The Perryman Group:
The Economic Costs of the US-Mexico Border Slowdown April 2019

Every day, nearly $1.7 billion in products cross the US-Mexico border, and the current slowdown at the border is causing substantial economic harms. Trade volume has grown substantially, more than doubling over the past 20 years and up 55% between 2010 and 2018. During 2018, total trade volume between the United States and Mexico exceeded $611.5 billion, with $265.0 billion in US exports to Mexico and $346.5 billion in imports from Mexico.

Millions of trucks cross the border every year, and delays at the border cause logistical problems. The current slowing on the US-Mexico border is reducing efficiency and costing the US economy billions in output and hundreds of thousands of jobs.

The Perryman Group recently analyzed the total economic losses associated with the current border slowdown based on recent evidence regarding increased delays and structural issues. If these problems cause a one-third reduction in trade that extends over a three-month period, the cost to the US economy includes over **$69.0 billion** in gross product and **620,236** job-years (when multiplier effects are considered).

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>
> ***M. Ray Perryman***

As a major exporting and importing state with an extended southern border, Texas is particularly hard hit by the border slowdown. In fact, the state is responsible for about 35% of all trade with Mexico. The Perryman Group estimates that if the increased delays and structural issues reduce trade by one third over a three-month

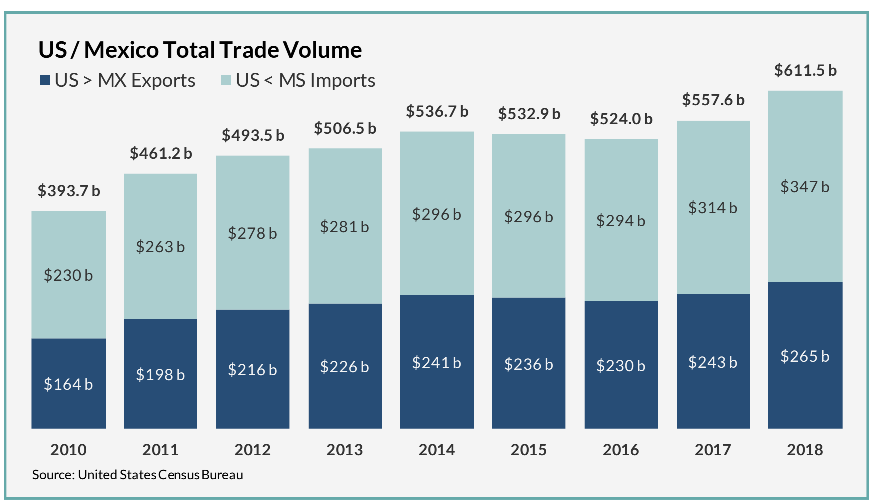
Top Five US > MX Exports 2018

#1 Computer & Electronic Products	$44.8 b
#2 Transportation Equipment	$32.9 b
#3 Petroleum & Coal Products	$28.8 b
#4 Chemicals	$25.9 b
#5 Machinery, Except Electrical	$22.4 b
Other Goods and Services	$110.2 b

Top Five US < MX Imports 2018

#1 Transportation Equipment	$120.1 b
#2 Computer & Electronic Products	$64.6 b
#3 Electrical Equipment/Appliances	$30.4 b
#4 Machinery, Except Electrical	$20.3 b
#5 Oil & Gas	$14.5 b
Other Goods and Services	$96.7 b

Source: United States Census Bureau



period, losses to the state would total nearly **$32.6 billion** in gross product and **292,566** job-years (when multiplier effects are considered). Losses to the border region of Texas alone are estimated to include **$2.0 billion** in gross product and **24,311** job-years. Over the course of a single quarter, this dislocation would represent a 9.5% drop in output and a 9.8% drop in employment, including significant disruptions in local logistics and retail activity.

One reason border delays are so damaging for the economy is that they interrupt cross-border supply chains. A significant portion of goods crossing the border are not final products but are instead destined for manufacturing or assembly facilities for further production work.

For example, the Manufacturing, Maquila and Export Service Industry (*Industria Manfacturera, Maquiladora y de Servicios de Exportación*, or IMMEX) in Mexico has been a key factor in the growth of trade between the US and Mexico. Originally created by the Mexican government's Border Industrialization Program in 1965, maquiladoras are industrial plants typically located along the border that can import machinery, parts, and materials duty-free for further manufacturing and assembly into finished products for export. Maquiladoras increase manufacturing activity along the border and aid in the development of dynamic supply chains which enhance the competitiveness of North American products on world markets.

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2018 Mexico > US Border Crossings

Method of Entry	The State of Texas	The United States
Personal Vehicle Passengers	68,523,309	144,960,263
Pedestrians	18,479,212	46,173,881
Trucks	4,384,490	6,310,903
Bus Passengers	1,394,785	1,838,132
Rail Containers Full	469,912	499,030

Source: US Department of Transportation, The Perryman Group

Impact of a Significant Slowdown in US-Mexico Trade Due to Excessive Border Crossing Delays on Business Activity

Results by Region

Industry	Total Expenditures	Gross Product	Personal Income	Job Years
The United States	-$172.872 b	-$69.035 b	-$41.529 b	-620,236
The State of Texas	-$79.525 b	-$32.590 b	-$19.689 b	-292,566
The Border Region	-$3.840 b	-$1.997 b	-$1.229 b	-24,311

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in billions of 2019 US dollars per year. A job year is the equivalent of one person working one job for one year. Based on recent evidence regarding increased delays and structural issues, this scenario assumes a one-third reduction in trade extended over a three-month period. Results for the Border Region include trade related manufacturing and support services, logistics, and cross-border retail activity.

Impact of a Significant Slowdown in US-Mexico Trade Due to Excessive Border Crossing Delays on Business Activity in the US

Results by Industry

Industry	Total Expenditures	Gross Product	Personal Income	Job Years
Agriculture	-$6.77 b	-$1.72 b	-$1.15 b	-17,331
Mining	-$7.75 b	-$1.83 b	-$0.94 b	-5,515
Construction	-$2.44 b	-$1.32 b	-$1.08 b	-14,492
Manufacturing	-$84.06 b	-$24.92 b	-$14.41 b	-179,505
Transportation & Utilities	-$17.70 b	-$8.46 b	-$5.25 b	-62,116
Information	-$2.06 b	-$1.27 b	-$0.54 b	-4,620
Wholesale Trade	-$13.31 b	-$9.01 b	-$5.19 b	-56,130
Retail Trade*	-$12.90 b	-$9.65 b	-$5.61 b	-164,272
Financial Activities*	-$13.45 b	-$3.59 b	-$1.39 b	-13,762
Business Services	-$3.87 b	-$2.33 b	-$1.90 b	-21,987
Health Services	-$2.93 b	-$2.05 b	-$1.74 b	-27,283
Other Services	-$5.64 b	-$2.88 b	-$2.32 b	-53,223
Total, All Industries	**-$172.87 b**	**-$69.03 b**	**-$41.53 b**	**-620,236**

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Monetary values given in billions of 2019 US dollars per year. A job year is the equivalent of one person working one job for one year. Components may not sum due to rounding. Retail Trade includes restaurants, Financial Activities includes Real Estate. Based on recent evidence regarding increased delays and structural issues, this scenario assumes a one-third reduction in trade extended over a three-month period.

In 2018, a total of 193.0 million persons crossed the border into the United States from Mexico by car, bus, or on foot, which is approximately 528,691 persons per day. In addition, 6.3 million trucks and 499,030 loaded rail containers crossed. For Texas, a total of 88.4 million persons crossed by car, bus, or on foot (equivalent to about 242,194 per day), with 4.4 million trucks and 469,912 loaded rail cars. Crossings by land represent a large majority of entries, though some persons do enter by air or through a seaport.

Since the North American Free Trade Agreement (NAFTA) was passed decades ago, member nations have taken advantage of the low to no tariffs under the agreement and have developed complex supply chains where intermediate goods produced in one country are imported for incorporation into final goods in another. Intermediate goods flow back and forth across the border to optimize advantages in workforce or infrastructure, and it is typical for supply chains of numerous industries such as automotive and medical device production to flow back and forth across the border multiple times during the manufacturing process. Slowing at the border disrupts this process, causing harm to companies in the US and Mexico.

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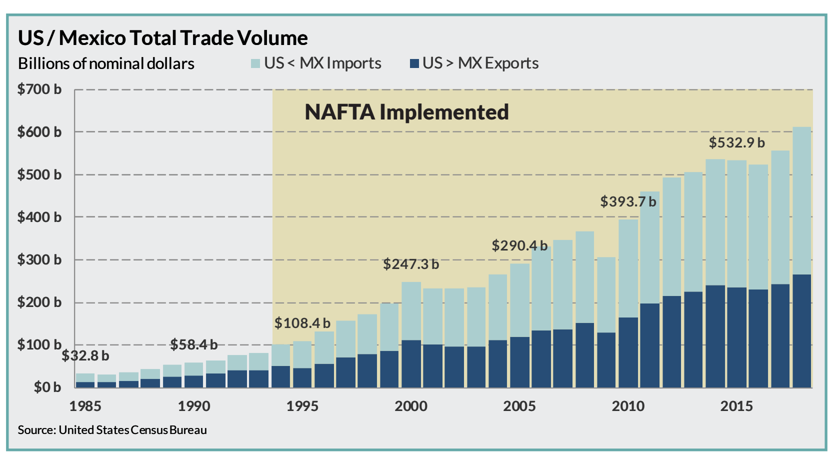
Trade volumes between the US and Mexico were relatively stable in the late 1980s and early 1990s. In 1993, the year before NAFTA went into effect, total trade volume between the US and Mexico was $81.5 billion, with $39.9 in imports from Mexico and $41.6 in exports. Trade expanded rapidly under the new free trade conditions, growing to $266.6 billion in total volume 10 years after NAFTA (in 2004) with the increasing integration of the two economies. In 2018, as noted, total volume reached $611.5 billion, a 650% increase (on a nominal basis) over the 25-years of NAFTA.

The economies of the United States and Mexico are strongly intertwined to the benefit of both nations. Delays at the border can cause losses of billions of dollars in gross product. In addition, the day-to-day lives of the millions of people in the border region often involve frequent crossings for work, shopping, entertainment, or education. Longer delays in crossings can cause substantial harm, while a lengthy closure would be devastating. **Solving the problems causing delays is in the interest of Americans and Mexicans alike.**



DEFINITION OF TERMS

Total expenditures (or total spending) measures the dollars changing hands as a result of the economic stimulus (which in this case is negative).

Gross product (or output) is production of goods and services foregone due to the border slowdown. This measure is parallel to the gross domestic product numbers commonly reported by various media outlets and is a subset of total expenditures.

Personal income is dollars that end up in the hands of individuals; the vast majority of this aggregate derives from the earnings of employees, but payments such as interest and rents are also included.

Job losses are expressed in job-years, which is one job for one year.

Monetary values were quantified on a constant (2019) basis to eliminate the effects of inflation.

THE PERRYMAN GROUP

The Perryman Group is a focused team of analysts who know how to address complex economic information tasks and present our findings effectively.

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M. RAY PERRYMAN, PH.D.

Dr. Perryman is the President and CEO of the Perryman Group and Distinguished Professor of Economic Theory and Method at the International Institute for Advanced Studies. Over the past 40 years, Dr. Perryman has helped recruit corporations providing tens of thousands of jobs through economic development work, resolved billion-dollar legal issues, and revamped public policy through impact assessments and other studies. His firm has measured economic impacts for corporate locations and expansions involving billions in investments, and his economic forecasts are used by corporations and government agencies alike.

He has provided economic analysis and expert testimony for civil litigation across a wide range of practice areas including antitrust and competition, patent infringement and other intellectual property disputes, securities, and commercial and complex litigation. His work combines strong expertise in economic damages calculation, asset valuation, market analysis, and statistical methods and econometrics.