

the Thriving Cross-Border Manufacturing Industry



## PRODENSA



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The objective of the E-Book is to engage and inform a manufacturing professional in the discovery or research stage of a project initiative in Mexico. Our goal is to provide overview data and generalizations that support the growing knowledge base of a multinational professional, and empower them to make strategic decisions of their manufacturing operations in the region.

Disclaimer: it is not a lawful guide to be used for any purpose other than generalized research and understanding of the characteristics of different parts of the United States and Mexico, based on cited research and data.





## EXECUTIVE SUMMARY

The "U.S.-Mexico Border Zone Boom: a Look into the Thriving Cross-Border Manufacturing Industry" E-Book provides an in-depth

## examination for the U.S.-Mexico border, highlighting its role as a hub for economic prosperity and innovation for both nations.

The roots of cross-border manufacturing can be traced back to the 1960s with the establishment of the Maquiladora Program. It incentivized foreign companies to set up manufacturing facilities in Mexico, providing employment for agricultural migrant workers. The program's evolution into the IMMEX program further expanded manufacturing opportunities and fueled trade growth that culminated into the signing of the North American Free Trade Agreement (NAFTA) in 1994 between Canada, the United States and Mexico. Regional trade experienced a remarkable surge during NAFTA's first two decades, from roughly \$290 billion in 1993 to more than \$1.1 trillion in 2016. Today, nearly 90% of today's maquiladora (or IMMEX) facilities are concentrated along the U.S.-Mexico border, with the IMMEX industry employing about 3 million workers, accounting for approximately 35% of Mexico's manufacturing jobs.

A surge in reshoring and nearshoring trends is attracting more manufacturers to the U.S.-Mexico border region, reinforcing an interconnected network of manufacturing facilities. This unique cross-border environment is characterized by a near seamless exchange of goods, services and people. Every minute, nearly \$1.5 million dollars worth of goods traverse the U.S.-Mexico border (2022). The daily movement of border residents extends beyond commerce, encompassing work, education, and institutions that collaborate for such things as legislation, environmental protection, security, infrastructure, among others.

The <u>Wilson Center</u> characterizes the U.S.-Mexico border as highly specialized manufacturing industries on the Mexican side of the border and strong logistics industries on the U.S. side. They go on to highlight five major border zones.



#### **U.S.-MEXICO BORDER ZONE REGIONS:**

(1) California-Baja California Border Subregion - characterized by population concentration, the busiest border crossing in the world, and high-value-add sectors

#### (2) Arizona-Sonora Border Subregion - known as the fruit and vegetable corridor

of North America with growing automotive, aerospace, and semiconductor sectors

(3) **Paso del Norte Subregion** - enormous strength as a manufacturing platform, with large maquiladora employment rate in advanced industries

(4) **Texas-Nuevo León-Tamaulipas-Coahuila Border Subregion** - includes the busiest commercial border crossing at the mid-point of an important regional logistics corridor

(5) Lower Rio Grande Valley-Tamaulipas Subregion - known for its competitive maquiladora and warehousing in Mexico, and rich farmland in Texas

Mexico's role in North America is evolving, shifting away from being solely a

source of low-cost manufacturing inputs. The country's skilled workforce, robust supply chain infrastructure, and strategic proximity to its largest trading partner, the United States, have propelled Mexico to a more prominent position with the region's manufacturing landscape. Manufacturing in North America is deeply interconnected, with each nation leveraging its comparative advantage in manufacturing to foster further integration.

The U.S.-Mexico border is more than a physical divide. Instead, it's a nexus of collaboration, innovation and economic prosperity. Continued cooperation and mutual understanding are vital for achieving shared North American goals.



## CHAPTER 1 The Rise of

Cross-Border Manufacturing



## The roots of this cross-border manufacturing boom trace back to the Maguiladora Program, implemented in the 1960s. This program allowed foreign firms to establish

factories in Mexico and import materials duty-free, which were then assembled and exported back. The program's evolution into the IMMEX program expanded the opportunity by allowing a wider array of goods to be produced.

Further propelling this trade growth was the signing of the North American Free Trade

Agreement (NAFTA) in 1994, which eliminated many tariffs and boosted crossborder trade. The recent transition from NAFTA to the United States-Mexico-Canada Agreement (USMCA) has further solidified the trade relationship, adding modern provisions to address 21st-century trade challenges and opportunities. These strategic initiatives have played a significant role in

shaping the thriving US-Mexico trade landscape we witness today.



### NAFTA

<u>Negotiations for NAFTA began in 1991</u> with the hopes that freer trade would bring stronger and steadier economic growth to Mexico, by providing new jobs and opportunities for its growing workforce and discouraging illegal migration.

Economists largely agree that NAFTA benefited North America's economies. Regional

trade increased sharply over the treaty's first two decades, from roughly \$290 billion in 1993 to more than \$1.1 trillion in 2016. Cross-border investment also surged, with U.S. foreign direct investment (FDI) stock in Mexico increasing in that period from \$15 billion to more than \$100 billion.

In the years since NAFTA, trade between the United States and its North American neighbors more than tripled, growing more rapidly than U.S. trade with the rest of the world. NAFTA has contributed to the global competitiveness of U.S. manufacturing industries, particularly the automotive sector, by fostering the development of cross-border supply chains. This has significantly enhanced North America's position as a major automobile production hub.

### THE MAQUILADORA PROGRAM

Maquiladoras can be tied back to the 1960's, driven by the transition from a transitory agricultural workforce to industrial investment in assembly factories along the U.S.-Mexico border. <u>Maquiladora factories</u> could import machinery and raw material to Mexico on a temporary basis, to be used in the manufacturing process and then subsequently exported back to the home market for sale, free from duties and tariffs.

By 1980 the growth of the Maquiladora Program had created new business opportunities to serve foreign manufacturing operations in Mexico. Shelter operators in Mexico allow foreigners to invest and partner with Mexican service providers to operate in Mexico without the need to incorporate a legal entity. In 2006 the Maquiladora Program was merged with PITEX, the Mexican program for domestic and export sales, creating the IMMEX Program, devoted to the shelter operations in Mexico.

<u>Nearly 90%</u> of today's maquiladora (or IMMEX) operations are along the U.S.-Mexico border zone. The IMMEX industry employs about 3 million workers (2022) with about

35% of the country's manufacturing jobs in the sector. IMMEX companies pay about 40% more, on average, than manufacturers that are not in the export sector.

Read more about the History of Manufacturing in Mexico here.



## ECONOMIC IMPACTS

The United States and Mexico engage in significant bilateral trade through supply chain partnerships. NAFTA has fostered vertical supply chains, particularly along the U.S.-Mexico border. The movement of intermediate goods from the U.S. to Mexico and back has made the border region a crucial manufacturing hub. U.S. manufacturing industries, such as automotive, electronics, appliances, and machinery, depend on Mexican manufacturing support.

In 2019, Mexico became the United States' top trading partner, surpassing China with \$614.5 billion in total trade. Mexico also ranked second after Canada as a U.S. export market and second after China as a source of U.S. imports. NAFTA played a crucial role in strengthening economic ties between the two countries, leading to over a threefold increase in trade since the agreement's implementation in 1994.

The considerable growth in trade and the establishment of the border region as a vital manufacturing hub underscore the significant economic impacts of the U.S.-Mexico trade relationship over recent decades.

Today, the pandemic and the multiple global conflicts are the main "push factors" behind the recent upward trends in investment and trade in North America.

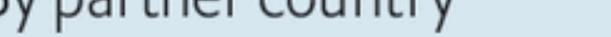
### **Good neighbours**

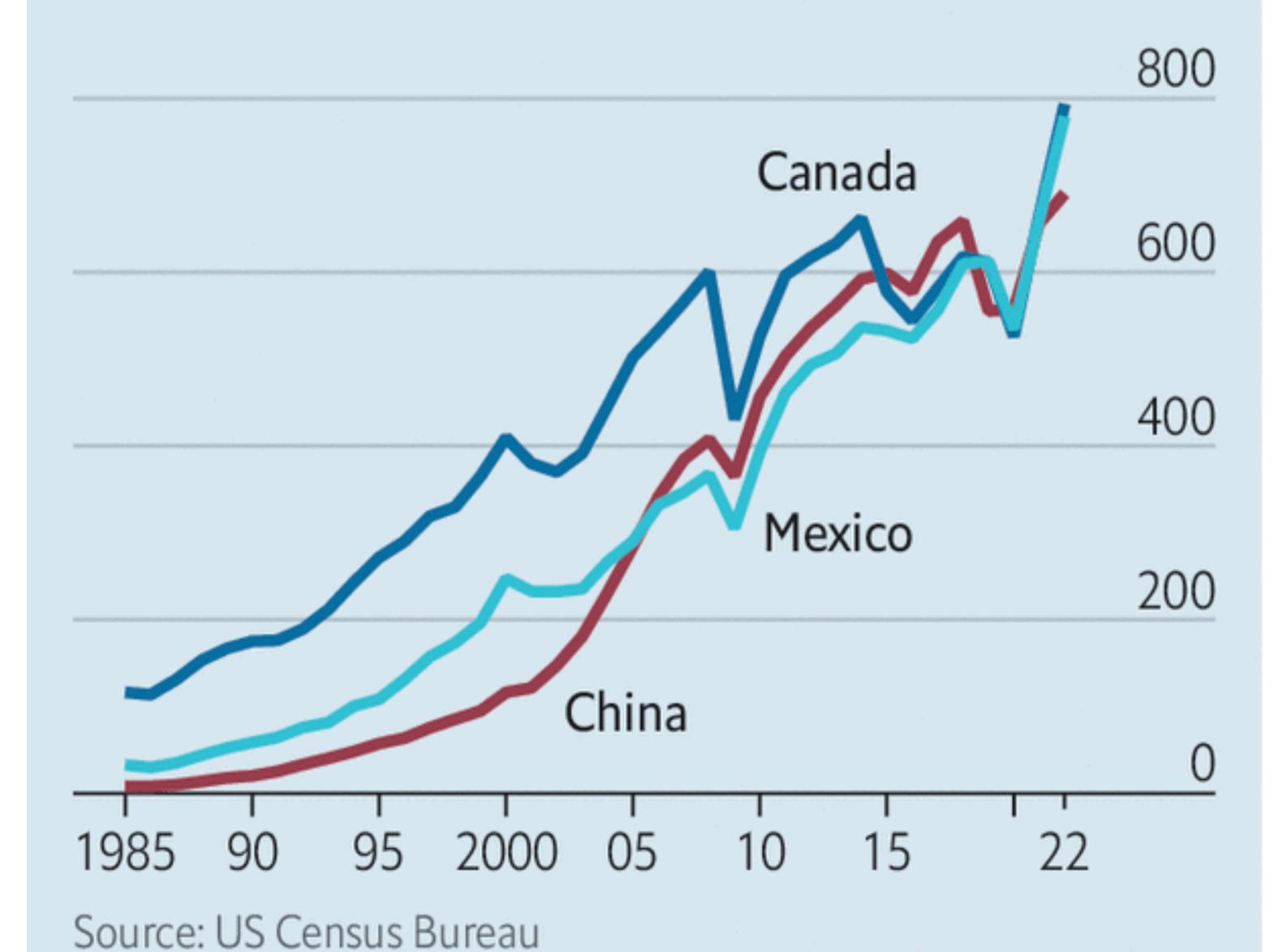
United States, trade in goods, \$bn

By partner country

Near shoring, or the practice of bringing business operations near to the final country of consumption, is reducing the cost of production as well as further boosting the integration of regional supply chains in the region. The three countries in North America not only trade goods, but co-produce them.

Nearshoring has led to another Mexican manufacturing boom. The sector has grown beyond pre-pandemic levels (% of GDP).





The Economist





Cross-Border Manufacturing

## The rise in U.S.-Mexico cross-

border manufacturing has been fueled by trade agreements and incentive programs, as well as a cultural shift and infrastructure improvements.

## Robust economic ties between

the U.S. and Mexico, exemplified by Mexico becoming the U.S.' top trading partner in 2019, underscore the significant impact of these strategic initiatives on enhancing cross-border manufacturing.





## NAFTA V. USMCA

The United States-Mexico-Canada Agreement (USMCA) entered into force on July 1, 2020. The USMCA, which substituted the North America Free Trade Agreement (NAFTA) is a mutually beneficial win for North American workers, farmers, ranchers, and businesses. The Agreement creates more balanced, reciprocal trade supporting high-paying jobs for Americans and growth for the North American economy.

#### Agreement highlights include:

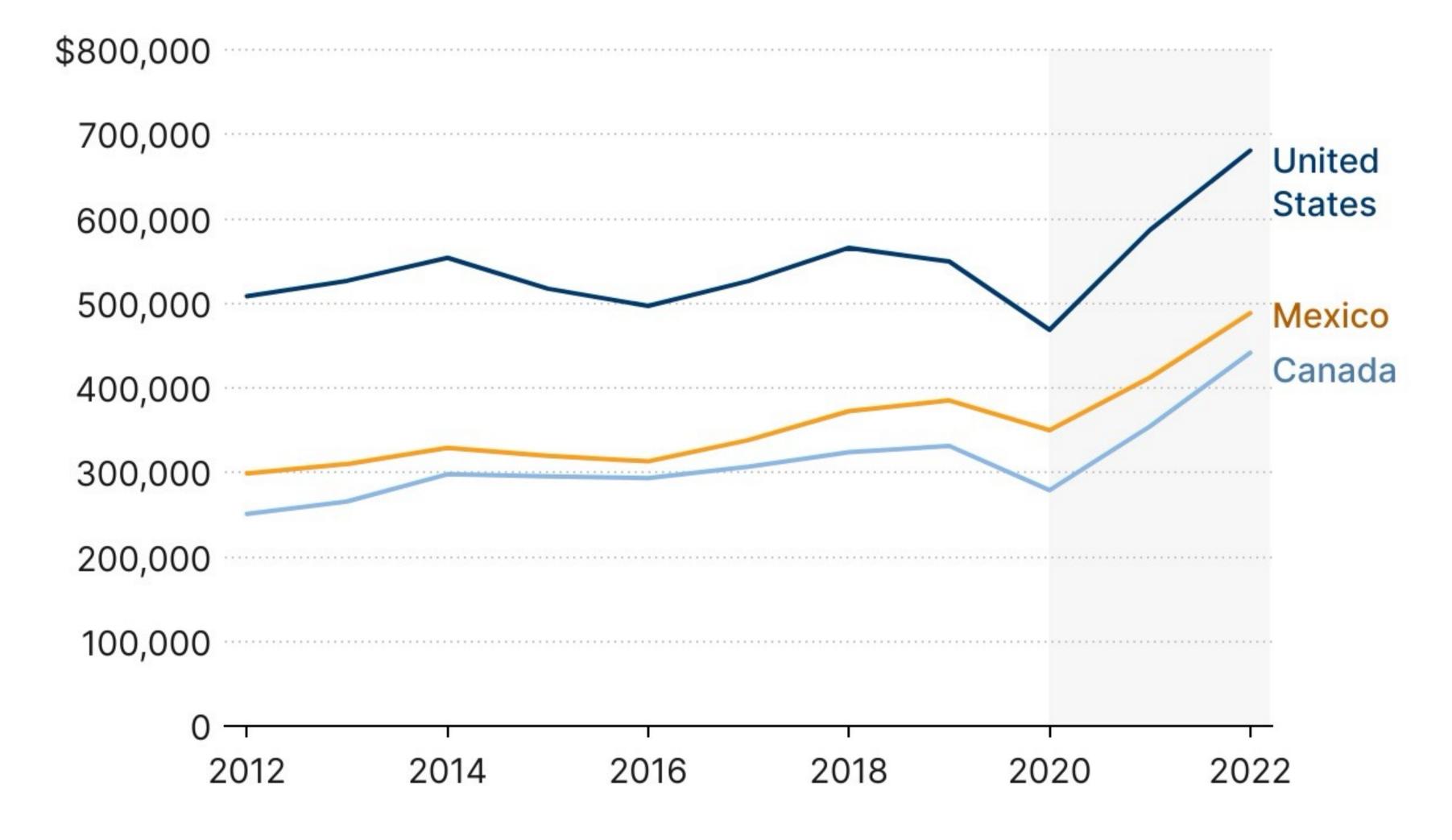
- Creating a more level playing field for American workers, including improved rules of origin for automobiles, trucks, other products, and disciplines on currency manipulation.
- Benefiting American farmers, ranchers, and agribusinesses by modernizing and strengthening food and agriculture trade in North America.
- Supporting a 21st Century economy through new protections for U.S. intellectual property, and ensuring opportunities for trade in U.S. services.
- New chapters covering Digital Trade, Anticorruption, and Good Regulatory Practices, as well as a chapter devoted to ensuring that Small and Medium Sized Enterprises benefit from the Agreement.

The <u>last three years</u> have witnessed remarkable progress in expanding trade, investment, and employment, ensuring that the USMCA generates positive outcomes for workers and the broader society across North America. Moreover, the USMCA has established a stable policy environment and baseline for North America, making it an attractive platform for developing comprehensive supply chains in sectors such as electric vehicles (EVs) and semiconductors, tackling climate change and fostering clean energy, and expanding access to critical minerals.

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#### **USMCA IGNITES INTRAREGIONAL EXPORT GROWTH** Exports by country, millions of US dollars, 2012-2022

The agreement is playing a positive role in boosting trade flows, as well as improving bilateral and trilateral relations between the participants. With a record 75% of Canadian and Mexican imports coming from the United States, both countries are both the U.S.'s largest export market and the U.S.'s largest trading partners, accounting for more than twice the U.S. trade with China.



SOURCES: BANCO DE MEXICO (2023), STATISTICS CANADA (2023), US CENSUS BUREAU. PREPARED BY DIEGO MARROQUIN BITTER. NOTE: US DOLLARS ON A NOMINAL BASIS, NOT SEASONALLY ADJUSTED



## FACTORS FOR CROSS-BORDER SUCCESS

Several key factors contribute to the success of cross-border manufacturing and trade between the United States and Mexico, fostering a thriving binational business environment. Additional to foundational support like trade agreements, incentive programs and infrastructural developments, other factors play a role in the success of cross-border manufacturing:



**Binational Compliance.** Manufacturers in the U.S.-Mexico border zone adhere to laws and regulations on both sides of the border. They also must be tracking risk factors across two countries as well as a potential change of landscape in special programs and zones.



**Due Diligence and Feasibility.** Binational manufacturers must choose an advantageous site amidst a competitive market that considers the mid- and long-term costs, business continuity factors, and necessary resources. Joint economic development strategies and support are key to the continued strength of the border zone.



**Politics.** The U.S.-Mexico border zone is highly politicized, and doing business in such an environment has challenges. Special binational initiatives and programs promote the integration and alignment of legislative activity of both sides of the border.



Educational Networks. The institutions along the border are an

important connection to the binational communities. Their role is to prepare a diverse population to solve the challenges of cross-border activity as well as foster an atmosphere of binational cooperation and mutual discovery.



**Security.** Security and trade are linked. Therefore, increases in security will facilitate trade if both countries have confidence in the security measures employed by both sides.



**Community Health.** Manufacturers in the U.S-Mexico border zone often employ from both countries. The health and safety of this binational workforce is a challenge that spans legislative institutions, access to healthcare, standardization and communication, as well as things like mobility and nutrition. This factor was highlighted during the global COVID-19 pandemic.



**Culture.** Connected families and communities create a unique border culture in which lives are greatly lived between both countries. The zone is unique in language, traditions and even standard of living from the average of each nation.



These elements combined have both strengthened economic ties and boosted the competitiveness of North American industries on the global stage. Business that conduct business in the U.S.-Mexico border zone should expect a unique environment and challenges to binational manufacturing.



## FUTURE INDUSTRIES & OPPORTUNITIES

The future of the U.S.-Mexico border region is being shaped by several factors. New U.S. legislation is incentivizing manufacturing's return and growth, driven by economic and security reasons. Border states are attracting manufacturing investments for specialized processes, leveraging tax breaks, training programs, and business-friendly initiatives to entice companies to bring back key supply chain components, utilizing Mexico's manufacturing sector.

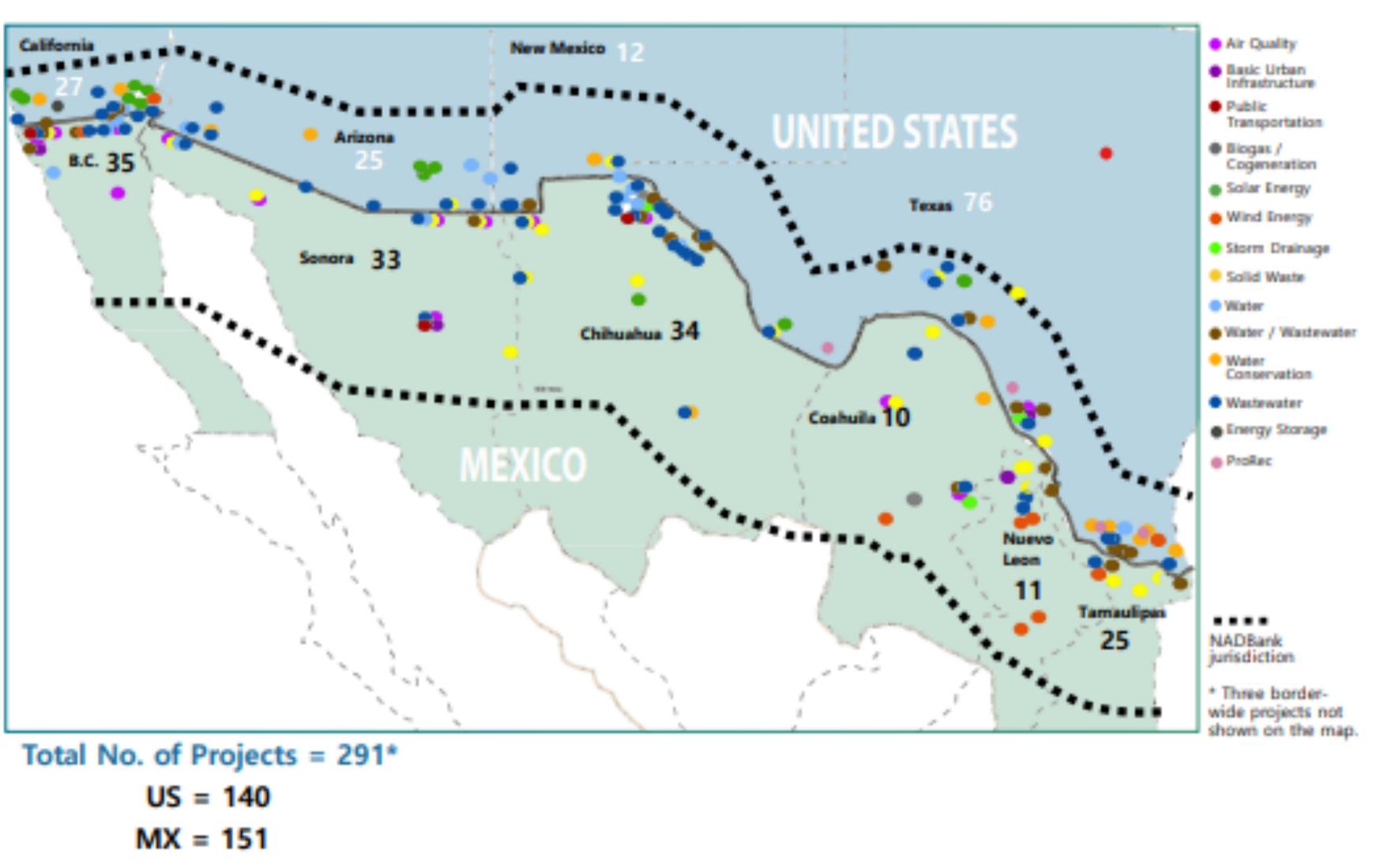
Nearshoring and reshoring trends are bringing more manufacturers to the border region, strengthening an interconnected network of manufacturing facilities. Many experts predict an increase of this connected ecosystem of manufacturing, assembly, testing, packaging, warehouse, and logistics facilities as companies strive to optimize their supply chains. Both countries have been upgrading transportation infrastructure to support cross-border trade, and this infrastructure must evolve to meet ESG goals.

The U.S. Customs & Border Protection Agency seeks to reimagine and transform U.S. trade while ensuring ever-greater levels of import compliance. The <u>21st</u> <u>Century Customs Framework (21CCF)</u> is a modernized approach to trade, enhancing the efficiency of cross-border commerce. It fosters streamlined procedures, advanced technology use, data-driven decisions, and robust partnerships. This framework equips industries to embrace global market trends and creates opportunities for secure, sustainable economic growth. The framework was introduced by CBP in 2018 and is aimed at improving efficiency and security in the movement of goods across U.S. borders.

Read more about the 21CCF trade initiatives here.

The binational North American Development Bank (NADBank) is equally owned by the governments of the United States and Mexico. The institution only finances environmental projects on the Southwest border. As near shoring trends increase, there is a growing concern for infrastructure, safety and energy projects.

#### WHERE.OUR.PROJECTS.ARE.





## CHAPTER 3 The U.S.-Mexico Border



The unique environment along the U.S.-Mexico border is characterized by a fluid, dynamic exchange of goods, services, and people. This region is a crucial gateway for

commerce between North America and the rest of the world. As such, it serves as an essential link in global supply chains and plays a crucial role in economic growth.



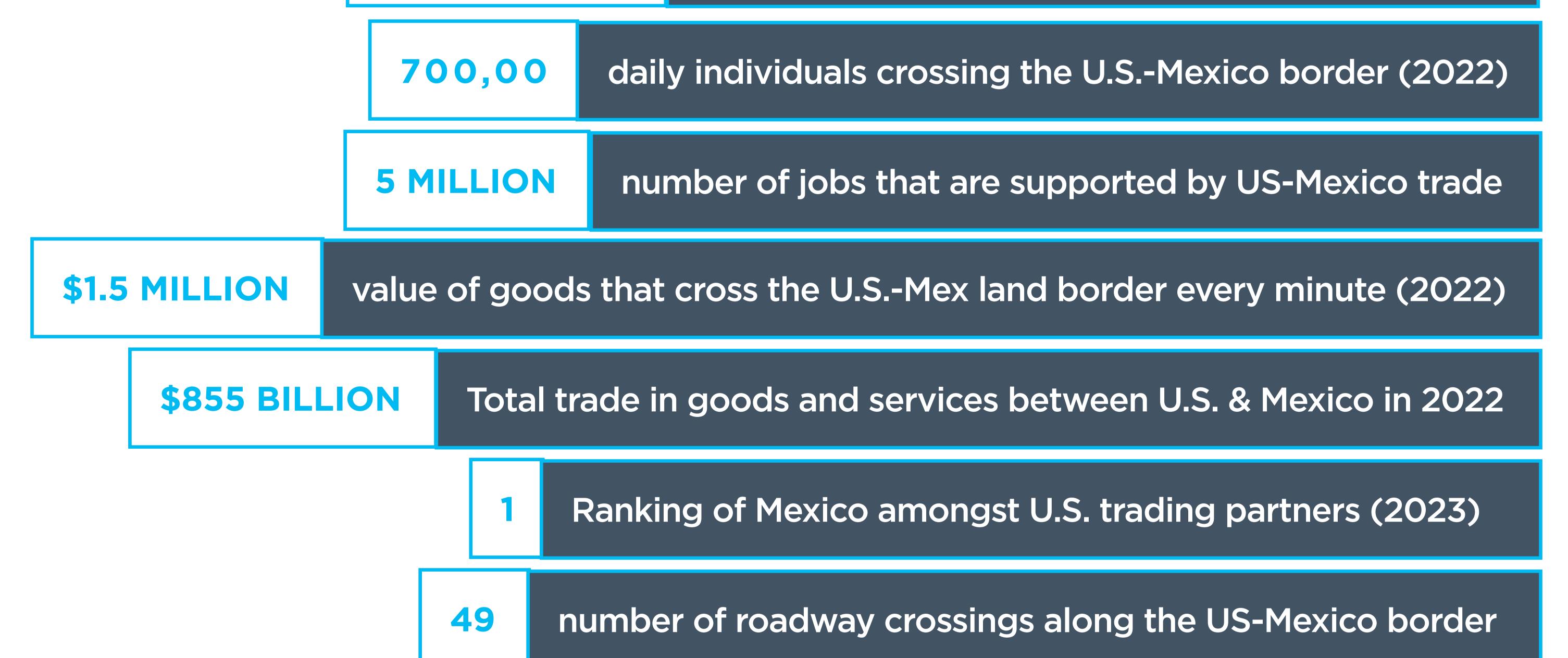


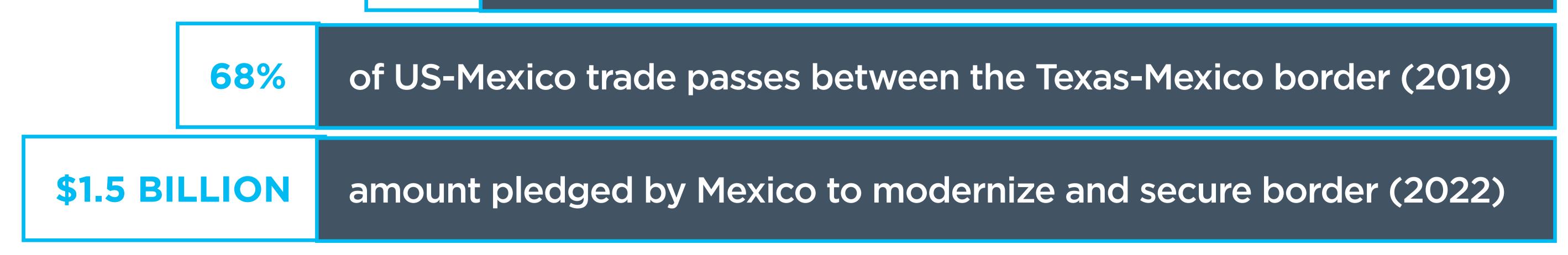
### **CROSS-BORDER ACTIVITY**

The broad scope of relations between the United States and Mexico extends beyond diplomatic and official relations. It encompasses extensive commercial, cultural, and educational exchange. About <u>15 million border residents</u> (and many U.S. and Mexican residents living well beyond the borderline) depend on a well-managed border regarding issues as varied as water resources, infrastructure, trade, migration, security, and now climate change and public health. Both nations have created institutions to govern shared resources and concerns, in the form of treaties, accords, organizations, working groups, conferences, etc.

During their July 2022 meeting, Presidents Biden and Lopez Obrador reaffirmed their commitment to create borders that are more resilient, more efficient, and safer and that will enhance our shared commerce. The joint effort seeks to align priorities, unite border communities, and make the flow of commerce and people more secure and efficient.

<b>30 MILLION</b>		people that live within 100 miles of the U.SMexico border	
	3.3% GROWTH		of the U.S. population along the border since 2012



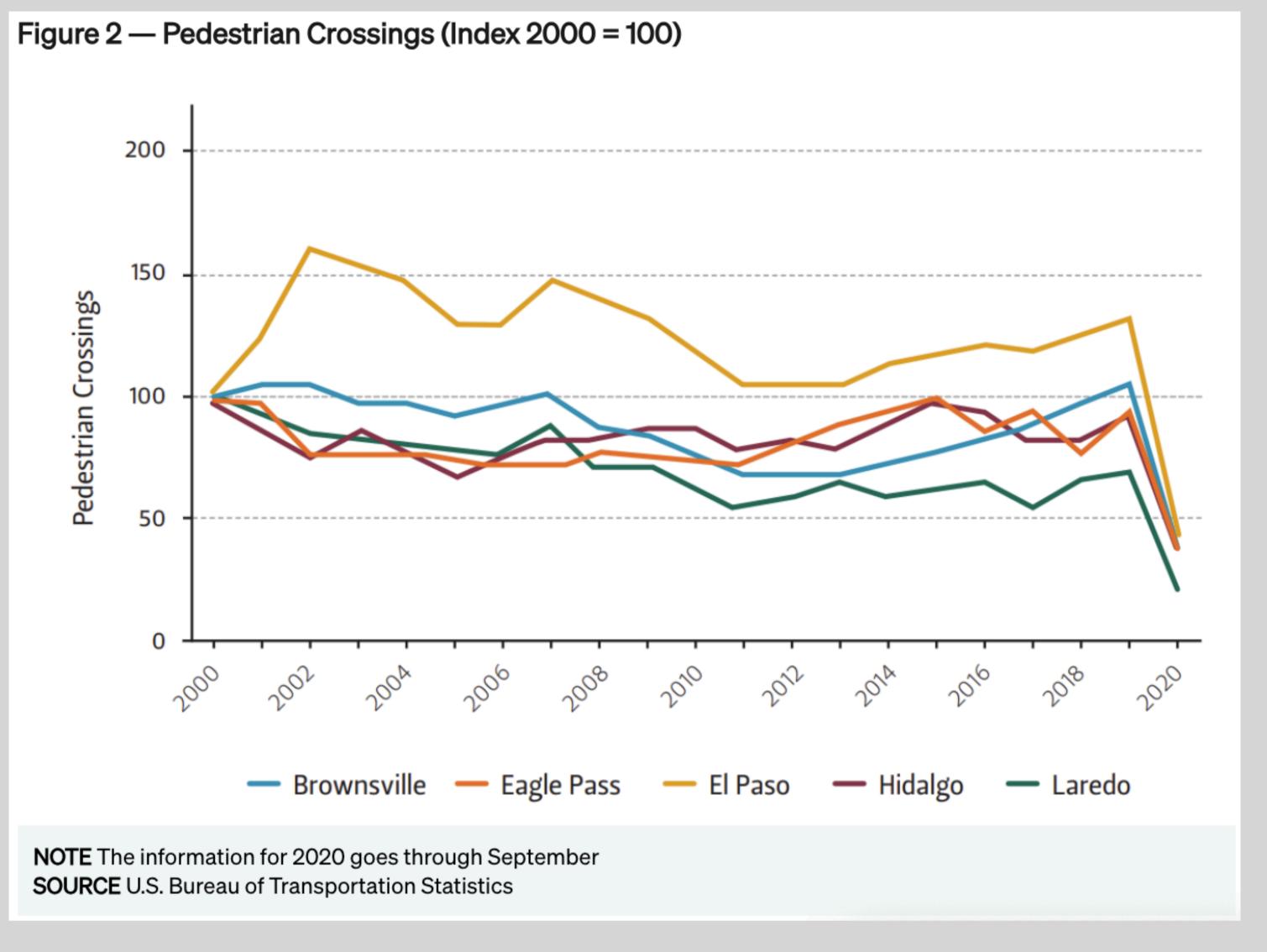


SOURCES: USTR.GOV, BUSINESS ROUNTABLE, U.S. CENSUS BUREAU, DEPT. OF TRANSPORTATION, ATLANTIC COUNCIL, CUSTOMS BORDER PROTECTION, INEGI



#### THE POSITIVE IMPACT OF MEXICAN TOURISM IN THE UNITED STATES

From 2010 to 2022, the number of U.S. TN visas issued to Mexican citizens grew by 884%, signaling the increased need for Mexican workers in the U.S. Nearly 15 million Mexicans work in the United States, many crossing the border on a daily basis.



A quarter of the tourist visitations to the U.S. are from Mexico (2022). These 12.5 million tourists spend an average \$662 dollars per person. The Baker Institute estimates the losses from the 8-month COVID-19 travel restrictions to have cost Texas over \$1 billion in lost wages, output and tax revenue.

SOURCE: BAKER INSTITUTE

In Texas, the COVID-19 pandemic travel restrictions cost the state nearly \$5 billion in lost GDP (6.1% of total), primarily from the retail and hospitality sectors. A report from the Dallas Federal Reserve found that Mexican shoppers are responsible for 40 to 45 percent of retail activity in Laredo, 35 to 40 percent in McAllen and 30 to 35 percent in Brownsville.

The U.S.-Mexico border is home to various industries, including manufacturing, agriculture, and energy. The border region is characterized by the following, according to the Wilson Center:

- Highly specialized manufacturing industries on the Mexican side of the border
- Strong logistics industries on the U.S. side of the border
- Few signs of deep supply chain connections or non-logistics service provisions by U.S. firms along the border to Mexican border industries
- Sporadic nature of cluster organization and cross-border economic development efforts throughout the border region
- The predominance of border security over trade affecting the overall business • environment at the border
- Continued struggles with cross-border mobility and human capital development

The U.S.-Mexico border's economic importance continues to grow as the region evolves into a key player in global supply chain management. The interconnectedness of trade, security, community health, and culture plays a significant role in shaping this unique region.



### **CROSS-BORDER ACTIVITY**

The Wilson Center Mexico Institute describes the U.S.-Mexico border as "characterized by sister-city pairs engaged in a <u>long-term process of forming five "mega-regions</u>" whose principal economic pillars include large-scale joint production and advanced manufacturing, among other activities."

The 10 border states - six Mexican and four U.S. - combined would be the fourth largest economy in the world.

#### **U.S.-MEXICO BORDER ZONE REGIONS**



California-Baja California Border Subregion is Arizona-Sonora Border Subregion is known as the fruit Paso del Norte Subregion has enormous strength Texas-Nuevo León-Tamaulipas-Coahuila Border Lower Rio Grande Valley-Tamaulipas Subregion is known for its competitive *maquiladora* and warehousing in Mexico, and rich farmland in Texas

characterized by a high population concentration, the busiest border crossing in the world, and highvalue-add sectors and vegetable corridor of North America with growing automotive, aerospace, and semiconductor sectors as a manufacturing platform, with a large *maquiladora* employment rate in advanced industries

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Subregion includes the busiest commercial border crossing at the midpoint of an important regional logistics corridor



SOURCE: HTTPS://WWW.WILSONCENTER.ORG/SITES/DEFAULT/FILES/MEDIA/DOCUMENTS/EVENT/COMPETITIVE\_BORDER\_COMMUNITIES\_PPT.PDF



#### **CALIFORNIA-BAJA CALIFORNIA BORDER SUBREGION**

The region is characterized by electronics equipment manufacturing, medical device equipment, and semiconductors components. The manufacturing sector accounts for over 389,000 employees and \$21 billion dollars in value-add to the regional economies (2018). An estimated 54,000 people cross the California-Mexico border to work in the U.S. each day.An average \$200 million worth of goods and services cross this subregion border every single day (2019).



Mesa de Otay

#### California-Baja California Border Subregion is

characterized by a high population concentration, the busiest border crossing in the world, and high-value-add sectors



\*upcoming 2026

The California-Baja California Border Subregion is made up of San Diego and Imperial counties in California along with the *municipios* of Tijuana, Rosarito, Ensenada, San Quintin, Tecate and Mexicali in Mexico, which encompass about 7 million inhabitants.

The region includes seven primary ports of entry: San Ysidro, Otay Mesa, Tecate, El Chaparral, Cross Border Xpress (CBX), Calexico West, Calexico East, and Andrade. Significant improvements were made to the Otay Mesa cargo port, making it the most modern in Mexico. The San Ysidro and El Chaparral ports of entry jointly constitute the world's busiest land border crossing. <u>Almost \$45 billion in trade crosses annually through the Tecate and Otay Mesa ports of entry</u>.



#### **ARIZONA-SONORA BORDER SUBREGION**

The AriSonora Region is characterized by the major U.S.-Mexico crossing at the city of Nogales, famous for its competitive position as a fruit and vegetable trade corridor. More than \$33 billion worth of goods flowed across the Arizona-Sonora border in 2022. Both state capitals of Phoenix and Hermosillo are about 180 miles from the U.S.-Mexico border. The region is characterized by metal ore mining, audio and video equipment, and aerospace components. The aerospace sector employs over 18,000 professionals on both sides of the border, with Arizona

focused on defense and Sonora more commercial-focused.



#### Arizona-Sonora Border Subregion is

known as the fruit and vegetable corridor of North America with growing automotive, aerospace, and semiconductor sectors

The Arizona-Sonora Border Subregion is made up of Yuma, Pima, Santa Cruz and Cochise together with the Sonoran *municipios* of San Luis Río Colorado, Puerto

Peñasco, General Plutarco Elías Calles, Caborca, Altar, Sáric, Nogales, Santa Cruz, Naco, and Agua Prieta.

There are six ports of entry on the Arizona-Sonora border. From east to west these paired towns are: Douglas/ Agua Prieta, Naco/Naco, Nogales/Nogales, Sasabe/Sasabe, Lukeville/ Sonoyta, and San Luis Rio Colorado, which has no corresponding town on the Arizona side.



#### PASO DEL NORTE SUBREGION

The Mexican side of the border is heavily industrialized while the U.S. side of the border represents a varied array of services. The region's greatest asset is its workforce, one that has transitioned from apparel and low-cost assembly to high-tech automotive, medical device production and electronic equipment. In fact, the automotive <u>sector alone accounts for 78,000 jobs in the region</u>.

The Paso del Norte Subregion includes 2.7 million inhabitants, making it the

second largest binational subpopulation, and over 50,000 jobs in El Paso, Texas rely on the U.S.-Mexico collaboration in the region. <u>About 68,000 professionals</u> <u>cross the border in El Paso each day</u> for work or school. The El Paso-Juarez crossing is the second-busiest land crossing in the world.



The Paso del Norte Subregion constitutes the Texas counties of Brewster, El Paso

and Presidio; the New Mexico counties of Doña Ana, Hidalgo and Luna; and the Chihuahua municipios of Ascensión, Guadalupe, Janos, Juárez, Manuel Benavides, Ojinaga, and Praxedis G. Guerrero. There are 8 total land crossings throughout the region, three of them between the cities of El Paso and Ciudad Juarez. These three subregional ports of entry between Texas-Mexico processed over \$85 billion in trade across the border (2021), of which El Paso processed 28%; Ysleta processed 72%; Presidio processed less than 1%.

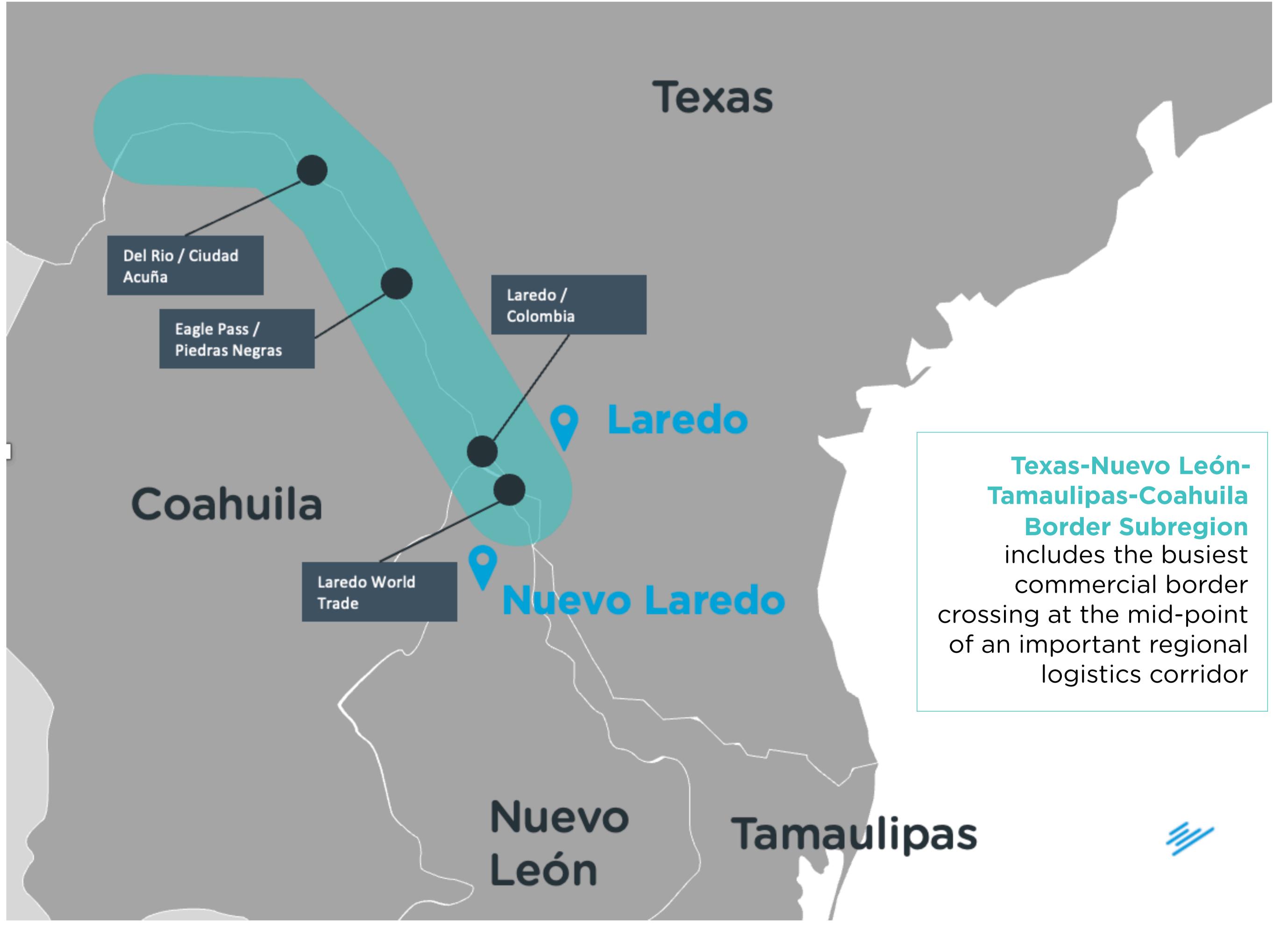


#### **TEXAS-NUEVO LEÓN-TAMAULIPAS-COAHUILA BORDER SUBREGION**

The border region is dominated by the services sector such as freight coordination, as well as automotive assembly and components, and electrical machinery. On both sides of the border, population growth projections are hitting 15-25% by 2050.

The Laredo border crossing is one of the most important ports of entry along the U.S.-Mexico border, connected to the I-35 corridor, a major USMCA route spanning

the three North American countries. There are a number of automotive OEM's within the region (General Motors, Stellantis, KIA, Toyota, Tesla) and over 250,000 employees (BLS, INEGI, 2020) contribute to this binational sector of importance.

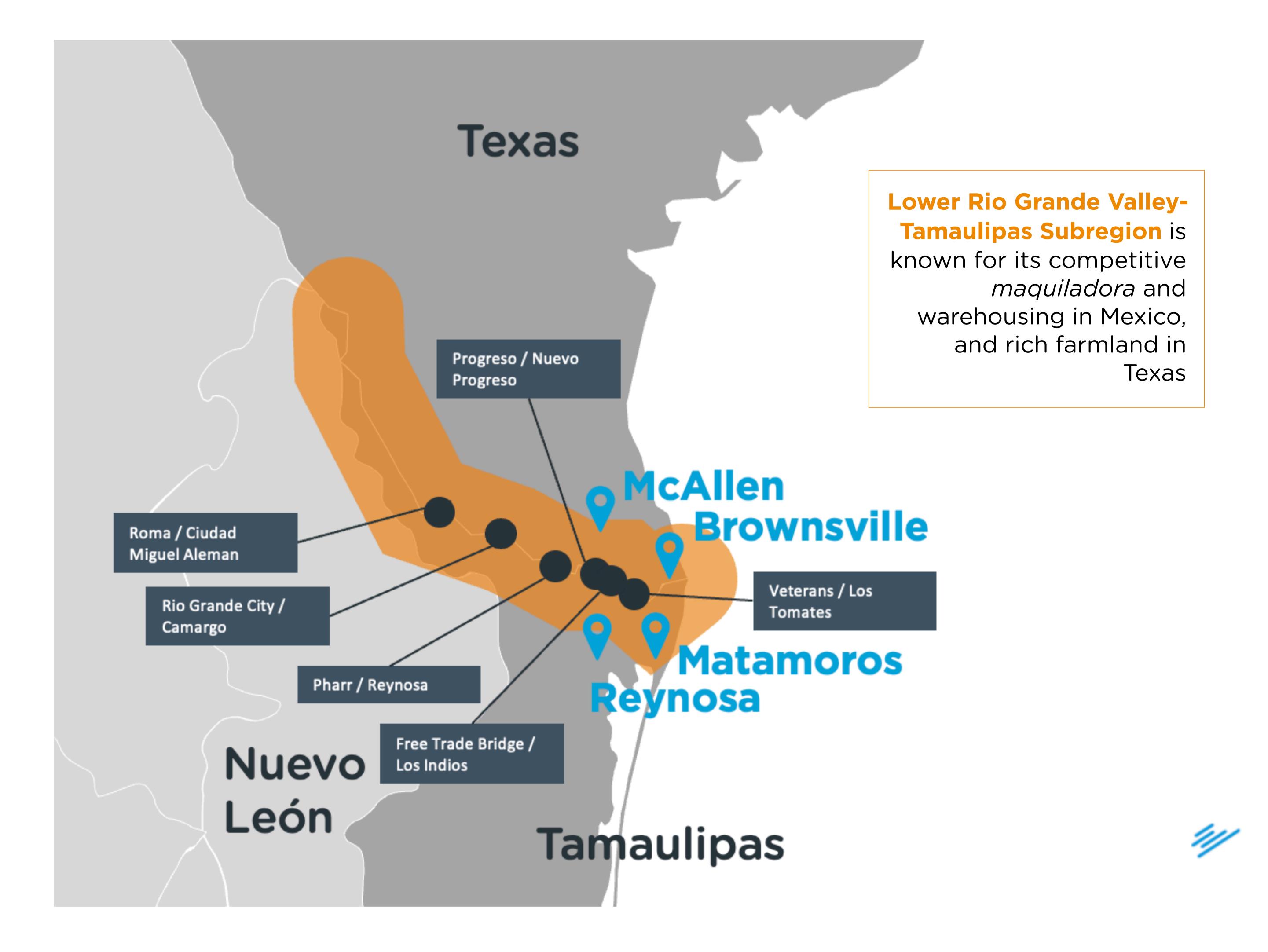


The Texas-Nuevo León-Tamaulipas-Coahuila Border Subregion includes the Texan counties of Kinney, Maverick, Terrell, Val Verde, Webb and Zapata as well as the Mexican *municipios* of Acuña, Guerrero, Hidalgo, Jiménez, Nava, Ocampo and Piedras Negras in the state of Coahuila; Anáhuac in Nuevo León; and Guerrero and Nuevo Laredo in Tamaulipas. This region represents nearly half of the total U.S.-Mexico trade value. The Laredo District is home to three ports of entry, and processed over \$281 billion in trade across the border (2021), of which Laredo processed 86%, Del Rio processed 2%; Eagle Pass processed 12%.



#### LOWER RIO GRANDE VALLEY-TAMAULIPAS SUBREGION

The region is characterized by the major manufacturing cities of Reynosa and Matamoros, Mexico; access to the Gulf of Mexico; high levels of educational attainment; as well as energy production and transportation opportunities, among others. Electronics and automotive manufacturing dominates the region, and binational services are also an important economic driver as well as mineral and vegetable products.



The Lower Rio Grande Valley-Tamaulipas Subregion corresponds to the Texas counties of Cameron, Hidalgo and Starr as well as the Tamaulipas *municipios* of Camargo, Gustavo Díaz Ordaz, Matamoros, Mier, Miguel Alemán, Reynosa, and Río Bravo. Over <u>1.4 million people live in the Lower Rio Grande Valley-Tamaulipas</u> <u>Subregion</u>. Five ports of entry processed \$62.6 billion in trade across the U.S.-Mexico border (2021), of which Hidalgo processed 65%; Brownsville processed 32%; Progreso, Rio Grande and Roma each processed less than 1%.



## **CONNECTIVITY AND INFRASTRUCTURE**

The U.S.-Mexico border is marked by a robust and intricate network of connectivity and infrastructure, designed to support the immense volume of goods and people crossing daily. Key infrastructure components include a collection of land ports of entry, highway networks, and railway systems. Land ports are connected via an expansive highway network that spans across various states, serving as the main arteries of trade. The rail

systems also play a significant role, especially in transporting bulky and heavy goods over long distances.

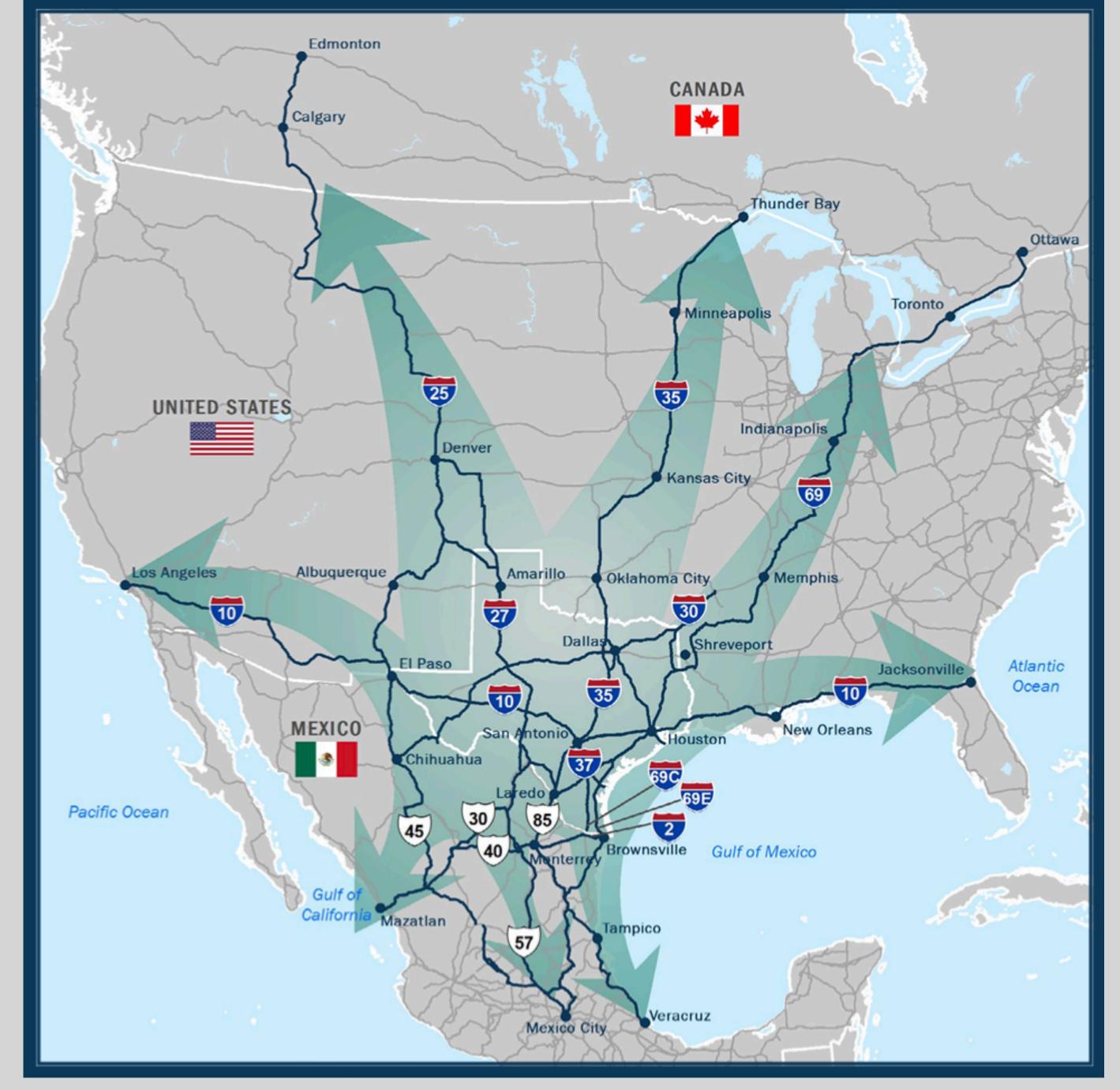
Digital connectivity is equally crucial, enabling seamless coordination between stakeholders involved in cross-border trade. This integrated physical and digital infrastructure significantly bolsters the region's trade capacity, fueling economic prosperity on both sides of the border.

This intricate infrastructure underscores the importance of collaboration between institutions on both sides of the border. Research indicates that a mere 10-minute reduction in border wait times could generate an additional \$26 million worth of cargo entering the United States each month. Mexico purchases 16% of U.S. exports, often utilizing them in a transformation process and returning the finished goods to the United States for consumption. This binational understanding of the importance of cross-border connectivity and collaboration is a testament to its vital role in fostering economic growth and prosperity.

#### THE IMPORTANCE OF THE US-MEXICO BORDER FOR REGIONAL TRADE

By 2050, the Texas Department of Transportation estimates that the economic impact of cross-border trade will generate over 10.9M jobs and contribute \$604.5B in GDP, on both sides of the border. Texas, widely known for its economic integration with Mexico, is arguably the most connected U.S. state, and an important gateway for a number of important industries.

The interlinked supply chains across North America fundamentally rely on effective infrastructure connectivity. Over half of the trade between the North American countries happens in intermediate goods, which are integral elements for the regional supply chain, destined to become part of a finished product within North America.



**CONNECTIVITY OF TEXAS-MEXICO BORDER** 

SOURCE: TEXAS DEPARTMENT OF TRANSPORTATION



#### FEDERAL AGENCIES INVOLVED IN BORDER CROSSING ACTIVITIES, MEXICO AND THE UNITED STATES

Mexico	United States
<ul> <li>Ministry of Foreign Affairs (SRE)</li> <li>SRE Mexican Section of the International</li> </ul>	<ul> <li>U.S. Department of Transportation (USDOT)</li> <li>U.S. Department of State (DOS)</li> </ul>
Boundary and Water Commission (CILA)	<ul> <li>IIS Environmental Protection Agency (EPA)</li> </ul>

- SRE General Office for North America
   Ministry of Communication and Transportation (SCT)
- Ministry of Governance and Homeland Security (SEGOB)
- SEGOB Political Migratory Unit (UPM)
- SEGOB National Migration Institute (INM)
- Ministry of Finance and Public Credit (SHCP)
- Customs-Tax Administration Services (SAT)
- SHCP Mexican Development Bank (BANOBRAS) and National Infrastructure Fund (FONADIN)
- SHCP Investment Unit (IU)
- Ministry of Public Administration (SFP)
- SFP Institute of National Asset Administration and Valuation (INDAABIN)
- Ministry of Economy (SE)
- Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) & National Food Safety Quality and Health Service (SENASICA)

- U.S. EINTOITTETTAL FIOLECTION AGENCY (EFA)
- U.S. General Services Administration (GSA)
- U.S. Department of Homeland Security (DHS)
- DHS U.S. Customs and Border Protection (CBP)
- U.S. Food and Drug Administration (FDA)
- U.S. Coast Guard
- U.S. Office of Management and Budget (OMB)
- U.S. Section of International Boundary and Water Commissions (IBWC)
- Federal Railroad Administration
- Federal Highway Administration (FHWA)
- Federal Motor Carrier Safety Administration (FMCSA)
- Departments of transportation of the border states
- Ministry of Environment and Natural Resources (SEMARNAT) & General Office of Environmental Impact and Risk (DGIRA)
- SEMARNAT National Water Commission (CONAGUA)
- Ministry of Tourism (SECTUR)
- Ministry of Social Development (SEDESOL)
- Ministry of Rural and Urban Land Development (SEDATU)
- Ministry of National Defense (SEDENA)
- Border states and municipal governments

- Metropolitan planning organizations (MPOs) and regional planning organizations (RPOs)
- Cities, counties and regional planning associations
- New Mexico Border Authority (NMBA)
- California Air Resources Board
- Texas Commission on Environmental Quality (TCEQ)

The United States and Mexico maintain a relationship of cooperation and mutual understanding, which helps overcome some of the major challenges associated with the development of border crossing projects. The timelines and authorizations on both sides of the border must be very precise, including funding. Regular communication helps facilitate the processes, and testing and oversight from both sides is key to the continued alignment of connectivity operations.



## **CONNECTIVITY AND INFRASTRUCTURE**

Collaboration between the U.S. and Mexico is not only limited to infrastructure development and border crossing activities, but also extends to various initiatives and programs aimed at fostering economic prosperity and addressing common challenges.

The border vision of the United States and Mexico has evolved during the last 20 years, and it can be analyzed through the various programs, initiatives and agreements that have been implemented during this time period.

Some binational organizations include:

## Some of the more relevant initiatives include:

- CaliBaja Binational Mega Region
- San Diego-Tijuana Smart Border Coalition
- Border Trade Alliance
- Imperial Valley Binational Alliance
- Sun Corridor

- U.S.-Mexico Joint Working Committee (JWC) on Border Transportation
   Planning
- Trusted Trade and Traveler Programs
- Security and Prosperity Partnership (SPP) for North America
- North American Leader Summit (NALS)
- Tucson-Mexico Trade Coalition
- Arizona-Mexico Commission
- Comisión Sonora-Arizona
- Borderplex Alliance
- Bined
- Texas A&M International University (TAMIU)
- 21st Century Border Management Initiative
- U.S.-Mexico High-Level Economic Dialogue (HLED)
- U.S.-Mexico Binational Bridges & Border Crossings Group (BBBXG)

Within the 2022 infrastructure law <u>contributes \$3.4 billion</u> to modernization of 26 land ports of entry, <u>6 of which fall along the U.S.-Mexico border</u>. Mexico pledged an additional \$1.5 billion in border infrastructure over the following two years. A joint statement between the nations read, "the joint effort seeks to align priorities, unite border communities, and make the flow of commerce and people more secure and efficient".

The bill aims to battle ongoing challenges from aging infrastructure, lack of security, landlocked ports, increased traffic, migration, and more.



## **BORDER CHALLENGES**

Despite the strong collaboration and initiatives between the United States and Mexico, there are still challenges that need to be addressed in order to further enhance cross-border connectivity and trade. Some of these include:

Security concerns

- Natural resources & environmental concerns
- Migration & security
- Mobility & visas
- Infrastructure limitations
- Trade program compliance & documentation

The U.S.-Mexico border plays a crucial role in the economic prosperity of both nations. As trade continues to grow, there will be a need for ongoing cooperation and collaboration to address the challenges that come with it. The governments of both countries will need to continue working together to modernize and maintain infrastructure, reduce wait times at border crossings, and ensure the security and sustainability of the border region.

#### INSIGHTS FROM US-MEXICO BORDER MANUFACTURERS

Things on the border have moved from "just in time" to "just in case" where they storing more on the U.S. side of the border, because they are less certain they can cross at a moment's notice like before the pandemic.

Some goods certainly are moving more, if not faster. The Mexico Institute reports that since the transition from NAFTA to USMCA in July 2020, the value of twoway agricultural trade shot up by 44% from \$50.86 billion in 2019 to \$73.14 billion in 2022.

inspections have led to massive delays for cargo vehicles waiting to cross into the United States.

In both Mexico and the United States, the supply chain bottlenecks are causing economic damage and production disruptions. The United States has also seen delayed delivery of goods, creating a backlog of shipments, and a suspension of production due to a lack of available storage space.

The US-Mexico border situation is expected to be an integral topic in the 2024 elections, both in the United States and Mexico, fueling political tensions.

The US-Mexico border sees a migratory influx of 300,000 people every year, of which about 80% stay in the cities along the northern border region of Mexico. The Customs & Border Protection has closed some official crossings under recent strains. Closures and increased

If Mexico and the United States fail to successfully adjust border operations to account for elevated migration, disruptions could continue or increase.



## CHAPTER 4 The Nearshoring



The USMCA positions North America for global competitiveness, and Mexico is poised to play an important role in nearshoring. Manufacturing operations located in Mexico are strategic to most of the top U.S. manufacturers. A growing number of others rely on their binational operations structure in North America in order to be competitive in the market.





#### An Investment Boom in Mexico

Over the past years, there has been a great shift from offshoring U.S. manufacturing operations to bringing them closer to home through a process known as nearshoring. This trend has been particularly strong in Mexico, which offers many advantages such as its proximity, cost-effective labor force, and trade agreements. Nearshoring was on the lips of many executives during third quarter earnings calls, and in the first six months of 2023, Mexico raked in around \$29 billion in foreign direct investment, up 5.6% from 2022. Notably, the \$5 billion

Tesla factory has been accredited with over \$1 billion in Chinese investments in nearby industries.

#### Made in the USMCA

Supply chains in North America are heavily intertwined and interdependent. The total value of trade within North America <u>exceeded \$1.5 trillion in 2022</u>, equal to \$3 million per minute. Intermediate goods are those passed back and forth between North American countries' supply chains that are components for final products that are made within the same region. The value of the trade in intermediate goods supports 9.5 million jobs across North America (Brookings USMCA Tracker). Manufacturers in the region can benefit from cost-savings through process efficiency and improved product quality.

#### **Collaborative US-Mexico Manufacturing Experts**

Where previously Mexico has been solely known for its cheaper manufacturing inputs that can more squarely compete with overseas competitors, the relationship continues to evolve. Today, the spotlight is on Mexico's increasingly skilled workforce, a high degree of supply chain connectivity, and improved infrastructure and technological advancements. Collaboration between the North American manufacturing workforce goes beyond physical production. Engineers, designers, and technical experts from the three countries often collaborate on product development, innovation, and process improvement. This collaboration allows companies to tap into the strengths of each workforce, combining expertise and knowledge to drive efficiency and competitiveness.

#### **IN CONCLUSION:**

#### The U.S.-Mexico border is not just a physical divide but also a

source of collaboration, innovation, and economic prosperity for both nations. As we continue to navigate through challenges and work towards enhancing cross-border connectivity, it's crucial to recognize the importance of cooperation and mutual understanding in achieving common goals for North America.



## Three big phenomena are happening today that are creating historic opportunities and challenges for manufacturers in North America.

**First**, as part of "the nearshoring effect", production lines located in Asia are coming closer to the North American market in order to meet customer demands, and to minimize operating costs or avoid import duties.

**Second**, the North American vehicle footprint is undergoing a transformation from ICE (internal combustion engine) to EV (electric vehicles), representing an enormous challenge for the region. This path, already defined by the U.S. government and endorsed by consumers, implies a huge transformation of the manufacturing capabilities of OEM's and their suppliers of the industry.

**Third**, manufacturers in the United States are seeing a great challenge in staffing their operations in the era of flex time, flex space, gaming and influencing.

This complex environment full of opportunities and challenges is demanding new strategies and perspectives from business leaders. Manufacturing in Mexico holds great potential for those looking to expand their horizons and capitalize on this transformation.









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