Texas-Mexico Border Transportation Master Plan

Blueprint to Unlock the Region's Potential

December 2, 2021

The Fine Print

- Work conducted by HDR to support TxDOT in the development of BTMP
- Presenter does not represent TxDOT
- TxDOT Points of Contact for this Plan:

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BTMP materials:

https://www.txdot.gov/government/partnerships/trade-border/btmp.html

Overview of the Texas-Mexico Border Transportation Master Plan

Comprehensive, multimodal, Texas-Mexico long-range plan:

- Identifies current and future transportation needs, challenges, and opportunities for moving people and goods across the Texas-Mexico border.

- Outlines policy, program and project recommendations to address the needs.

- Facilitates coordination and collaboration between Texas and Mexico on Texas-Mexico border transportation planning and programming.
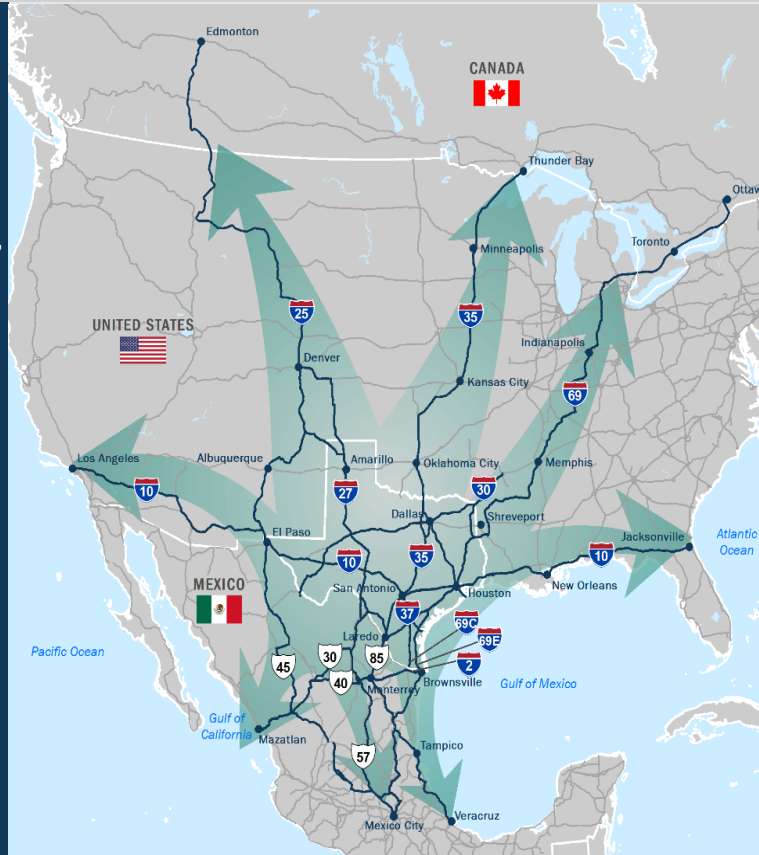
GOALS

- MOBILITY AND RELIABILITY
- SUSTAINABLE FUNDING
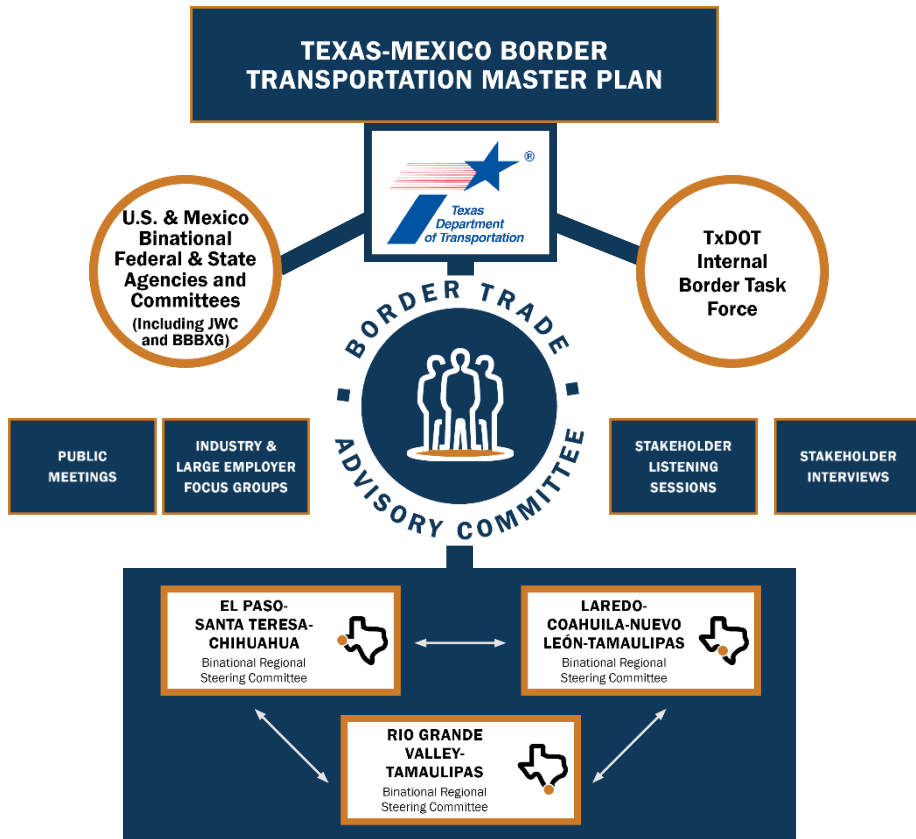- CONNECTIVITY
- CROSS-BORDER RESILIENCY
- SAFETY AND SECURITY
- ASSET PRESERVATION
- ECONOMIC COMPETITIVENESS
- STEWARDSHIP AND SUSTAINABILITY
- CUSTOMER SERVICE

BTMP Stakeholder Informed Development

- **13** Border Trade Advisory Committee (BTAC) meetings
- **33** Binational Regional Steering Committee (BNRSC) meetings held in 3 regions
- **3** Binational coordination and BBBXG*/JWC* meetings
- **5** meetings with Mexican Border States
- **Monthly** meetings with U.S./Mexican Federal and State agencies
- **9** General public meetings
- **10** Stakeholder workshops
- **284** Stakeholder interviews
- Meetings with Mexican Ambassador in Washington, DC, trips to Mexico City to meet with Federal Agencies and industry speaking engagements

* U.S./Mexico Binational Bridges and Border Crossings Group (BBBXG)

* U.S./Mexico Joint Working Committee on Transportation Planning (JWC)

Importance of the Texas-Mexico Border

- Texas plays a vital role in the U.S.-Mexico relationship.

- U.S.-Mexico shares 1,954 miles of common border, of which Texas-Mexico **share 1,254 miles (or 64%).**

  – Texas-Mexico border **connects people and facilitates trade** between the two countries.

- Border region **population grew by 70% and employment grew by 97%** from 1990 to 2019.

- **U.S.-Mexico trade has tripled** between 1994 and 2019, increasing from $173 billion to $615 billion.

  – **68% of trade** between the two countries passes through the Texas-Mexico border.

- Texas-Mexico trade value **increased by 267%** from $58 billion in 1994 to $213 billion in 2019.

CROSS-BORDER PEOPLE MOVEMENT:

- Residents of both U.S. and Mexico cross the Texas-Mexico border daily to access daycare facilities, hospitals, schools, and retail on opposite sides of the border.

- In 2019, Texas-Mexico cross-border movement of people generated over **$9.30 billion GDP**.

- Forecasted to grow by 33% from $9.30 billion in 2019 to **$12.33 billion GDP** annually by 2050.

People movements are localized to the Texas-Mexico border region.
Includes buses, bicycles/pedestrians, and POVs.

Source: IMPLAN 2018, BTS Border Crossing/Entry Data, INRIX GPS Analysis, INEGI Population Forecasts, TDC Population Forecasts, University of New Mexico Population Forecasts.

GDP IMPACT OF CROSS-BORDER PEOPLE MOVEMENTS:

Bar chart legend: 2019 (green), 2050 (red/salmon)

- TEXAS: 2019 = $6.5B, 2050 = $8.6B
- MEXICO BORDER STATES: 2019 = $2.8B, 2050 = $3.7B
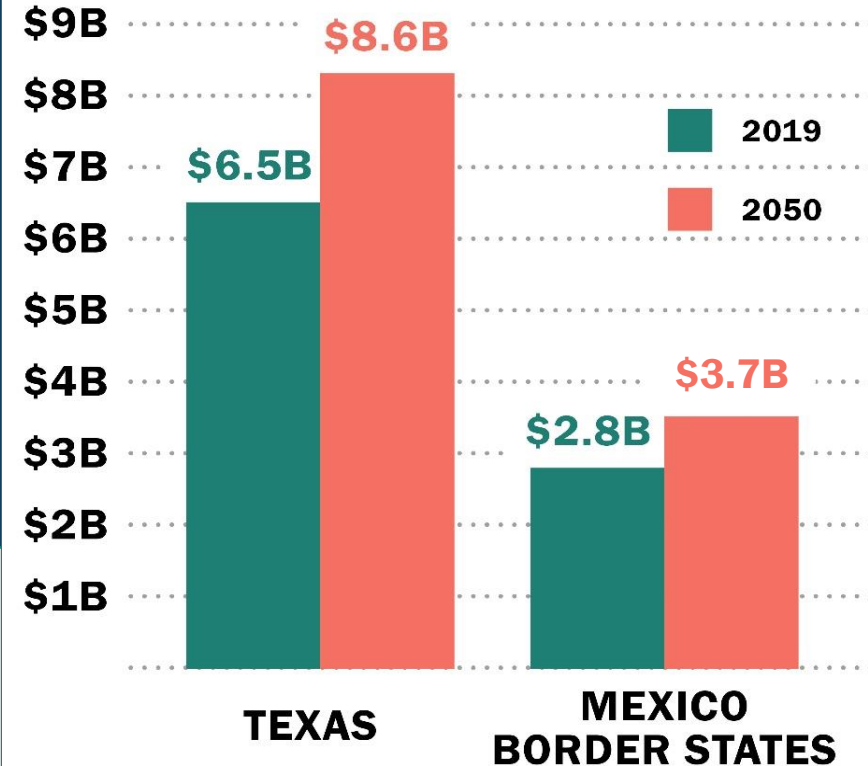
Economic Importance of Texas-Mexico Border: Goods Movement

CROSS-BORDER GOODS MOVEMENT:

- Generated over **$343 billion GDP** in 2019 for U.S. and Mexico.

- Forecasted to more than triple from $343 billion in 2019 to **$1.16 trillion GDP** annually by 2050.

Goods movement across the Texas-Mexico border touches all U.S. and Mexico states.

Includes CMV, freight rail, aviation, maritime, and pipeline.

Source: IMPLAN 2018, BTS Border Crossing/Entry Data, INRIX GPS Analysis, INEGI Population Forecasts, TDC Population Forecasts, University of New Mexico Population Forecasts.

GDP IMPACTS OF CROSS-BORDER GOODS MOVEMENT:

Legend: 2019, 2050

	U.S.	MEXICO
2019	$200B	$143B
2050	$764B	$401B
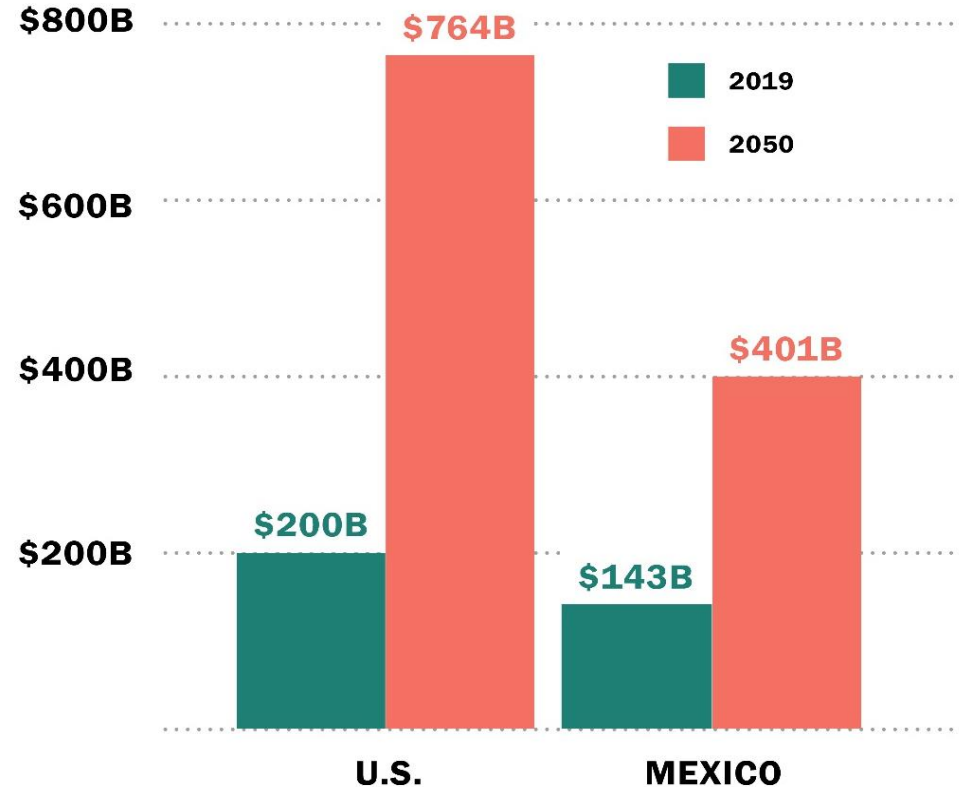
Texas-Mexico Border: Past, Present and Future – Socioeconomic Indicators

POPULATION

- Texas-Mexico border region grew 70% between 1990 and 2019 from 4.3M to 7.4M.
- Texas-Mexico border region: Forecasted to grow 19% from 7.4M in 2019 to 8.8M in 2050.

EMPLOYMENT

- Texas-Mexico border region grew 97% between 1990 and 2019 from 1.5M to 2.9M.
- Texas side: Forecasted to grow 72% from 1.2M in 2019 to 2.0M in 2050.

INCOME

- Texas side grew 20% between 1990-2019 from $34K to $41K
- Texas side: +23% to $51K by 2050.
- Mexico side: residents with wages exceeding minimum income grew 141% between 2010-2015.

TEXAS-MEXICO BORDER REGION POPULATION (1990-2050)

TEXAS-MEXICO BORDER REGION EMPLOYMENT (1990-2050)

TEXAS BORDER REGION MEDIAN ANNUAL INCOME (1990-2050)

Texas-Mexico Border: Past, Present and Future – Moving Goods
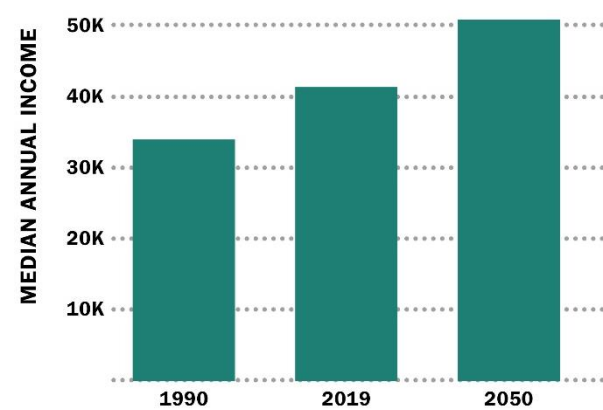
Between 1996 and 2019 the number of northbound commercial motor vehicles (CMVs) increased by **2.4 million or 112% (3.3% annually).**

Between 2019 and 2050 this number is expected to increase by **7.7 million or 168% (3.2% annually).**

| 2.17M CMVs (1996) | 4.60M CMVs (2019) | 12.35M CMVs (2050) |
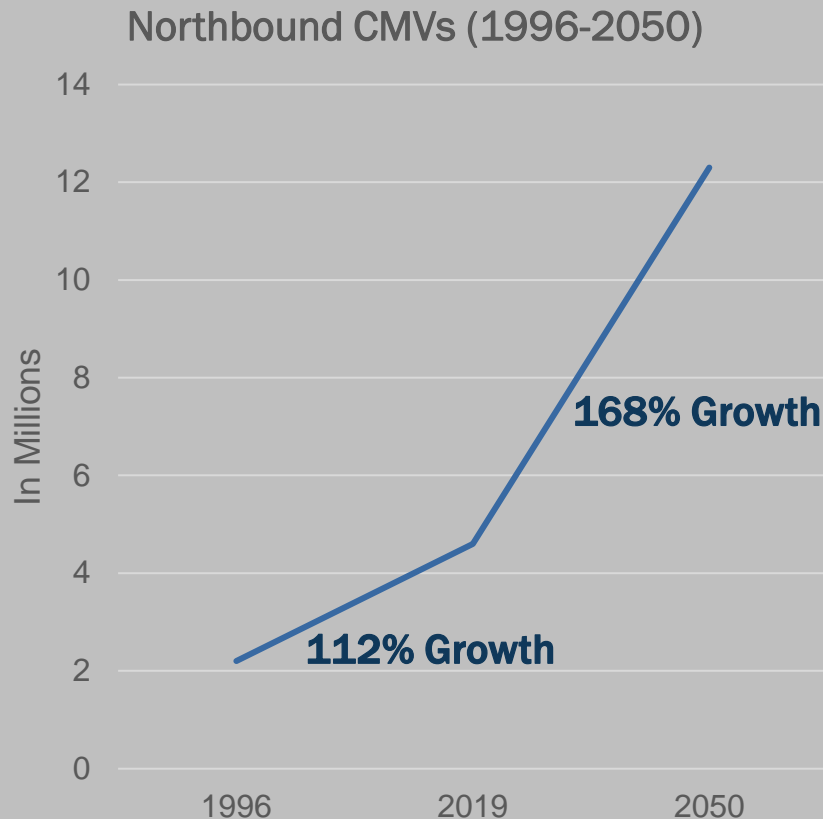
Source: BTS Transborder Freight Data 2019, US Census Foreign Trade Data 2019 and IMPLAN Analysis.

Northbound CMVs (1996-2050)

In Millions

168% Growth

112% Growth

1996 2019 2050

Trade across the Texas-Mexico border adds value to the GDP of states well beyond the border

- U.S states with the highest GDP impact are:

  - Texas: $100.2 B or 5.3% of GDP

  - Michigan: $13.5 B or 2.5% of GDP

  - Illinois: $9.5 B or 1.1% of GDP

  - California: $6.6 B or 0.2% of GDP

  - Ohio: $6.2 B or 0.9% of GDP

- Mexico states with the highest GDP impact are:

  - Nuevo León: $17.0 B or 14.7% of GDP

  - México: $14.6 B or 10.9% of GDP

  - Coahuila: $13.7 B or 24.9% of GDP

  - Ciudad de México: $11.9 B or 5.0% of GDP

  - Guanajuato: $9.6 B or 15.0% of GDP

Source: IMPLAN, U.S. Census, BTS Transborder Freight Data, U.S Bureau of Economic Analysis and INEGI

Contribution of Trade Through Texas-Mexico Border to State GDP in 2019

United States
GDP Impact (Billions)
- Less than $1.4
- >$1.4 to $3.8
- >$3.8 to $6.6
- >$6.6 to $14.0
- >$14.0 to $100.2

Mexico
GDP Impact (Billions)
- Less than $1.2
- >$1.2 to $2.0
- >$2.0 to $3.5
- >$3.5 to $8.5
- >$8.5 to $17.1

CMV Average Annual Border Crossing Times in 2019 and 2050

Key: ■ 2019 ■ 2050

Forecasted crossing times correspond to "do nothing" scenario and could change if improvements are made between now and 2050

Left chart — AVERAGE BORDER CROSSING TIMES - HOURS

Crossing	Change
SANTA TERESA/SAN JERONIMO, Santa Teresa, NM	+ 7 HRS 1 MIN
BRIDGE OF THE AMERICAS, El Paso, TX	+ 4 HRS
YSLETA-ZARAGOZA, El Paso, TX	+ 6 HRS 35 MINS
PRESIDIO, Presidio, TX	NO CHANGE
DEL RIO-CIUDAD ACUÑA INTERNATIONAL, Del Rio, TX	+ 9 HRS 15 MINS
CAMINO REAL INTERNATIONAL, Eagle Pass, TX	+ 9 HRS 14 MINS
LAREDO-COLOMBIA SOLIDARITY, Laredo, TX	+ 5 HRS 38 MINS
WORLD TRADE, Laredo, TX	+ 8 HRS 17 MINS
ROMA-CIUDAD MIGUEL ALEMAN, Roma, TX	NO CHANGE
RIO GRANDE CITY-CAMARGO, Rio Grande, TX	+ 2 HRS 11 MINS
PHARR-REYNOSA INTERNATIONAL, Pharr, TX	+ 13 HRS 9 MINS
PROGRESO INTERNATIONAL, Progreso, TX	+ 2 HRS 27 MINS
FREE TRADE, Los Indios, TX	+ 3 HRS 6 MINS
VETERANS INTERNATIONAL AT LOS TOMATES, Brownsville, TX	+ 3 HRS 32 MINS

Right chart — ANNUAL BORDER CROSSINGS - NUMBER OF CMVS

Crossing	Change
SANTA TERESA/SAN JERONIMO, Santa Teresa, NM	+316K
BRIDGE OF THE AMERICAS, El Paso, TX	+238K
YSLETA-ZARAGOZA, El Paso, TX	+659K
PRESIDIO, Presidio, TX	+25K
DEL RIO-CIUDAD ACUÑA INTERNATIONAL, Del Rio, TX	+180K
CAMINO REAL INTERNATIONAL, Eagle Pass, TX	+416K
LAREDO-COLOMBIA SOLIDARITY, Laredo, TX	+671K
WORLD TRADE, Laredo, TX	+3.186M
ROMA-CIUDAD MIGUEL ALEMAN, Roma, TX	+3K
RIO GRANDE CITY-CAMARGO, Rio Grande, TX	+104K
PHARR-REYNOSA INTERNATIONAL, Pharr, TX	+1.387M
PROGRESO INTERNATIONAL, Progreso, TX	+118K
FREE TRADE, Los Indios, TX	+95K
VETERANS INTERNATIONAL AT LOS TOMATES, Brownsville, TX	+344K

Source: BCIS and INRIX GPS Analysis 2019 and Queuing Model Analysis 2050

POV Average Annual Border Crossing Times in 2019 and 2050

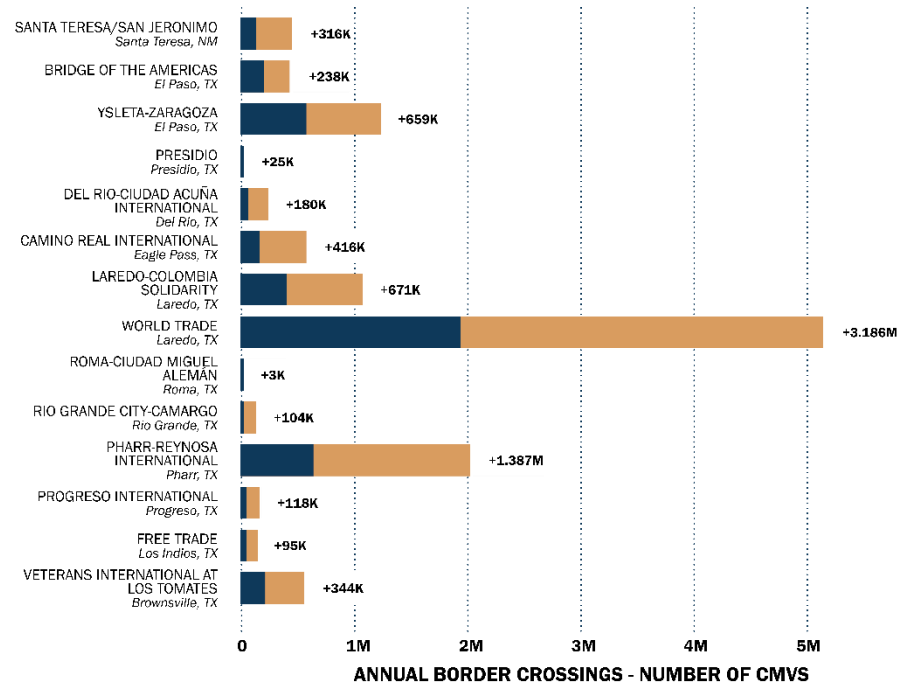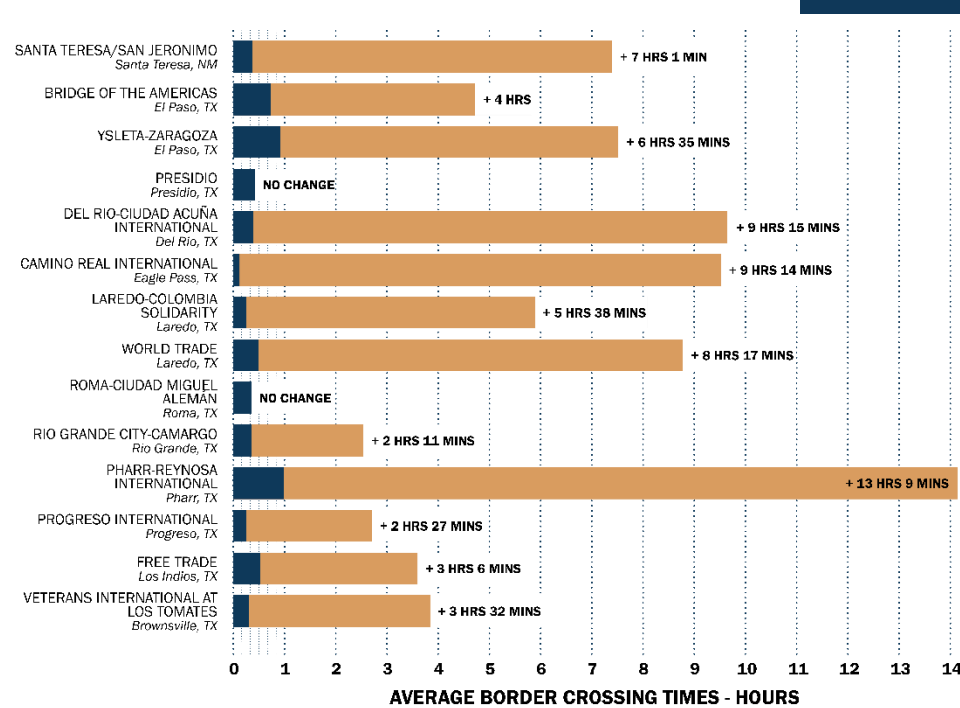**Key:** ▬ 2019 ▬ 2050

Forecasted crossing times correspond to "do nothing" scenario and could change if improvements are made between now and 2050

AVERAGE BORDER CROSSING TIMES - HOURS

Crossing	Location	Change
SANTA TERESA/SAN JERONIMO	Santa Teresa, NM	+ 22 MINS
PASO DEL NORTE	El Paso, TX	+ 1 HR 9 MINS
GOOD NEIGHBOR	El Paso, TX	+ 33 MINS
BRIDGE OF THE AMERICAS	El Paso, TX	+ 1 HR 38 MINS
YSLETA-ZARAGOZA	El Paso, TX	+ 2 HRS 25 MINS
TORNILLO-GUADALUPE INTERNATIONAL	Fabens, TX	NO CHANGE
FORT HANCOCK-EL PORVENIR	Fabens, TX	NO CHANGE
PRESIDIO	Presidio, TX	+ 10 MINS
LAKE AMISTAD DAM	Del Rio, TX	NO CHANGE
DEL RIO-CIUDAD ACUÑA INTERNATIONAL	Del Rio, TX	+ 53 MINS
EAGLE PASS BRIDGE 1	Eagle Pass, TX	+ 1 HRS 43 MINS
CAMINO REAL INTERNATIONAL	Eagle Pass, TX	+ 2 HRS 2 MINS
LAREDO-COLOMBIA SOLIDARITY	Laredo, TX	NO CHANGE
GATEWAY TO THE AMERICAS	Laredo, TX	+ 1 HR 52 MINS
JUAREZ-LINCOLN	Laredo, TX	+ 56 MINS

ANNUAL BORDER CROSSINGS - NUMBER OF POVS

Crossing	Location	Change
SANTA TERESA/SAN JERONIMO	Santa Teresa, NM	+126K
PASO DEL NORTE	El Paso, TX	+743K
GOOD NEIGHBOR	El Paso, TX	+491K
BRIDGE OF THE AMERICAS	El Paso, TX	+1.07M
YSLETA-ZARAGOZA	El Paso, TX	+1.21M
TORNILLO-GUADALUPE INTERNATIONAL	Fabens, TX	+16K
FORT HANCOCK-EL PORVENIR	Fabens, TX	+5K
PRESIDIO	Presidio, TX	+79K
LAKE AMISTAD DAM	Del Rio, TX	
DEL RIO-CIUDAD ACUÑA INTERNATIONAL	Del Rio, TX	+182K
EAGLE PASS BRIDGE 1	Eagle Pass, TX	+426K
CAMINO REAL INTERNATIONAL	Eagle Pass, TX	+556K
LAREDO-COLOMBIA SOLIDARITY	Laredo, TX	+93K
GATEWAY TO THE AMERICAS	Laredo, TX	+629K
JUAREZ-LINCOLN	Laredo, TX	+787K

Source: BCIS and INRIX GPS Analysis 2019 and Queuing Model Analysis 2050

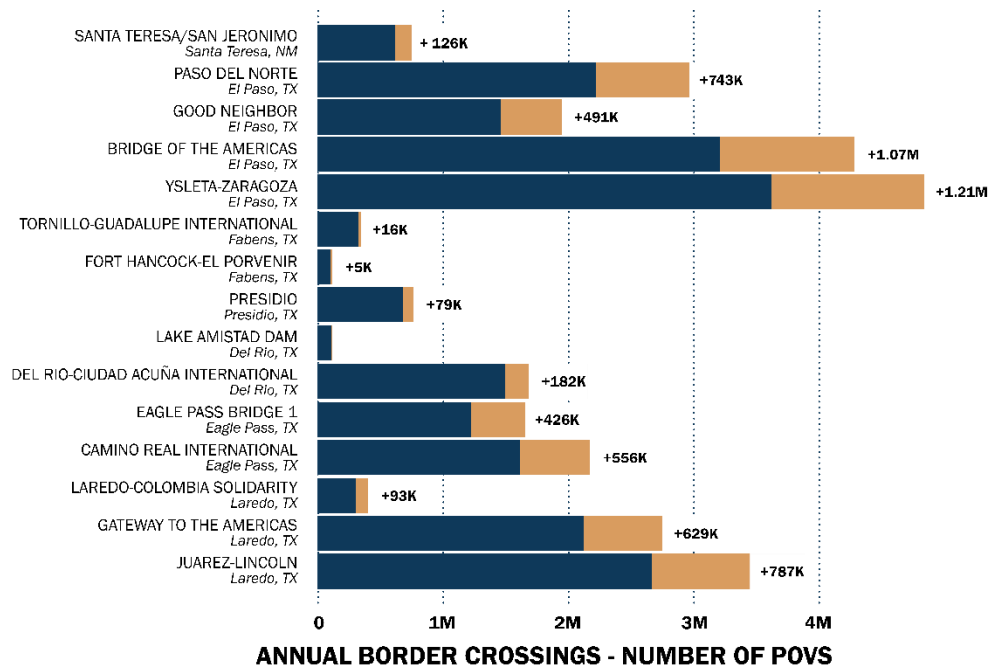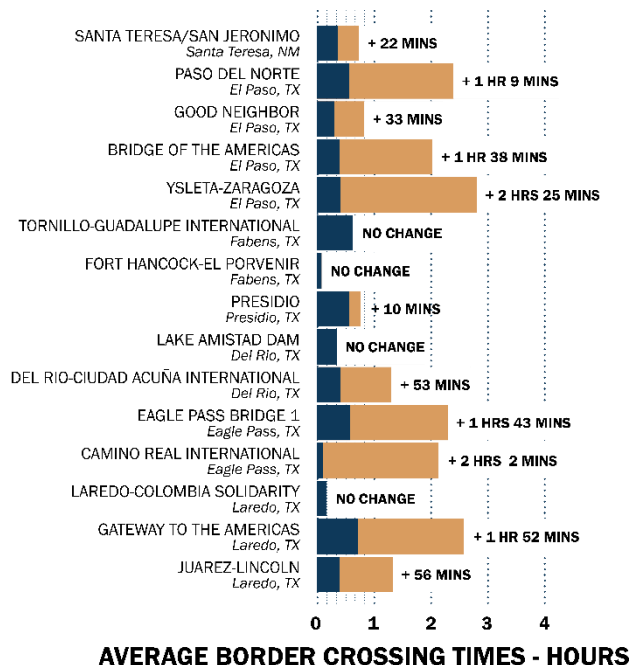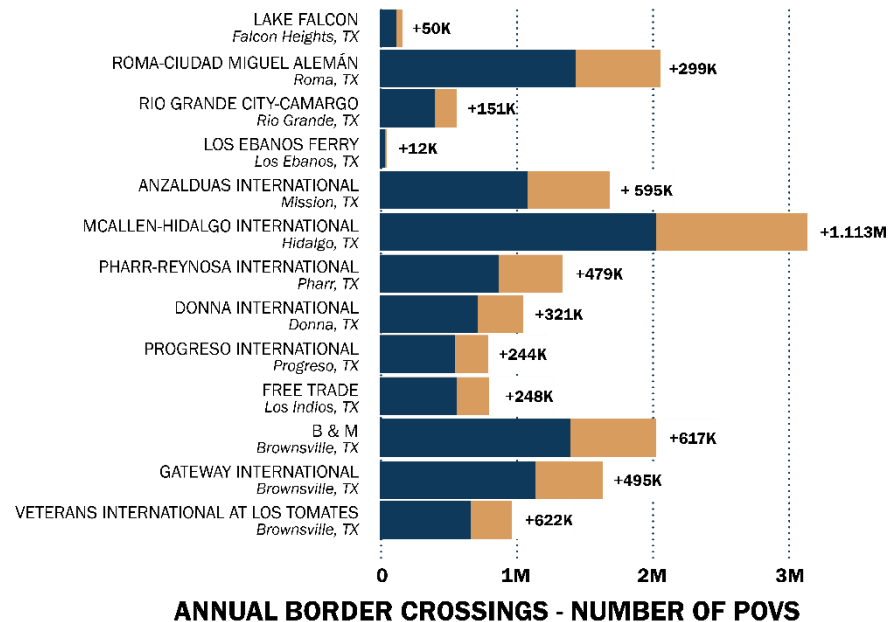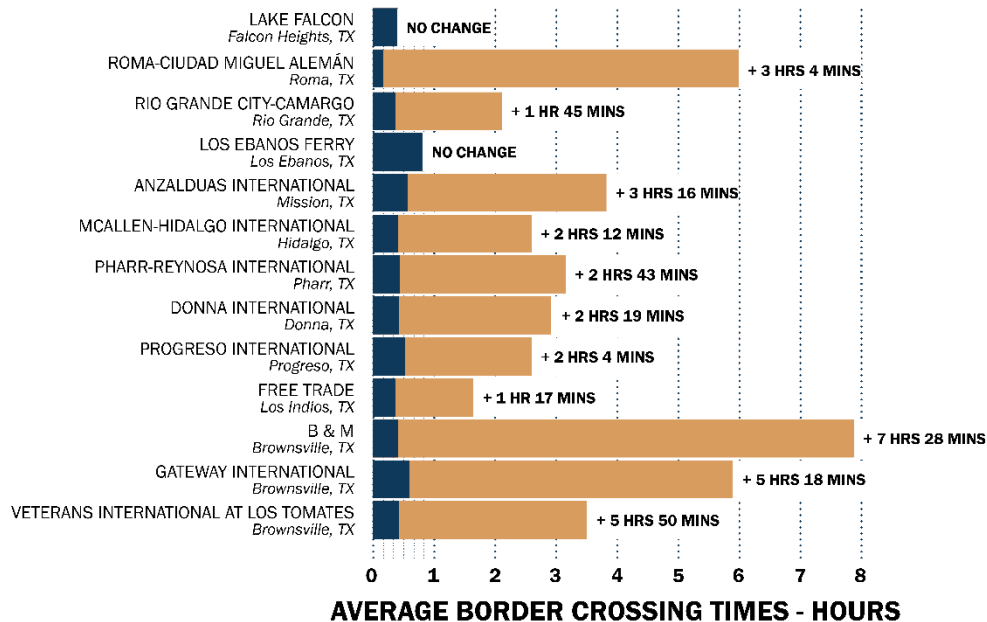# POV Average Annual Border Crossing Times in 2019 and 2050 (cont.)

Key: ■ 2019 ■ 2050

Forecasted crossing times correspond to "do nothing" scenario and could change if improvements are made between now and 2050

AVERAGE BORDER CROSSING TIMES - HOURS

- LAKE FALCON, *Falcon Heights, TX* — NO CHANGE
- ROMA-CIUDAD MIGUEL ALEMÁN, *Roma, TX* — + 3 HRS 4 MINS
- RIO GRANDE CITY-CAMARGO, *Rio Grande, TX* — + 1 HR 45 MINS
- LOS EBANOS FERRY, *Los Ebanos, TX* — NO CHANGE
- ANZALDUAS INTERNATIONAL, *Mission, TX* — + 3 HRS 16 MINS
- MCALLEN-HIDALGO INTERNATIONAL, *Hidalgo, TX* — + 2 HRS 12 MINS
- PHARR-REYNOSA INTERNATIONAL, *Pharr, TX* — + 2 HRS 43 MINS
- DONNA INTERNATIONAL, *Donna, TX* — + 2 HRS 19 MINS
- PROGRESO INTERNATIONAL, *Progreso, TX* — + 2 HRS 4 MINS
- FREE TRADE, *Los Indios, TX* — + 1 HR 17 MINS
- B & M, *Brownsville, TX* — + 7 HRS 28 MINS
- GATEWAY INTERNATIONAL, *Brownsville, TX* — + 5 HRS 18 MINS
- VETERANS INTERNATIONAL AT LOS TOMATES, *Brownsville, TX* — + 5 HRS 50 MINS

ANNUAL BORDER CROSSINGS - NUMBER OF POVS

- LAKE FALCON, *Falcon Heights, TX* — +50K
- ROMA-CIUDAD MIGUEL ALEMÁN, *Roma, TX* — +299K
- RIO GRANDE CITY-CAMARGO, *Rio Grande, TX* — +151K
- LOS EBANOS FERRY, *Los Ebanos, TX* — +12K
- ANZALDUAS INTERNATIONAL, *Mission, TX* — + 595K
- MCALLEN-HIDALGO INTERNATIONAL, *Hidalgo, TX* — +1.113M
- PHARR-REYNOSA INTERNATIONAL, *Pharr, TX* — +479K
- DONNA INTERNATIONAL, *Donna, TX* — +321K
- PROGRESO INTERNATIONAL, *Progreso, TX* — +244K
- FREE TRADE, *Los Indios, TX* — +248K
- B & M, *Brownsville, TX* — +617K
- GATEWAY INTERNATIONAL, *Brownsville, TX* — +495K
- VETERANS INTERNATIONAL AT LOS TOMATES, *Brownsville, TX* — +622K

Source: BCIS and INRIX GPS Analysis 2019 and Queuing Model Analysis 2050

Impact of Texas-Mexico Border Delays and Congestion

- In 2019, border delays resulted in $68.3M in economic productivity losses, reducing GDP by $2.3B in both countries.

- If no improvements are made, border delays may result in an economic productivity loss of $4.4B in 2050, reducing GDP by $116B in both countries.

ESTIMATED 2019 GDP LOSS DUE TO BORDER DELAYS

$1.1B U.S. GDP

$1.2B MEXICO GDP

POTENTIAL 2050 GDP LOSS DUE TO BORDER DELAYS

$75B U.S. GDP

$41B MEXICO GDP

If nothing is done between now and 2050, the negative impact of Texas-Mexico border delays on the GDP of the U.S. and Mexico will increase from $2.3B in 2019 to $116B in 2050. This is a growth of over 50 times.

Source: IMPLAN, U.S. Census, BTS Transborder Freight Data, U.S Bureau of Economic Analysis and INEGI.

Project Implementation Plan

Total Projects by Implementation Timeframe and Country

TIMEFRAME	TEXAS (U.S.)			MEXICO			TOTAL		
	PROJECTS	COST	UNFUNDED	PROJECTS	COST	UNFUNDED	PROJECTS	COST	UNFUNDED
Short	181	$7.48B	$3.39B	29	$2.66B	$2.60B	210	$10.14B	$5.99B
Medium	180	$7.95B	$5.28B	16	$0.38B	$0.35B	196	$8.34B	$5.63B
Long	198	$17.22B	$16.48B	57	$1.68B	$1.68B	255	$18.90B	$18.16B
TOTAL	559	$32.65B	$25.14B	102	$4.72B	$4.63B	661	$37.37B	$29.77B

- Projects cover border crossings and corridors in Texas and Mexico.
- 185 are fully funded at an estimated cost of $5.5B.
- 27 projects are partially funded at an estimated cost of $2.1B.
- 449 projects remain unfunded at an estimated cost of $29.8B.

Impact of Implementing Recommended Border Crossing Projects at Existing Crossings Plus Construction of New Crossings

IMPLEMENTING 185 PROJECTS AT AN ESTIMATED COST OF $5.3B				
Indicator	**Do Nothing (2050)**	**$5.3B (2050)**	**Absolute Change**	**% Change**
Crossing Time in Hours	230M	91M	139M ⬇	60% ⬇
GDP	-$119.3B	-$70.2B	$49.1B ⬆	41% ⬆
Jobs	-4.8M	-2.8M	2.0M ⬆	42% ⬆
Labor	-$75.0B	-$44.5B	$30.5B ⬆	41% ⬆

Thank You!