

CHAPTER 3.7

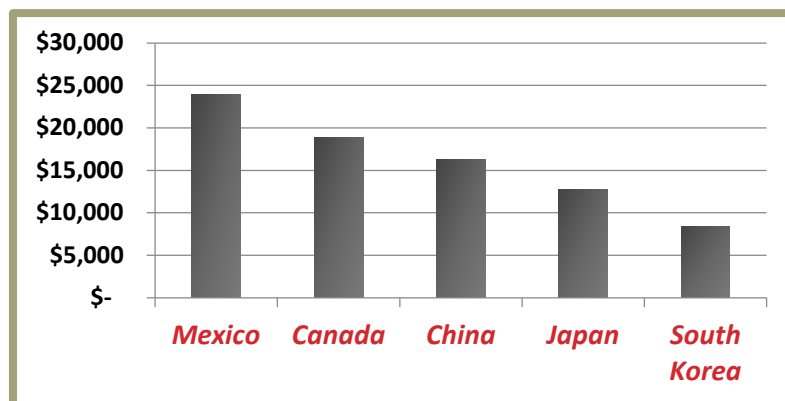
CALIFORNIA-MEXICO BORDER

IMPORTANCE OF THE CALIFORNIA-MEXICO BORDER

Cross-border commerce is important for the continued success of the economies of California, Mexico, and the US as a whole. Mexico is California's number one export market, purchasing 14.2 percent of all California exports, and the second largest export market for the US. Mexico and Canada make up the two largest markets for US exports, purchasing nearly one-third of US produced merchandise. Two-way trade between Mexico and the US has increased dramatically, from \$81.4 billion in 1993 to more than \$506.6 billion in 2013,¹²⁴ and it is expected to continue to grow.

After the terrorist attacks of September 11, 2001, security became the main concern in managing, operating, and planning for the border. These events and subsequent policies generated longer border crossing delays and increased traffic congestion at the ports of entry (POEs). Inadequate infrastructure at border crossings continues to create traffic congestion, delaying freight movement. Border delays increase transportation costs, interrupt just-in-time manufacturing cycles, add to labor costs, and generate harmful environment impacts.

FIGURE 73. CALIFORNIA'S TOP EXPORT MARKETS – 2013 (MILLIONS)



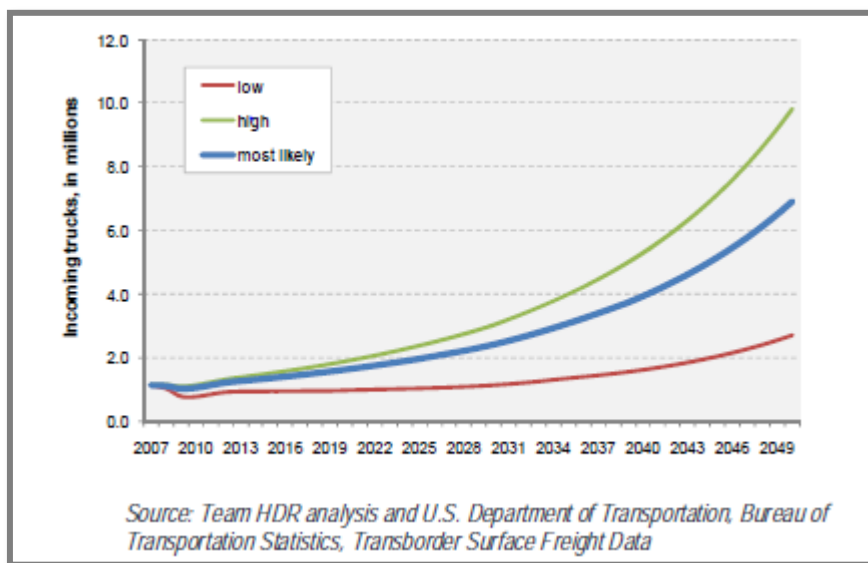
Source: US Department of Commerce, International Trade Administration

It is estimated that by 2050,¹²⁵ border crossings in San Diego County will exceed 4.4 million truckloads per year and 39 million tons of goods, valued at \$309 billion (an average annual growth of 5.2 percent between 2007 and 2050). Similarly, by 2050, almost 17 million tons of

goods per year are projected to be handled at Imperial County border crossings, with an estimated value of \$143 billion (an average annual growth of 5.3 percent). This increase in truck traffic will impact California’s already strained POEs and bottlenecks in its State Highway System (SHS) near the border.

Nearly 98 percent of freight moves across the border by truck, many of which use the SHS. Inadequate infrastructure at border crossings creates traffic congestion and delay for freight movement. Border delays increase transportation costs, interrupt manufacturing, add to labor costs, and harm the environment.

FIGURE 74. INCOMING TRUCKS AT ALL REGIONAL LAND POES (2007 – 2050)



Source: Team HDR Analysis and US Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data

A significant portion of the freight entering California from Mexico does not stay within the border region. Nearly 90 percent of the goods entering San Diego County have a final destination elsewhere in California or other states, such as Arizona and Nevada, with some going as far as New York.¹²⁶ The land POEs also have strong relationships with San Pedro Bay seaports. At least twelve percent of all laden trucks that originate or are destined for a point outside of the border region have a connection to the seaports in Long Beach and Los Angeles.¹²⁷

In recent years, many US companies have relocated their offshore production from Asia to Mexico; a practice known as nearshoring. The advantages of nearshoring over Asian production include lower wages (in contrast to rising wages in China), improved intellectual property

protection, reduced transportation costs, fewer supply chain disruptions, time zone synchronicity, reduced energy costs, better quality control, improved inventory management, and the simplicity and cost reduction of a shorter supply chain. A leaner supply chain allows for greater product customization and routing flexibility. According to Inbound Logistics, “Product(s) originating in Mexico can reach North American customers in one week or less, versus 20 to 30 days from Asia.”

Of additional importance, is the opportunity for “production sharing,” a practice in which production and distribution processes are distributed across regional and international borders. The flow of materials and components across the California-Mexico Border during manufacturing helps build strong economic interdependencies, resulting in highly blended economies. One benefit of this relationship is that exports from Mexico to the US include 40 percent US content, far exceeding that of any other foreign import¹²⁸ (see Table 38 below). This means that trade between the US and Mexico supports employment in the US as well as Mexico.

TABLE 36. 2011 PRODUCTION SHARING: US-BASED OUTPUT AS PERCENTAGE OF FOREIGN IMPORTS

Importer	US contribution (as percent of value)
Mexico	40%
Canada	25%
Malaysia	8%
Korea	5%
China	4%
Brazil	3%
European Union	2%
Japan	2%
India	2%

Source: Working Together: Economic Ties between the United States and Mexico. Christopher E. Wilson, Woodrow Wilson International Center for Scholars, Mexico Institute. November 2011.

In July 2014, Governor Jerry Brown met with Mexican President Enrique Peña Nieto in Mexico City to help boost bilateral trade and investments between the two neighbors and to expand environmental and economic cooperation. Improving relationships between Mexico and California benefits both countries.

CALIFORNIA GATEWAYS

California and Mexico share over 130 miles of border. The border offers six land ports of entry: San Ysidro, Otay Mesa, Tecate, Calexico West, Calexico East, and Andrade (see Figure 76). The

FIGURE 76. TRUCKS AT OTAY MESA POE



The US customs and border protection (CBP), under the auspices of the Department of Homeland Security, is tasked with border management and control, “combining customs, immigration, border security, and agricultural protection into one coordinated and supportive activity.” All of these functions are conducted right at the border crossing. (Photo courtesy of San Diego Association of Governments.)

US-MEXICO CROSS-BORDER TRUCKING PILOT PROGRAM

From October 14, 2011 to October 10, 2014, the Federal Motor Carrier Safety Administration (FMCSA) conducted the US–Mexico Cross-Border Long-Haul Trucking Pilot Program to evaluate “the ability of Mexico-domiciled motor carriers to operate safely in the United States beyond the municipalities and commercial zones along the United States-Mexico border.”¹³⁰ Under the program, motor carriers based in Mexico could operate throughout the US for 3 years, and US-domiciled motor carriers gained reciprocal rights to operate in Mexico. Participants were required to complete a “Pre-Authorization Safety Audit” before receiving operating authority. Once authorized, they were required to successfully complete a compliance review. The participation rate was low, with only 13 program-approved carriers. Although the program has ended, the FMCSA has allowed participating Mexican carriers to continue operating in the US. The next step is for a report to be completed by the Motor Carrier Safety Advisory Committee. The report will include recommendations for future actions.

BORDER FREIGHT CHALLENGES AND OPPORTUNITIES

ECONOMIC IMPACTS OF BORDER DELAYS

Land POE facilities and border transportation routes are severely congested, resulting in significant delays for trucks crossing the international border. In addition, federal, State, and

regional planning agencies project significant future increases in truck traffic. Annual freight flows are projected to increase in volume by 2.4 percent, and in value by 4.0 percent.¹³¹ Cross-border delays discourage trips across the border and inhibit the potential for growth in long-term business income growth. Border congestion may be an impediment to attracting new investments, as well as supporting existing ones, since uncertain wait times effectively constitute a non-tariff trade barrier. In 2008,¹³² over 30,000 potential job opportunities were lost nationwide, including 25,000 in California, due to delays in northbound freight flows and personal trips at the California-Mexico border. The impacts were significant on the south side of the border, as well. Over 11,000 potential job opportunities were lost in Mexico, including 7,600 in Baja, California.

Some of the factors contributing to long wait times and queues at a border crossing include limited POE hours of operation, inadequate infrastructure facilities, and insufficient Customs staffing on both sides of the border. When demand exceeds the capacity of the POE, trucked goods may be delayed up to several hours per crossing. Congestion delays occur both northbound and southbound. For instance, at the Otay Mesa POE, southbound truck traffic waiting to reach the US Customs export facility backs up onto city streets. During backups, trucks block intersections on surface streets, reducing access to local businesses, and increasing pollution to unacceptable levels. Illegal truck maneuvering and passenger vehicle conflicts are common.

ENVIRONMENTAL IMPACTS OF BORDER DELAYS

The importance of reducing truck idling time at the border is not only to reduce economic cost; it is also important for public health and the environment. Trucks consume up to a gallon of diesel fuel for each hour of idling. Diesel truck emissions – a mixture of gases and solids, including particulate matter (diesel soot), sulfur dioxide, carbon monoxide, hydrocarbons and various air toxins – are particularly harmful to children, seniors, asthma sufferers, people with chronic health problems. Often overlooked, another group that suffers disproportionately from the effects of diesel emissions is truck drivers.

A 2010 San Diego State University study of greenhouse gas (GHG) emissions measured a total of 80,000 metric tons (MT) of carbon dioxide equivalents (CO₂ E) at the three San Diego County POEs (San Ysidro, Otay Mesa, and Tecate, combined).¹³³ This total represents 0.5 percent of all on-road transportation emissions in San Diego County based on the latest 2006 GHG inventory. Heavy-duty diesel trucks at the Otay Mesa POE commercial crossing contributed the most on a per-vehicle basis (15.3 kilograms CO₂ E/crossing). Vehicles using the “trusted traveler” Secure Electronic Network for Travelers Rapid Inspection (SENTRI) lanes, which can be used by pre-screened, low-risk travelers, contributed the least overall emissions (1.1 kilograms CO₂ E/crossing). Of the total 80,000 MT of GHG emissions, a full 45 percent were generated by idling vehicles waiting to cross the border.

NEED FOR INTERAGENCY COORDINATION

Historically, the California-Mexico border has lacked a single, integrated vision and there has been little attempt to coordinate the efforts of the federal, State, and local agencies in the area responsible for mobility and security. To address this issue, a California-Baja California Border Master Plan (BMP) is under development. The plan is a bi-national effort to coordinate planning and delivery of projects at POEs and the transportation infrastructure that serves them. Caltrans and the California State Transportation Agency (CalSTA), in partnership with the Secretariat of Infrastructure and Urban Development of Baja California (Secretaría de Infraestructura y Desarrollo Urbano del Estado de Baja California, or SIDUE) and the US/Mexico Joint Working Committee (JWC), retained the San Diego Association of Governments (SANDAG) service bureau to assist in developing the plan.

The BMP was envisioned by the JWC as a pilot project between border states. The California-Baja California region completed its first BMP in 2008. Since then, the California-Baja California approach has been expanded and adapted to other border states and customized to address their needs, resulting in a master planning process for the entire US-Mexico border. The Arizona-Sonora BMP was finalized in February 2013, the Laredo-Coahuila/Nuevo León/Tamaulipas BMP was completed in June 2012, and the El Paso/Santa Teresa-Chihuahua BMP and Lower Rio Grande Valley-Tamaulipas BMP were completed in October 2013. The New Mexico-Chihuahua BMP is under development and is expected to be finalized in 2015.

GROWING TRADE: THE CHALLENGE OF FUNDING BORDER PROJECTS

After the signing of the North American Free Trade Agreement (NAFTA), cross-border trade between the US and Mexico increased. NAFTA did not provide any funding streams for land POEs or improvements to cross-border connecting transportation facilities, and the increase in cross-border economic activity impacted land POEs and the transportation network serving them. The 1998–2004 Transportation Equity Act for the 21st Century (TEA-21) and the 2005–2011 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) established the Coordinated Border Infrastructure Program to finance border projects. However, the current federal transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21) folded the border financing program into a larger program, leaving border projects to compete with projects from non-border regions.

To facilitate growing volumes of NAFTA trade, border-related agencies must explore opportunities for public-private partnerships. The previously mentioned SR 11/Otay Mesa East POE is such a partnership. The project's estimated total cost of \$750 million will be financed primarily through toll revenues. The first segment, funded by \$71 million from the Proposition 1B Trade Corridor Improvement Fund and \$41 million from the federal Coordinated Border

Infrastructure Programs, is currently under construction. Financing for Phases 2 and 3 is expected to come from tolls and subsequent bond sales.

THE ROLE OF CALTRANS

Caltrans and CalSTA, in partnership with the US General Services Administration, the US Customs and Border Protection (CBP), the US Federal Highway Administration (FHWA), SANDAG, the Imperial County Transportation Commission, and the Southern Association of Governments, works to reduce congestion and improve mobility in California’s border international transportation network and at the POEs. Caltrans and CalSTA works with federal, State, and local government agencies and community stakeholders from the US and Mexico and represents the State in a number of national and bi-national forums to address border transportation issues, challenges, and opportunities. Caltrans and CalSTA actively participate in bi-national transportation and planning groups, such as the US-Mexico Joint Working Committee (JWC),¹³⁴ the US-Mexico Bi-national Bridges and Border Crossings Group,¹³⁵ and the Border Governors Conference (BGC).¹³⁶

As previously described, in 2008, on behalf of the State of California, Caltrans and its project partners delivered the first state JWC US-Mexico Border Master Plan (BMP)¹³⁷. “The California – Baja California Border Master Plan (BMP)” is a landmark plan whose goal is to integrate state, federal, and local input to develop bi-national criteria for prioritizing POE and connected transportation projects. Caltrans and the Baja California Secretariat of Infrastructure and Urban Development (SIDUE) have continued to serve as co-leads in 2014, In September 2014, they obtained approval of the 2014 BMP Update from the JWC.¹³⁸ Along with other products from the update, member agencies approved the reorganization and reranking of the POE and border transportation projects. They also initiated a process to develop a framework for a transportation model to conduct POE sensitivity analyses within a bi-national metropolitan region. Further, they documented low-cost operational improvements and non-motorized projects that provide immediate relief to border delays.

CALIFORNIA-MEXICO COORDINATION: THE PATH FORWARD

Many factors, externalities, and events influence the dynamics of the California-Mexico international border. Until 2000, border crossing delays were shorter compared to current congestion levels. In 1998, the JWC completed the Bi-national Border Transportation Planning and Programming Study,¹³⁹ which presented an inventory of transportation infrastructure along the US-Mexico border and specified some of the “disconnects” that existed at that time. In 2004, Caltrans, in conjunction with the JWC, reported the results from two key studies. One study, the *Transportation Infrastructure and Traffic Management Analysis of Cross-border Bottlenecks*,¹⁴⁰ prioritized infrastructure projects, and recommended immediate action to relieve bottlenecks. The second study, the *Bi-national Border Transportation Infrastructure*

Needs Assessment,¹⁴¹ identified major transportation corridors in the border region, developed a quantitative procedure to evaluate the needs for these corridors, and identified transportation projects and possible funding sources. These two studies led to recognition by Caltrans and the JWC of the need to implement master plans for each state bordering Mexico.

The challenges outlined above led to a groundbreaking event in May 2013 in which US President, Barack Obama, and Mexican President, Enrique Peña Nieto, announced the formation of the High Level Economic Dialogue (HLED) to advance strategic economic and commercial priorities central to mutual economic growth, job creation, and global competitiveness. Among the goals laid out in the HLED work plan, the US and Mexico declared the intention to continue modernization and expansion of a bilateral air transport relationship and to develop an agenda of ongoing cooperation on intelligent transportation and freight systems¹⁴². The SR 11/Otay Mesa East Land POE project has been incorporated into the US/Mexico HLED. The project has been identified as necessary to alleviate existing congestion, accommodate future growth in bi-national trade and traffic, mitigate adverse health impacts, and protect the environment.

FIGURE 77. CALEXICO EAST



Source: Caltrans