. Introduction/Opening Remarks
2. Activities since Previous Meeting (April 2020)
3. Introduction (Chapter 1)
4. Goals, Objectives, and Institutions (Chapter 2)
5. Texas-Mexico Border: Past and Present (Chapter 3)
6. Binational Multimodal Transportation Network Designation (Chapter 4)
7. Preliminary Future Forecasts for the Border Region (Chapter 6)
8. Preliminary Results on Economic Importance of the Border (Chapter 7)
9. Next Steps and Closing Remarks

Recap of Previous BTAC Meeting (April 2020)

- Stakeholder outreach
  - BNRSC round 4 themes
- Refinements made to Chapters 1 (Introduction) and 2 (Goals, Objectives, and Institutions) based on BTAC/BNRSC member feedback
  - Update base year of data to 2018/2019
  - Update institutions and agencies involved in key aspects of the binational relation that impacts the U.S.-Mexico border
- Further development of Chapters 3 (Texas-Mexico Border: Past And Present), 4 (Binational Multimodal Transportation Network Designation), and 5 (Needs Assessment and System Performance)
  - Includes review of wait time versus crossing time

Introduction

Chapter 1

Introduction Overview

Chapter Purpose	Key Messages	Refinements/Changes
▪ Provide background information on the importance of the Texas-Mexico border ▪ Provide purpose of the BTMP ▪ Show BTMP development process ▪ Provide BTMP Final Report content	▪ Texas-Mexico border connects people and commerce throughout U.S. and Mexico ▪ Blueprint for binational policy, program, and projects ▪ Identify transportation issues, needs, challenges, opportunities, and strategies ▪ Underpinned by data-driven analysis and binational stakeholder input	▪ In 2019, Mexico was the largest trading partner of the U.S. ▪ Addition of cultural/personal ties aspect ▪ Economic, demographic, and goods movement information updated to 2019

Refinements to Introduction (Chapter 1)

Chapter	Feedback	Response
1	Clarification for the use of 2017 as the base year for data	*Use more recent data for key border story elements; will maintain 2017 as study baseline*
	Include cultural ties	*Include reference using anecdotal information*
	Further explain and show demographic break down by location and type of crossing	*Provide details in Chapter 3*

- Mexico is the **largest trading partner** of the U.S.
  - 68% of trade between the two countries passes through the Texas-Mexico border
- U.S.-Mexico **trade has more than tripled** between 1994 and 2019
  - Increased from $173 billion to $615 billion
- Border region **population grew 70%** from 4.4 million in 1990 to 7.4 million in 2019
- In 2019, more than **32 million cars, 19 million pedestrians, and 90,000 passenger buses** crossed the Texas-Mexico border

Goals, Objectives, and Institutions

Chapter 2

Goals, Objectives, and Institutions Overview

Chapter Purpose	Key Messages	Refinements/Changes
▪ Present BTMP vision and mission ▪ Present BTMP goals and objectives ▪ Identify the institutions and agencies that partner along the Texas-Mexico border and their roles	▪ Goals and objectives developed through consensus ▪ Joint management and collaborative efforts between binational partners allow border to function effectively	▪ Update institutions and agencies for border policy development, planning, and infrastructure development ▪ Differentiate border management process, roles, and procedures

Refinements to Goals, Objectives, and Institutions (Chapter 2)

Chapter	Feedback	Response
2	Discuss the current coordination between local, state, and federal agencies and how collaboration can be improved and enhanced	*Include reference to coordination, plus added binational coordination for responses to border emergencies/ disruptions*
	Cover alternative sources of funding as an option for the border	*Include reference to Donation Acceptance Program (DAP) and role of private sector*
	Consider showing the process flows in a graphic way to simplify content	*Add visuals to chapter*

- Identified **opportunities for better coordination** along the border
  - Both between the two countries and between the agencies in each country
- Described **Resiliency Planning** and **Joint Incident Management and Emergency Response** along the border
  - Including Sister Cities agreement
- Identified agencies leading planning efforts **inside and outside border crossings**
- **Expanded list of agencies and stakeholders** of Texas-Mexico border

Institutional Relations at the Border (2.3)

- A **large number of institutions and agencies** on both sides of the border involved in U.S.-Mexico border

TOPIC	BORDER POLICY DEVELOPMENT	BORDER PLANNING	BORDER MANAGEMENT & OPERATIONS	INFRASTRUCTURE AT BORDER CROSSINGS	INFRASTRUCTURE CONNECTING TO BORDER CROSSINGS
U.S. side	Federally-led (oversight by DOS)	Inside border crossings: led by CBP; outside border crossings: USDOT guidance, with active state DOT participation	Federally-led (CBP)	Federally-led (GSA), shared with states, counties, cities, or private sector	Based on ownership of infrastructure/ network
Mexico side	Federally-led (oversight by SRE)	Federally-based process. Inside border crossings: led by Aduanas and SCT; outside border crossings: led by SCT	Federally-led (Aduanas)	Federally-led (INDAABIN), shared with states or private sector	Federally-led; small state, local, and private sector role
Binational coordination mechanisms	21st Border Initiative, high economic dialogue	JWC, BBBXG, ad-hoc regional efforts	Ad-hoc groups at individual border crossings	Ad-hoc groups at individual border crossings	On a project-by-project basis

- **Gaps in coordination** between levels of government within each country and lack of standardized mechanisms for local stakeholders to participate in border-related decisions

U.S.-Mexico and Texas-Mexico Border Planning Processes (2.3)

U.S. Planning Process

Federal

- CBP leads "inside border crossing" planning
  - 5-year planning document for land POE capital investments
- Guidance by USDOT on transportation planning process "outside border crossing"
  - FAST Act
  - Statewide planning requirements
  - Metropolitan planning requirements

Texas

- Texas Transportation Plan (TTP) 2040
- TxDOT Strategic Plan
- Statewide Transportation Improvement Program (STIP)
- Texas-Mexico Border Transportation Master Plan
- Texas Freight Mobility Plan 2018
- Metropolitan Transportation Plans

Mexico Planning Process

"General Planning Law" (1985)

- Norms and principles (including National Development Plan)
- Basis for integration and functioning (National System of Democratic Planning)
- Basis of participation and coordination

National Development Plan

- Describes programs that need to be developed including:
  - Sectorial plans (for key federal agencies)
  - Institutional (for quasi-governmental agencies)

Other Plans

- Aduanas leads "inside border crossing" planning
  - Infrastructure Modernization Plan (IMP)
- SCT supports "inside border crossing" planning and leads transportation planning process "outside border crossing"
  - Sectorial Plan for Transportation and Communications

BNRSC Feedback

1. Did we adequately address your comments from the last BNRSC meeting?
2. Are there other topics that need to be included in this chapter?

Texas-Mexico Border: Past and Present

Chapter 3

Texas-Mexico Border: Past and Present Overview

Chapter Purpose	Key Messages	Refinements/Changes
▪ Identify the trends and current conditions of the Texas-Mexico border ▪ Provide high-level socioeconomic and cross-border movements ▪ Describe binational multimodal transportation infrastructure ▪ Guide preliminary identification of issues and needs	▪ The border region population and employment is growing ▪ The border sustains trade between all Texas counties, all U.S. states, and all Mexican states ▪ Cross-border freight continues to grow, yet people crossings have declined ▪ Investments in border infrastructure and connecting infrastructure have not kept pace with population and trade growth	▪ Information data points updated to 2019 ▪ Synthesized information about factors affecting travel demand ▪ Described history of border infrastructure ▪ Added description of current state of border transportation infrastructure

Texas-Mexico Border: Past and Present (Chapter 3)

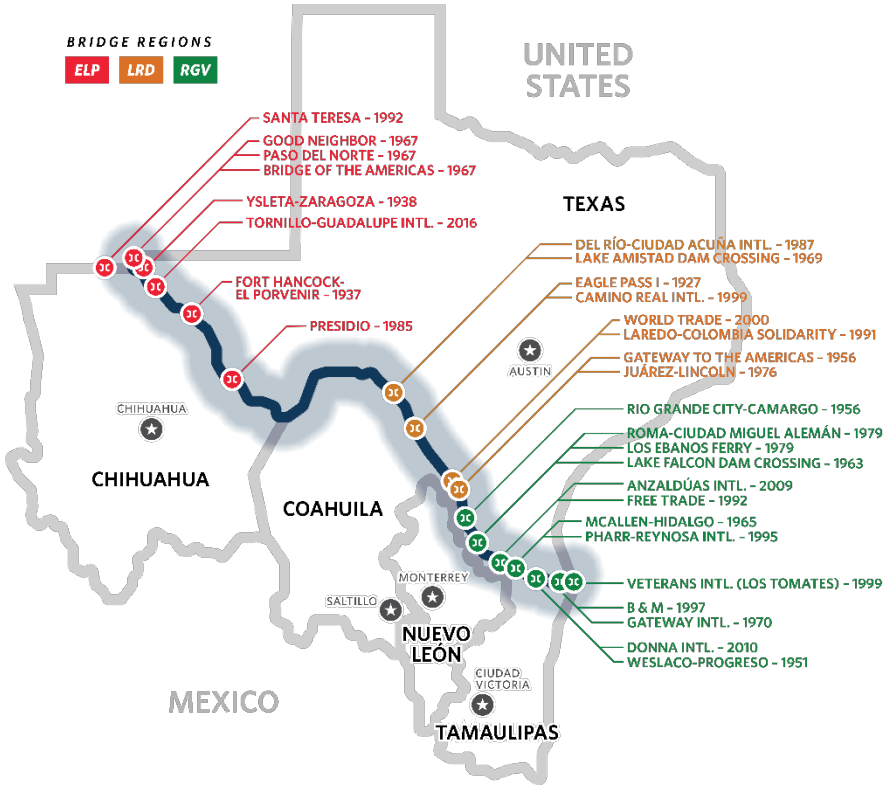
Chapter	Feedback	Response
3	Update current conditions data to 2019, where possible	*Updated socioeconomic, trade, and infrastructure data to 2019, where available*
	Provide additional information on border crossing wait times	*Amplified border wait time trends in chapter to illustrate trends*
	Consider ways to collect southbound movements more accurately	*Continued to work with SCT/SAT and examined other sources; there are no borderwide southbound data sources*
	Show data on commerce between ports and more details for the transportation of goods	*Added more detail on maritime; additional details are available in technical papers*
	Enhance the border story to weave in cultural and geographic ties	*Improved border story with specific language, examples, and bullets*

Texas-Mexico Border Story: What's Been Covered (3.1 to 3.6)

Population	▪ **7.4 million** people live along the border (2019) ▪ Borderwide population increased 70% from 1990 to 2019
Employment	▪ **97% employment growth** from 1990 to 2019 – Texas: 76% ↑ – Mexico: 114% ↑
Income	▪ **Incomes in Texas border counties increased** by 20%, outpacing U.S. growth rate (4%) ▪ Texas border **poverty line declined,** from 36% in 1990 to 23% in 2018 ▪ **Incomes in Mexico border states grew** between 2010 and 2015
Education	▪ An increase in federal education programs have led to **more Texas high school and college graduates** ▪ Educación media superior obligatoria 2012 has driven **educational advancements in Mexico**
History	▪ International bridge development began after the U.S.-Mexico Rio Grande Rectification Treaty of 1933 ▪ Although trade is growing, border crossing investments **have not kept pace**
Trade	▪ Majority of U.S.-Mexico trade is handled by the border ▪ Ratification of NAFTA has **tripled trade across the border** from 1994 to 2019

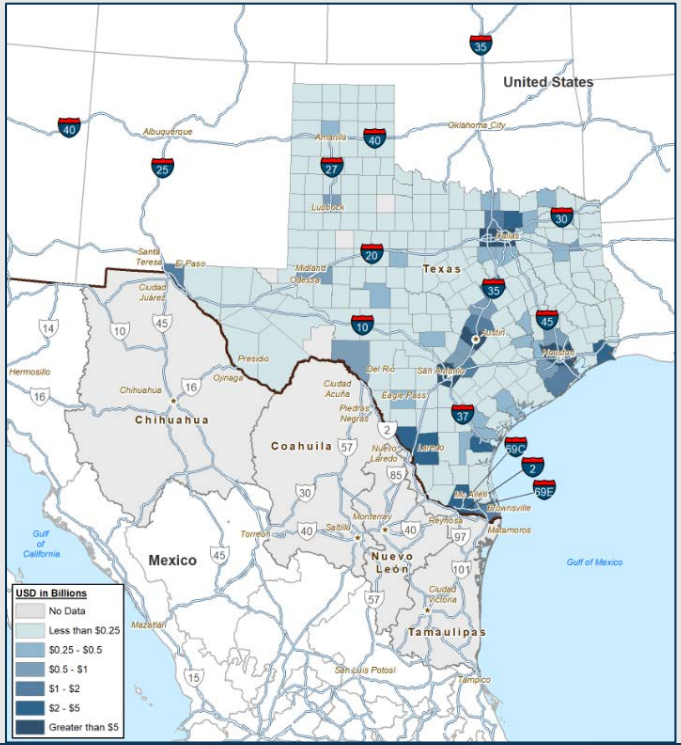
Overview of Border Transportation Infrastructure History

- 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
- Only one-third of border facilities constructed since 1980 have seen additional investment
- USMCA and continued population growth places additional pressure on the border

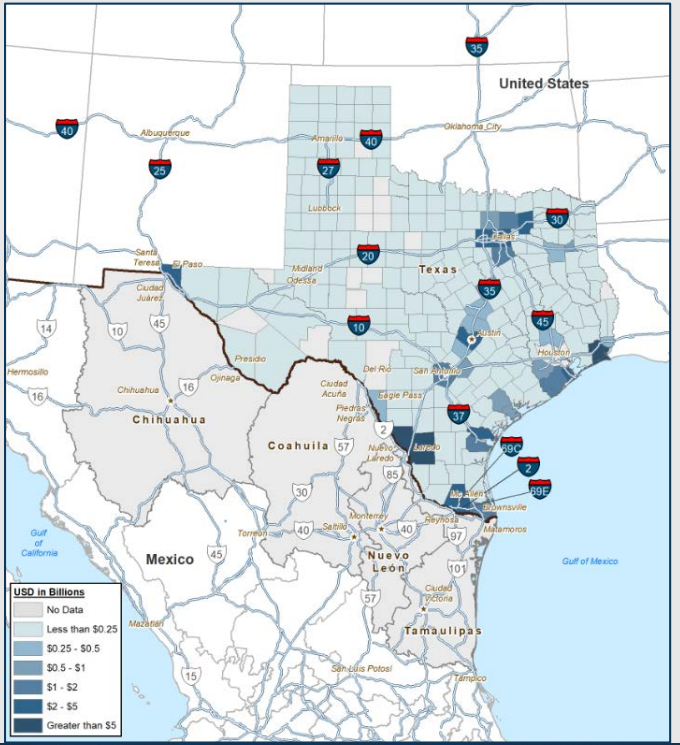


Cross-Border Trade Connections to all Texas Counties (3.6)

Northbound Movements: Trade Destinations by County

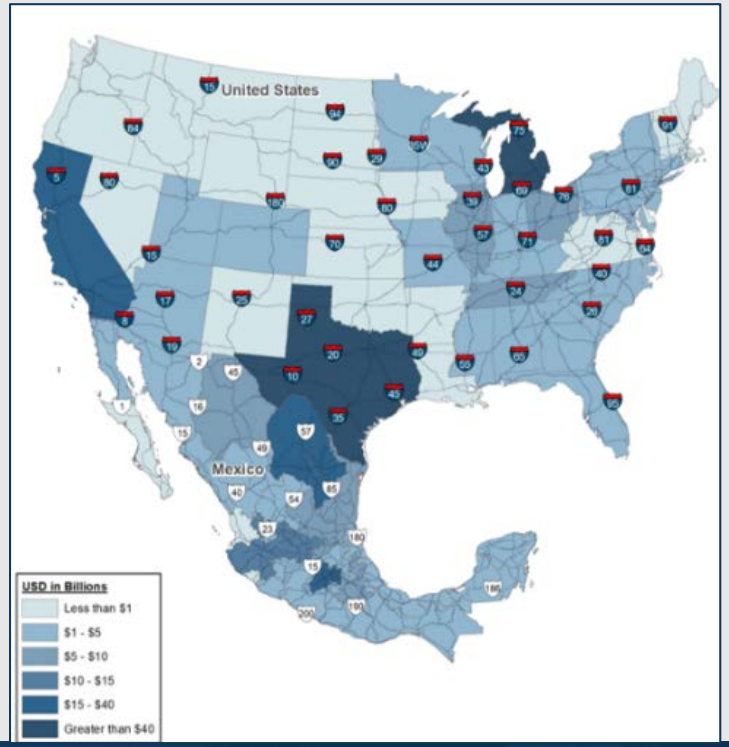


Southbound Movements: Trade Origins by County

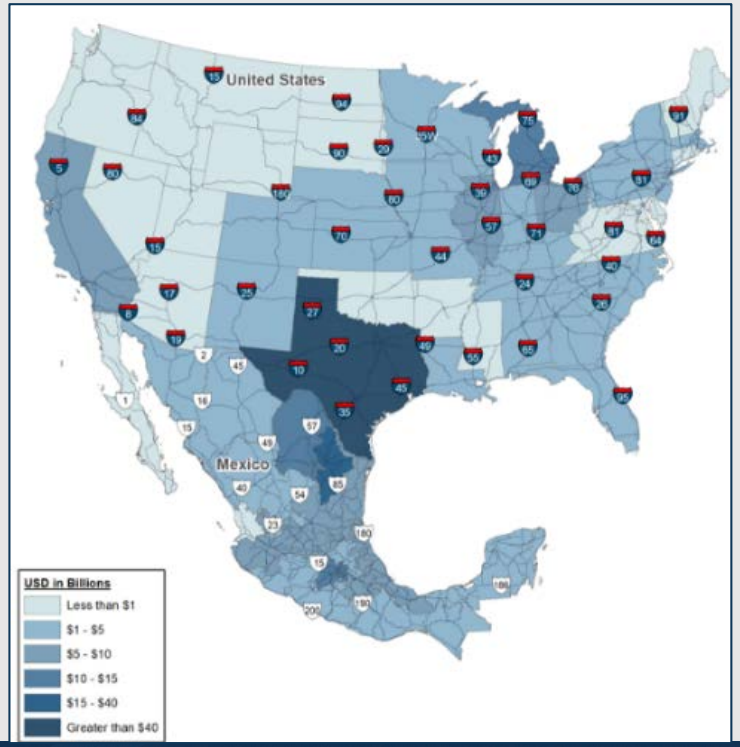


Cross-Border Trade Connecting all U.S. and Mexican States (3.6)

Northbound Movements: Origins (MX) and Destinations (U.S.)



Southbound Movements: Origins (U.S.) and Destinations (MX)

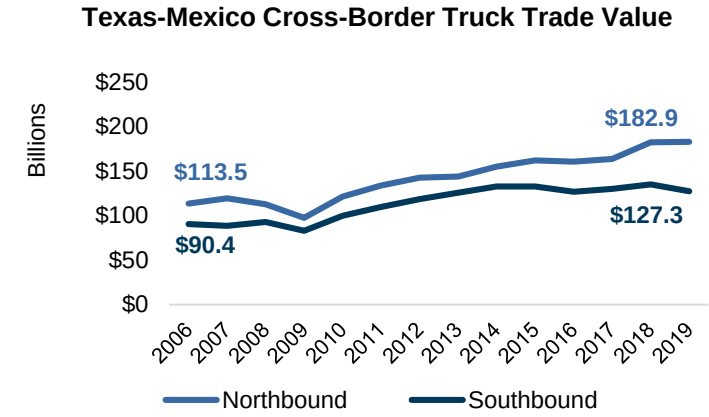


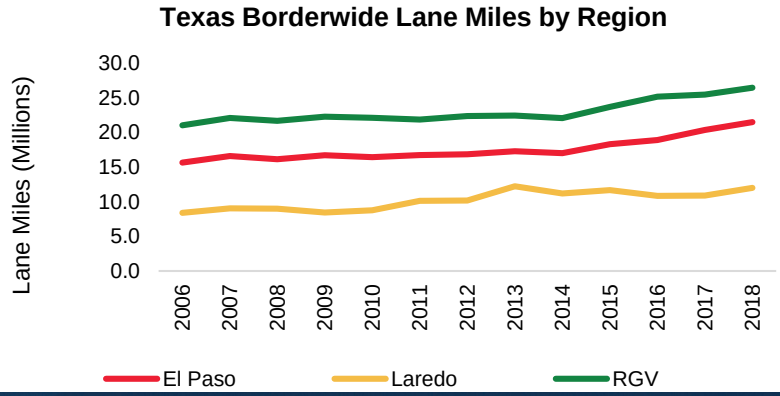
Current State of Border Transportation Infrastructure System

Border Crossings	▪ Texas-Mexico border region **added seven new bridge crossings** right after NAFTA ▪ Border activity is dynamic; border transportation infrastructure is not as adaptable
Highway System	▪ Primary conduit for people and goods movement ▪ Facilitates daily life for millions of residents and **sustains local and global trade**
Freight Rail System	▪ Provides lower-cost shipping for bulk agricultural commodities, minerals and international shipping containers ▪ **Unified cargo processing** in Laredo creates efficient cross-border rail trade
Aviation	▪ Enables **business, personal travel, and cargo movements** on numerous U.S. and Mexican carriers ▪ 15 airports in Texas have regularly scheduled flights to 31 airports throughout Mexico
Seaports	▪ Short sea shipping across the Gulf of Mexico is competitive with truck and rail ▪ **Seaport shipping alleviates congestion** at land border crossings
Pipelines	▪ **Predominantly used for U.S. exports**, with vast majority of the total capacity used for outflows to Mexico ▪ 13 import and export pipeline terminals exist along the border

Highway and Roadway Network (3.7)

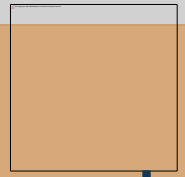
- 30,200 lane miles serve the border region
- Passenger vehicle miles traveled (VMT) in border region **increased 35%** and commercial VMT **increased 17%** from 2005 to 2018
- Cross-border truck trade **increased 52%** between 2006 and 2019
- Roadway capacity **increased 14%** between 2006 and 2019





Highway and Roadway Network (3.7)

- Highway and roadway infrastructure has not kept pace with passenger and freight growth in the border region



The number of northbound trucks increased by

2 million or 93%

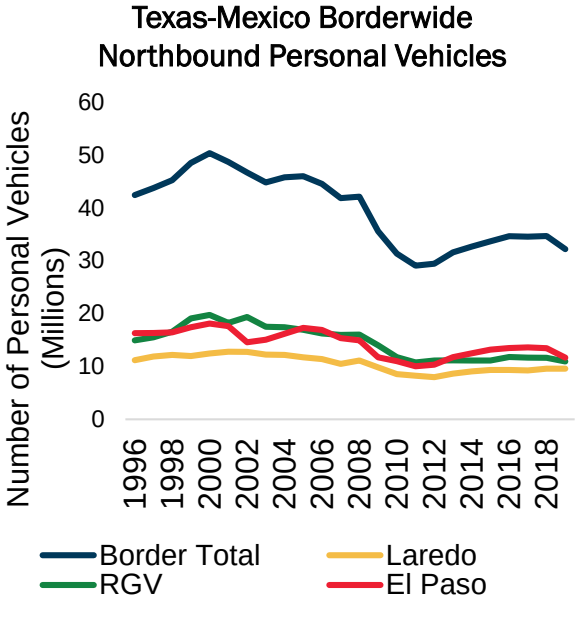
since 1996

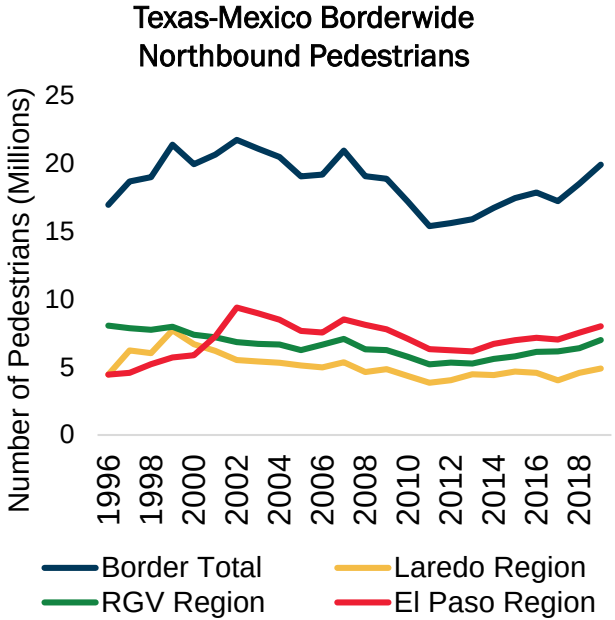
2.2 Million (1996)	4.2 Million (2017)

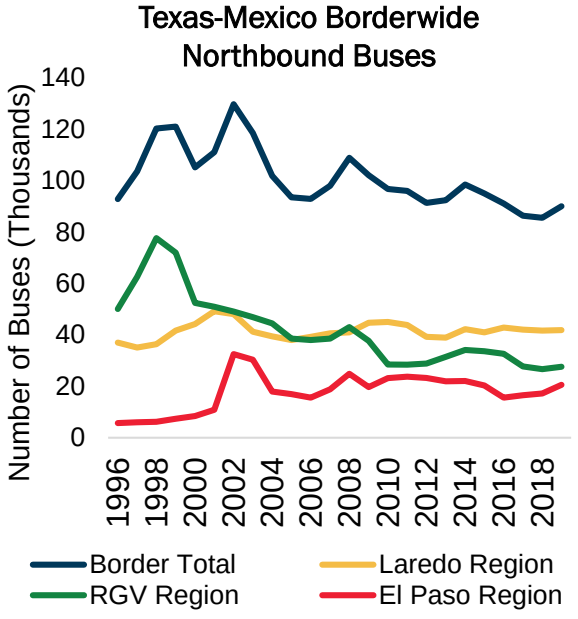
BTS border crossing data only provides border entry information.

The Texas-Mexico Border Story: Northbound Movement of People (3.7.5)

Each year, **84.8 million people** cross the Texas-Mexico border.*



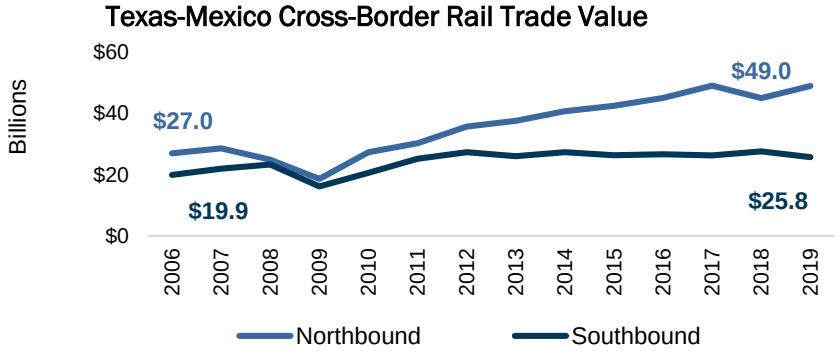




** There is a lack of southbound data on the movement of people in the border region.*

The Texas-Mexico Border Story: Freight Rail Network (3.8)

- Freight rail infrastructure has not grown at the same rate as rail trade and traffic



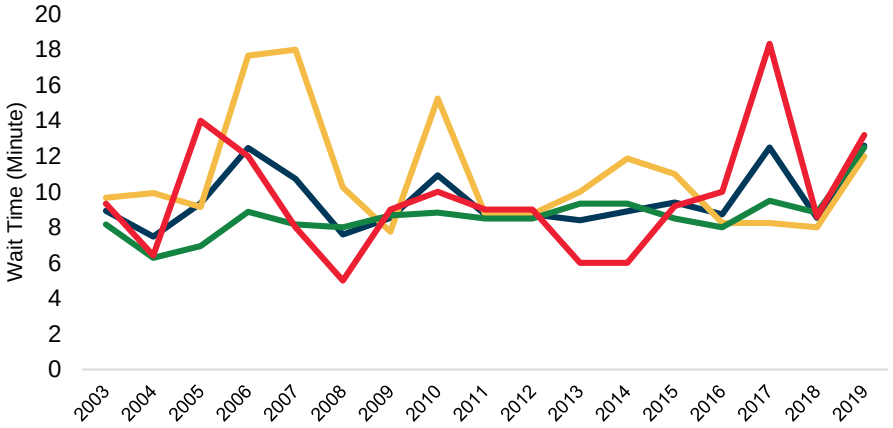
The number of northbound railcars increased by **769,152** or **305%** since 1996

251,769 Railcars (1996)	1.0 million Railcars (2019)

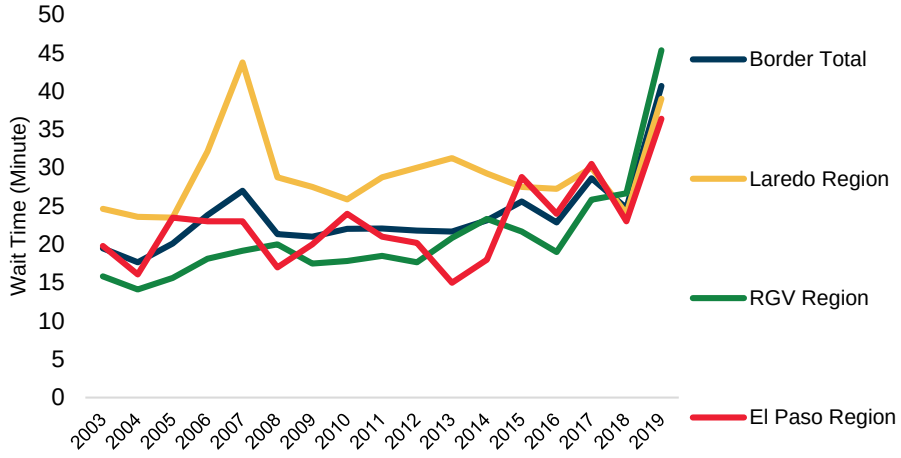
Mobility and Reliability: Northbound Wait Times – Commercial Vehicles (3.12.2)

- **Commercial vehicles:** From 2003-2019, median wait times were relatively steady; **90th percentile wait times more than doubled** (over 21 minutes) across the entire border region

50th Percentile Border Wait Time: Commercial Vehicle (Standard)



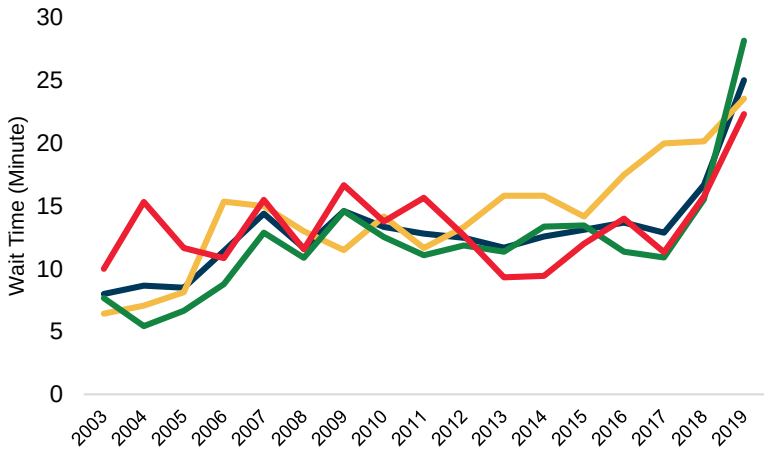
90th Percentile Border Wait Time: Commercial Vehicle (Standard)



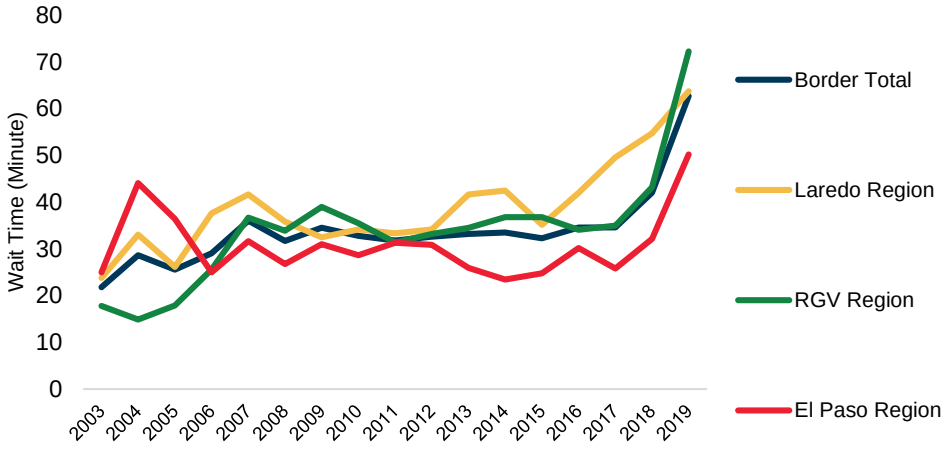
Mobility and Reliability: Northbound Wait Times – Personal Vehicles (3.12.2)

- **Personal vehicles:** **Median wait times increased 213%** (17 minutes) across the border between 2003-2019

50th Percentile Border Wait Time: Personal Vehicle (Standard)



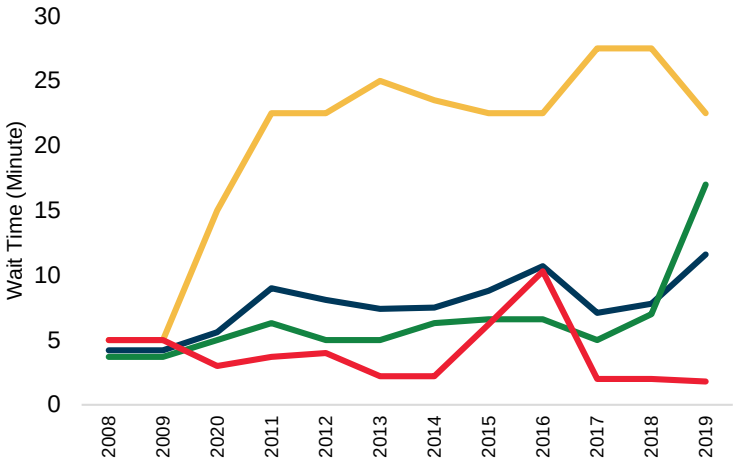
90th Percentile Border Wait Time: Personal Vehicle (Standard)



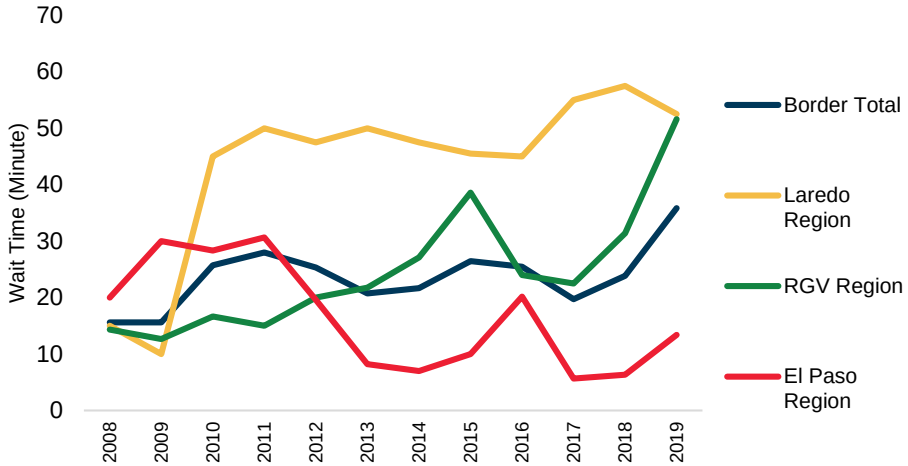
Mobility and Reliability: Northbound Wait Times – Bicycles/Pedestrians (3.12.2)

- **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

50th Percentile Border Wait Time: Pedestrians (Standard)



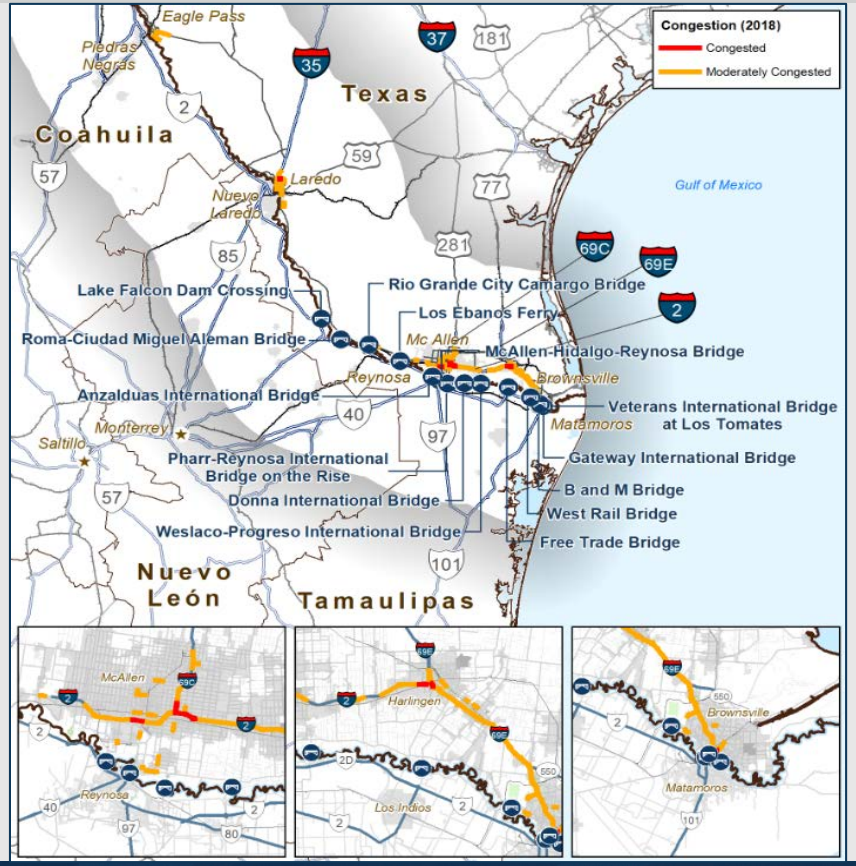
90th Percentile Border Wait Time: Pedestrians (Standard)



Mobility and Reliability: Roadway Delay and Congestion (3.12.3)

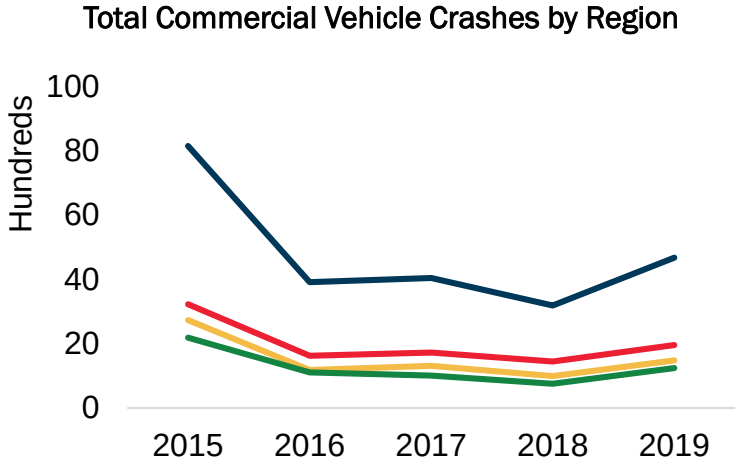
- **Roadway congestion in the Texas-Mexico border region is concentrated in urban areas and around border crossings**
- **El Paso Region:** most congestion occurs on the I-10 corridor and FH 45
- **Laredo Region:** congested corridors are north-south I-35, MEX 85, and I-69
- **Rio Grande Valley Region:** significant congestion occurs on I-69C, I-69E, and on I-2

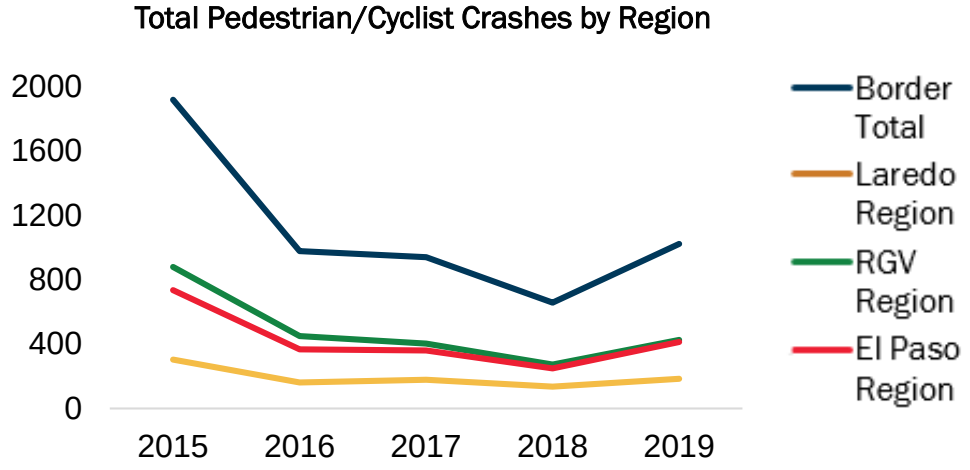
RGV Region Congestion



Safety and Security: Roadway Incidents (3.12.4)

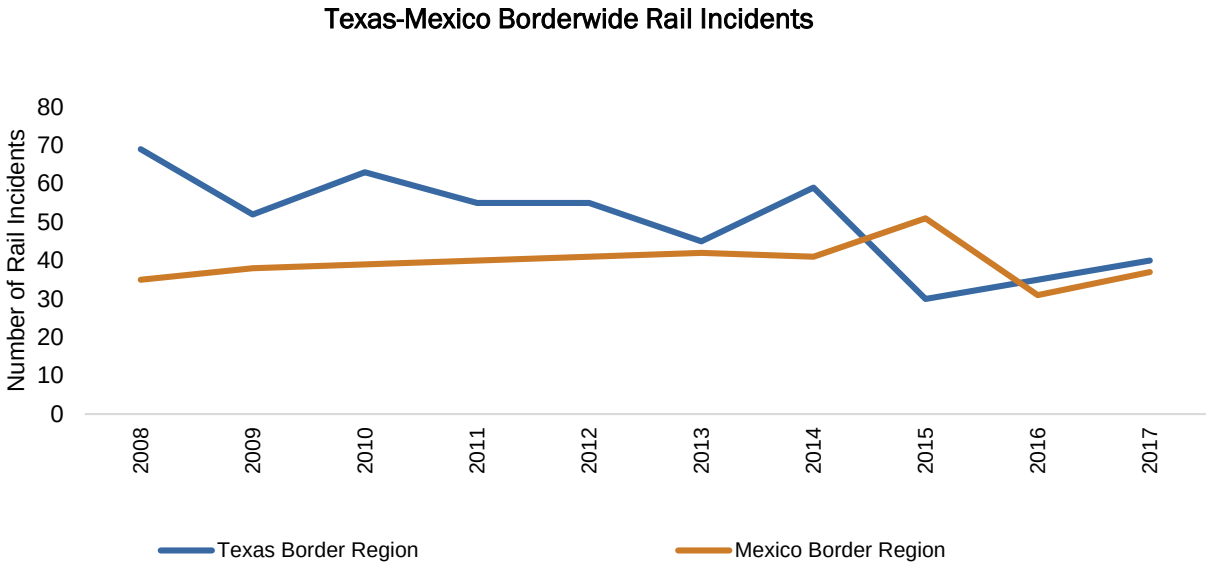
- Commercial vehicle and pedestrian/cyclist **crashes in the border region have steadily declined** since 2015
- Crashes in Mexico declined significantly over the past few years





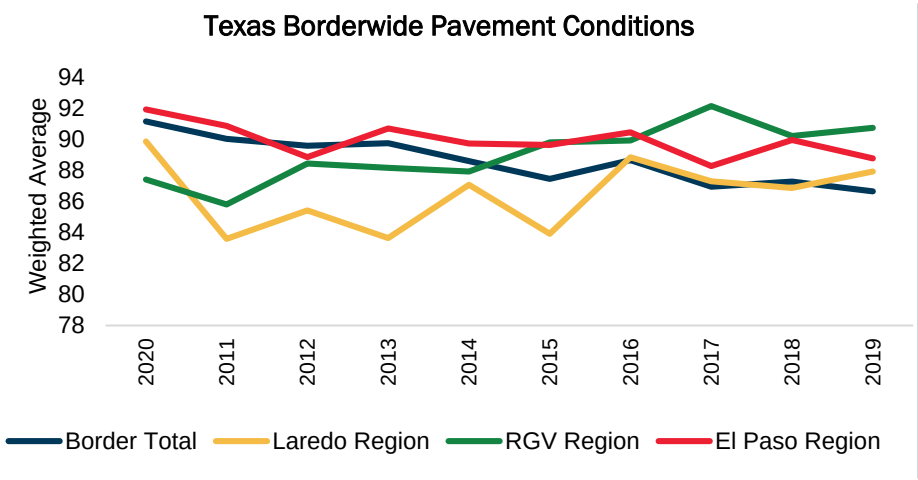
Safety and Security: Rail Incidents (3.12.4)

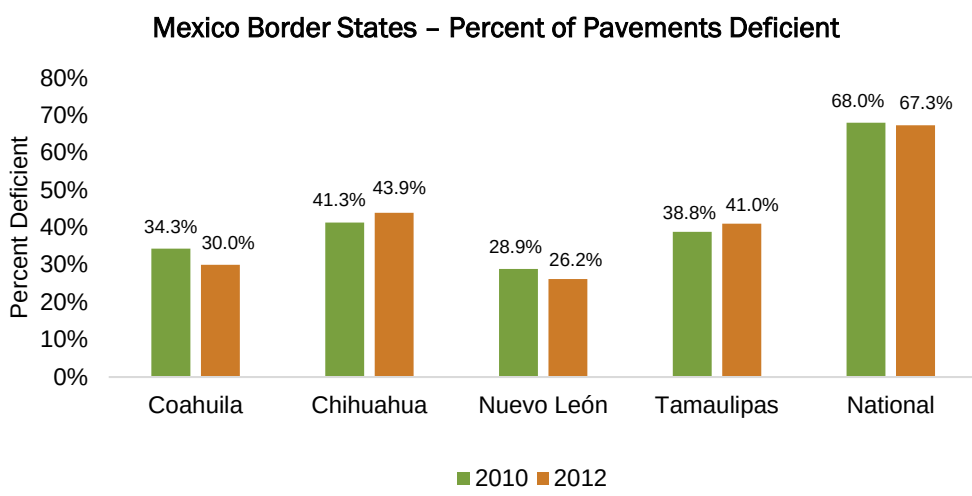
- Between 2008 and 2017, **rail incidents declined 78%** on the Texas side and remained constant on the Mexico side of the borderwide region



Asset Preservation: Pavement Conditions (3.12.5)

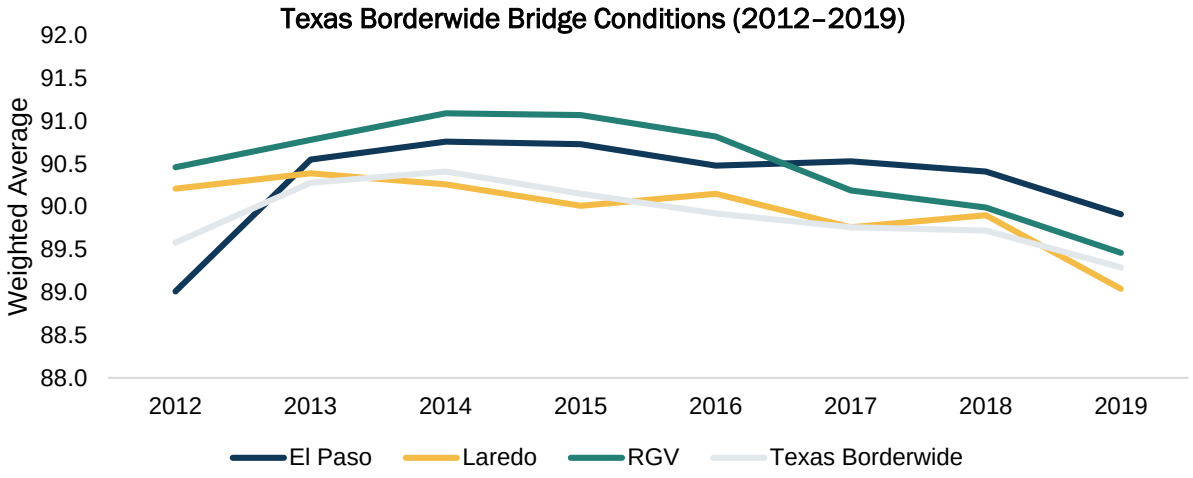
- Between 2010 and 2019, Texas-side border pavement conditions stayed **relatively consistent**
- Within the Mexico border states, pavement conditions are of **higher quality than the national averages**





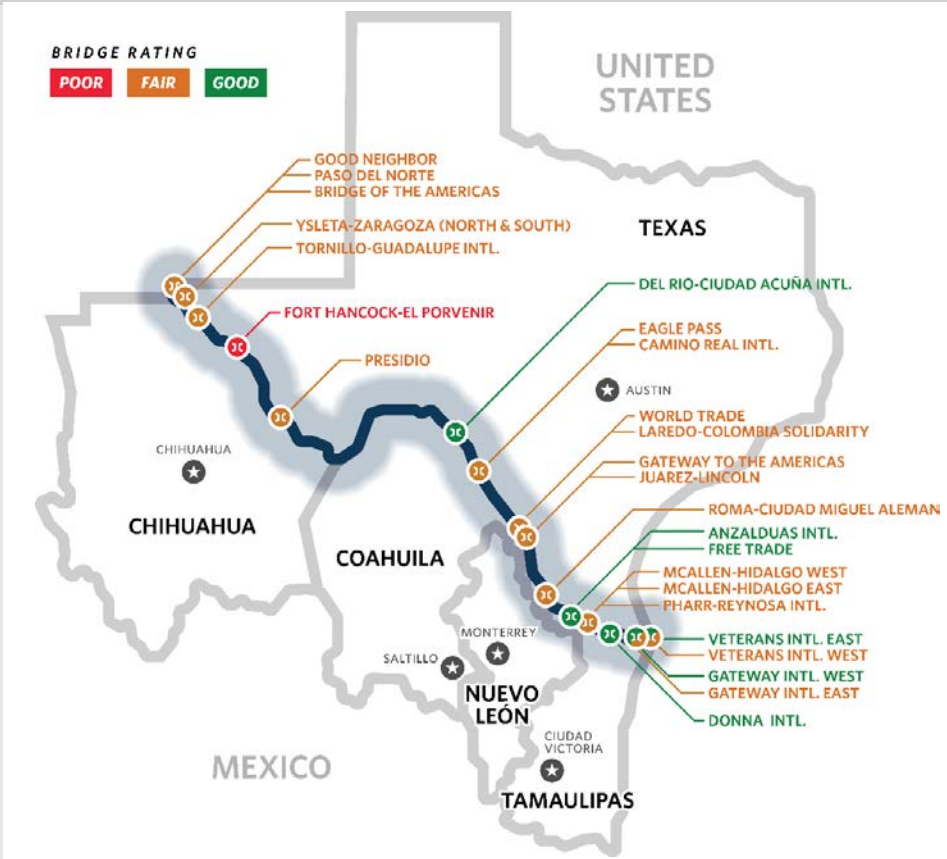
Asset Preservation: Bridge Conditions (3.12.5)

- **Bridge conditions in the Texas border counties improved** between 2012 and 2014, but 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 condition scores in the Laredo Region are lower



Asset Preservation: Border Crossing Conditions (3.12.5)

- All Texas-Mexico border crossings are in *good or fair* condition—with the exception of Fort Hancock-El Porvenir
- Many structures may **require future investments** to ensure infrastructure is able to **meet transportation demands**



BNRSC Feedback

1. Did we adequately address your comments from the last BNRSC meeting?
2. Are there other topics that need to be included in this chapter?

Binational Multimodal Transportation Network Designation

Chapter 4

Designation Process for Binational Multimodal Transportation Corridors Overview

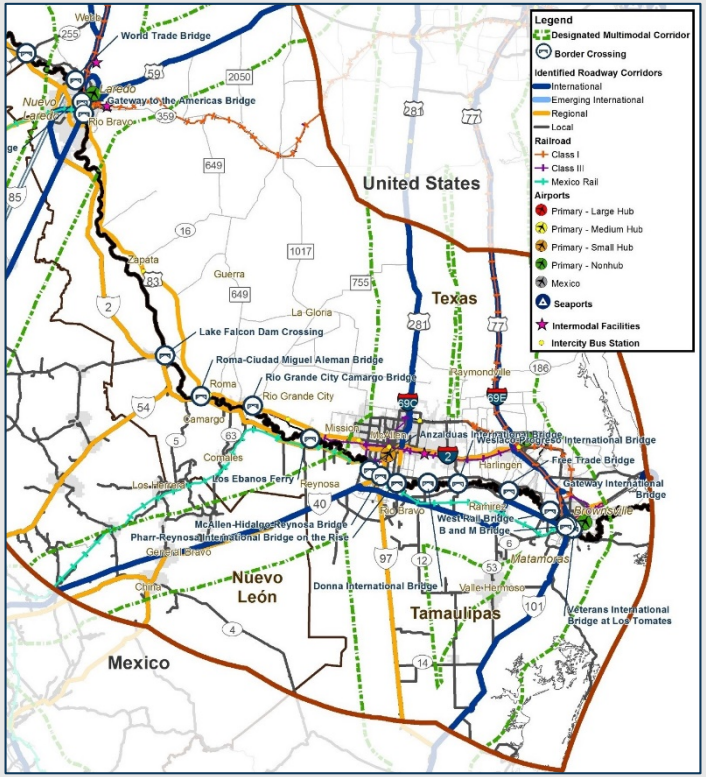
Chapter Purpose	Key Messages	Refinements/Changes
▪ Summarize the binational multimodal transportation network designation process for: – Texas and local regions – Mexico's four border states – U.S. and Mexico	▪ Three border regions were identified, consistent with previous efforts ▪ 5-sphere planning analysis structure ▪ Developed designation criteria ▪ 11 multimodal transportation corridors are designated	▪ Provides a consistent framework for ongoing transportation planning in the region ▪ Integration, accessibility, and connectivity are key criteria used in designation ▪ Process for designation began at border crossings and expanded geographically and by mode ▪ Six designated corridors serve north-south movements and five serve east-west movements

Refinements to Binational Multimodal Transportation Network Designation (Chapter 4)

Chapter	Feedback	Response
4	Include Mazatlán-Durango-Monterrey-Reynosa corridor	*Added Mazatlán-Durango-Monterrey-Reynosa corridor*
	Include Port of Brownsville	*Added Port of Brownsville*
	Include Port of Matamoros	*The Port of Matamoros could not be added because it was not finished by 2017 (baseline year), but it will be considered for Chapter 8 – Identification of Future Needs and Strategies*

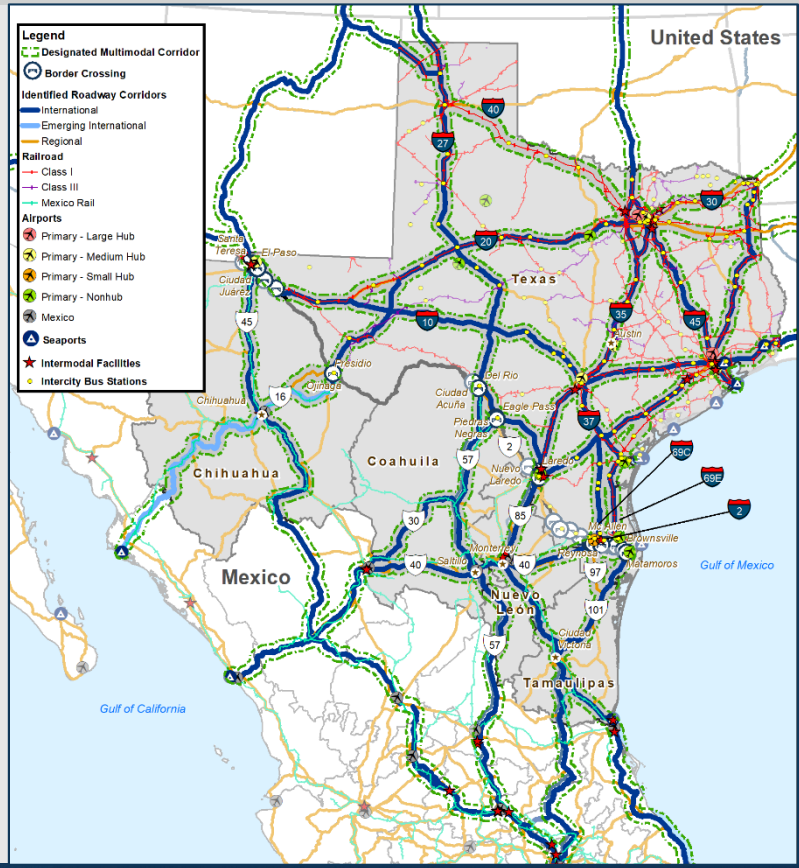
Binational Multimodal Network Designation (4.1.4)

Rio Grande Valley



Binational Networks Supporting the Texas-Mexico Border (4.4)

- **Integrates the 29 border crossings** with the multimodal transportation networks
- Identifies **binational trade corridors** from existing planning documents and stakeholder input
- Identifies **multimodal systems** supporting these trade corridors
- Designates multimodal, cross-border corridors based on **integration, connectivity and accessibility** criteria



BNRSC Feedback

1. Please identify any missing corridors.
2. What other elements should we consider in this chapter?

Chapter 6: Future Forecasts for the Border Region

Preliminary Analysis and Findings

Future Forecasts for the Border Region Overview

Chapter Purpose

- Provide future forecasts to 2050 of the movements of people and goods
- Assess future demand for the binational transportation systems serving the Texas-Mexico border

Key Messages

- Forecast methodology accounts for historical trends and future factors
- Future factors include social, technical, environmental, economic, and political considerations
- Movement of people and goods are forecasted by mode, POE, geography
- Future scenarios will assess:
  - Employment
  - National economic activity (GDP)
  - Exchange rate
  - Border policies

Preliminary Findings

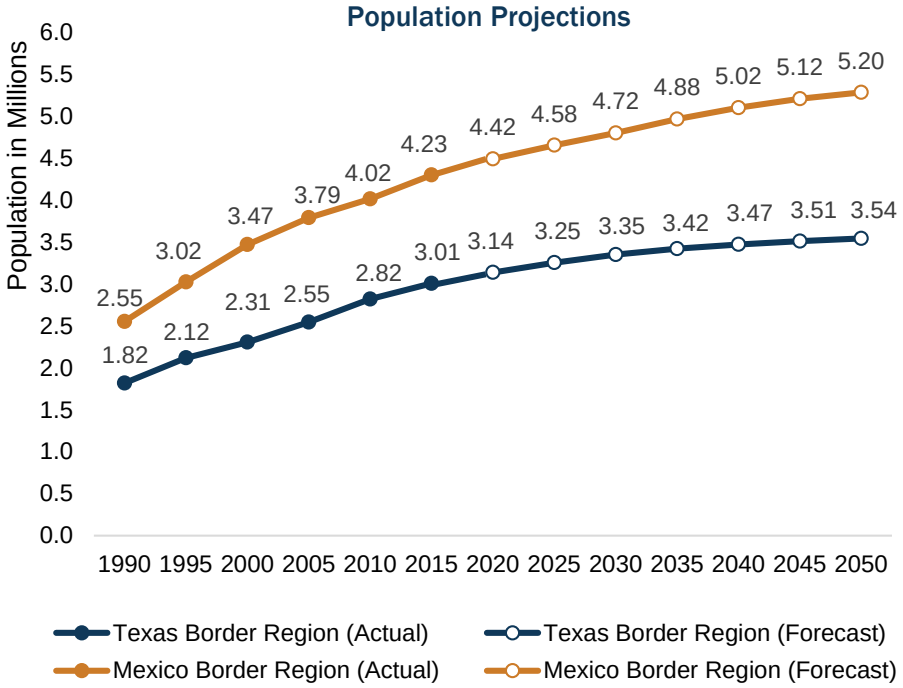
- An additional 30 million people will cross the border – most by personal vehicle
- Truck and train movements almost triple – stressing border infrastructure capacity
- The value of trade crossing the border more than triples – making an effective border critical for the U.S. and Mexican economies

Texas-Mexico Border Story: Looking to the Future

Population	▪ **8.8 million** people live along the border (2050) ▪ Borderwide population increases another 18% (1.3 million) from 2017 to 2050
Employment	▪ Continued employment growth in border region from 2017 to 2050 ▪ Texas: 2.1% ⬆ growth per year ▪ Mexico: continued growth
Income	▪ Incomes in Texas border counties expected to grow 0.5% per year ▪ Texas border **poverty expected to continue declining** between 2017 and 2050 ▪ **Incomes in Mexico border states expected to grow** between 2017 and 2050
Education	▪ Texas border region high school and college/technical school graduation rates continue to increase between 2017 and 2050 ▪ More Mexico border residents are expected to complete secondary and upper education due to compulsory upper secondary education policies
Trade	▪ Ratification of USMCA continue the economic competitiveness developed under NAFTA ▪ COVID-19 may result in short-term trade decline/longer-term near-shoring of manufacturing

The Future of the Border Region: Population

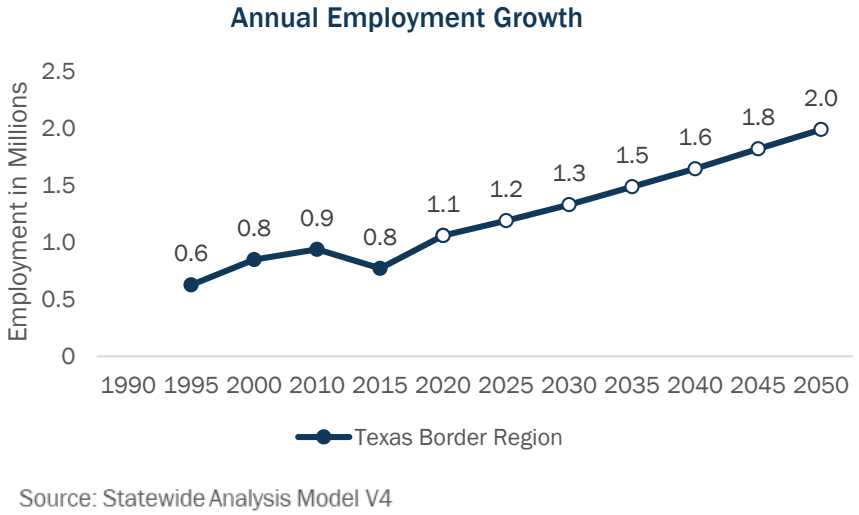
- Population in the border region is projected to grow annually by:
  - **Texas: 0.44%** from 2017 to 2050
  - **Mexico: 0.52%** from 2017 to 2050
- Population has not been a good predictor of the cross-border movement of people
  - While the border region population grew through 2019, the movement of people through the border declined more than 50 million



Source: Texas Demographic Center, 2018 Population Projections (2010-2050); CONAPO, Projections of the Population of the Municipalities of Mexico (2015-2030), UN World Population Prospects 2019

The Future of the Border Region: Employment

- The cross-border movement of people is influenced by local factors
  - Employment
  - Exchange rates
  - Gasoline prices
  - Border policies
- Employment in the border region is expected to grow annually by:
  - **Texas: 2.1% annual growth** from 2017 to 2050
  - Employment forecasts are not available for Mexico



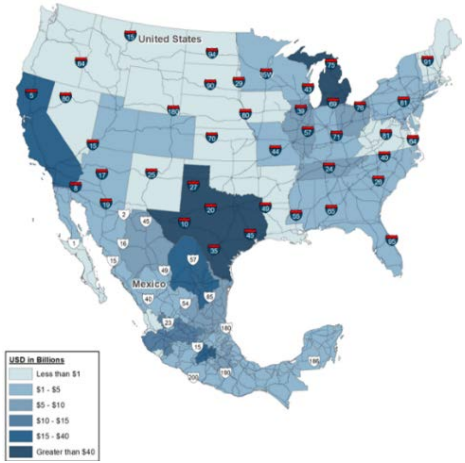
Source: Statewide Analysis Model V4

More than 99% of the movement of people starts and ends within 60 miles of the border

The Future of the National Economies

- The cross-border movement of goods are influenced by national and international economic trends, particularly the U.S. economy
- Truck and rail border crossings tend to be longer distance
- Mexico was the U.S.' largest trading partner in goods (2019)
- U.S. trade is forecast to outpace economic growth annually from 2017 to 2030 (per U.S. Congressional Budget Office):
  - Economic Growth: 1.9%
  - Exports: 2.2%
  - Imports: 2.4%

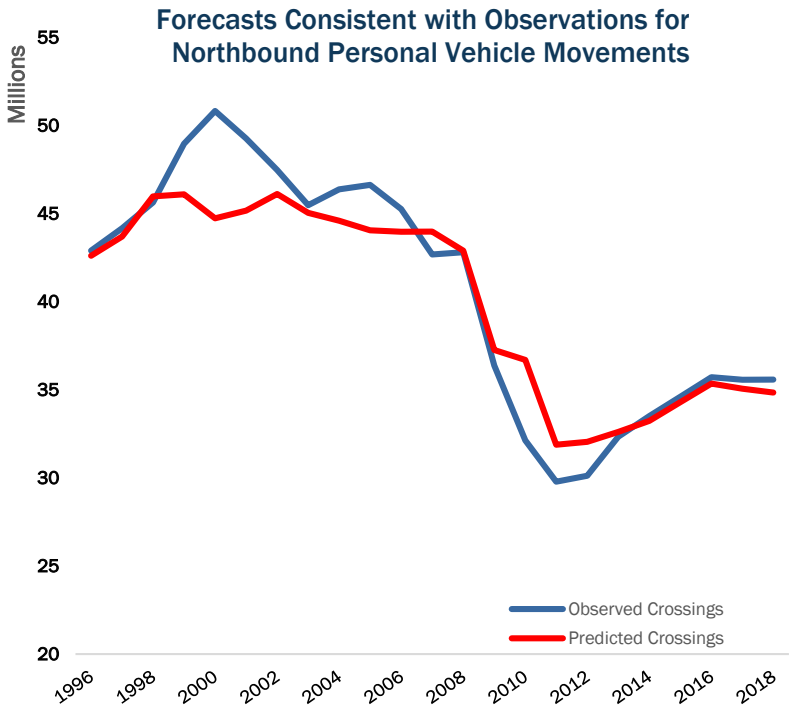
Northbound Movements: Origins (MX) and Destinations (U.S.)



The majority of movement of goods have origins or destinations outside Texas and the Mexican border states for northbound and southbound

Forecasting Methodology

- Developed forecasts of the movements of people and goods by POE
  - People: number of people, passenger vehicles, buses, pedestrians
  - Goods: trucks, railcars, tons, value
- Conducted trend analysis of border crossings and socioeconomic factors
- Collected forecasts of socioeconomic variables to form a mid-case or "most likely" forecast
- Allocated POE forecasts to border crossings
- Forecasts calibrated to other sources

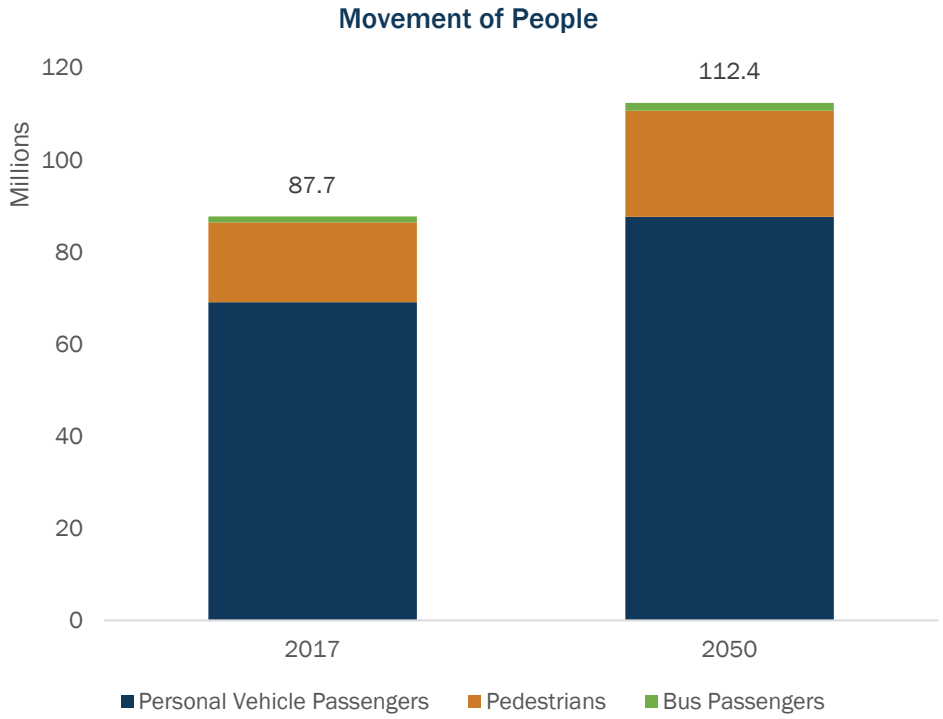


Forecast Data Sources

- Approach consistent with planning reports and research
- External inputs to forecast
  - Bureau of Transportation Statistics (BTS)
  - Texas SAM-V4 model
  - Texas Demographic Center
  - Energy Information Agency (EIA)
  - Organization for Economic Cooperation and Development (OECD)
- Forecasts validated against those developed by other sources
  - 2018 Texas Freight Mobility Plan
  - Freight Analysis Framework (FAF)
  - TRANSEARCH forecasts
  - FHWA border forecasts
- Reviewed Metropolitan Planning Organization Long-Range Plans

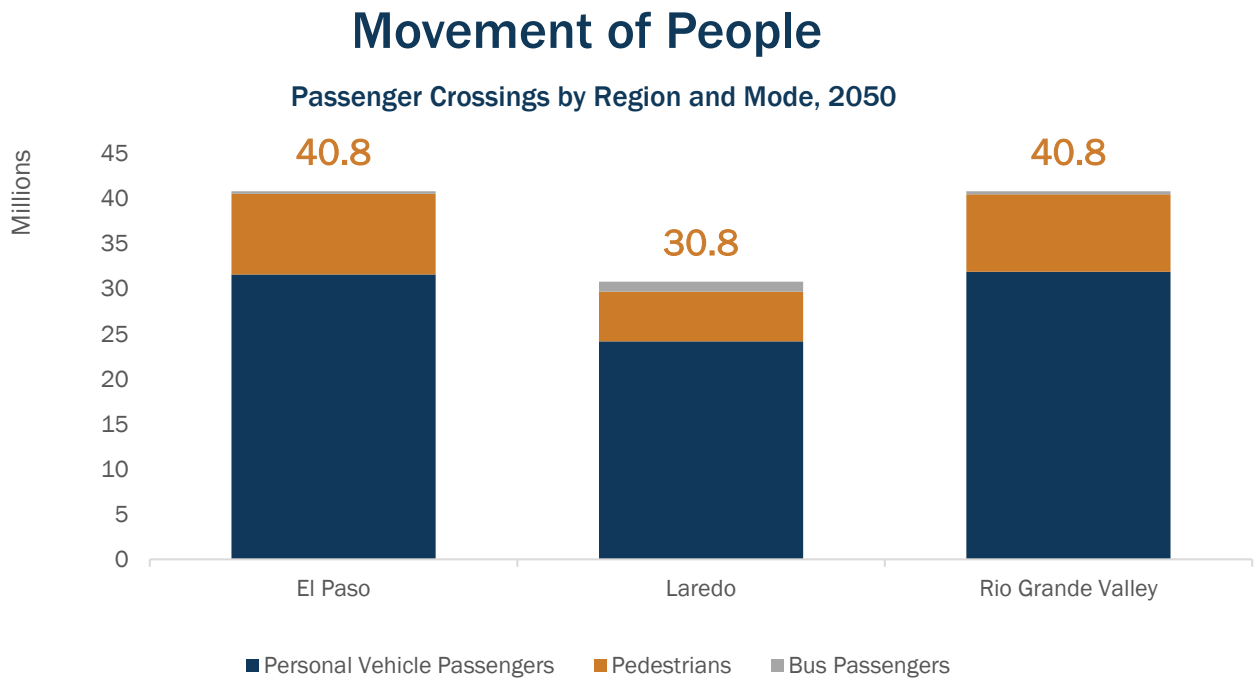
Preliminary Future Movement of People Through Texas-Mexico Border: Mid-Case Forecast Borderwide

- 25 million additional people will cross the border through POEs in 2050 (28% growth)
- **Personal vehicles remain the major mode** of personal travel



*number of people

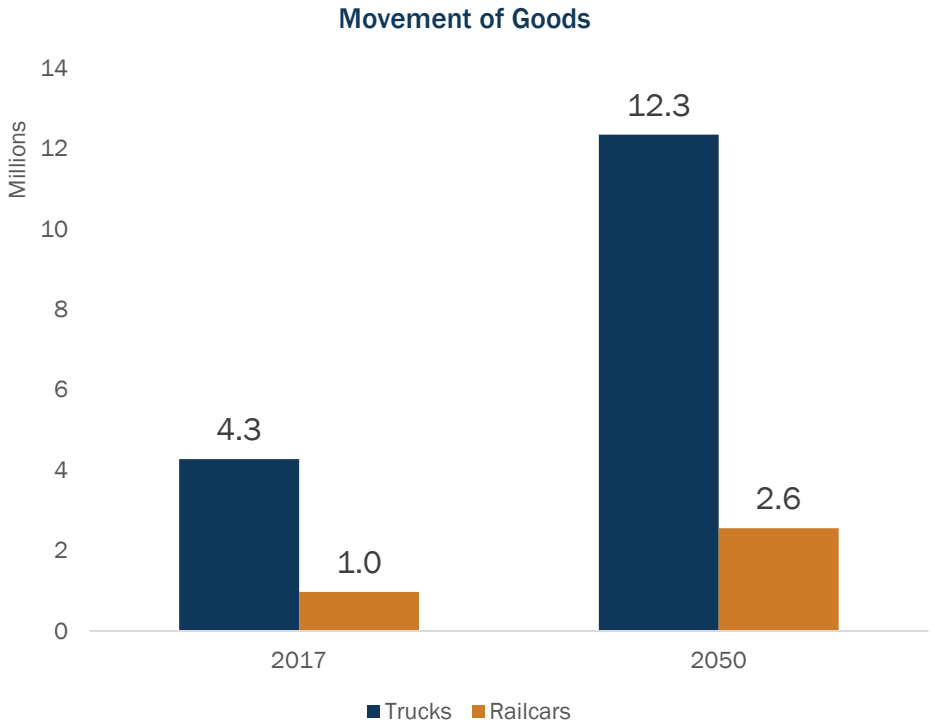
Preliminary Future Movement of People Through Texas-Mexico Border: Mid-Case Forecast by Region



The movement of people is broadly distributed across the three border regions

Preliminary Future Movement of Goods Through Texas-Mexico Border: Mid-Case Forecast Borderwide

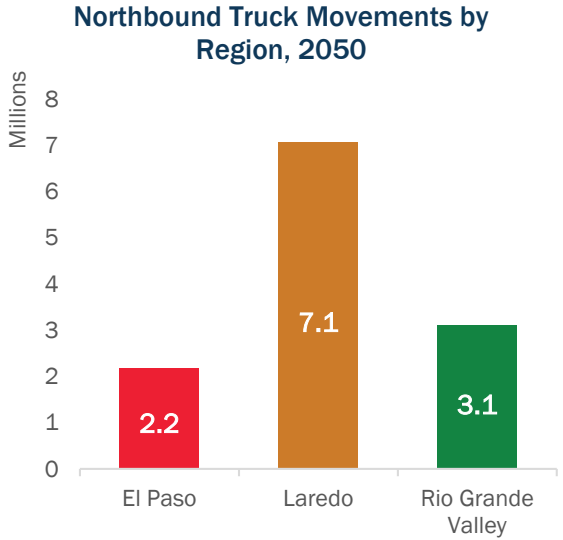
- Trucks are expected to nearly triple (189% growth)
- Railcars expected to more than double (163% growth)

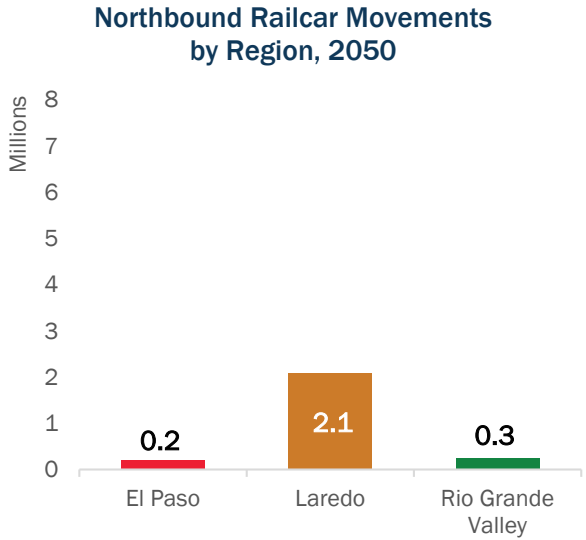


*number of crossings

Preliminary Future Movement of Goods Through Texas-Mexico Border: Mid-Case Forecast by Region

Movement of Goods

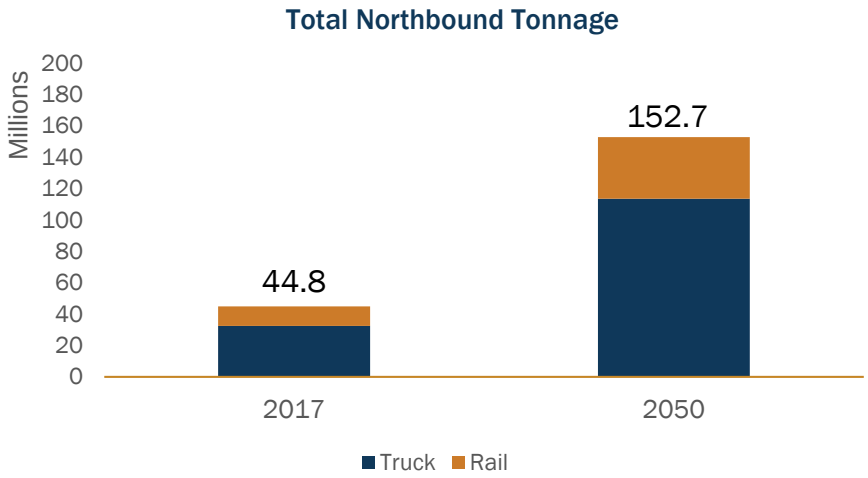


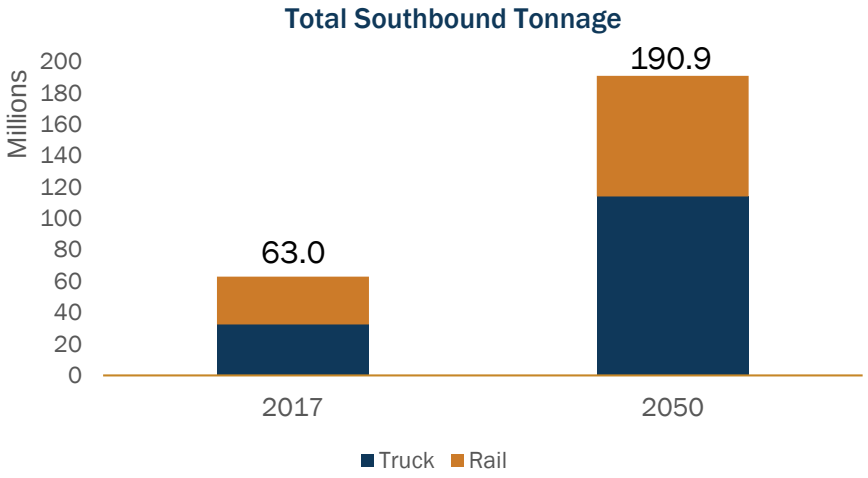


Goods are moved mostly through the Laredo/Coahuila/Nuevo León/Tamaulipas Region

Preliminary Future Value of Trade Through Texas-Mexico Border

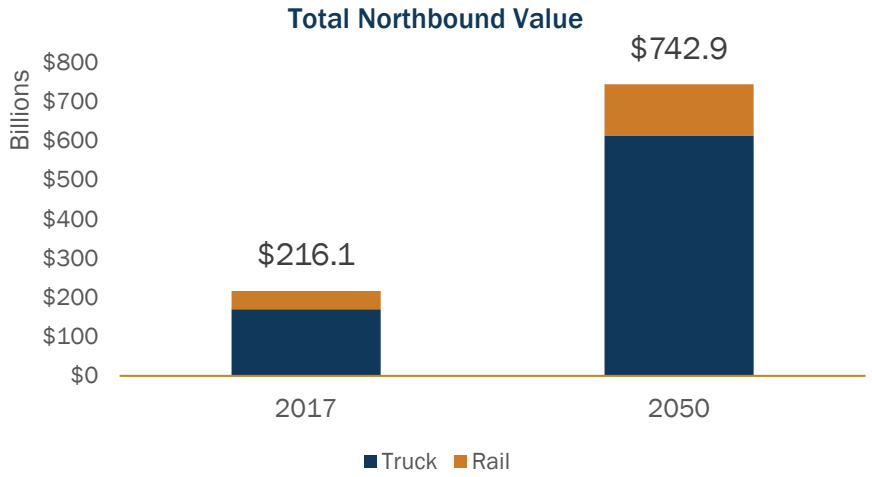
- **Tonnage is expected to more than triple** (219% overall) with faster growth in the northbound direction
- Truck tonnage grows faster (251%) than rail tonnage (170%)

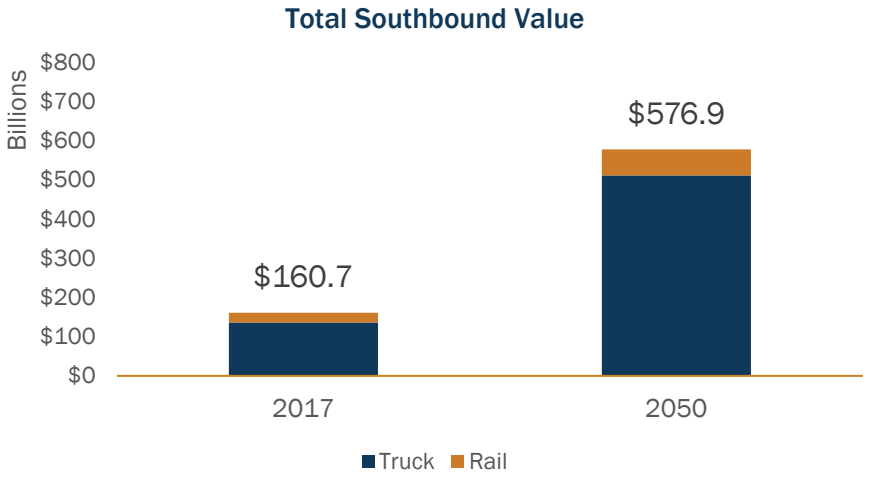




Preliminary Future Value of Trade Through Texas-Mexico Border

- Mexico is the U.S.' largest trading partner in goods – just over half the value of trade through the border is Mexican exports to the U.S.
- The **value of trade grows faster (250%) than the movement of goods (184%)** due to greater growth in higher value supply chains such as high technology





Alternate Future Scenarios for the Border

- The mid case reflects a continuation of prevailing trends
  - 2.1% annual employment growth
  - 1.8% annual economic growth (U.S.)
  - Stable currencies
- Alternate future scenarios are based on factors affecting the movement of people and goods across the border
  - Low case: slower economic growth and restrictive border policies
  - High case: higher economic growth, facilitative border policies and additional infrastructure

Low-Case Scenario

- Slower employment growth (1.3% per year)
- Slower national economic growth (1.6% per year)
- Peso (40% devaluation)
- Restrictive border & trade policies (-10% impact)

High-Case Scenario

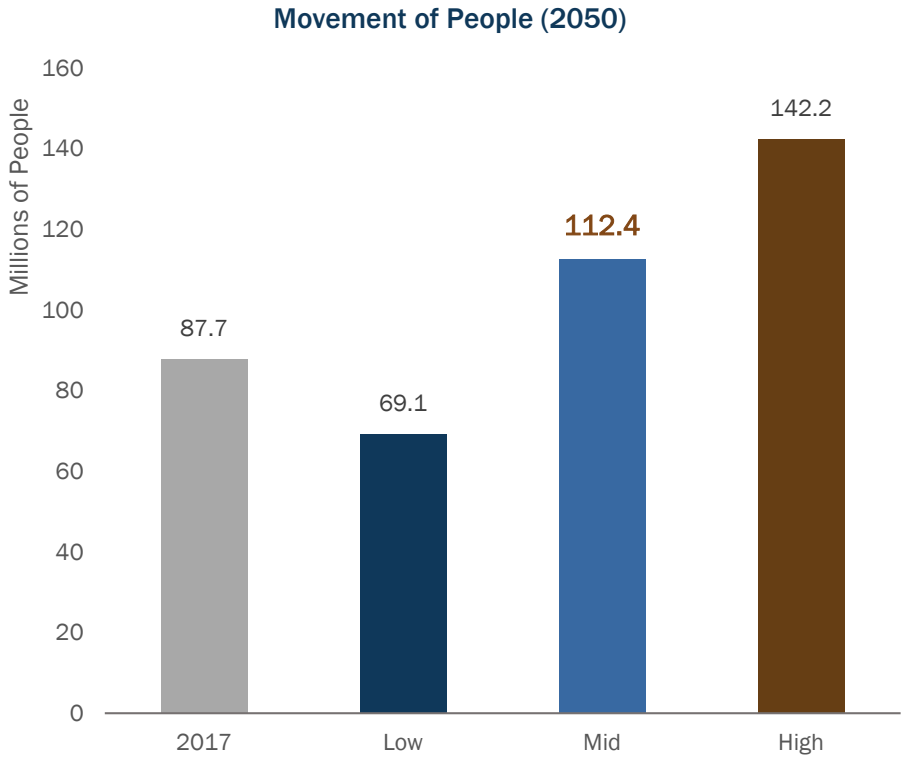
- Additional infrastructure investments
- Faster employment growth (2.4% per year)
- Faster national economic growth (2% per year)
- Peso (20% appreciation)
- Greater trade integration (+10% impact)

Question: Do the assumptions for the alternate scenarios make sense to you?

Preliminary Alternate Future Scenarios: Movement of People

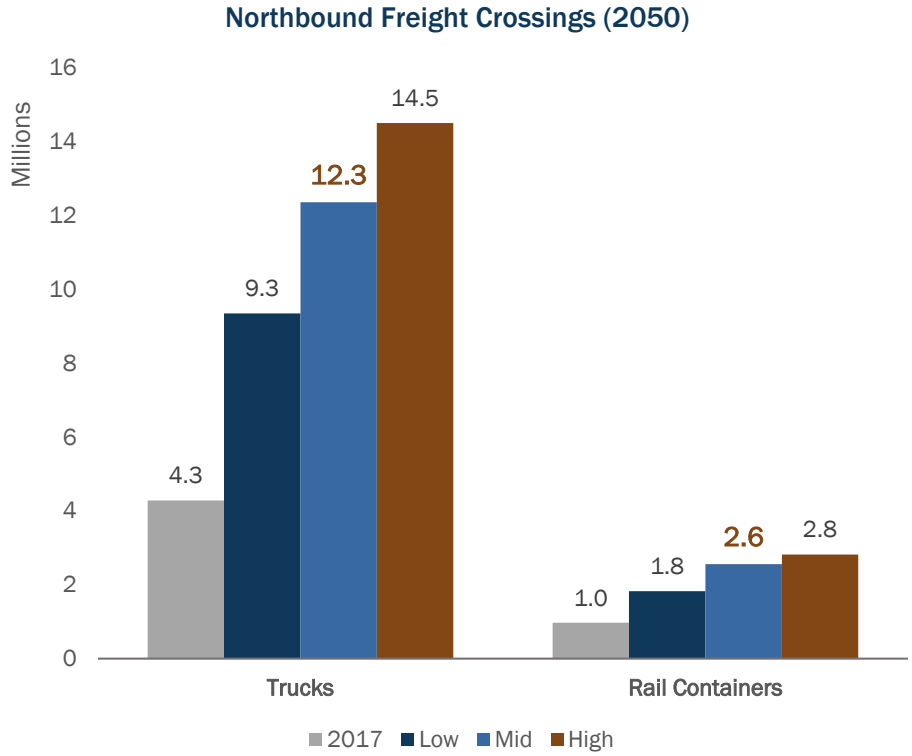
- In the low case, the movement of people is lower due to economic conditions, the exchange rate, and border policies
  - Cross-border land movements decline by more than 18 million to 2011 levels

- **In the high case, the movement of people increases by more than 50 million, straining border infrastructure**
  - Consistent with post-2011 trends



Preliminary Alternate Future Scenarios: Movement of Goods

- **Even in the low case, cross-border movement of goods doubles, which will strain border infrastructure**
  - Over the long run, the U.S. and Mexico economies still grow, driving the demand for goods
- In the high case, trucks more than triple and rail containers nearly triple, driving the need for additional capacity
  - **With greater economic integration between the U.S. and Mexico, an efficient border is critical for the economies of both countries**



Preliminary Assessment of Future Congestion

- **Border crossing capacity is anticipated to be strained** even further, in particular for the movement of goods
  - Commercial vehicles expected to grow across capacity-constrained border crossings
  - Wait times anticipated to increase significantly if no action is taken
- **North-south regional roadways providing access to border crossings are particularly affected** with limited other options to move people and goods
  - I-35 into and out of Laredo
  - I-10 in El Paso, impacting east-west connectivity with Laredo and RGV regions
  - I-69, US 59, and US 77 in RGV

What Do the Forecast Results Mean for the BTMP?

- Usage of the POEs along the Texas-Mexico border will increase, regardless of future scenario
- Infrastructure improvements will be needed to accommodate future demand
- The mix of traffic across the border will shift towards the movement of goods

BNRSC Feedback

1. Do the forecast results make sense to you? Please explain.

Chapter 7: Economic Importance of the Border

Preliminary Analysis and Findings

Economic Importance of the Border

Chapter Purpose

- Demonstrate the economic importance of the border
- Highlight the economic impacts of border delays
- Provide input into the investment plan

Key Messages

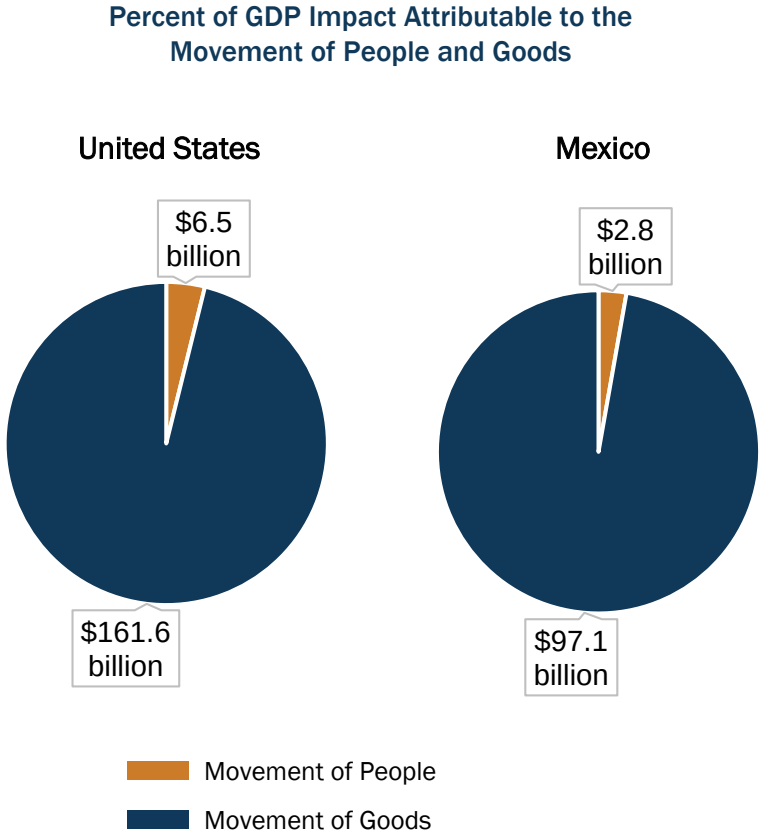
- The Texas-Mexico border supports the economies of the border region in Mexico, Texas, and the U.S.
- The benefit of trade extends to U.S. and Mexican states beyond the border
- Current delays at the border represent missed economic opportunities
- Future delays will grow as a result of increased demand

Preliminary Findings

- The Texas-Mexico border generates more than $268 billion annually in GDP and generates 4.9 million jobs in both countries
- 97% of the total economic impact is due to the movement of goods
- The movement of people contributes more than $9 billion annually to the GDP of the border region
- Border crossing delays represent missed economic opportunities of more than $2.7 billion annually in both countries

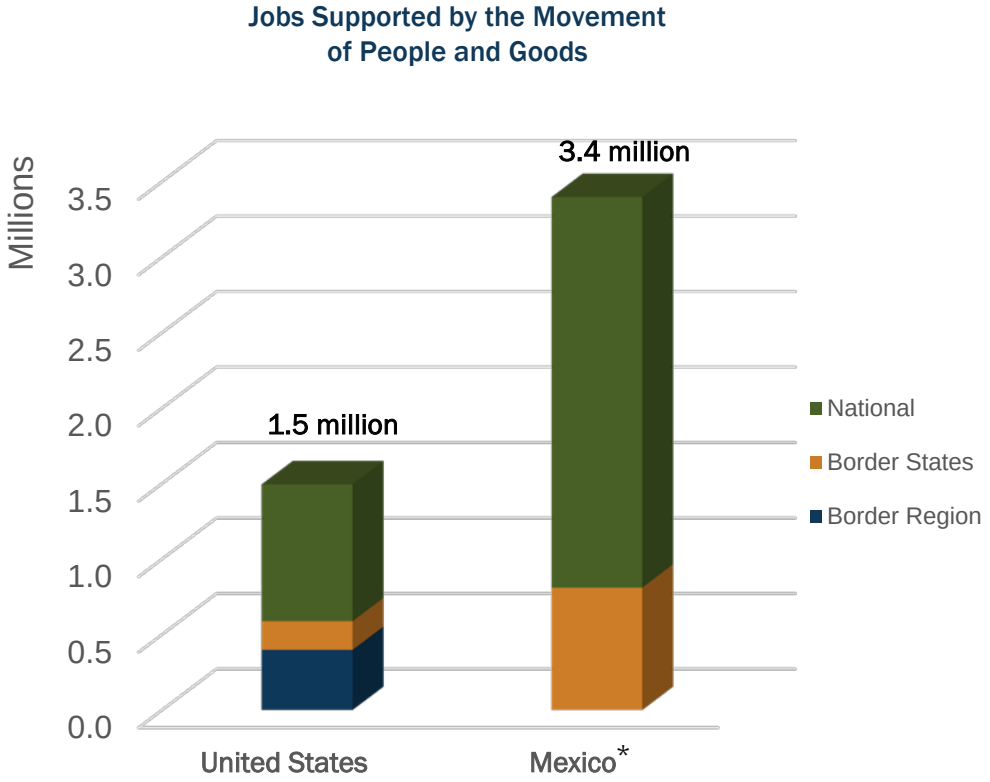
Preliminary Economic Importance of Travel Through the Border

- The movement of people and goods through the Texas-Mexico border has a significant impact on both countries
- The border generates **more than $268 billion annually in GDP**
  - $168 billion in the U.S.
  - $100 billion in Mexico
- The majority of this impact is due to the movement of goods



Preliminary Economic Importance of Travel Through the Border

- The movement of people and goods **generates 4.9 million jobs** on both sides of the border
  - 1.5 million jobs in the U.S.
  - 3.4 million jobs in Mexico
- These jobs support economies at all levels of geography:
  - National: both countries
  - State: border states
  - Regional: border region



* State results include border region results in Mexico

Preliminary Economic Importance of Cross-Border Trade/Goods

- Total economic impact
- Key supply chain impact
- Binational, national, state, and regional economic impact

Preliminary Economic Importance of Cross-Border Trade/Goods – Methodology

1. Estimate the value of exports by supply chain, origin, and POE

- Data: supply chain profile 2017 data
- Source: U.S. Census Bureau Trade Data Online (TDO), Freight Analysis Framework (FAF), Bureau of Transportation Statistics (BTS) TransBorder Freight Data

2. Estimate the impacts of exports using input-output models

- Data: 2018 multipliers for U.S., 2015 multipliers for Mexico
- Source: IMPLAN

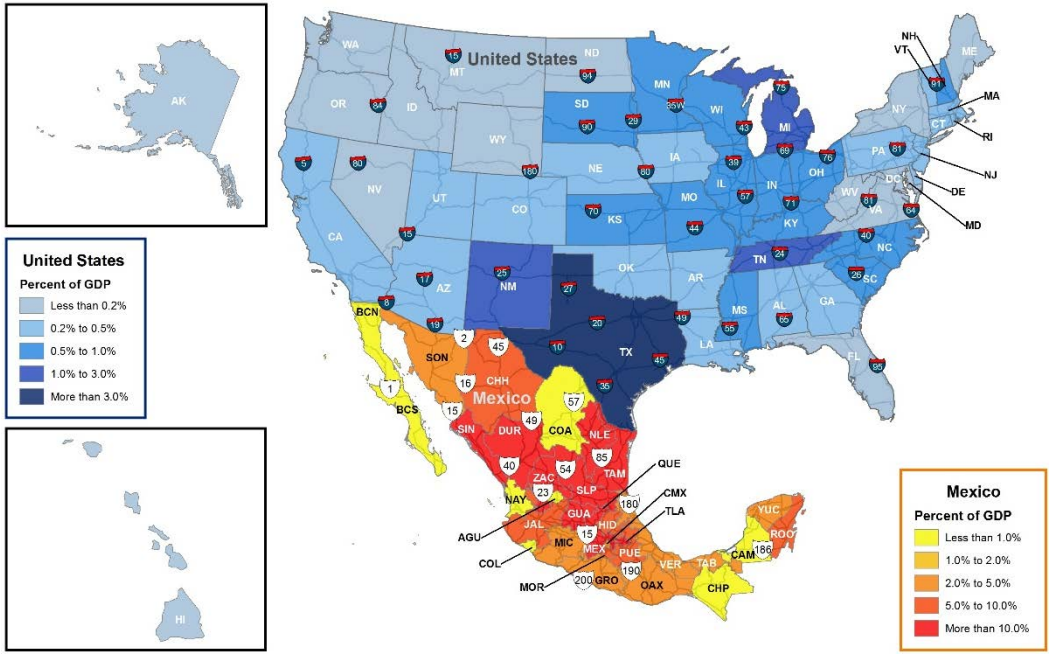
Measures and outcomes

- Gross Domestic Product (GDP), employment, and labor income

Preliminary Economic Importance of Trade Through the Border

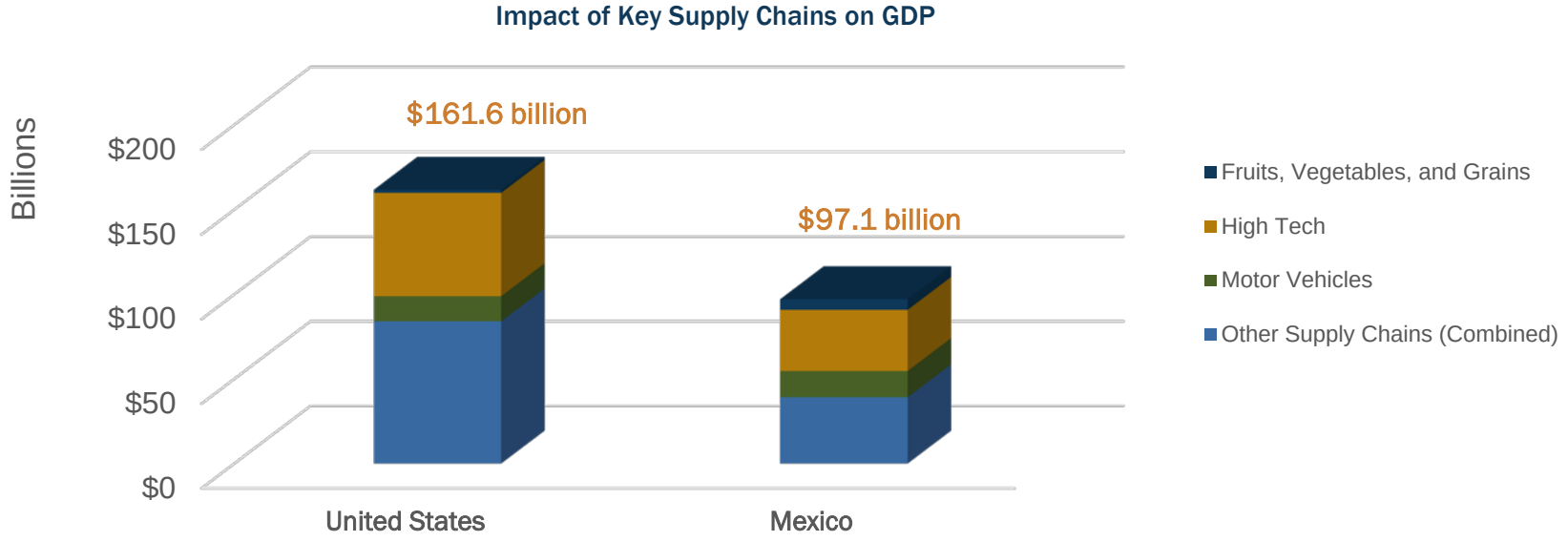
- The economic impact of goods movement across the Texas-Mexico border **reaches the entire U.S. and Mexico**
- Manufacturing integration after NAFTA has allowed (and USMCA will allow) North American manufacturing to be more competitive with Asia
- The Texas-Mexico border trade has had a nationally significant impact on GDP in both countries

Percent of GDP Dependent on Trade through Texas-Mexico Border

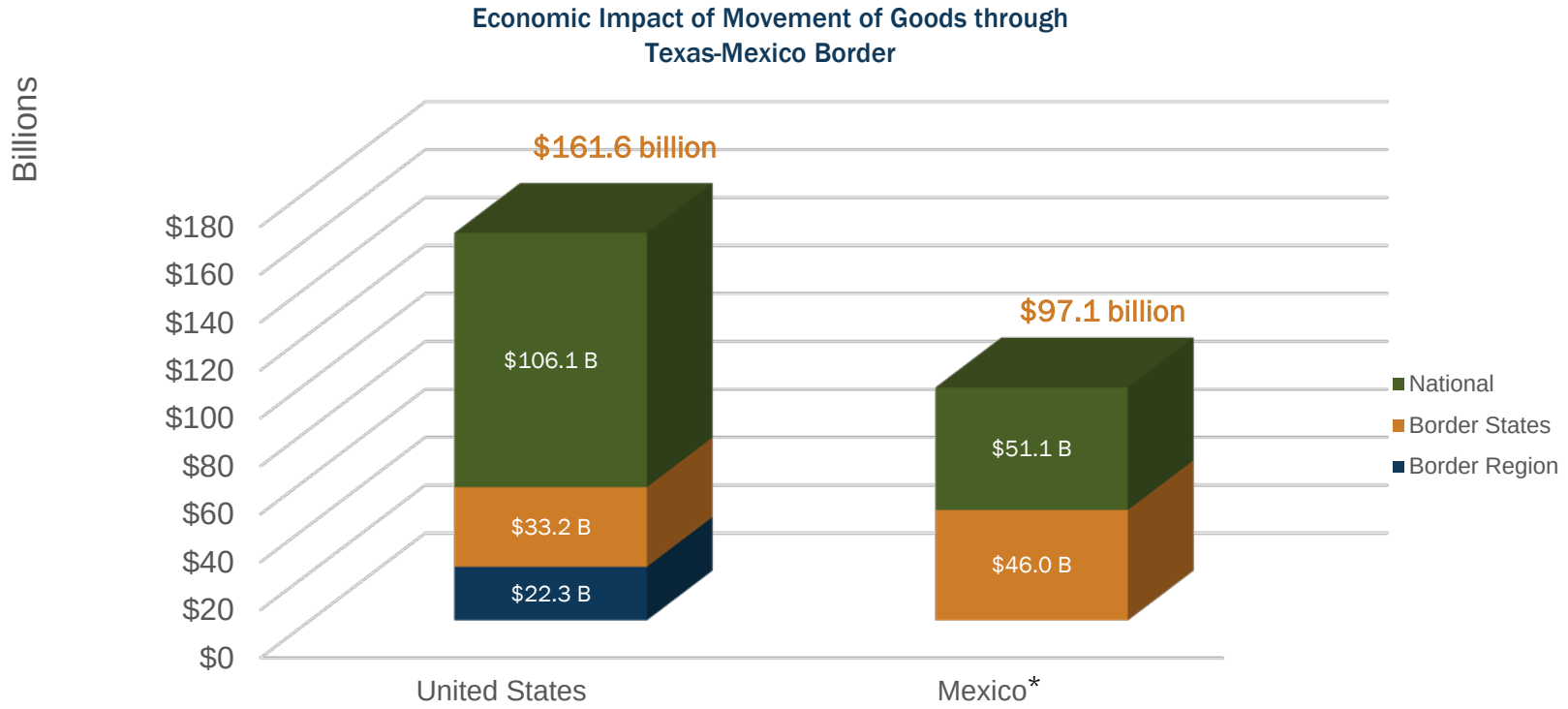


Preliminary Economic Importance of Key Supply Chains Through the Border

- **Higher value-added manufacturing in durable goods** including machinery, contribute the most to the U.S. and Mexican economies
- Goods move across the border, benefiting from the abundance of Mexican labor and U.S. technology

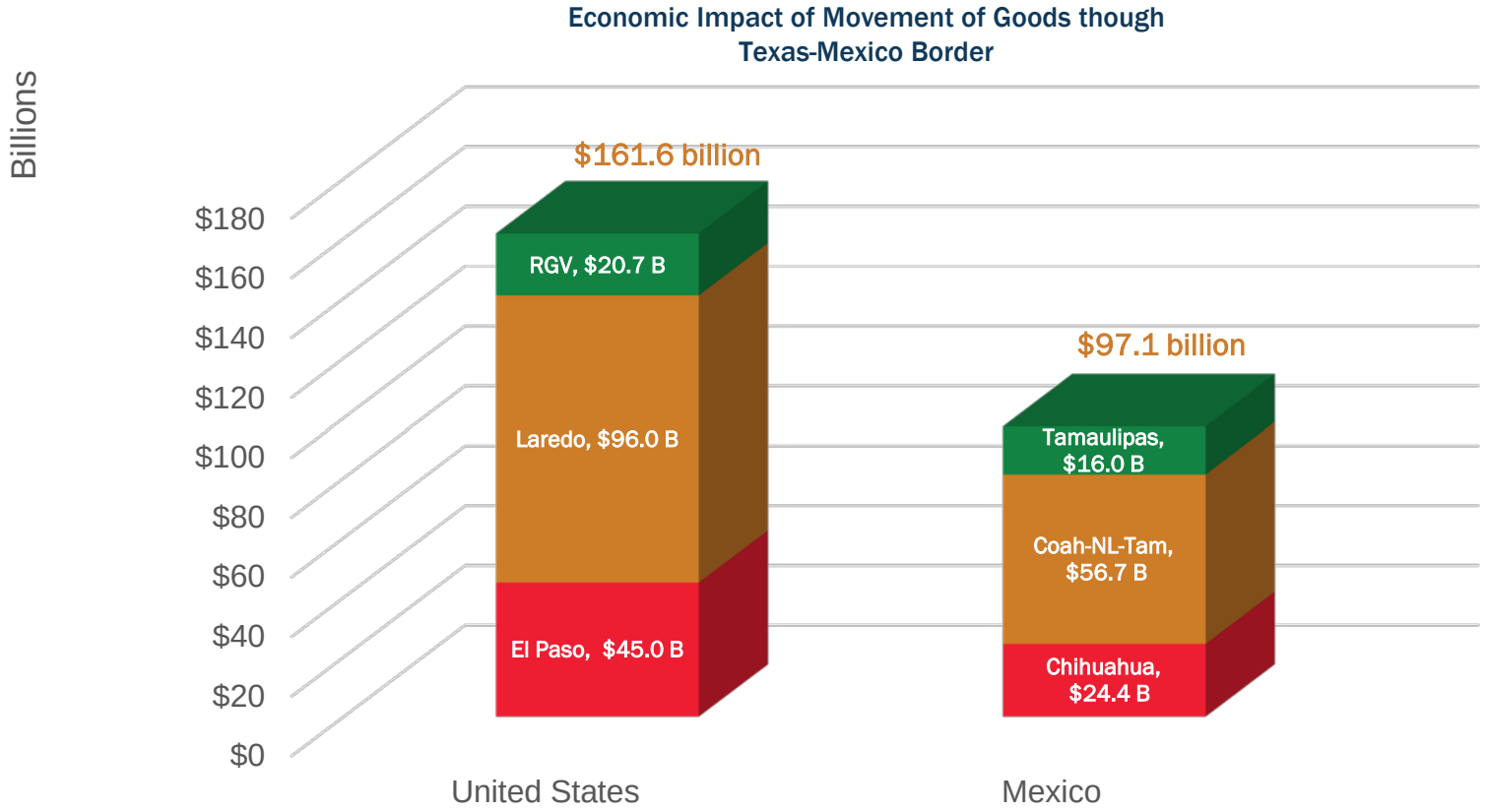


Preliminary Economic Impact of Trade by Geography



* State results include border region results in Mexico

Preliminary Economic Impact of Trade Through the Border by Region



Preliminary Economic Importance of Cross-Border Movement of People

- Total economic impact
- Economic impact by mode and region
- Economic impact on hospitality industries

Preliminary Economic Importance of Cross-Border Movement of People – Methodology

1. Estimate expenditures by categories

- Categories: retail, hotels & restaurants, recreation & entertainment, miscellaneous
- Data: crossing data, expenditure estimates
- Source: U.S. Customs and Border Protection (CBP), San Diego Association of Governments (SANDAG), Arizona Office of Tourism

2. Estimate the impacts of expenditures using input-output models

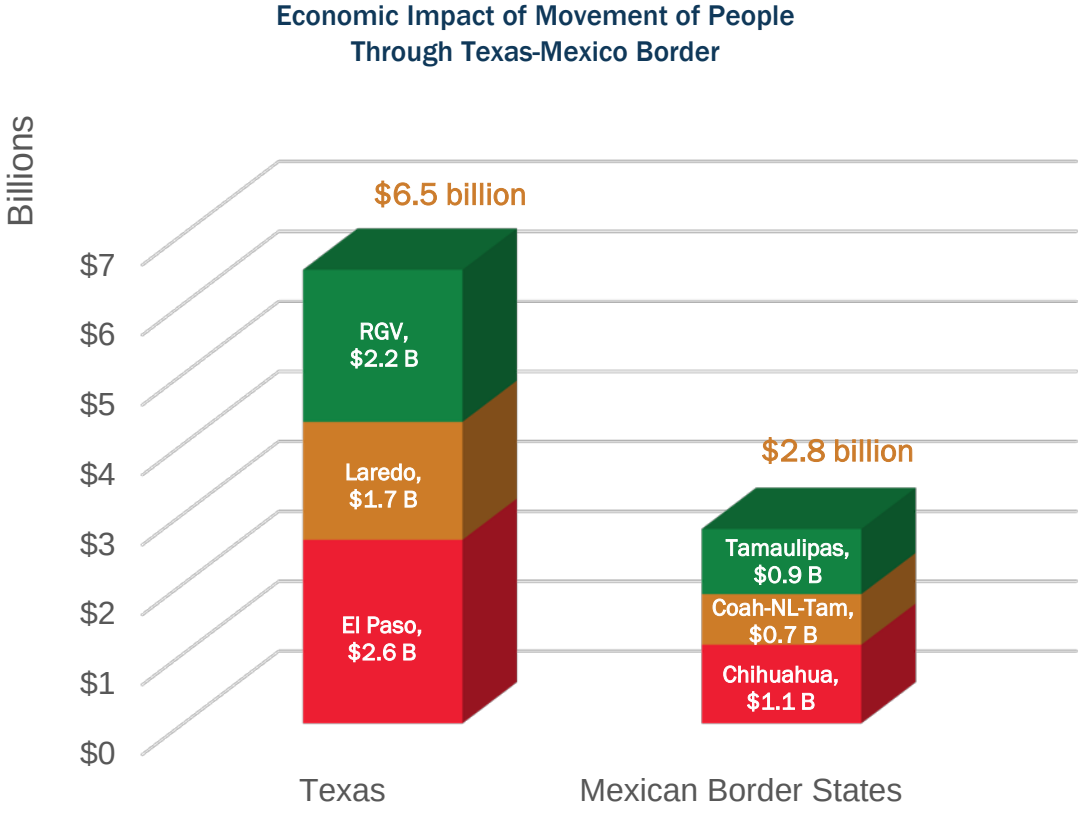
- Data: 2018 multipliers for U.S., 2015 multipliers for Mexico
- Source: IMPLAN

Measures and outcomes

- Gross Domestic Product (GDP), employment, and labor income

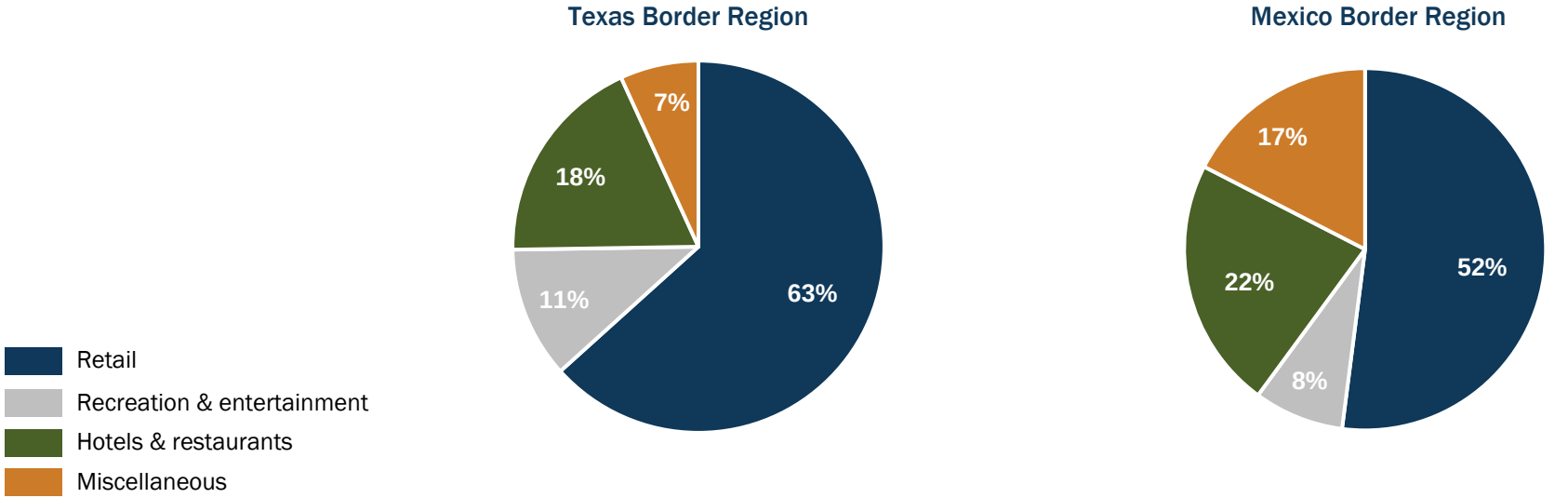
Preliminary Economic Impact of Movement of People on GDP

- Pedestrian and personal vehicle trips strongly influence the border economy
- Historically, Mexican nationals visit and shop in Texas
- **The movement of people generates over $9 billion annually in GDP**
  - 79% by personal vehicle
  - 20% by foot (pedestrian)
  - 1% by bus
- The impacts are greatest in the El Paso/Santa Teresa/Chihuahua and Rio Grande Valley/Tamaulipas Regions



Preliminary Breakdown of Impact of Movement of People on GDP by Industry

- Employment in these sectors explains why job growth in some areas of the border was among the fastest in the U.S. through the early 2000s
- The **retail industry, particularly in the U.S., benefits from the movement of people** across the border



Preliminary Economic Cost of Congestion

- Economic impact of border wait times and crossing times
- Economic impact of wait times for movement of people and goods

Preliminary Economic Cost of Congestion – Methodology

1. Estimate lost exports and expenditures due to delays at border

- Based on how industries and people react to changes to delays at land ports of entry (elasticities)
- Data: crossing data, delay data, supply chain profile 2017 data, demand elasticities
- Source: U.S. Customs and Border Protection (CBP), Texas A&M Transportation Institute (TTI), San Diego Association of Governments (SANDAG), Arizona Office of Tourism, plus prior supply chain profile and crossing data

2. Estimate impacts using input-output models

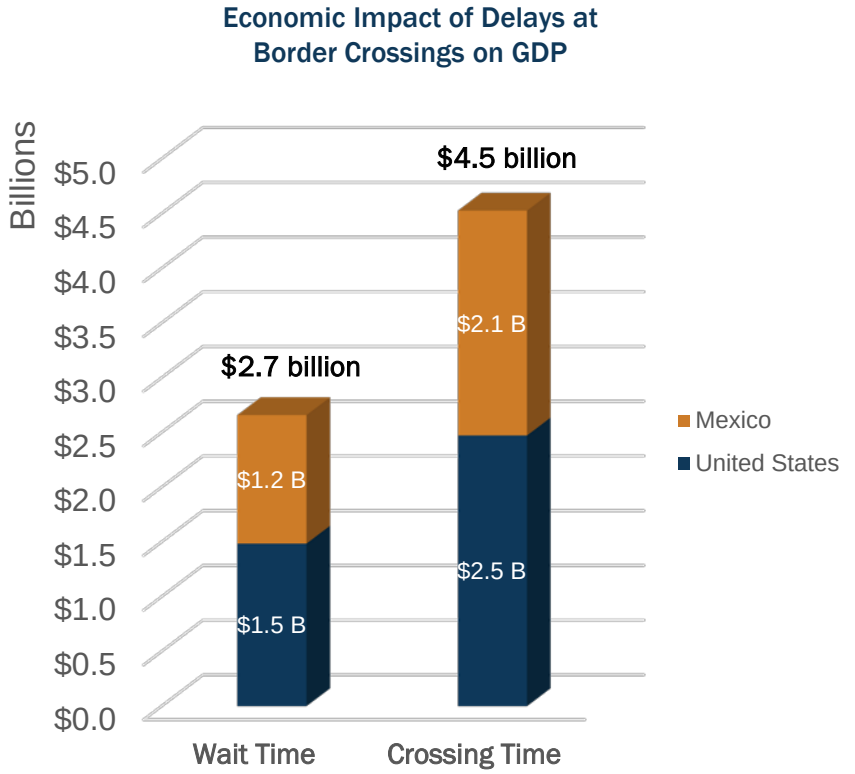
- Data: 2018 multipliers for U.S., 2015 multipliers for Mexico
- Source: IMPLAN

Measures and outcomes

- Gross Domestic Product (GDP), employment, and labor income

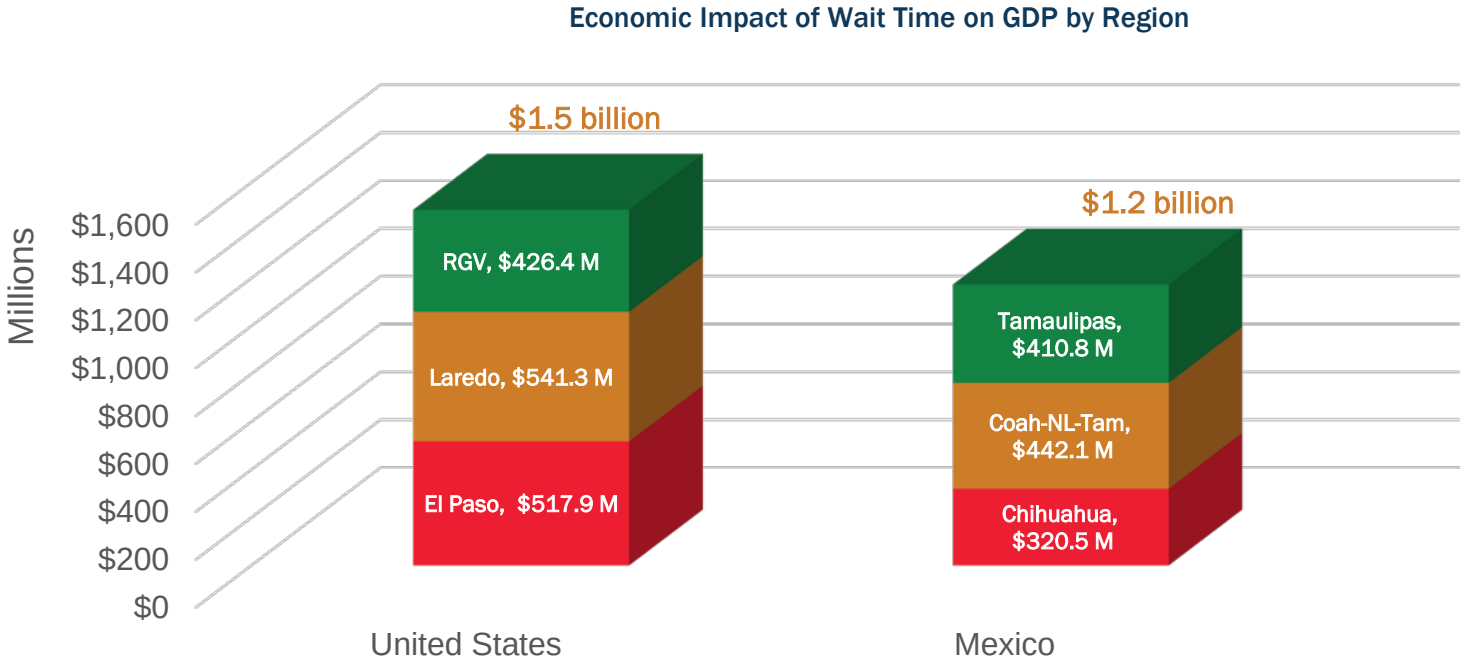
Preliminary Economic Impacts of Border Delays on GDP

- **Border delays represent missed opportunities** to the U.S. and Mexican economies (more than $2.7 billion in GDP)
- This impact almost doubles with crossing time (to $4.5 billion in GDP)
  - Texas: $1.2 billion annually
- **Delays at the border increase transportation costs for goods,** making them more expensive and reducing demand
- Decreases in reliability for just-in-time logistics reduces competitiveness with other nations

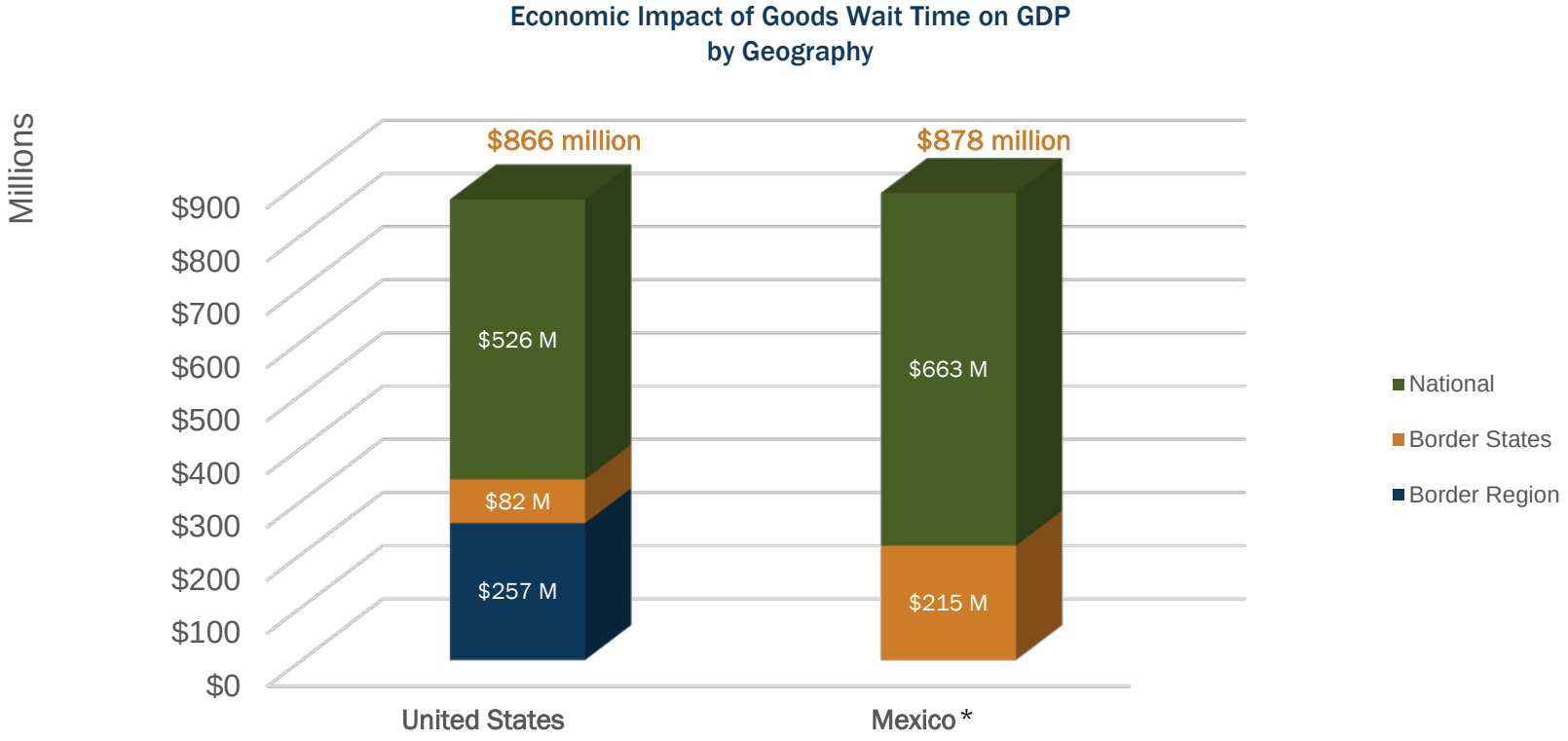


Preliminary Economic Impacts of Border Delays on GDP by Region

- Delays at the border for the movement of people and goods represent missed economic opportunities in all three regions



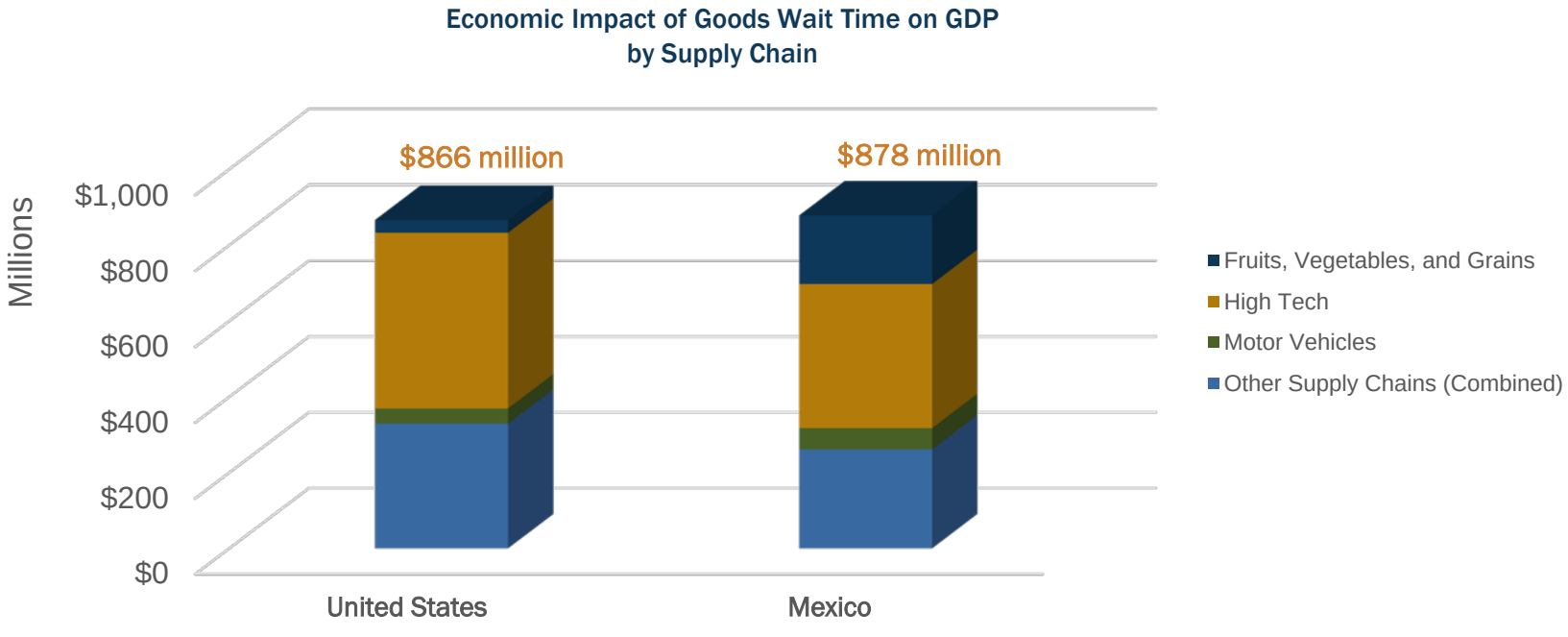
Preliminary Economic Impacts of Delays to the Movement of Goods on GDP by Geography



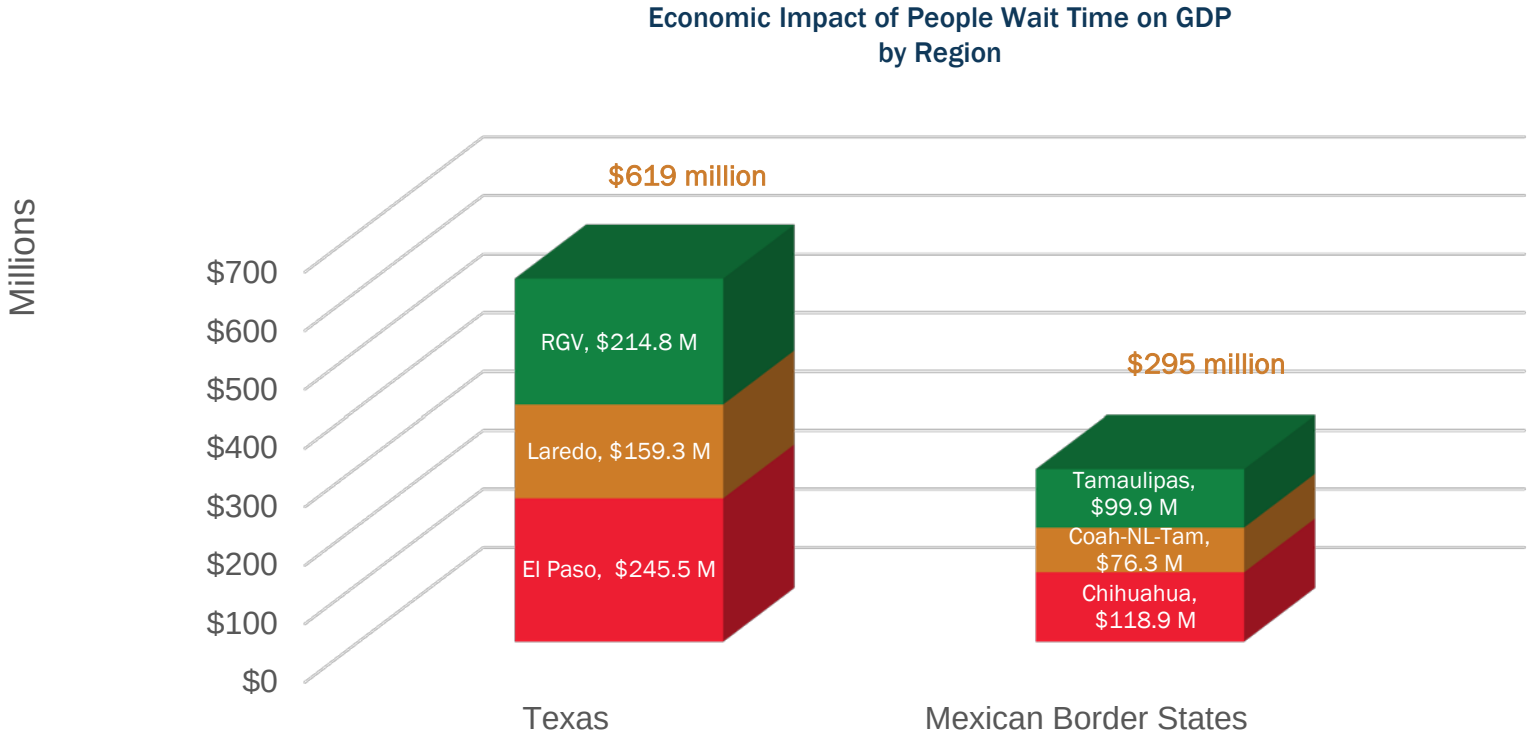
* State results include border region results in Mexico

Preliminary Economic Impacts of Border Delays on Key Supply Chains

- Border delays affect key supply chains in the U.S. and Mexico



Preliminary Economic Impacts of Delays to the Movement of People on GDP by Region



What do the Economic Impact Results Mean for the BTMP?

- Investments in border crossings and the border region's roads will help reduce delays
- Facilitating the flow of goods across the Texas-Mexico border is important for the U.S. and Mexico remaining competitive with other nations
- Investments will also increase regional trade in high value-added manufactured goods and preserve jobs in both countries

BNRSC Feedback

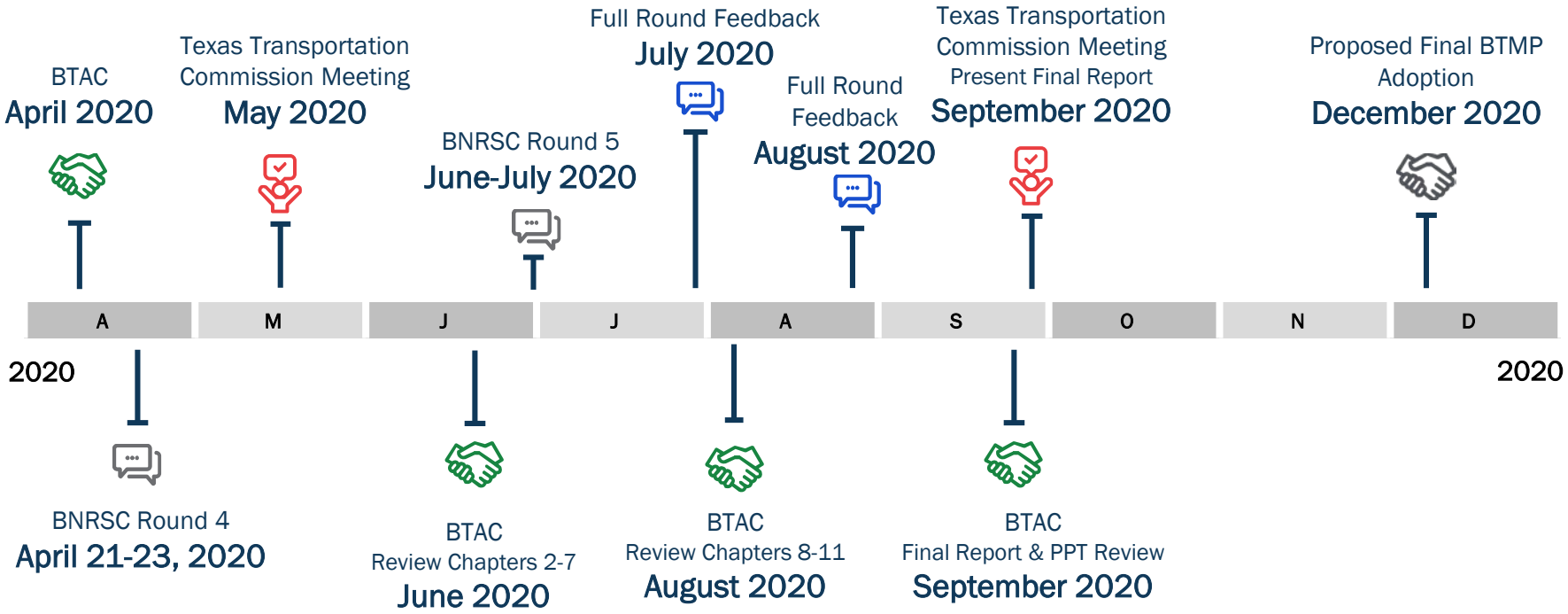
1. Do the economic impact results make sense to you? Please explain.
2. Which economic impact measures (GDP, employment, labor income) would you most like to see?

Study Tasks/Three Month Look-Ahead

Forecasting (Task 6)	Economic Analysis (Task 7)	Recommendations & Investment Plan (Task 8)	Implementation Plan (Task 9)
▪ Refine future scenarios ▪ Refine future forecasts	▪ Refine assessment of economic importance of trade through the border ▪ Refine assessment of economic impact of wait times ▪ Assess economic impact of BTMP recommendations	▪ Discuss project prioritization process ▪ Draft prioritize policies, programs & projects from existing plans and stakeholders ▪ Identify funding sources	▪ Identify methodology to create implementation plan ▪ Draft implementation plans for high-priority policies, programs & projects

Next BNRSC Meetings	Next BTAC Meeting	Next BTAC Meeting Content
July 2020	July 9, 2020	▪ Chapter 6: Future Forecasts for the Border Region (Recap) ▪ Chapter 7: Economic Importance of the Border (Recap) ▪ Chapter 8: Identification of Future Needs and Strategies ▪ Chapter 9: Stakeholder Engagement

BTMP Schedule



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Texas-Mexico Border Transportation Master Plan

Binational Regional Steering Committee
Rio Grande Valley/Tamaulipas Region