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# WORKING TOGETHER:

## ECONOMIC TIES BETWEEN THE UNITED STATES AND MEXICO

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# INTRODUCTION

The integration of the United States and Mexican economies has transformed the nature of the bilateral relationship from one of competition to partnership. U.S. jobs, competitiveness and economic growth have all benefited from the nation's relationship with Mexico. As the second largest destination for U.S. exports and third largest source of imports, 6 million U.S. jobs depend on trade with Mexico.<sup>1</sup> That means one in every twenty-four workers in the nation depend on U.S.-Mexico trade for their employment.<sup>2</sup> Beyond the \$393 billion in bilateral merchandise trade each year is another \$35 billion in services trade and an accumulated total of \$103 billion in foreign direct investment holdings.<sup>3</sup>

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As important as the intensity of U.S.-Mexico economic integration is its quality. Most people think of imports and exports as goods made by one country and then purchased by another, but for the U.S. and Mexico, cross-border trade often occurs in the context of production sharing. Manufacturers in each nation work together to create goods, and regional supply chains crisscross the U.S.-Mexico border. Many imports and exports are therefore of a temporary nature as an item is being produced. Cars built in North America, for example, are said to cross the United States' borders eight times during production, integrating materials and parts developed in Mexico and Canada. Several other U.S. industries, including electronics, appliances and machinery,

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<sup>1</sup> Based on 2008 trade data, see Appendix on page 73 for details on the methodology and data sources.

<sup>2</sup> Author's calculation based on total "Employment" as reported by: Bureau of Labor Statistics, *The Employment Situation: December 2008*, United States Department of Labor, Washington, DC: 2009.

<sup>3</sup> Trade is calculated as imports plus exports, and investment refers to the sum of U.S. foreign direct investment holdings in Mexico and Mexican FDI stock in the United States. Trade and investment data are from the U.S. Department of Commerce. Trade data is for 2010, as reported by the U.S. Census Bureau, Foreign Trade Statistics. Investment and services trade statistics are reported by the Bureau of Economic Analysis. Investment is for 2010 and services trade from 2009.

all rely on the assistance of Mexican manufacturers as well. In fact, a full 40% of the content of U.S. imports from Mexico was originally made in the United States, and it is likely that the domestic content in Mexican imports from the United States is also very high.<sup>4</sup> That means despite an *Hecho en México* or “Made in Mexico” label, a large portion of the money U.S. consumers spend on Mexican imports actually goes to U.S. companies and workers. The same cannot be said for Chinese imports, which have only 4% U.S. content, or for goods coming from any other country in the world, with the exception of Canada, where U.S. content is 25%.<sup>5</sup> Taken together, goods from Mexico and Canada represent a full 75% of all the domestic content that returns to the U.S. as imports.<sup>6</sup> This is because only Mexico, Canada and the Caribbean Basin have production processes that are deeply integrated with the United States.

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**A full 40% of the content of U.S. imports from Mexico is actually produced in the United States.**

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The Southwest Border states are especially integrated with Mexico, and the Mexican market accounts for a quarter to more than a third of all exports for Texas, New Mexico, and Arizona.<sup>7</sup> However, states throughout the country trade intensely with their southern neighbor. Mexico is the top export destination for five states: California, Arizona, New Mexico, Texas and New Hampshire, and is the second most important market for another seventeen states across the country. Several states in the U.S. heartland have particularly close economic ties to Mexico, including Nebraska, Iowa, Kansas, South Dakota, and Michigan.<sup>8</sup> In fact, the Detroit metropolitan area exports more goods to Mexico than other

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**Mexico is the top export destination for five states ... and is the second most important market for another seventeen states across the country.**

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<sup>4</sup> Robert Koopman, William Powers, Zhi Wang and Shang-Jin Wei, *Give Credit Where Credit is Due: Tracing Value Added In Global Production Chains*, National Bureau of Economic Research Working Paper No. 16426, Cambridge, Massachusetts: September 2010, revised March 2011, p. 38.

<sup>5</sup> Ibid. Imports have an average of just 10% U.S. content, with imports from the vast majority of countries containing less than 5% U.S. content.

<sup>6</sup> Ibid.

<sup>7</sup> Texas, not surprisingly, has the strongest trade relationship with Mexico, with 35% of its exports destined for its southern neighbor.

<sup>8</sup> Based on 2010 trade statistics: U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics, <http://www.census.gov/foreign-trade/statistics/state/data/index.html>, accessed May 5, 2011.



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## Mexican companies are now industry leaders in at least four areas of the U.S. market: cement, breads and baked goods, tortillas, and milk and dairy products.

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city in the United States, a sign of the importance of Mexico and Canada to regional motor vehicle manufacturing.<sup>9</sup> At the end of this report, you will find tables and graphs that show how much each state and several metropolitan areas depend on trade with Mexico and roughly what this means in terms of job-creation.

The economic ties between the United States and Mexico are reinforced by a large web of social networks. Thirty-two million U.S. residents, or one in ten, are of Mexican origin, including roughly 12 million people born in Mexico.<sup>10</sup> Perhaps a million Americans live in Mexico, almost a fifth of all Americans who live abroad.<sup>11</sup> Close to 15,000 Mexicans are pursuing college degrees in the United States, and 13 million Mexicans visit the U.S. in 2010.<sup>12</sup> As the top tourist destination for U.S. travelers, an even larger 19 million U.S. residents visit Mexico each year.<sup>13</sup> Just as social networks often facilitate the creation of commercial relationships within the United States, the depth and intensity of bilateral social integration spurs the development of economic links between the U.S. and Mexico. Import and export relationships, production sharing arrangements, and investment opportunities are all made easier by the relatively high level of understanding derived from the geographic and cultural proximity of United States and Mexico.

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<sup>9</sup> Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce, <http://tse.export.gov/METRO/>, accessed August 8, 2011.

<sup>10</sup> Pew Hispanic Center, *The Mexico-American Boom: Births Overtake Immigration*, July 14, 2011, with data adjusted from the U.S. Department of Labor, Bureau of Labor Statistics, March 2010 Current Population Survey.

<sup>11</sup> Americans living in Mexico data: U.S. Department of State, Background Note: Mexico, <http://www.state.gov/r/pa/ei/bgn/35749.htm>, accessed May 22, 2011. The U.S. Department of State estimates that 5.08 million non-military citizens live abroad: Internal Revenue Service, "Understanding the International Taxpayer Market", June 2011, [http://www.irs.gov/pub/irs-utl/5\\_david\\_cico.pdf](http://www.irs.gov/pub/irs-utl/5_david_cico.pdf), accessed July 17, 2011.

<sup>12</sup> Student data from: Embassy of the United States: Mexico, website, Education and Culture section, [http://www.usembassy-mexico.gov/eng/eataglace\\_cultural.html](http://www.usembassy-mexico.gov/eng/eataglace_cultural.html), accessed May 22, 2011. Tourism data from: Office of Travel and Tourism Industries, International Trade Administration, U.S. Department of Commerce, *Key Facts About International Travel and Tourism To The United States*, Washington, DC: May 2011.

<sup>13</sup> With 19.45 million U.S. residents visiting Mexico in 2009, it was the top destination for U.S. travelers: Office of Travel and Tourism Industries, *2009 United States Resident Travel Abroad*, International Trade Administration, U.S. Department of Commerce, Washington, DC.

In addition to trade, both Mexicans and Americans have significant foreign investment in each other's country in a diverse range of industries. Bilateral foreign investment offers benefits to both parties, generating jobs and supporting industries in the host country while generating profits for foreign companies and investors. It is often a pillar of production sharing arrangements. Since 1993, U.S. investment in Mexico and Mexican investment in the United States have skyrocketed to more than six times their 1993 level. While U.S. foreign direct investment, at \$90 billion in 2010, is still much larger than investment in the opposite direction, Mexican FDI in the United States, at \$12.6 billion, is significant and growing quickly.<sup>14</sup> Mexican companies are now industry leaders in at least four areas of the U.S. market: cement, breads and baked goods, tortillas, and milk and dairy products. There are also significant Mexican investments in U.S. media, mining, beverages, retail stores, and other areas of the economy. Consumers may be surprised to learn that brands they are familiar with, like Entenmanns, Sara Lee, Thomas English Muffins, Boboli Pizza Crust, Borden Milk, Weight Watchers Yogurt, Mission Tortillas, Ready-Mix Cement, Tracfone cell phones, Saks Fifth Avenue stores, and even the *New York Times*, are supported by Mexican investment—as are the U.S. jobs those companies provide.<sup>15</sup> Indeed, all but the last two are wholly owned by Mexican companies.<sup>16</sup>

Mexico and the United States are no longer distant neighbors whose economies are engaged in direct competition and where gains on one side

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<sup>14</sup> 2010 Foreign Direct Investment positions, historical cost basis: U.S. Department of Commerce, Bureau of Economic Analysis.

<sup>15</sup> Carlos Slim is a minority investor in both Saks Fifth Avenue and the *New York Times*; the other companies are wholly owned subsidiaries of the Mexican corporations Cemex (cement), Lala (dairy), Bimbo (bakery goods), and Gruma (tortillas). As of publication, Grupo Bimbo's purchase of Sara Lee appeared set to proceed, but had not yet been finalized.

<sup>16</sup> Despite these advances, Mexican investment represents just 0.5% of all FDI in the United States. FDI in the U.S. is, at present, still dominated by European companies, which control 73% of total foreign investment. Marilyn Ibarra-Caton, "Direct Investment Positions for 2009: Country and Industry Detail", U.S. Department of Commerce, Bureau of Economic Analysis, July 2010, 35.

of the border imply losses on the other. They are now deeply integrated economies whose future is also linked. Trade between the two countries is not a zero-sum game but a question of mutual interest. If the Mexican economy prospers, it is likely to enhance U.S. competitiveness considerably, and vice versa. Indeed, it is hard to conceive of a strategy for increasing U.S. economic competitiveness and supporting job-creation that does not significantly take into account its two neighboring countries, Mexico and Canada. Unlike two decades ago, when the agreement to launch a free trade agreement in North America generated enormous controversy, the U.S. economy is now inextricably linked to that of its neighbors, and future efforts will have to take this mutual dependence into account. This does not mean that economic integration across the border is uncomplicated and there are no legitimate disputes or real dislocations within particular industries that will need to be addressed. But it does mean that it will be in the self-interest of the United States to see Mexico primarily as a partner in economic efforts, rather than as a competitor, and that calls for policies that enhance existing production chains and strengthen both economies. It also suggests that Mexican economic growth will have significant positive effects for the U.S. economy, which calls for greater U.S. policy attention to support Mexico's efforts to strengthen its economic future.

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## **TOWARD A REGIONAL COMPETITIVENESS AGENDA: LOOKING BACK AND MOVING FORWARD**

U.S.-Mexico economic integration boomed in the 1980s and 1990s as Mexico pursued first a unilateral liberalization of its economy after decades of protectionism,<sup>17</sup> and then a regional strategy culminating in the 1994 implementation of the North American Free Trade Agreement. While disagreements remain about specific economic and social effects of the

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<sup>17</sup> The administration of President Miguel de la Madrid initiated measures required for Mexico to join the General Agreement on Tariffs and Trade (GATT), which included significant reduction in tariffs and other trade barriers, protections for foreign investment, and banking reforms. See U.S. International Trade Commission, Report Under Investigation No. 332-282, Phase I: *Recent Trade and Investment Reforms Undertaken by Mexico and Implications for the United States*; Washington, DC, April 1990.

agreement,<sup>18</sup> it undoubtedly increased U.S.–Mexico economic integration, with bilateral trade growing at an annual rate of 17.4% and doubling in value before the end of the decade. Since 2000, however, a number of regional and global factors have slowed the pace of integration, bringing the average annual increase in trade down to 9.5%. Perhaps most significantly, NAFTA deepened a model of production sharing and cross-border investment among the three North American countries, making the economies profoundly interdependent.

Outside of North America, the largest challenge to U.S.–Mexico integration is China. Since joining the World Trade Organization in 2000, China has surpassed Mexico and Canada to become the United States' largest source of imports (but is still well behind the two regional partners as a market for U.S. exports).<sup>19</sup> Cheap labor costs in China drew factories away from both the U.S. and Mexico. Although production costs often declined, the large ocean separating North America from China prevented the development of the production sharing operations that are so prevalent between the United States and Mexico. This is evidenced by the fact that Mexican imports contain ten times more U.S. content than their Chinese equivalents. While Chinese imports were displacing Mexican ones, China, Japan and other Asian countries increased their sale of materials and parts for Mexican manufacturers. From 2000 to 2006, the U.S. share of

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<sup>18</sup> For evaluations of the effects NAFTA, see: Robert A. Blecker and Gerardo Esquivel, "NAFTA, Trade, and Development," USMEX working paper 10-01, available from the Center for U.S.–Mexico Studies at the University of California, San Diego, <http://usmex.ucsd.edu/assets/025/12092.pdf>; Edward J. Chambers and Peter H. Smith, editors, *NAFTA in the New Millennium*, San Diego: University of California Press, 2002; John J. Audley, Demetrios Papademetriou, Sandra Polaski, Scott Vaughan, *NAFTA's Promise and Reality: Lessons from Mexico for the Hemisphere*, Washington, DC: Carnegie Endowment for International Peace, 2003; Sidney Weintraub, *NAFTA's Impact on North America: The First Decade*, Washington, DC: Center for Strategic and International Studies, 2004; Gary Hufbauer and Jeffrey Schott, *NAFTA Revisited: Achievements and Challenges*, Washington, DC: Institute for International Economics, 2005; Elsie Echeverri-Carroll, ed., *NAFTA and Trade Liberalization in the Americas*, Austin, TX: The University of Texas at Austin, 2005; Geoffrey P. Faux, *The Global Class War*, Hoboken, NJ: Wiley, 2006; Bruce Campbell, Jeff Faux, Carlos Salas, and Robert E. Scott, *Revisiting NAFTA: Still not working for North America's workers*, Washington, DC: Economic Policy Institute, September 2006; John Burstein, *U.S.–Mexico Agricultural Trade and Rural Poverty in Mexico*, Washington, DC: Woodrow Wilson Center and Fundación IDEA, 2007; Kevin P. Gallagher, Enrique Dussel Peters and Timothy Wise, *North American Trade Policy: Lessons from NAFTA*, Boston: Pardee Center Task Force Report, Boston University, November 2009; and Jonathan Fox and Libby Haight, editors, *Subsidizing Inequality: Mexican Corn Policy Since NAFTA*, Washington, DC: Woodrow Wilson Center, 2010.

<sup>19</sup> U.S. Census Bureau, Foreign Trade Statistics, "Top Trading Partners — Total, Exports, Imports: Year-to-Date December 2010," U.S. Department of Commerce, <http://www.census.gov/foreign-trade/statistics/highlights/top/top1012yr.html>, accessed May 23, 2011.

Mexico's imports for processing exports fell from 81% to 51%.<sup>20</sup> This means other countries are supplying more and more of the parts and materials used to make products that are sold to the United States.

In order to protect the U.S. jobs that depend on supplying Mexican manufacturers, it is important that businesses and policymakers work to improve the competitiveness of U.S.-Mexico supply chains. Businesses might also look for ways to take advantage of Mexico's 12 free trade agreements with 44 countries to increase jointly produced exports to the rest of the world.

Within the region, another set of challenges has emerged in the new millennium. The United States, and consequently Mexico, experienced two recessions that slowed trade and investment while threatening to fuel a return to protectionism. Differences in regional regulatory frameworks, complicated rules of origin, and transportation inefficiencies all erode the natural comparative advantages of the North American region. Key to solving these and other challenges is an understanding on the part of policymakers, industry, and labor that the U.S. relationship with Mexico is not being fully leveraged to maximize North American competitiveness vis-à-vis other economic regions such as Europe or East and Southeast Asia.<sup>21</sup>

Many argue the border has become more difficult and costly to cross as a result of inadequate infrastructure investment and the increased security measures put in place after September 11, 2001. Extended and unpredictable wait times at the border create a disincentive to bilateral trade and production sharing, disrupting production chains and disproportionately hurting small and medium sized businesses. Nearly 80% of trade with Mexico is land trade, meaning it enters or exits the U.S. through one of the ports of entry along the Southwest border.<sup>22</sup> The enhanced use of techniques, such as pre-inspection clearance, that facilitate the secure flow of goods across the border can help lower the costs of trade and encourage production sharing.<sup>23</sup> Recognizing the need to prioritize both security and the economy, the U.S. and Mexican governments developed the 21<sup>st</sup>

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<sup>20</sup> Processing exports refer to those given special treatment through trade promotion programs and are generally manufactured in production sharing operations. Justino De La Cruz, Robert B. Koopman, Zhi Wang and Shang-Jin Wei, *Estimating Foreign Value-added in Mexico's Manufacturing Exports*, Office of Economics Working Paper, U.S. International Trade Commission, April, 2011, p. 27.

<sup>21</sup> John P. Manley, Pedro Aspe, William F. Weld et al., *Building a North American Community*, New York: Council on Foreign Relations, 2005; Robert Pastor, *The North American Idea: A Vision of a Continental Future*, New York: Oxford University Press, 2011.

<sup>22</sup> Author's calculations based on 2009 data from the North American Transportation Statistics Database, <http://nats.sct.gob.mx/sys/index.jsp?i=3>, accessed June 15, 2011.

<sup>23</sup> *Managing the U.S.-Mexico Border: Cooperative Solutions to Complex Problems*, Los Angeles and Mexico City: Comexi and Pacific Council on International Policy, 2009; *Strategic Guidelines for the Competitive and Sustainable Development of the Transborder Region*, Monterrey: Border Governors Conference, COLEF, and the Woodrow Wilson Center, 2009.

Century Border Initiative to expedite secure, legal traffic by trusted parties and thereby free up capacity for border security personnel to investigate potentially dangerous goods and individuals. Strong cooperation at the border allowed the United States and Mexico to open three new border crossings in 2010, two in Texas and one in Arizona.

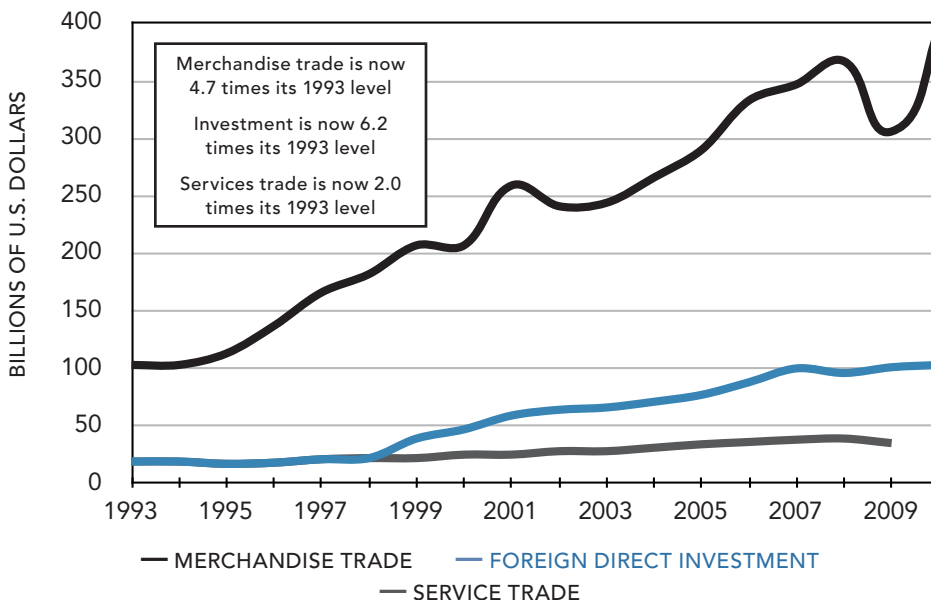
There is no doubt that the economies of the United States and Mexico are facing serious challenges. While much of the risk is due to external pressures, whether the rise of Asian competition or fears of crisis in Europe, much of the solution lies in strengthening regional competitiveness. Efforts to improve border management, harmonize regional regulation, and simplify rules of origin are a good starting point, but improving policy requires surmounting certain political challenges. The path forward, then, must be based in a clear understanding that enhanced cooperation with Mexico strengthens the economy of the United States. The solution begins with a vision of the United States and Mexico as partners rather than competitors.

# WORKING TOGETHER: AN OVERVIEW OF ECONOMIC INTEGRATION

The Mexican and U.S. economies are tightly integrated, with goods, services, capital and people traveling back and forth between the two nations at unprecedented rates. In trade, Mexico is second only to Canada as the largest export market for the United States, purchasing \$163 billion in U.S. goods in 2010.<sup>24</sup> Mexico and the United States are top sources of both immigrants and tourists for each other, as well as important destinations for foreign investment and services exports.

Though the two countries have always been bound together by geography, bilateral economic integration increased rapidly in the years immediately before and after the 1994 implementation of the North American Free Trade Agreement. NAFTA eliminated many barriers to trade and investment, promoting a quadrupling of U.S.-Mexico trade since it was put in place. Albeit asymmetrically, the economies of Mexico and the United States have come to depend on one another and experience economic growth and setbacks in a synchronized manner.

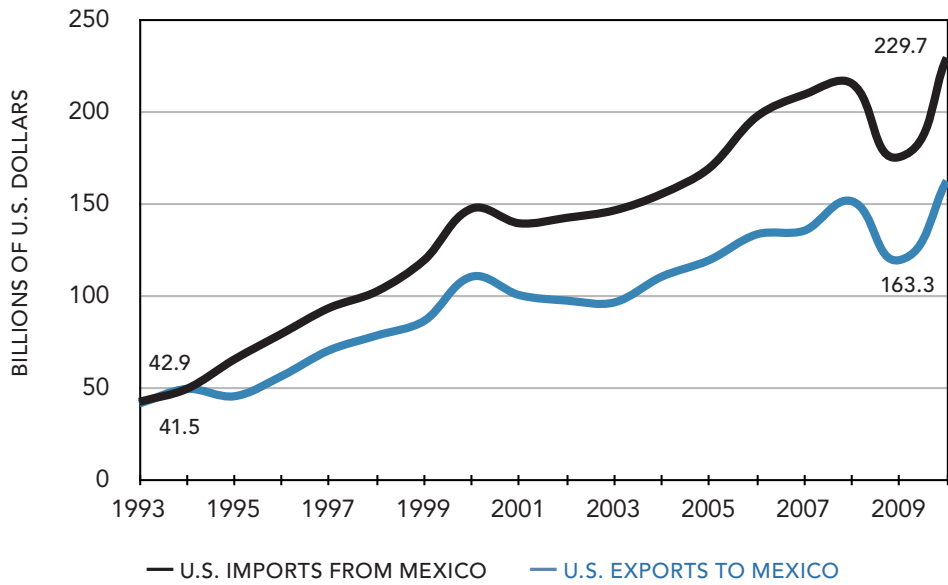
## U.S.-MEXICO BILATERAL TRADE AND INVESTMENT, 1993–2010



Note: Imports plus export for trade, inward plus outward investment positions.  
Source: Department of Commerce, Bureau of Economic Analysis and Census Bureau.

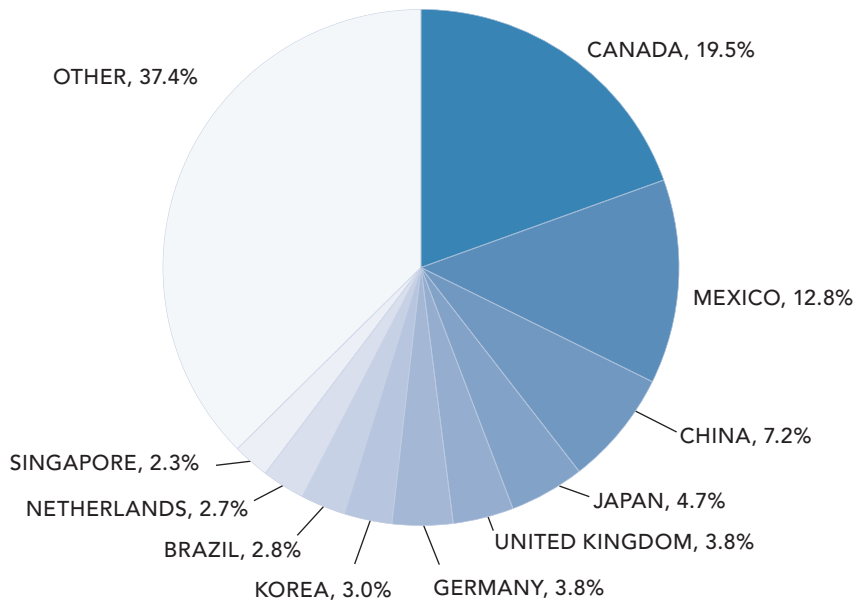
<sup>24</sup> U.S. Census Bureau, Foreign Trade Statistics, 2011.

### U.S. TRADE WITH MEXICO, 1993–2010



Source: U.S. Department of Commerce, Census Bureau, Foreign Trade Statistics.

### TOP MARKETS FOR U.S. EXPORTS AS PERCENT OF TOTAL EXPORTS 2010



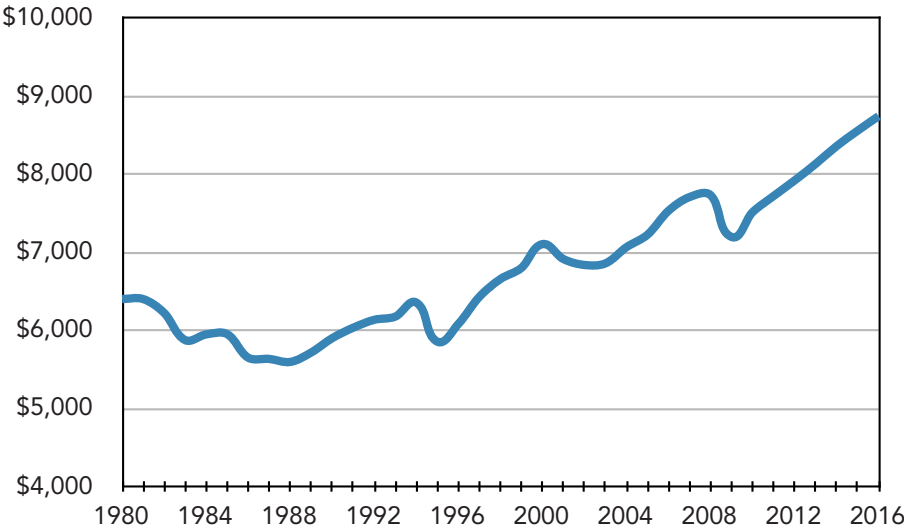
Source: U.S. Census Bureau, Foreign Trade Statistics.



## COMPARING THE U.S. AND MEXICAN ECONOMIES

Recognizing the vast differences in the size and composition of the U.S. and Mexican economies is fundamental in understanding the bilateral economic relationship. With a GDP of \$1.03 trillion dollars, Mexico’s economy is less than one-fourteenth the size of the United States, meaning that whatever the volume of trade and investment, the U.S.-Mexico relationship represents a much larger portion of Mexico’s total economy than is true for the United States.<sup>25</sup> Bilateral trade, for example, makes up a full 80% of all Mexican exports but only 13% of U.S. exports.<sup>26</sup> Mexico is also less wealthy than the United States; at \$9,522 dollars, its 2010 GDP per capita was approximately one-fifth the U.S. level.<sup>27</sup> While the gap in wealth between the U.S. and Mexico (along with poverty itself) is a driving force behind migration, it also points toward the fact that labor is cheaper in Mexico. This, in turn, implies that Mexico’s economy is oriented toward the production of more labor intensive and less capital intensive goods than the United States.

### MEXICO GDP PER CAPITA, 1980–2016 (CONSTANT 2003 U.S. DOLLARS)



Source: Author’s calculations based on data from International Monetary Fund. World Economic Outlook Database, September 2011; calculated with IMF, WFO recommended method: <http://www.imf.org/external/pubs/ft/weo/faq.htm>. 2011–2016 data are IMF estimates.

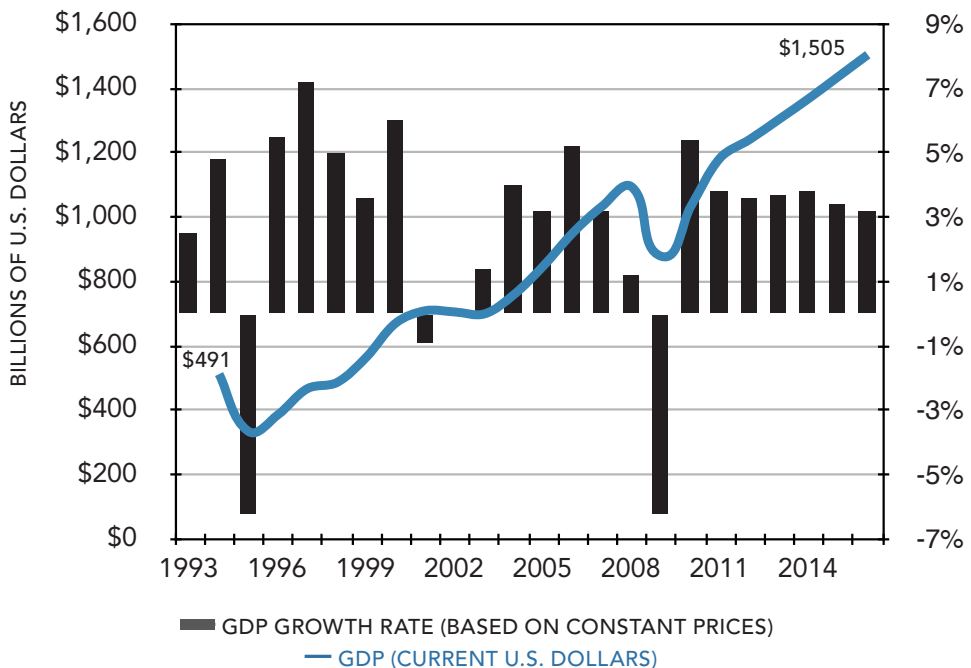
<sup>25</sup> 2010 GDP data: International Monetary Fund, World Economic outlook Database, September 2011.

<sup>26</sup> Mexico’s Secretaría de Economía and U.S. Census Bureau, 2011.

<sup>27</sup> In current U.S. dollars. International Monetary Fund, World Economic outlook Database, September 2011.

Despite such comparisons to the United States, Mexico is hardly poor and uneducated. In fact, it is quickly becoming, or perhaps has already become, a middle class country.<sup>28</sup> Though still at levels less than adequate to consolidate such gains, Mexico has made major advances in education and access to credit over the past three decades.<sup>29</sup> It is natural then, that Mexico is not a major producer of cheap consumer goods, but is instead focused on the manufacture of items—like flat screen televisions, medical supplies, precision instruments and motor vehicles—that require a level of skill and capital to produce.<sup>30</sup> Favorable demographics and macroeconomic stability have led many economists to predict a period of steady economic growth for Mexico’s medium-term future despite the lack of badly needed fiscal and energy reforms. The IMF, for example, predicts annual GDP growth of between 3.8% and 3.2% from 2011 through 2016.<sup>31</sup>

### MEXICO GDP AND GDP GROWTH, 1993–2016



Note: Values after 2010 are IMF estimates.  
 Source: International Monetary Fund, World Economic Outlook Database, September 2011.

<sup>28</sup> Luis de la Calle and Luis Rubio, *Clasemediero: Pobre No Más, Desarrollado Aún No*, Mexico City: CIDAC, 2010. English version forthcoming from the Woodrow Wilson Center.

<sup>29</sup> Ibid.

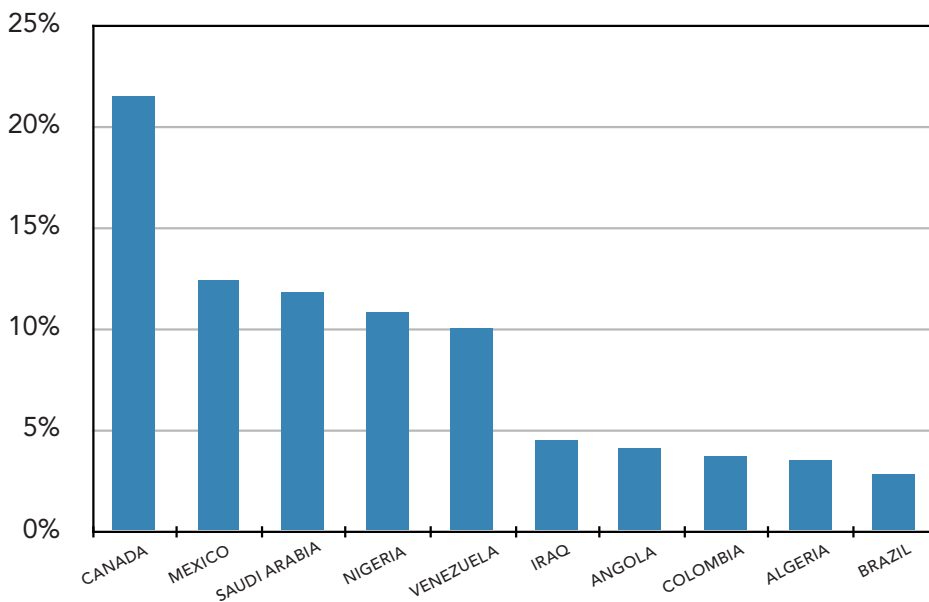
<sup>30</sup> Ralph Watkins, “The China Challenge to Manufacturing in Mexico,” *Journal of the Flagstaff Institute*, Flagstaff, AZ: June 2007.

<sup>31</sup> International Monetary Fund, World Economic outlook Database, September 2011.

Both Mexico and the United States have very open economies. After the signing of NAFTA with the U.S. and Canada, Mexico pursued 11 free trade agreements that provided preferential access to 42 other countries, including such important markets as the European Union (2000) and Japan (2005).<sup>32</sup> As a result of both an intentional effort to expand the range of its trading partners and the increasing importance of China and other emerging markets on the global stage, Mexico seems to be becoming somewhat less dependent on the United States.<sup>33</sup> In the year 2000, six years after NAFTA’s implementation, trade with the United States accounted for 80% of Mexico’s total trade, but by 2010, that number had declined to 64%, mostly through a diversification of imports.<sup>34</sup>

Mexico is also an important energy supplier for the United States, second only to its other North American partner, Canada. In 2010, Mexico provided

### IMPORTS OF CRUDE OIL INTO THE U.S. BY COUNTRY OF ORIGIN, 2010



Source: U.S. Department of Energy, available at [www.eia.doe.gov](http://www.eia.doe.gov).

<sup>32</sup> Mexican Secretaría de Economía website, [http://www.economia.gob.mx/swb/es/economia/p\\_Tratados\\_Acuerdos](http://www.economia.gob.mx/swb/es/economia/p_Tratados_Acuerdos), accessed May 5, 2011.

<sup>33</sup> For both the EU and Japan, the prospect of duty-free access to the U.S. market from assembly plants in Mexico was an important incentive to negotiate FTAs with Mexico.

<sup>34</sup> Author’s calculations with data from Mexico’s Secretaría de Economía, 2011. Much of the decline in the U.S. share of Mexico’s trade reflected the substitution of components from Asia for parts from the United States in Mexico’s export-oriented assembly plants.

12.4% of U.S. imports of crude oil. However, uncertainties in Mexico's state run oil company's finances, and therefore production, bring into question whether Mexico can maintain its status as a top source for U.S. energy needs.<sup>35</sup> At the same time, Mexican electricity generation projects, especially those involving renewable resources, present an interesting and promising alternative that could help some U.S. states meet targets set for climate change and renewable energy requirements.<sup>36</sup>

## **MEXICO AND THE UNITED STATES: COMPETITORS OR PARTNERS?**

The world economic stage can be a competitive and unforgiving environment. In order to maintain profitability, firms must often be willing to travel the globe in search of the best location—based on wages, shipping costs, business climate, and other factors that affect productivity—to manufacture their products. In such a globalized world, a gain for one country can often signal a loss for another as producers seek out the lowest costs.

With studies focused at the regional level, some analysts have argued that U.S.-Mexico integration has facilitated the displacement of some American jobs due to the lower wages paid to Mexican workers. Of course, many others retort that the U.S. has benefited from strong export growth, cheaper final goods and inexpensive inputs for U.S. industry, but taking a global perspective moves us beyond many of these traditional arguments. The reality is that China and, to a lesser extent, other emerging suppliers in Asia represent the largest and most threatening source of competition for the U.S. economy. Due to geographical proximity and a number of key complementarities, economic cooperation with Mexico is one of the best ways for the United States to improve its global competitiveness and defend American industry.

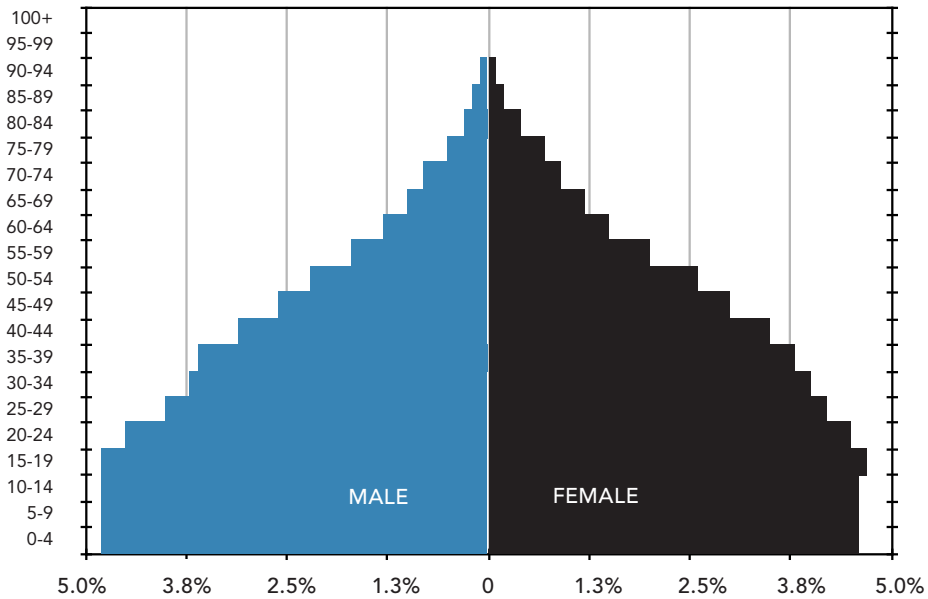
As the baby boom generation begins to hit retirement age, the U.S. faces a demographic challenge. For the next several years, the number of non-working seniors and youth that each working-age American must support will increase. As a result, a growing share of both personal and national income will have to be dedicated to the needs, including costly medical care, of an aging population.

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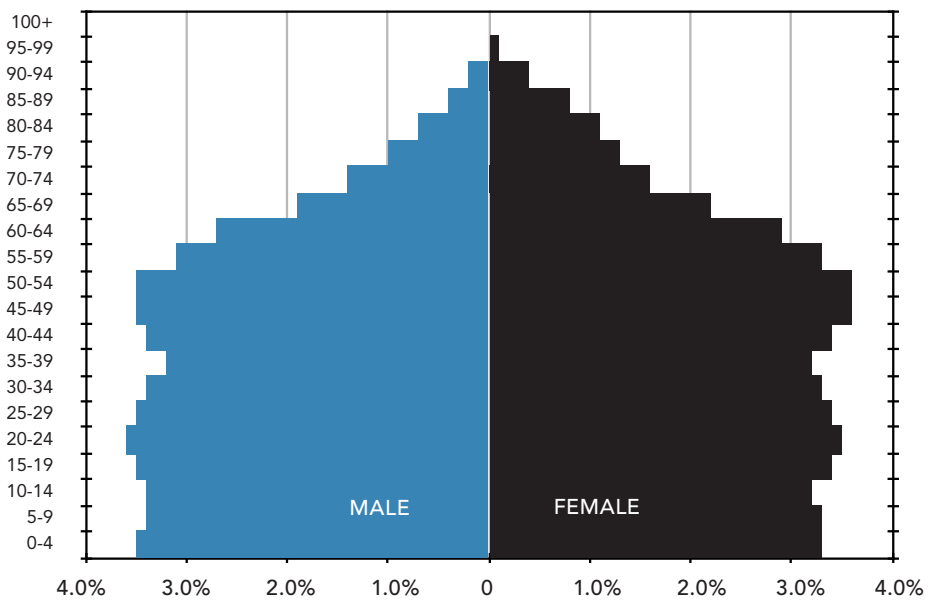
<sup>35</sup> Mexico's state run oil company is *Petróleos Mexicanos*, or Pemex. The national constitution largely restricts foreign participation in the extraction of petroleum, and current law limits Pemex's ability to sufficiently invest in exploration and drilling technology. Each of these factors complicates the development of deep-water oil wells in the Gulf of Mexico, thereby preventing the full use of national petroleum resources.

<sup>36</sup> See Duncan Wood, *Environment, Development and Growth: US-Mexico Cooperation in Renewable Energies*, Washington, DC: Woodrow Wilson Center for International Scholars, 2010.

### MEXICO POPULATION PYRAMID, 2011



### UNITES STATES POPULATION PYRAMID, 2011



Source: U.S. Census Bureau, Population Division, International Database, December 2010, <http://www.census.gov/ipc/www/idb/index.php> (accessed April 30, 2011).

Mexico, on the other hand, still has a younger population. In fact, Mexico is entering what is known as a demographic window, a limited period of time when the working-age population is particularly large compared to dependents. This situation, normally occurring just once in the development of a society as declining birth rates lead to a demographic transition, provides a unique structural opportunity for high rates of economic growth. Many would suggest a comparison between the U.S. and Mexican population pyramids presents a strong argument for increasing the number of work-related visas available for legal immigration into the U.S., which would help fund programs like Medicare and Social Security while at the same time decreasing unauthorized immigration. But even if one opposes such an idea, increasing trade and economic cooperation with Mexico could offer pathways to capitalize on Mexico's favorable demographics that do not involve migration.

Opportunities for economic cooperation through trade and investment are explored in greater depth throughout this publication, but one creative approach to controlling otherwise rising U.S. medical costs merits mention here. As medical tourists, many Americans travel to Mexico each year to take advantage of the cheaper costs for medical and dental procedures available there. While some medical tourists go abroad because they are uninsured or underinsured, in border cities, such as Tijuana and Ciudad Juarez, where main avenues near border crossings are lined with clinics, some providers have signed agreements with U.S. insurance companies to cover the procedures they provide, cutting costs for both patients and insurers.<sup>37</sup> A similar agreement has not been reached to allow seniors covered by Medicare to pursue treatment in Mexico, but such an accord could represent an avenue for future cost savings through economic cooperation.<sup>38</sup> Due to the violence experienced in several Mexican border cities, the number of providers catering to Americans has recently declined in that region while increasing in Mexico City.<sup>39</sup>

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<sup>37</sup> David C. Warner, *Trends and Drivers of Trade in Health Services*, Draft, University of Texas, 2007, <http://www.utexas.edu/lbj/chasp/publications/downloads/Doc15TrendsTradeHealthServices.pdf>, p. 12; Janet Lavelle, "Baja business groups launch medical tourism campaigns," *San Diego Union Tribune*, October 18, 2010, <http://www.signonsandiego.com/news/2010/oct/18/baja-business-groups-launch-medical-tourism-campai/>, accessed June 18, 2011.

<sup>38</sup> David C. Warner, project director, *Medicare in Mexico: Innovating for Fairness and Cost Savings*, University of Texas, Lyndon B. Johnson School of Public Affairs Policy Research Project Report No. 156, 2007.

<sup>39</sup> Ignacio Alvarado, "Pacientes sin fronteras," *El Universal*, April 17, 2011, <http://www.eluniversal.com.mx/nacion/184811.html>, accessed June 18, 2011.

## PRODUCTION SHARING

Perhaps the most compelling explanation as to how the United States and Mexico function as economic partners rather than competitors has to do with the unique nature of bilateral trade. In fact, understanding U.S.-Mexico trade requires a new understanding of the idea of imports and exports. Whereas imports from most of the world are what they appear to be—foreign products—the same cannot be said of imports from Mexico. This is because during the cycle of production materials and parts often cross the Southwest border numerous times while U.S. and Mexican factories work together to manufacture a good. As a result, a full 40% of the value of U.S. imports from Mexico is made of content produced in the United States.

### Value of U.S. Content in Imports from Select Economies

Mexico	40%
Canada	25%
Malaysia	8%
Korea	5%
China	4%
Brazil	3%
European Union	2%
Japan	2%
India	2%
Russia	1%

Source: Robert Koopman, William Powers, Zhi Wang and Shang-Jin Wei, “Give Credit Where Credit is Due: Tracing Value Added In Global Production Chains,” National Bureau of Economic Research Working Paper No. 16426, Cambridge, Massachusetts: September 2010, revised March 2011, p. 38.

Production sharing, also known as vertical specialization, occurs when two or more countries share in the manufacturing of a specific good. As shown in the table above, Mexican and Canadian exports to the United States contain several times more U.S. content than any other major trading partner. U.S. imports from North America are therefore substantively different than imports from any other region. Since the United States is the supplier of such a large portion of the materials in imports from Mexico and Canada, an increase in regional imports actually increases U.S. exports, supporting local jobs and industry.

### Key Facts About U.S.-Mexico Production Sharing

- U.S. imports from Mexico contain 40% U.S. content.<sup>1</sup>
- Mexican imports account for 42% of all the U.S. content, or value added, imported back into the country.<sup>2</sup>
- Intra-industry trade, an indicator of production sharing, represents over 40% of all U.S.-Mexico trade.<sup>3</sup>
- U.S.-sourced materials made up 51% of the value in Mexico's processing exports (those given special treatment through the IMMEX export promotion program) to all countries in 2006.<sup>4</sup>

<sup>1</sup> Koopman, Powers, Wang and Wei, 38.

<sup>2</sup> Ibid.

<sup>3</sup> Enrique Dussel Peters, "Manufacturing Competitiveness: Toward a Regional Development Agenda," in *The Future of North American Trade Policy: Lessons from NAFTA*, Boston: Boston University, November 2009, 29.

<sup>4</sup> Justino De La Cruz, Robert B. Koopman, Zhi Wang and Shang-Jin Wei, "Estimating Foreign Value-added in Mexico's Manufacturing Exports," United States International Trade Commission, Office of Economics, working paper, January 5, 2011, 33.

The benefits of production sharing are a result of North American economic cooperation and integration. The regional auto industry is a good example of the phenomenon of production sharing. The United States, Mexico and Canada each produce and assemble auto parts, sending them back and forth as they work together to build complete cars. Cars built in North America are said to have their parts cross the United States borders eight times as they are being produced, and between 80% and 90% of U.S. auto-industry trade with its North American partners is intra-industry, both of which signal an extremely high level of vertical specialization.<sup>40</sup> In fact, the Detroit metropolitan area, a hub of the motor vehicle industry, exports more goods to Mexico than any other U.S. city.<sup>41</sup> The Mexican auto and auto parts sectors experienced major growth over the past two decades as a result of the elimination of tariffs and reduction of non-tariff barriers afforded to the motor vehicle industry through NAFTA.<sup>42</sup>

While the growth of the Mexican auto industry is a largely recent phenomenon, in several sectors Mexico and the United State have a long history of production

<sup>40</sup> Crossing borders eight times: Robert Pastor, "The Future of North America," *Foreign Affairs*, July/August, 2008, 89. 80–90% intra-industry trade: Isabel Studer, "The North American Auto Industry," *Mapping the New North American Reality*, Institute for Research on Public Policy working paper series no. 2004–09, 2004, 1.

<sup>41</sup> Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce, <http://tse.export.gov/METRO/>, accessed August 8, 2011.

<sup>42</sup> Just the decrease of non-tariff barriers was estimated to result in a 35% reduction of costs for auto industry exports by Laura M. Baughman and Joseph F. Francois, *Opening Markets, Creating Jobs: Estimated U.S. Employment Effects of Trade with FTA Partners*, Washington, DC: U.S. Chamber of Commerce, May 14, 2010, 9.



sharing through the Maquiladora Program. Instituted in 1965 in an attempt to provide domestic opportunities to returning migrants that had worked in the U.S. as a part of the Bracero program, which ended in 1964, the Border Industrialization Program allowed *maquiladoras*, or export processing plants, to import their manufacturing inputs and machinery tariff free into Mexico and only pay U.S. duties on the Mexican and other foreign value-added when the finished products were shipped back to the United States.<sup>43</sup> Since then, the program has been expanded to include production facilities throughout Mexico, not just in the border region, and to allow exports to countries other than the United States. The most recent iteration, known as IMMEX, the Maquiladora and Export Services Program, was created in 2006 and offered incentives to some 5,087 participating firms in 2011.<sup>44</sup>

The long tradition of economic cooperation between the United States and Mexico, exemplified in NAFTA and the Bracero, Maquiladora, and IMMEX programs, has not only increased U.S.-Mexico trade but also substantively changed the nature of the economic relationship. Whereas at one point each country worked relatively independently to manufacture goods and then export them, now Mexico and the U.S. work together to produce goods that are sold on the global market. In this new paradigm, characterized by production sharing, Mexico and the U.S. can each specialize in different stages of production, thereby pooling comparative advantages to increase regional competitiveness vis-à-vis the rest of the world.

## OPPORTUNITIES AND CHALLENGES FOR PRODUCTION SHARING

When countries work together to produce goods, measurements of trade between them grow very quickly. This is because the same goods cross national boundaries several times as they are being produced. Consequently, the effect of tariff barriers is multiplied in cases of vertical integration, as duties must be paid each time a product is shipped across a border.<sup>45</sup> The opposite is also true. The trade-promoting effect of reducing both tariff and non-tariff barriers is magnified. Therefore, for production sharing partners like the United States and

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<sup>43</sup> Jorge Domínguez and Rafael Fernández de Castro, *The United States and Mexico: Between Partnership and Conflict*, New York: Routledge, 2009.

<sup>44</sup> Instituto Nacional de Estadística y Geografía, Estadística Mensual Del Programa De La Industria Manufacturera, Maquiladora Y De Servicios De Exportación (IMMEX), Government of Mexico, July 2011, [http://www.inegi.gob.mx/est/contenidos/espanol/proyectos/INMEX/Informaci%C3%B3n\\_seleccionada\\_IMMEX.pdf](http://www.inegi.gob.mx/est/contenidos/espanol/proyectos/INMEX/Informaci%C3%B3n_seleccionada_IMMEX.pdf), accessed August 8, 2011.

<sup>45</sup> Kei-Mu Yi, “Can Vertical Specialization Explain the Growth of World Trade?,” *The Journal of Political Economy*, Vol. 111, No. 1, February 2003, 52–102.

Mexico, the importance of free trade policies and efficient border crossings are difficult to overstate.

Despite ongoing tariff preferences granted under NAFTA, the U.S. share of Mexico's imports for processing exports (those given favorable tariff treatment through the programs designed to facilitate production sharing) declined from 81% in 2000 to just 51% in 2006.<sup>46</sup> This occurred even while the United States continued to purchase nearly all of Mexico's processing exports, buying 92% in 2000 and 89% in 2006.<sup>47</sup> China, Japan and other Asian countries increased their role in providing materials for Mexican manufacturing, thus lowering the portion of U.S. value added in Mexico's exports to the United States. Economic development in several Asian countries was surely one contributing factor, as were the signing of the Mexico-Japan free trade agreement (2004) and China's accession into the WTO in 2000. That is, the growth in non-U.S. Mexican imports represented both a natural process of globalization and Mexico's deliberate policy of diversification.<sup>48</sup>

Right now, 89% of Mexican processing exports go to the United States,<sup>49</sup> but just as Mexico has looked for new sources of inputs for its manufacturing, the U.S. could also consider expanding its use of Mexico as a platform for exporting goods the nations produce together. Mexico's free trade agreements, particularly those with Europe (both the European Union and European Free Trade Association) and Japan, could be leveraged to save U.S.-based manufacturers the tariffs normally paid on exports to Japan and Europe. Though rules of origin force U.S. affiliates in Mexico to sufficiently transform U.S.-based materials and parts into new goods, it is likely that many production sharing operations could ship their products duty free when exported directly from Mexico.

Products made in Mexico for the U.S. market tend to be those that are expensive to ship long distances. This means they are often less competitive as exports to far away destinations like Europe or Japan. Still, the opportunity for growth in non-U.S. sales of jointly produced goods seems strong, especially in

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<sup>46</sup> Justino De La Cruz, Robert B. Koopman, Zhi Wang and Shang-Jin Wei, "Estimating Foreign Value-added in Mexico's Manufacturing Exports," United States International Trade Commission, Office of Economics, working paper, January 5, 2011, 26.

<sup>47</sup> Specifically, processing exports included those that received special treatment under the Maquiladora and PITEX programs, which, in 2007, were combined into IMMEX, the Maquiladora Manufacturing Industry and Export Services Program. Justino De La Cruz, Robert B. Koopman, Zhi Wang and Shang-Jin Wei, "Estimating Foreign Value-added in Mexico's Manufacturing Exports," United States International Trade Commission, Office of Economics, working paper, January 5, 2011, p. 7, 26.

<sup>48</sup> Domínguez and Fernández de Castro note that Mexico's longstanding effort to diversify its international relations began to focus on commercial relations in the 1990s: Jorge Domínguez and Rafael Fernández de Castro, *The United States and Mexico: Between Partnership and Conflict*, New York: Routledge, 2009, p. 118–119.

<sup>49</sup> Justino De La Cruz, Robert B. Koopman, Zhi Wang and Shang-Jin Wei, "Estimating Foreign Value-added in Mexico's Manufacturing Exports," United States International Trade Commission, Office of Economics, working paper, January 5, 2011, 26.

the production of quality-intensive products such as medical supplies, measuring devices, motor vehicles and some electronics. Considering that 87% of global economic growth is occurring outside of the U.S.,<sup>50</sup> manufacturers would be well-served by linking U.S. and Mexican production in ways that improve productivity and leverage the free trade agreements signed by both nations.

## THE EMPLOYMENT IMPACT OF U.S.-MEXICO TRADE

Trade with Mexico is vitally important to the U.S. economy and the livelihood of millions of Americans. A full 6 million jobs are supported by U.S.-Mexico trade.<sup>51</sup> This means one in every twenty-four American workers depend on trade with Mexico to maintain their employment.<sup>52</sup>

Jobs related to trade with Mexico are geographically spread throughout the nation. The border states of California and Texas are home to the most, with 692,000 and 463,000 trade-related jobs, respectively. But states far away from the Southwest border also depend on bilateral trade to sustain their local economies. New York, Florida, Illinois, Pennsylvania and Ohio each have over two hundred thousand U.S.-Mexico trade-related jobs, and a total of twenty-two states have over one hundred thousand. Employment related to U.S.-Mexico trade also occurs across a wide variety of industrial sectors, including transportation, sales, manufacturing and other services. In fact, just as in the entire U.S. economy, service sector jobs represent a greater share of U.S.-Mexico trade-related employment than do manufacturing jobs.<sup>53</sup>

### 6 Million Jobs: Behind the Number

In 2008, 5.96 million U.S. jobs were dependent on trade with Mexico. This statistic was estimated using a computable multi-sector model of the U.S. economy and includes the direct and indirect employment effects of exports and imports of both goods and services. This figure was estimated using the Global Trade Analysis Project computable general equilibrium (CGE) model, as updated for 2008 by Laura Baughman and Joseph Francois of the Trade Partnership Worldwide.

<sup>50</sup> Ambassador Ron Kirk, United States Trade Representative, *The President's 2010 Trade Policy Agenda*, 2010, [http://www.ustr.gov/webfm\\_send/1673](http://www.ustr.gov/webfm_send/1673), accessed July 15, 2011.

<sup>51</sup> Based on 2008 trade data. See the box, "6 Million Jobs: Behind the Number," for details on how this figure was calculated, as the appendix on page 73 for further information regarding sources and methodology.

<sup>52</sup> Author's calculation based on the total "Employment" as reported: Bureau of Labor Statistics, *The Employment Situation: December 2008*, United States Department of Labor, Washington, DC: 2009.

<sup>53</sup> Based on 2008 trade data. See the box, "6 Million Jobs: Behind the Number," for details on how this figure was calculated, and the appendix on page 73 for further information regarding sources and methodology.

As valuable as Mexico related employment currently is to the United States, its importance promises to increase as the Mexican economy grows. This is because Mexico tends to buy more U.S. exports as its GDP grows, thus increasing the number of export-related jobs in the United States. With Mexico's GDP predicted to grow at a steady rate for the next several years, the number of U.S. jobs dedicated to producing goods for Mexican consumers and factories should also be expected to increase.

A quick, back-of-the-envelope style calculation shows how Mexican GDP growth creates new U.S. jobs:

- Mexico's 5.4% GDP growth in 2010 was accompanied by a \$34 billion dollar increase in U.S. exports to Mexico.
- President Obama said, "every \$1 billion increase in exports supports more than 6,000 additional jobs."<sup>54</sup>
- The IMF forecasts Mexico's GDP to grow 3.8% in 2011.<sup>55</sup>

This suggests that roughly 144,000 new U.S. jobs could be created due to Mexico's economic growth in 2011.<sup>56</sup>

Despite the large and growing number of U.S. jobs dependent on trade with Mexico, many have argued that the United States-Mexico economic relationship and especially NAFTA have had a negative impact on domestic employment. On one side of the traditional trade debate are those who argue that exports represent job creation and imports represent domestic job losses, as production moves to other countries.<sup>57</sup> On the other side of the debate are the economists who say both the increased exports and imports associated with free trade benefit the economy and create jobs. They argue that in addition to the export-supported jobs, cheaper imports lower U.S. manufacturers' costs, thus increasing sales and producing

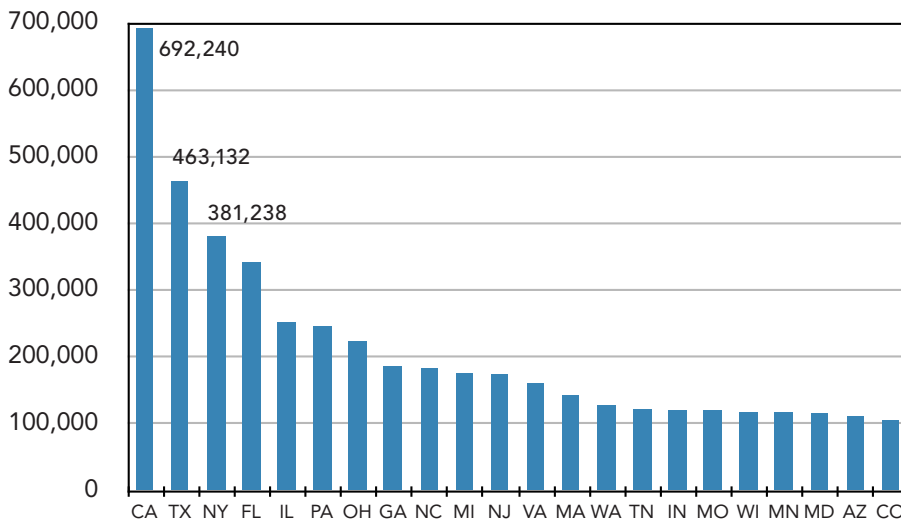
<sup>54</sup> Obama, Barack, Speech presented at Export-Import Bank's Annual Conference, Omni Shoreham Hotel, Washington, DC: March 11, 2010, <http://www.whitehouse.gov/the-press-office/remarks-president-export-import-banks-annual-conference>.

<sup>55</sup> International Monetary Fund, World Economic Outlook, Washington, DC: September 2011.

<sup>56</sup> Alternative methods that take into account inflation, the peso-dollar exchange rate, and (in the case of the smaller figure) the relationship between GDP growth and exports since the signing of NAFTA suggest that between 95,000 and 170,000 U.S. jobs may be created in 2011 due to Mexico's GDP growth. The 144,000 jobs figure was calculated by applying the relationship between growth in U.S. exports to Mexico in 2010 and Mexican GDP growth in 2010 to the IMF's estimated growth rate for 2011. This figure, a forecast of new U.S. exports to Mexico in 2011, was then multiplied the number of jobs President Obama said each billion-dollar increase in exports would create. It is unclear how the White House calculated the figure quoted by President Obama, and the current global economic outlook complicates GDP forecasting. These numbers should be considered only rough estimates.

<sup>57</sup> One recent example of this type of analysis is the recent report by Robert E. Scott *Heading South: U.S.-Mexico Trade and Job Displacement After NAFTA*, EPI Briefing Paper #308, Washington, DC: Economic Policy Institute, May 3, 2011. This paper suggests that the United States' post-NAFTA trade deficit with Mexico has displaced 682,900 U.S. jobs.

## JOBS DEPENDENT ON TRADE WITH MEXICO, 2008 STATES WITH OVER 100,000 MEXICO RELATED JOBS



Source: Based on 2008 trade data. See the box, “6 Million Jobs: Behind the Number,” for details on how this figure was calculated, and the appendix on page 73 for further information.

jobs.<sup>58</sup> Proponents and opponents of NAFTA proffered these arguments in the early 1990s, often promising economic disasters or miracles vastly greater than anything experienced. However, the importance of production sharing takes us largely beyond these debates.

The interwoven supply chains and synchronized business cycles of the United States and Mexico imply that the manufacturing sectors in each country feel the effects of both good times and bad together.<sup>59</sup> Since forty percent of the value of U.S. imports from Mexico is actually made in the United States, both exports to and imports from Mexico each support U.S. manufacturers and related industries. In a way unlike trade with any extra-continental partner, U.S.-Mexico bilateral trade keeps production, and therefore jobs, in the United States.

<sup>58</sup> In a recent study, Felbermayr, Prat and Schmerer, find that in the long-term, trade openness across countries is positively correlated to lower unemployment: Gabriel Felbermayr, Julien Prat and Hans-Jörg Schmerer, “Trade and unemployment: What do the data say?,” *European Economic Review*, Vol. 55, no. 6, August 2011, 741–758.

<sup>59</sup> For evidence and an analysis of business cycle synchronization, see: Daniel Chiquiar and Manuel Ramos-Francia, *Bilateral Trade and Business Cycle Synchronization: Evidence from Mexico and United States Manufacturing Industries*, Banco de México Working Papers, No. 2004–05, October 2004.

With the vast majority of growth occurring outside of the United States, international trade must be an integral part of any initiative to create U.S. jobs. Despite the fact that the United States is still the largest economy in the world, 95% of the world's consumers, 87% of its economic growth, and 80% of total production occur outside its borders.<sup>60</sup> Armed with such evidence, in 2010 President Obama launched the National Export Initiative, a plan to double U.S. exports within five years.<sup>61</sup> Mexico can serve as a strong partner to this end. Its growing domestic market has consumption patterns similar to the United States, suggesting U.S. firms are well positioned to fulfill Mexico's increasing demand for consumer goods. Production sharing could also play an important role in boosting U.S. exports. To best take advantage of the large and emerging markets outside its borders, U.S. manufacturers would be well served by linking U.S. and Mexican production in ways that improve the competitiveness of regional products and take advantage of the free trade agreements signed by both nations to gain preferential access to world markets.

## **MEXICAN INVESTMENT SUPPORTS U.S. JOBS —U.S. INVESTMENT RETURNS PROFITS**

Over the last two decades, bilateral investment has grown even faster than trade. The United States is the top source of foreign direct investment in Mexico, and U.S. companies' Mexico operations generated \$30.8 billion of value added (output minus intermediate inputs) in 2008.<sup>62</sup> At \$90 billion in 2010, the U.S. foreign direct investment position in Mexico is six times what it was in 1993. Mexican FDI in the United States, which reached \$12.6 billion in 2010, has grown even faster. Its current level, though still much smaller than U.S. FDI in Mexico, is more than ten times greater than it was in 1993, as the chart on page 25 shows.

Mexican investment supports thousands of U.S. jobs. Many are in companies the public is familiar with, but may not realize have Mexican ownership. In 2008, majority-Mexican held companies employed 46,200 people in the United States and operated 124 production plants.<sup>63</sup> One of those companies is North America's largest for cement and concrete products: Cemex has thirteen U.S.

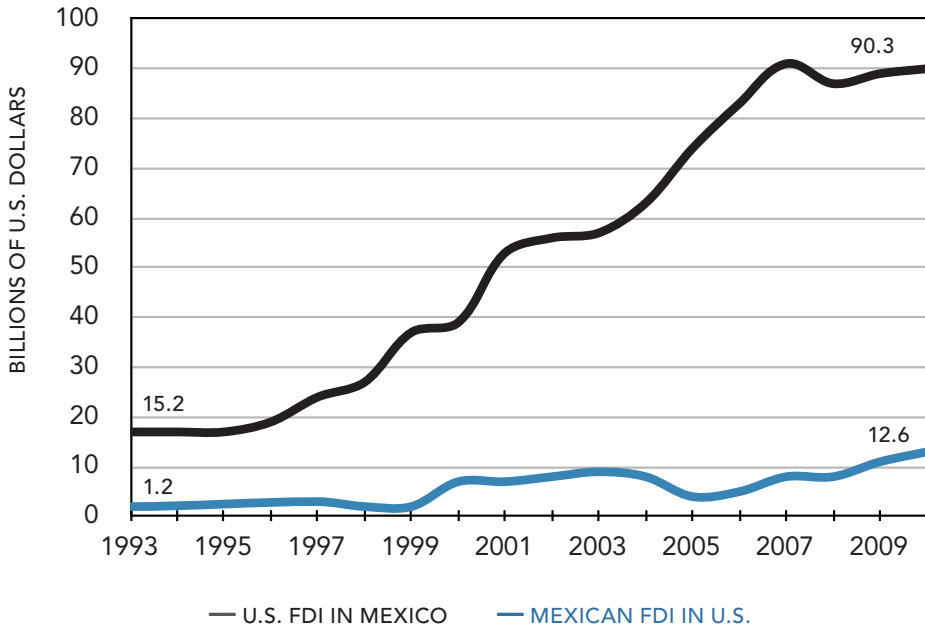
<sup>60</sup> Ambassador Ron Kirk, United States Trade Representative, *The President's 2010 Trade Policy Agenda*, 2010, [http://www.ustr.gov/webfm\\_send/1673](http://www.ustr.gov/webfm_send/1673), accessed July 15, 2011.

<sup>61</sup> Executive Order, National Export Initiative, March 11, 2010, <http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative>, accessed June 24, 2011.

<sup>62</sup> Kevin B. Barefoot and Raymond J. Mataloni Jr., *U.S. Multinational Companies: Operations in the United States and Abroad in 2008*, Bureau of Economic Analysis, U.S. Department of Commerce, August 2010, 216.

<sup>63</sup> Employment figure: Thomas Anderson, "U.S. Affiliates of Foreign Companies: Operations in 2008", Bureau of Economic Analysis, U.S. Department of Commerce, November 2010. Production plants figure: Gabriel Nieto, "Las mexicanas más globales de 'Las 500,'" *Expansión*, June 23, 2011.

### U.S.-MEXICO FOREIGN DIRECT INVESTMENT POSITIONS, 1993–2010, HISTORICAL COST BASIS



Source: Department of Commerce, Bureau of Economic Analysis 2011.

cement plants and 513 ready-mix concrete manufacturing facilities in a total of thirty-two states.<sup>64</sup> Its products are sold under various names, including Brikset, Dixie, and Richmortar.<sup>65</sup>

Over the past few years, Mexican companies have significantly expanded investment in the United States. Grupo Bimbo, for example, which entered the U.S. baked goods market in the mid-1990s, has grown to become the largest bakery company in the United States. Bimbo Bakeries USA’s brands include well-known labels such as Oroweat, Entenmann’s, Thomas’ English Muffins, Boboli and Arnold. It runs thirty-four bakeries in thirteen states and has 15,000 U.S. employees.<sup>66</sup> Bimbo Bakeries USA is headquartered in Pennsylvania, where it runs nine bakeries. Most recently, Bimbo reached an agreement to buy Sara Lee’s North American bakery business, which has an additional 41 plants and 14,000 employees, for just under \$1 billion.<sup>67</sup>

<sup>64</sup> CEMEX 2010 Annual Report.

<sup>65</sup> www.cemexusa.com, accessed July 2, 2011.

<sup>66</sup> www.bimbobakeriesusa.com, accessed July 2, 2011, and emails with Grupo Bimbo, August 2011.

<sup>67</sup> Carlos Manuel Rodriguez and Matthew Boyle, “Grupo Bimbo to Buy Sara Lee Unit for \$959 Million,” Bloomberg.com, November 9, 2010.

América Móvil, Mexico's second largest firm and the biggest cell phone company in the Americas, has important portions of its business in the United States. América Móvil's U.S. cellular service brands include TracFone, Straight Talk, Net10 and SafeLink, which have over 17 million total subscribers.<sup>68</sup> América Móvil, along with Grupo Carso, Telmex International, and other Mexican companies with U.S. investments, are controlled by the Mexican billionaire Carlos Slim Helú. Slim was named the world's richest man by *Forbes Magazine* and is also a significant, but not controlling, investor in the *New York Times* and Saks Fifth Avenue department stores.<sup>69</sup>

Grupo Lala, Mexico's largest dairy company, which is based in the northern state of Durango, has also made significant investments in the United States in recent years. In 2009, it purchased National Dairy for \$435 million, as well as Farmland Dairies and Promised Land for undisclosed sums, making it one of the largest United States dairy products businesses.<sup>70</sup> In 2010, Lala's U.S. operations had net revenues of almost \$2 billion dollars and employed more than 5,000 workers at manufacturing sites in twelve states.<sup>71</sup> Some of Grupo Lala's top U.S. brands include Borden Dairy, Weight Watchers Yogurt, LALA, and La Crème.

Among the many other Mexican companies with major investments in the U.S. are the auto parts and energy company Grupo Alfa, beer maker Grupo Modelo, copper and silver mining company Grupo México, telecommunications giants Televisa and Grupo Salinas, and the financial institution Banorte. Perhaps not surprisingly, Gruma, Mexico's largest maker of tortilla flour, has also become the largest maker of tortillas and wraps in the U.S. market under the labels Mission and Guerrero. Gruma's U.S. operations employ approximately 6,500 people.<sup>72</sup>

U.S. investment in Mexico grew as Mexico opened its economy beginning in the 1980s and then consolidated U.S. access to its market with NAFTA. Three U.S.-based companies now rank among the top ten largest businesses operating in Mexico: Walmart de México, General Motors de México and Ford Motor Company.<sup>73</sup> Of these, Walmart is the largest, with sales of approximately \$27 billion dollars and \$1.5 billion in net profits.<sup>74</sup> Walmart entered the Mexican market in 1991 and grew rapidly to achieve its current status as the third largest company operating in Mexico.<sup>75</sup> Walmart's growth continued in 2011, with first

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<sup>68</sup> [www.americamovil.com](http://www.americamovil.com) and [www.tracfone.com](http://www.tracfone.com), accessed July 2, 2011.

<sup>69</sup> *Forbes*, Carlos Slim Helú & family, March 2011, <http://www.forbes.com/profile/carlos-slim-helu>, accessed July 2, 2011.

<sup>70</sup> Ismael Jiménez, "A buen paso," *Poder 360°*, September 1, 2010.

<sup>71</sup> Email interview with Group Lala, August 2011. Lala has manufacturing facilities in AL, CO, FL, GA, KY, LA, NE, MS, NJ, OH, SC and TX.

<sup>72</sup> Email interview with Gruma, July 2011.

<sup>73</sup> CNNExpansión.com, "Las 500 Empresas Más Importantes de México," 2011, <http://www.cnnexpansion.com/rankings/2011/las-500-empresas-mas-importantes-de-mexico-2011/ranking.php>, accessed July 2, 2011.

<sup>74</sup> *Ibid.*, converted to U.S. dollars by the author using the IMF average exchange rate for 2010.

<sup>75</sup> [walmartstores.com](http://walmartstores.com) and CNNExpansión.com, accessed July 2, 2011.



quarter earnings 31.5% higher than its 2010 earnings from the same period.<sup>76</sup> Despite the importance of retail businesses like Walmart, approximately half of all FDI in Mexico is in the manufacturing sector.<sup>77</sup> Auto manufacturers, such as GM and Ford, represent an important component of this sector, but a wide range of U.S.-based companies have production and assembly plants in Mexico, many of them sharing in a chain of production that also involves sister plants in the United States.

## SECURITY AND INVESTMENT

In recent years, concern has grown in both the United States and Mexico about the high levels of violence being experienced in many parts of Mexico due to drug trafficking and organized crime. While the human cost is devastating and uncontested, the extent to which security risks are affecting investment has been the subject of considerable discussion. A 2010–2011 survey of over 500 foreign companies operating in Mexico found 45% of respondents felt their company was less secure in 2011 than in 2010.<sup>78</sup> Interestingly, around two-thirds of respondents stated that their companies spent 4% or less of their operating costs on security, which, according to report, makes their security spending significantly less than the 7% of operating costs usually dedicated to security in the United States. 27% of firms had “reconsidered investment or growth plans in Mexico because of security problems,” but an even larger 48% said they had not.<sup>79</sup> Overall, the survey results suggest investment decisions are influenced, but not dictated, by security concerns.

## CHALLENGES TO INTEGRATION: BORDER MANAGEMENT

More than a line dividing the two countries, the nearly 2,000 mile Southwest Border connects the United States and Mexico. More than half a million people and a little less than a billion dollars in goods cross the border each day.<sup>80</sup> The border region

<sup>76</sup> Susana González G., “Walmart reporta ganancia trimestral de \$6,232 millones” [sic], *La Jornada*, May 16, 2011.

<sup>77</sup> M. Angeles Villarreal, *U.S.-Mexico Economic Relations: Trends, Issues, and Implications*, RL32934, Congressional Research Service, February 24, 2011, 7.

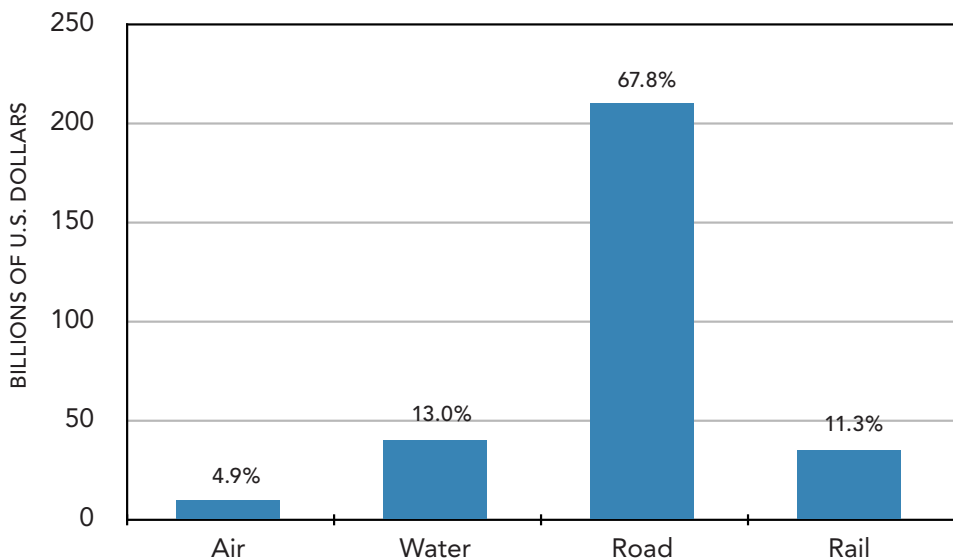
<sup>78</sup> American Chamber of Commerce of Mexico and Kroll: An Alteryx Company, *The Impact of Security in Mexico on the Private Sector*, 2011, <http://krolltendencias.com/site/images/stories/tendencias/093/kroll-amcham-2010-2011-survey-english.pdf>, accessed July 2, 2011.

<sup>79</sup> *Ibid.*

<sup>80</sup> Author’s calculation. See the graph, *Trucks and Persons entering the U.S. at the Mexican Border, 2000–2009*, for details on the number of individuals crossing the border each day. By multiplying the 2010 value of U.S.-Mexico trade by the percentage of land trade from the graph, *U.S. Trade with Mexico by Mode of Transportation, 2009*, an approximate value of \$.85 billion dollars in daily bilateral trade across the Southwest Border was reached.

is made up of four U.S. and six Mexican states with tightly integrated economies that, in total, have a GDP of greater than \$3.5 trillion.<sup>81</sup> But as important as the region's local economy is the role it plays as the gateway for the vast majority of U.S.-Mexico economic transactions. Nearly 80% of the goods traded with Mexico by all fifty states cross the border by land, making the efficient operation of the border by officials in both countries key to keeping U.S. exports competitive and imports cheap.<sup>82</sup>

### U.S. TRADE WITH MEXICO BY MODE OF TRANSPORTATION, 2009



Note: Trade by pipeline not included (0.3%).

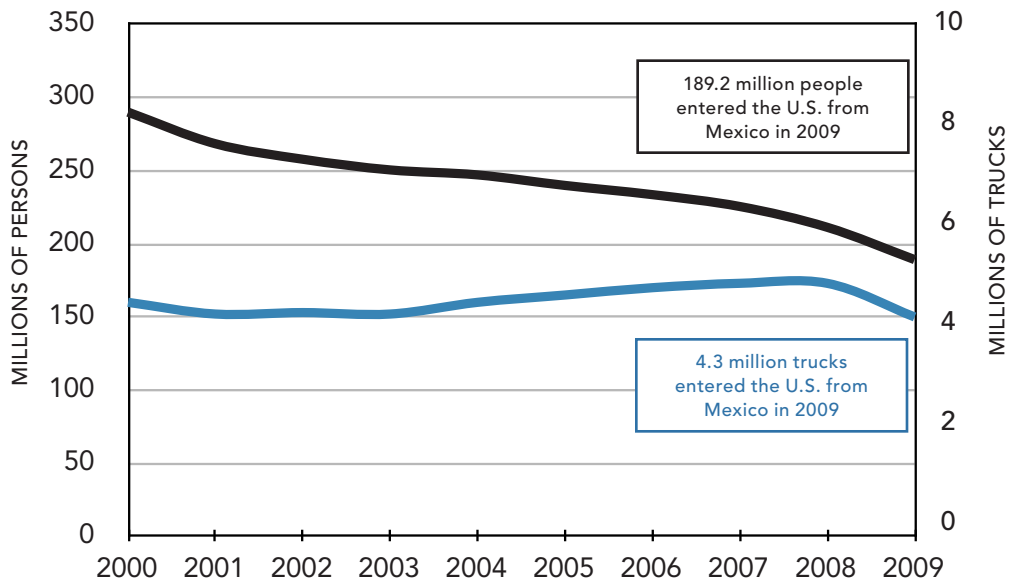
Source: North American Transportation Statistics Database, <http://nats.sct.gob.mx/sys/index.jsp?i=3>, accessed June 15, 2011.

Well-managed borders are vital to a healthy North American economy. The intensity of commerce, and especially the widespread nature of production sharing (with products crisscrossing the border several times as they are produced) mean that seemingly minor inefficiencies in border management can have profound effects on the national economies of the U.S. and Mexico. The complex set of security challenges faced by the United States complicates border management, but maintaining a safe border does not necessarily imply sacrifices in commercial and social cross-border links.

<sup>81</sup> 2009 data, from: U.S. Department of Commerce, Bureau of Economic Analysis; and INEGI, Sistema de Cuentas Nacionales de México, Banco de Información Económica.

<sup>82</sup> Author's calculations based on North American Transportation Statistics Database, <http://nats.sct.gob.mx/sys/index.jsp?i=3>, accessed June 15, 2011.

## TRUCKS AND PERSONS ENTERING THE U.S. AT THE MEXICAN BORDER, 2000–2009



Note: This data refers to legal, registered border crossings.

Source: Jenny Guarino, “A Decade of Decline in Person Crossings From Mexico and Canada Into the United States”, RITA Bureau of Transportation Statistics, U.S. Department of Transportation, February.

Unfortunately, in the past decade increased attention to border security appears to have come at a cost. Analysts have identified what they describe as a “thickening” of the border since the terrorist attacks of September 11, 2001.<sup>83</sup> After experiencing a significant increase in the 1990s, the number of individuals crossing the Southwest Border has plummeted.<sup>84</sup> Legal crossings reached a record-setting 295 million entries from Mexico in 2000, but since then they have steadily declined to only 190 million entries in 2009. While the complete causes and effects of this change are unclear, it seems that Mexicans living in border cities, who make up the vast majority of the daily cross-border traffic, have reduced the number of trips they make into the U.S. for shopping, education, business and recreation.

<sup>83</sup> For an analysis of the issue, see: Robert Pastor, *The North American Idea: A Vision of a Continental Future*, New York: Oxford University Press, 2011. See also Edward Alden, *The Closing of the American Border: Terrorism, Immigration and Security Since 9/11*, New York: Harper Collins, 2008.

<sup>84</sup> Bureau of Transportation Statistics, Department of Transportation, <http://www.bts.gov/programs/international/>.

Thankfully, the number of trucks crossing the border to deliver goods has not experienced the same level of decline, although many of the same pressures that deter and disrupt the crossing of individuals also apply to commercial flows. Cross-border production sharing operations have come to depend on what is known as just-in-time delivery, a technique that allows nimble production and minimizes the amount of capital invested in inventory. If the delivery of a part from a Mexican subsidiary or partner is unexpectedly delayed, a U.S. manufacturer may be forced to temporarily shut down production to wait for parts. Or, if such delays are common, manufacturers may simply be forced to maintain more inventory than would otherwise be necessary. The benefits of just-in-time supply chain management, production sharing, and even U.S.-Mexico trade more generally, are therefore put at risk by unpredictable and long wait times at the border.

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**The 21st Century Border broadens the very concept of a border, moving from a vision of a simple geographic line to one of secure flows.**

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But increased security measures are hardly the only cause of thickening U.S. borders, and certainly no one wants his or her personal safety sacrificed in the name of trade facilitation. Both the growth in U.S.-Mexico trade and the increasingly complex security situation instead demand investment and creative problem solving to simultaneously improve security and promote economic growth. While significant investments in border infrastructure have been made in recent years, including the opening of three new border crossings in 2010, still more are demanded. The San Diego Association of Governments estimated that in 2007, inadequate border infrastructure caused congestion and delays that cost the California-Baja California region \$7.2 billion and more than 62,000 jobs.<sup>85</sup> El Colegio de la Frontera Norte, a Tijuana-based university, performed a similar study that focused specifically on the costs of extended border wait times to Mexican border cities. While the economic impact on the United States is not calculated, one must assume that a portion of the costs are passed on to U.S. buyers. The results, shown in the table on page 31, make clear that transportation bottlenecks at the border are a drag on regional production.

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<sup>85</sup> SANDAG, *Economic Impacts of Wait Times in the San Diego-Baja California Border Region Fact Sheet: 2007 Update*, [http://www.sandag.org/uploads/publicationid/publicationid\\_1181\\_5101.pdf](http://www.sandag.org/uploads/publicationid/publicationid_1181_5101.pdf), accessed June 29, 2011.

**COSTS TO MEXICO OF BORDER WAIT TIMES FOR TRUCKS ENTERING THE U.S., 2007–2008**

City	Wait Time (hours)	Annual Direct Costs (millions of dollars)	Annual Costs to Local Production in Mexico (millions of dollars)
Tijuana	3	140	1,867
Ciudad Juarez	2.2	106	1,528
Nuevo Laredo	2.9	277	3,650
Nogales	1.1	20	240

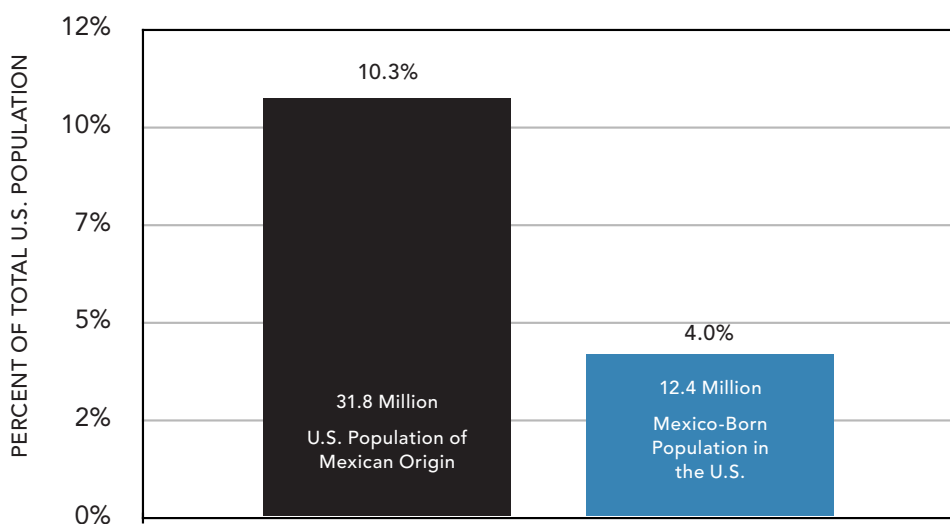
Source: Gustavo Del Castillo Vera, “Tiempos de espera en los cruces fronterizos del norte de México: una barrera no arancelaria,” *Comercio Exterior*, Vol. 59, No. 7, July 2009, 555. The data used in this analysis were obtained from surveys and observation at ports of entry, performed in 2007 and 2008.

As a response to both economic and security challenges, members of the Obama administration have worked with their counterparts in Mexico to develop a new approach to border management that is being called the “21<sup>st</sup> Century Border,” a project that builds on the Bush administration’s Smart Border Initiative. The approach broadens the very concept of a border, moving from a vision of a simple geographic line to one of secure flows. Congestion and delays could be eased by moving security and customs infrastructure away from the actual border to sites like Guadalajara, Monterrey, or even other parts of border cities like Ciudad Juárez, and then creating mechanisms and procedures to ensure that goods checked at these points arrive in the United States without tampering. Additionally, trusted traveler programs may be expanded in an effort to separate out very low risk travelers and cargo so that officials can spend more time with those who present a higher level of risk. Many analysts have high hopes that, if implemented, these steps could provide a significant boost to regional trade and travel.

## LABOR MOBILITY AND MIGRATION

Though not treated in depth in this publication, there is little doubt that labor mobility and migration are among the most important aspects of the U.S.-Mexico economic relationship, representing significant challenges and opportunities for both nations. The United States and Mexico are bound together by geography and a shared history. Social ties run deep and create a mutual understanding and cultural familiarity that facilitates deepening economic integration.

### U.S. POPULATION OF MEXICAN ORIGIN AND MEXICO-BORN POPULATION, 2010



Sources: Mexican Origin data: Sharon R. Ennis, Merarys Rios-Vargeas and Nora G. Albert, “The Hispanic Population: 2010,” U.S. Department of Commerce, U.S. Census Bureau, May 2011; Mexico-born: Pew Hispanic Center, “The Mexico-American Boom: Births Overtake Immigration,” July 14, 2011, with data adjusted from the U.S. Department of Labor, Bureau of Labor Statistics, March 2010 Current Population Survey.

Migration from Mexico to the United States is driven by several factors, including poverty, the difference in wages offered in each country, and the existence of family and community networks in the U.S. that facilitate the arrival of new immigrants. Mexican migrants make up the largest segment of the United States immigrant population, with the Mexican-born population representing approximately 30% of the entire foreign-born population. In fact, 32 million people, or one in every ten people in the U.S., trace their roots to Mexico.

The presence of approximately 6 million unauthorized Mexican immigrants in the United States, more than half of the total unauthorized immigrant population, represents a significant challenge. Unauthorized immigrant flows have dropped significantly, and it now appears that the net inflow of unauthorized migrants is close to zero. Still, addressing the management of future inflows through legal, work-based visas and deciding what to do with those already in the country remain contentious issues. Resolving these longstanding and politically complicated issues could produce many benefits: easing pressure on border law enforcement, allowing resources to be refocused on stopping dangerous illicit traffic, and facilitating beneficial commercial flows. Immigration reform also has the potential to regularize and strengthen the U.S. workforce in order to meet the nation's diverse labor needs.<sup>86</sup>

## CROSS-BORDER TRUCKING

For many years, the system to ship goods across the Southwest Border was quite inefficient, usually involving the use of three trucks. A Mexican long-haul truck normally delivered a container of goods to a location near the U.S. border. There, a drayage service was used to carry the goods across the border on a short-haul truck, and finally, a U.S.-based long-haul truck picked up the goods and delivered them to their final destination. Each step in this process added time and cost to the delivery, eating away at the geographic advantage U.S.-Mexico trade should have over extra-continental competitors.<sup>87</sup> The U.S. Department of Transportation found the cost of drayage to be between one hundred and two hundred dollars per trip, which, multiplied by the 4.7 million trucks that entered the U.S. through the Southwest Border in 2010, means the approximate cost of the drayage system is between \$0.5 and \$1 billion dollars each year.<sup>88</sup>

With NAFTA, the United States agreed to allow Mexican trucks to make deliveries in the U.S., beginning in the border states in 1995 and then extending throughout the country in 2000. In exchange, Mexico offered the same access to U.S. trucks.

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<sup>86</sup> The Independent Task Force on Immigration and America's Future, convened by the Migration Policy Institute with the Woodrow Wilson Center and Manhattan Institute, offer a comprehensive set of policy recommendations: <http://www.migrationpolicy.org/ITFIAP/finalreport.pdf>.

<sup>87</sup> Sidney Weintraub, *Un-Equal Partners: The United States and Mexico*, Pittsburgh, PA: University of Pittsburgh Press, 2010, 137.

<sup>88</sup> Mark I. Ojah et al., "Truck Transportation Through Border Ports of Entry: Analysis of Coordination Systems", U.S. Department of Transportation, 2002, [http://www.borderplanning.fhwa.dot.gov/TTIstudy/FOA\\_english.htm#toc](http://www.borderplanning.fhwa.dot.gov/TTIstudy/FOA_english.htm#toc), Appendix B; U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, Border Crossing/Entry Data; based on data from U.S. Department of Homeland Security, Customs and Border Protection, OMR database.

Due to safety concerns regarding Mexican trucks brought up by the International Brotherhood of Teamsters, President Clinton decided to delay the implementation of trucking provisions in 1995.<sup>89</sup> In 2001, a NAFTA arbitration panel ruled that the United States was out of compliance with its NAFTA obligations. President Bush took steps in 2002 to address safety concerns and implement cross-border trucking, but a series of legal challenges delayed the process until 2007, when a small pilot project allowed some Mexican carriers access beyond the twenty-five mile border zone that they had been able to enter since before NAFTA. In 2009, however, Congress forced an end to the pilot program, which led to Mexico's decision to impose retaliatory tariffs that rotated among products whose value at any given time totaled approximately \$2.5 billion in annual exports to Mexico. Actions taken by the Bush administration and the Mexican trucking industry to improve safety seem to have been successful; the non-partisan Congressional Research Service recently reported, "Mexican trucks operating the United States are now safer than they were a decade ago...The data indicate that Mexican trucks and drivers have a comparable safety record to U.S. truckers."<sup>90</sup>

Finally, in March 2011, President Obama announced a breakthrough on the issue and a plan to open access to Mexican trucks that comply with stringent safety standards.<sup>91</sup> After the agreement was signed in July, Mexico responded by cutting its retaliatory duties by 50% and eliminated them completely in October when the first Mexican trucking company, Transportes Olympic, was granted permission to deliver throughout the United States.<sup>92</sup> In addition to honoring U.S. commitments, the resolution of the longstanding trucking issue improves the efficiency of regional transportation and the competitiveness of regional industry. The combined cost of both the use of the drayage system of border crossing and the retaliatory tariffs imposed by Mexico were estimated by some analysts to decrease U.S. exports by \$2.6 billion and cost the United States nearly twenty-six thousand jobs.<sup>93</sup> With the trucking issue approaching resolution, those costs could be cut, and bilateral trade will likely be stimulated.

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<sup>89</sup> Gary Clyde Hufbauer and Jeffrey J. Schott, *NAFTA Revisited: Achievements and Challenges*, Washington, DC: Institute of International Economics, 2005.

<sup>90</sup> M. Angeles Villarreal, U.S.-Mexico Economic Relations: Trends, Issues, and Implications, RL32934, Congressional Research Service, February 24, 2011, 21.

<sup>91</sup> Ginger Thompson, "U.S. and Mexico Announce Progress on Trucking," *New York Times*, March 3, 2011.

<sup>92</sup> Binyamin Appelbaum, "U.S. and Mexico Sign Trucking Deal," *New York Times*, July 6, 2011; 2011; Laurence Iliff, "Mexico to lift tariffs on US goods as border opens to trucks," *Wall Street Journal*, October 14, 2011.

<sup>93</sup> Laura M. Baughman and Joseph F. Francois, *Trade Action – or Inaction: The Cost for American Workers and Companies*, Washington, DC: U.S. Chamber of Commerce, September 15, 2009, p. 10–11.



## REGIONAL COMPETITIVENESS VIS-À-VIS CHINA

When China joined the WTO in 2001, it consolidated its position as a popular location for offshore production due to extraordinarily low labor costs. Total compensation in the manufacturing industry, including wages and benefits paid both directly to employees and through taxes, totaled less than a dollar per hour. In 2003, average hourly compensation in China was just 62 cents, while in Mexico's manufacturing sector it was \$5.06.<sup>94</sup> Many Mexican maquiladoras shut down and relocated to China. In fact, between October 2000 and March 2002, maquiladora production declined by 30%.<sup>95</sup>

Since the early 2000s, Mexican manufacturing has recovered. At the same time, economic growth in China has caused wages to rise. China's hourly compensation costs in manufacturing more than doubled between 2003 and 2008, rising from 62 cents to \$1.36 per hour. Over the same period, Mexico's wages rose just 21%, from \$5.06 to \$6.12 per hour.<sup>96</sup> While the dollar amount of the rise in labor costs was actually greater in Mexico during this period, the rate of growth suggests wages will occupy an ever-greater portion of production costs in China, a factor that, over time, could erode its competitive advantage. Still, if wages were the only factor, it would make more sense for U.S.-based companies to offshore their manufacturing to China. Several additional factors, however, have helped keep Mexico's factories competitive.

Because of geographic proximity, shipping goods between the U.S. and Mexico is cheaper (especially with the currently high fuel costs) and substantially faster than shipping to and from China. Transport usually takes a few days rather than several weeks. Similarly, executives of U.S.-based companies with production facilities abroad can communicate with plant managers and travel to Mexico to monitor and adjust production much more easily than is the case for Chinese production. Mexico's comparative advantages, largely based on geography and NAFTA, are more long-term and stable than many of those associated with China.

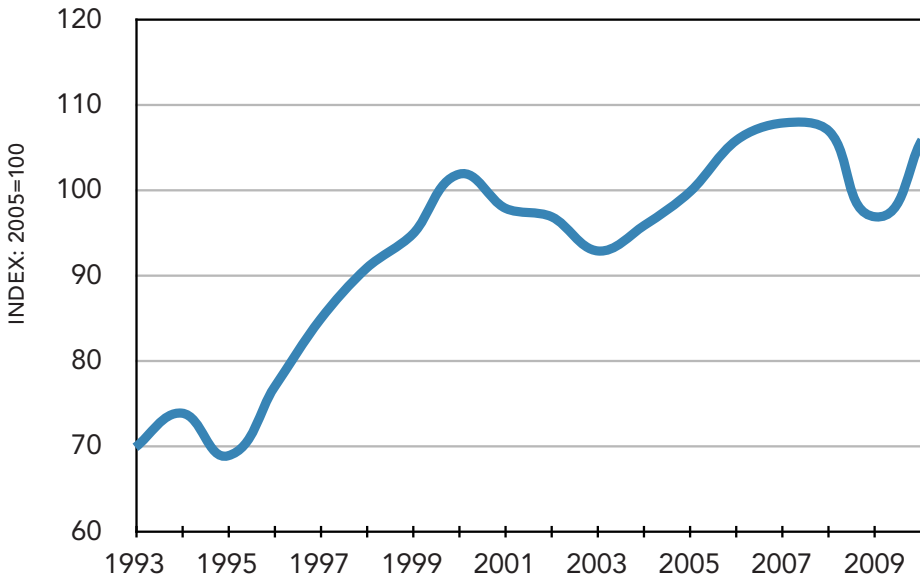
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<sup>94</sup> Bureau of Labor Statistics, U.S. Department of Labor, *International Comparisons of Hourly Compensation Costs in Manufacturing, 2009*, Washington, DC: March 2011, <http://www.bls.gov/news.release/pdf/ichcc.pdf>. Note: Because of data availability issues, Chinese compensation statistics are not directly comparable with other nations.

<sup>95</sup> Ralph Watkins, "The China Challenge to Manufacturing in Mexico," *Journal of the Flagstaff Institute*, Flagstaff, AZ: June 2007, 4. Watkins suggests that changing exchange rates and a decrease in U.S. manufacturing were stronger factors than the rise of China in the decline of Mexico's maquiladora industry during this time period. Additionally, NAFTA's article 303 began phasing out some tariff preferences for the *maquiladora* sector in 2001.

<sup>96</sup> Bureau of Labor Statistics, U.S. Department of Labor, *International Comparisons of Hourly Compensation Costs in Manufacturing, 2009*, Washington, DC: March 2011, <http://www.bls.gov/news.release/pdf/ichcc.pdf>. Note: Because of data availability issues, Chinese compensation statistics are not directly comparable with other nations.

### MANUFACTURING PRODUCTION IN MEXICO, 1993–2010



Source: Organization for Economic Co-Operation and Development, OECD. Stat, 2011.

### U.S. INVESTMENT: MEXICAN VERSUS CHINESE PRODUCTION

Mexico’s Advantages	China’s Advantages
Lower transportation costs to the U.S.	Cheaper labor, energy, property and taxes
Less time from manufacture to market	Undervalued currency
Easier communication and supervision of production	State assistance for research and development at times
Greater flexibility for changes in production	Better railways
More transparent government regulation	Larger domestic market
Better protection of intellectual property rights	Stronger supply chains for many products

Certain types of products favor the advantages of each country. Simple, labor intensive products of smaller sizes and weights tend to be cheaper to produce in China, but larger and heavier products, like auto-parts and refrigerators, are a better fit for Mexican manufacturing. Additionally, manufacturers who rely on what is known as just-on-time delivery to provide their U.S.-based production facilities with inputs or who ship goods directly from the factory to several U.S. locations usually find Mexican suppliers more economical. Similarly, longer shipping times can result in a mismatch of supply and demand for products subject to changing stylistic preferences, like fashion apparel.<sup>97</sup>

Mexican production is often more cost-effective than Chinese manufacturing for the following types of goods:<sup>98</sup>

- Products that are expensive to transport, especially high volume items like motor vehicles, home appliances and large electronics.
- Precision instruments, medical supplies and other quality intensive goods.
- Auto parts and other manufactured goods that serve as inputs for U.S. producers involved in U.S.-Mexico production sharing.
- Specialty products that are made and shipped in small batches or require customized designs.

Using China as the factory for U.S. goods promotes sourcing parts from abroad, since it is expensive and time consuming to ship products back and forth between the U.S. and China. The proximity of Mexico, on the other hand, promotes the use of U.S. materials and parts, sustaining U.S. jobs while increasing companies' competitiveness. While forty cents of every dollar spent on Mexican imports returns to the U.S., Chinese imports return only four cents per dollar.

## CONCLUSION

In today's competitive global market, the United States stands stronger in partnership with its neighbors than in competition against them. Trade between the United States and Mexico, as well as with Canada, is of a qualitatively different nature than trade with any other country in the world. While Chinese or European imports are produced almost entirely with inputs from non-North American sources, imports from Mexico are 40% U.S. made. This is because the United States and Mexico do not just trade goods; they work together to build them. Therefore, trade with Canada and Mexico—both exports and

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<sup>97</sup> David Hummels, "Transportation Costs and International Trade in the Second Era of Globalization," *The Journal of Economic Perspectives*, Vol. 21, No. 3, 2007, 150.

<sup>98</sup> These are largely based on: Ralph Watkins, "The China Challenge to Manufacturing in Mexico," *Journal of the Flagstaff Institute*, Flagstaff, AZ: June 2007, p.5-6.

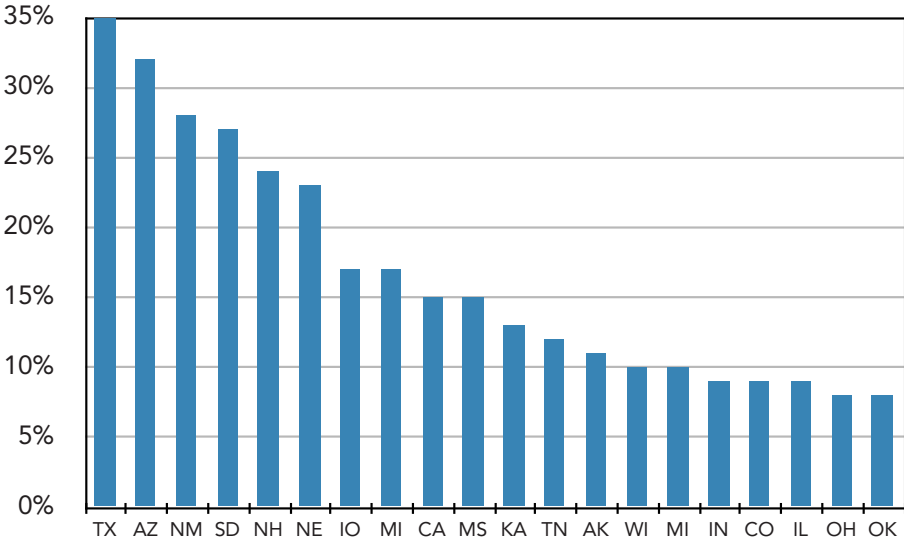
The United States stands stronger in partnership with its neighbors than in competition against them...the United States and Mexico do not just trade goods; they work together to build them.

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imports—supports U.S. industry and jobs. Despite the distinct economic history of each North American nation and ongoing disagreements about precisely which policies to pursue, the futures of all three nations have become tightly intertwined. Growth in Mexico creates jobs in the United States, and a strong U.S. economy is vital to Mexico. Any plan to strengthen the U.S. economy and create jobs would do well to take into account this new continental reality, this new era in the relationship between the United States and Mexico.

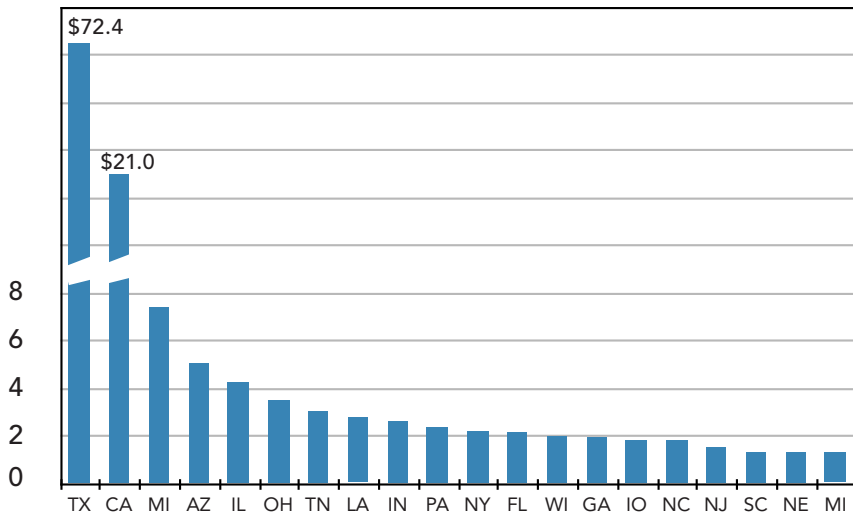
# DATA ON U.S.-MEXICO LINKS AT THE STATE AND LOCAL LEVELS

U.S. STATE EXPORTS TO MEXICO, 2010  
(PERCENTAGE OF TOTAL EXPORTS)



Source: U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics, 2011.

**U.S. STATE EXPORTS TO MEXICO, 2010 (BILLIONS OF DOLLARS)**



Source: U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics, 2011.

**TOP TEN U.S. METROPOLITAN AREA EXPORTS TO MEXICO, 2009**

Rank	Metro Area	Exports to Mexico (\$billions)	Percent of Total Exports
1	Detroit, MI	\$10.9	38%
2	Los Angeles, CA	\$8.9	17%
3	Houston, TX	\$8.7	13%
4	El Paso, TX	\$5.8	75%
5	San Diego, CA	\$4.2	31%
6	Laredo, TX	\$3.5	81%
7	New York, NY-NJ-PA	\$3.4	5%
8	Chicago, IL-IN-WI	\$3.4	12%
9	Dallas, TX	\$2.9	15%
10	Tampa, FL	\$2.8	43%

Note: Metro area export data is collected based on the primary party of interest, while state level export data is collected based on the origin of movement of the good. This makes the two incomparable, and is the cause of any discrepancy between this data set and others used in the publication.

Source: Office of Trade and Industry Information, Manufacturing and Services, International Trade Administration, U.S. Department of Commerce, <http://tse.export.gov/METRO/>, accessed August 8, 2011.

## U.S. EMPLOYMENT AND EXPORTS TO MEXICO BY STATE, 2010 (MILLIONS OF DOLLARS)

State	Jobs Dependent on Trade with Mexico	Exports to Mexico	Rank of Mexico as Export Market	Percent of Total Exports	Top Industries Exporting to Mexico					
					Largest Industry	Value	Second largest industry	Value	Third largest industry	Value
Alabama	86,212	\$1,124	4	7.3%	Transportation Equipment	\$340	Machinery, not electrical	\$161	Paper	\$140
Alaska	14,835	\$14	20	0.3%	Minerals & Ores	\$7	Primary Metal Manufacturing	\$1	Plastics & Rubber Products	\$1
Arizona	111,216	\$5,055	1	32.3%	Computers and Electronics	\$1,185	Electrical Equipment	\$546	Machinery, not electrical	\$495
Arkansas	51,379	\$544	2	10.6%	Crop Production	\$111	Primary Metal Manufacturing	\$88	Paper Products	\$67
California	692,240	\$21,002	1	14.7%	Computers and Electronics	\$6,465	Transportation Equipment	\$1,794	Machinery, not electrical	\$1,610
Colorado	105,776	\$590	2	8.8%	Processed Foods	\$207	Chemicals	\$132	Computers and Electronics	\$46
Connecticut	74,481	\$984	5	6.1%	Chemicals	\$279	Crop Production	\$183	Electrical Equipment	\$120
Delaware	18,312	\$148	7	3.0%	Chemicals	\$53	Textiles & Fabrics	\$17	Plastics & Rubber Products	\$17

Top Industries Exporting to Mexico							Percent of Total Exports	Rank of Mexico as Export Market	Exports to Mexico	Jobs Dependent on Trade with Mexico
State	Largest Industry	Value	Second largest industry	Value	Third largest industry	Value				
Florida	Computers and Electronics	\$685	Chemicals	\$254	Machinery, not electrical	\$234	3.9%	6	\$2,178	342,054
Georgia	Transportation Equipment	\$293	Computers and Electronics	\$260	Chemicals	\$256	6.8%	3	\$1,944	186,208
Hawaii	Transportation Equipment	\$1	Computers and Electronics	\$0	Plastics and Rubber Products	\$0	0.4%	17	\$3	29,442
Idaho	Processed Foods	\$87	Crop Production	\$30	Computers and Electronics	\$25	3.6%	8	\$186	29,767
Illinois	Machinery, not electrical	\$945	Chemicals	\$529	Transportation Equipment	\$520	8.6%	2	\$4,267	252,931
Indiana	Machinery, not electrical	\$815	Transportation Equipment	\$763	Chemicals	\$257	9.1%	2	\$2,613	120,763
Iowa	Processed Foods	\$624	Crop Production	\$617	Tobacco Products	\$120	16.8%	2	\$1,833	64,847
Kansas	Crop Production	\$491	Processed Foods	\$355	Chemicals	\$123	12.9%	2	\$1,281	59,341
Kentucky	Chemicals	\$206	Transportation Equipment	\$168	Computers and Electronics	\$166	6.6%	3	\$1,281	78,588
Louisiana	Petroleum & Coal Products	\$802	Crop Production	\$750	Chemicals	\$648	6.7%	3	\$2,772	83,206



State	Jobs Dependent on Trade with Mexico	Exports to Mexico	Rank of Mexico as Export Market	Percent of Total Exports	Top Industries Exporting to Mexico					
					Largest Industry	Value	Second largest industry	Value	Third largest industry	Value
Maine	27,706	\$32	12	1.0%	Paper Products	\$6	Fabricated Metal Products	\$6	Machinery, not electrical	\$5
Maryland	115,499	\$488	5	4.8%	Machinery, not electrical	\$488	Primary Metal Manufacturing	\$87	Chemicals	\$86
Massachusetts	142,557	\$1,273	7	4.8%	Computers and Electronics	\$419	Chemicals	\$158	Machinery, not electrical	\$114
Michigan	175,249	\$7,428	2	16.7%	Transportation Equipment	\$2,931	Chemicals	\$1,125	Computers and Electronics	\$716
Minnesota	117,395	\$978	4	5.2%	Processed Foods	\$214	Crop Production	\$131	Computers and Electronics	\$104
Mississippi	50,023	\$1,195	2	14.5%	Petroleum & Coal Products	\$389	Chemicals	\$275	Paper Products	\$133
Missouri	119,793	\$1,302	2	10.1%	Processed Foods	\$313	Crop Production	\$239	Chemicals	\$149
Montana	20,594	\$80	6	5.6%	Minerals & Ores	\$36	Crop Production	\$22	Machinery, not electrical	\$8
Nebraska	40,565	\$1,314	2	22.6%	Crop Production	\$782	Processed Foods	\$266	Machinery, not electrical	\$75
Nevada	53,593	\$351	4	5.9%	Computers and Electronics	\$222	Miscellaneous Manufacturing	\$36	Transportation Equipment	\$26

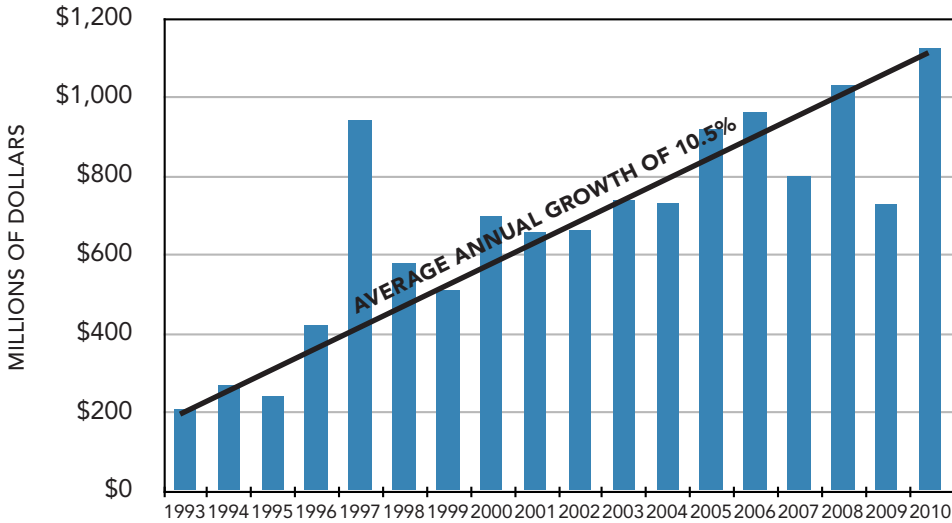
Top Industries Exporting to Mexico							Value			
State	Jobs Dependent on Trade with Mexico	Exports to Mexico	Rank of Mexico as Export Market	Percent of Total Exports	Largest Industry	Value		Second largest industry	Value	Third largest industry
New Hampshire	28,531	\$1,050	1	24.0%	Computers and Electronics	\$788	Electrical Equipment	\$86	Machinery, not electrical	\$72
New Jersey	174,257	\$1,516	4	4.7%	Chemicals	\$699	Computers and Electronics	\$116	Plastics & Rubber Products	\$106
New Mexico	36,200	\$429	1	27.5%	Machinery, not electrical	\$91	Computers and Electronics	\$69	Fabricated Metal Products	\$64
New York	381,238	\$2,211	9	3.3%	Miscellaneous Manufacturing	\$464	Chemicals	\$340	Computers and Electronics	\$291
North Carolina	183,377	\$1,828	3	7.4%	Chemicals	\$428	Machinery, not electrical	\$277	Textiles & Fabrics	\$182
North Dakota	15,646	\$166	2	6.6%	Processed Foods	\$80	Crop Production	\$59	Machinery, not electrical	\$6
Ohio	224,486	\$3,500	2	3.3%	Transportation Equipment	\$1,093	Chemicals	\$556	Machinery, not electrical	\$410
Oklahoma	68,498	\$432	2	8.1%	Processed Foods	\$98	Machinery, not electrical	\$91	Transportation Equipment	\$46
Oregon	75,558	\$233	15	1.3%	Computers and Electronics	\$47	Chemicals	\$43	Machinery, not electrical	\$29

Top Industries Exporting to Mexico										
State	Jobs Dependent on Trade with Mexico	Exports to Mexico	Rank of Mexico as Export Market	Percent of Total Exports	Largest Industry	Value	Second largest industry	Value	Third largest industry	Value
Pennsylvania	246,409	\$2,387	3	6.9%	Chemicals	\$551	Primary Metal Manufacturing	\$467	Computers and Electronics	\$299
Rhode Island	20,399	\$136	2	7.0%	Primary Metal Manufacturing	\$27	Computers and Electronics	\$22	Plastics & Rubber Products	\$15
South Carolina	85,763	\$1,319	4	6.5%	Plastics & Rubber Products	\$422	Chemicals	\$214	Machinery, not electrical	\$116
South Dakota	17,992	\$340	2	26.9%	Processed Foods	\$191	Beverages & Tobacco Products	\$97	Leather & Related Products	\$13
Tennessee	122,085	\$3,040	2	11.7%	Transportation Equipment	\$783	Chemicals	\$372	Machinery, not electrical	\$363
Texas	463,132	\$72,370	1	35.0%	Computers and Electronics	\$19,065	Petroleum & Coal Products	\$9,463	Transportation Equipment	\$8,474
Utah	54,881	\$456	9	3.4%	Transportation Equipment	\$96	Chemicals	\$77	Minerals and Ores	\$59
Vermont	14,372	\$62	10	1.4%	Paper Products	\$17	Electrical Equipment	\$13	Computers and Electronics	\$11

Top Industries Exporting to Mexico										
State	Jobs Dependent on Trade with Mexico	Exports to Mexico	Rank of Mexico as Export Market	Percent of Total Exports	Largest Industry	Value	Second largest industry	Value	Third largest industry	Value
Virginia	161,374	\$861	5	5.0%	Chemicals	\$222	Paper Products	\$127	Computers and Electronics	\$110
Washington	128,277	\$992	13	1.9%	Transportation Equipment	\$234	Processed Foods	\$179	Crop Production	\$119
West Virginia	30,254	\$190	12	3.0%	Chemicals	\$107	Minerals & Ores	\$44	Primary Metal Manufacturing	\$15
Wisconsin	117,665	\$2,010	2	10.2%	Transportation Equipment	\$325	Machinery, not electrical	\$317	Electrical Equipment	\$220
Wyoming	12,266	\$69	3	7.0%	Chemicals	\$51	Minerals & Ores	\$6	Petroleum & Coal Products	\$4

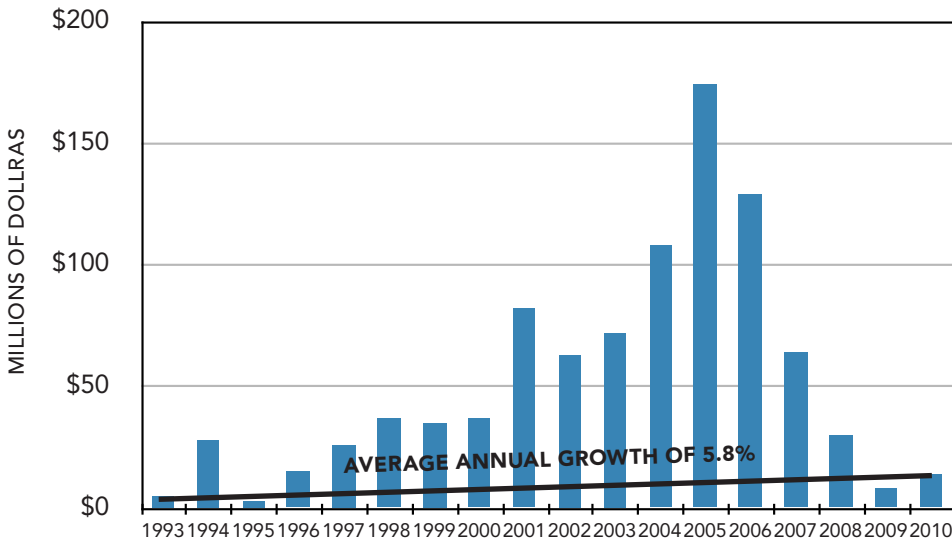
Sources: Trade data from U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics, 2011. See the appendix on pg. 73 for the sources and methodology for employment data.

### ALABAMA EXPORTS TO MEXICO, 1993–2010



- 86,000 Alabama Jobs Depend on Trade with Mexico
- Mexico is Alabama’s 4th Largest Export Market

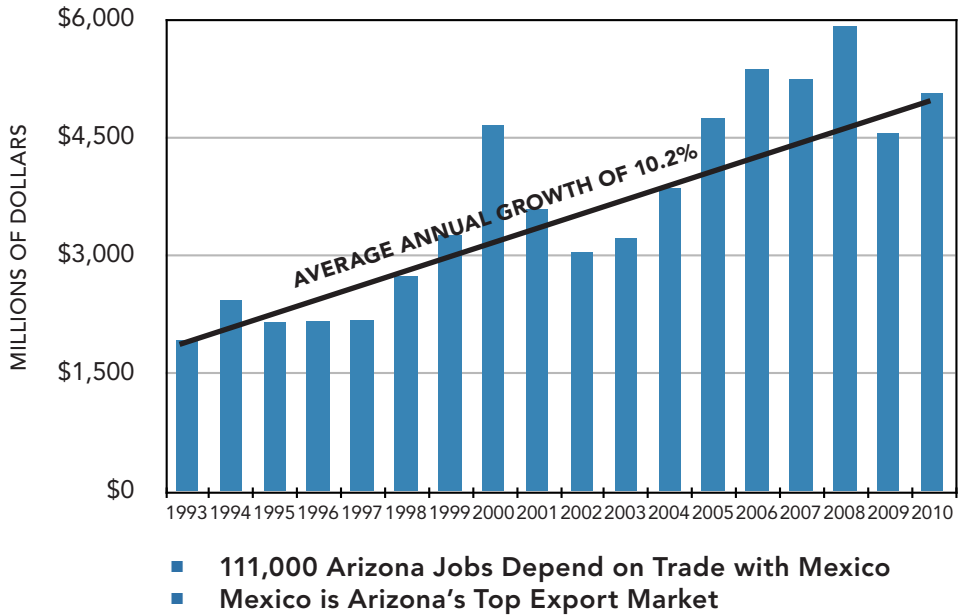
### ALASKA EXPORTS TO MEXICO, 1993–2010



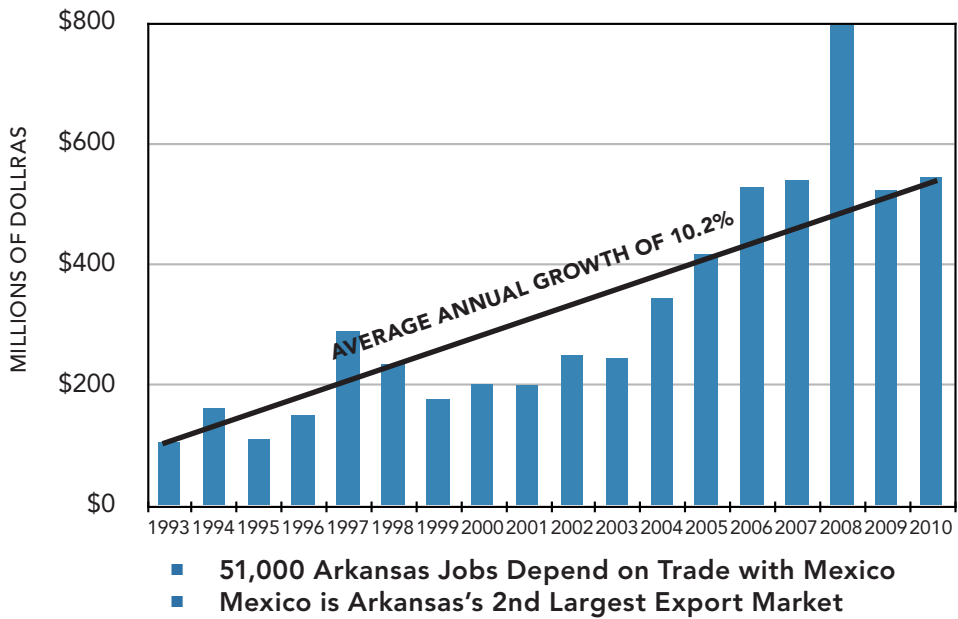
- 15,000 Alaska Jobs Depend on Trade with Mexico
- Mexico is Alaska’s 20th Largest Export Market

Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

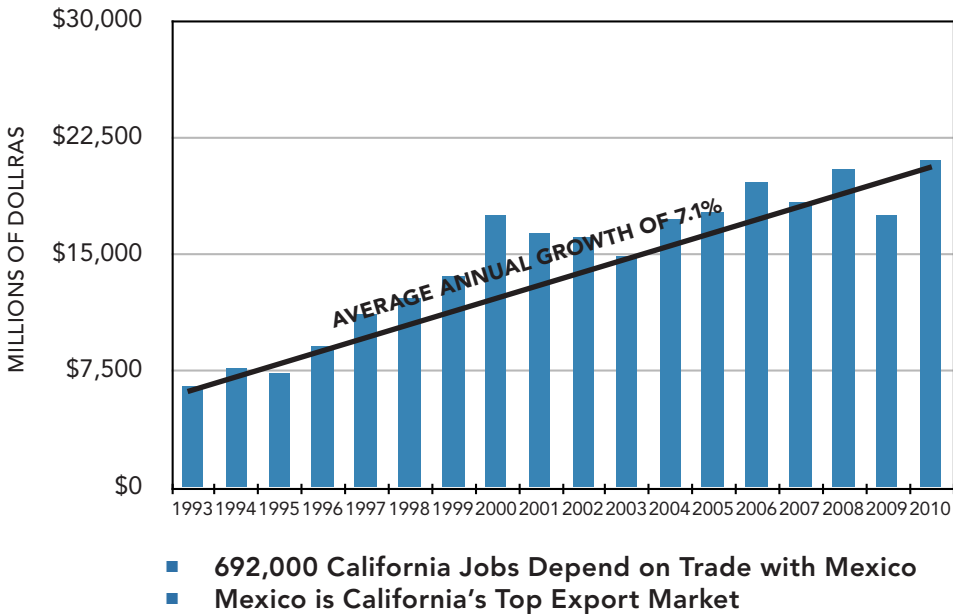
### ARIZONA EXPORTS TO MEXICO, 1993–2010



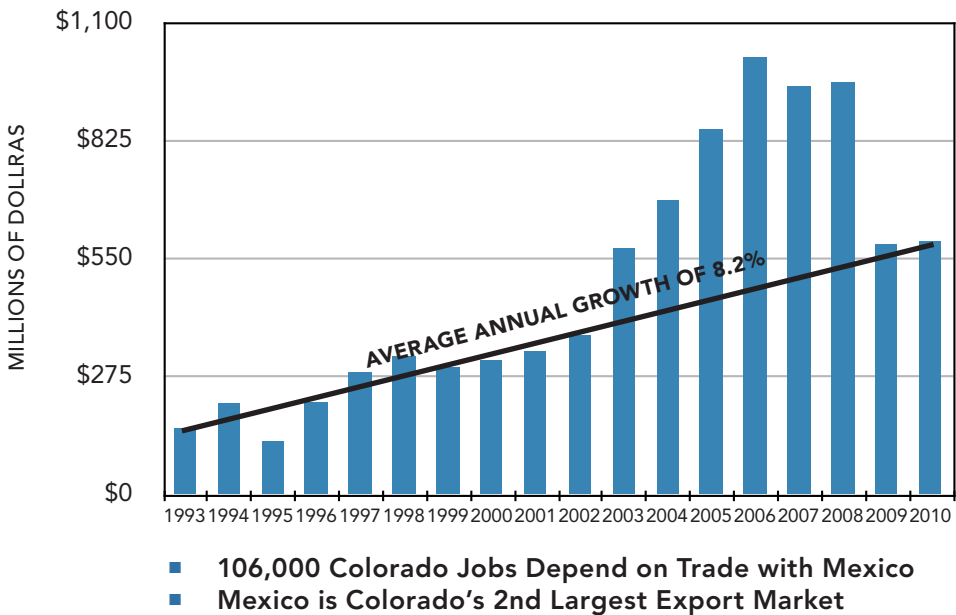
### ARKANSAS EXPORTS TO MEXICO, 1993–2010



### CALIFORNIA EXPORTS TO MEXICO, 1993–2010

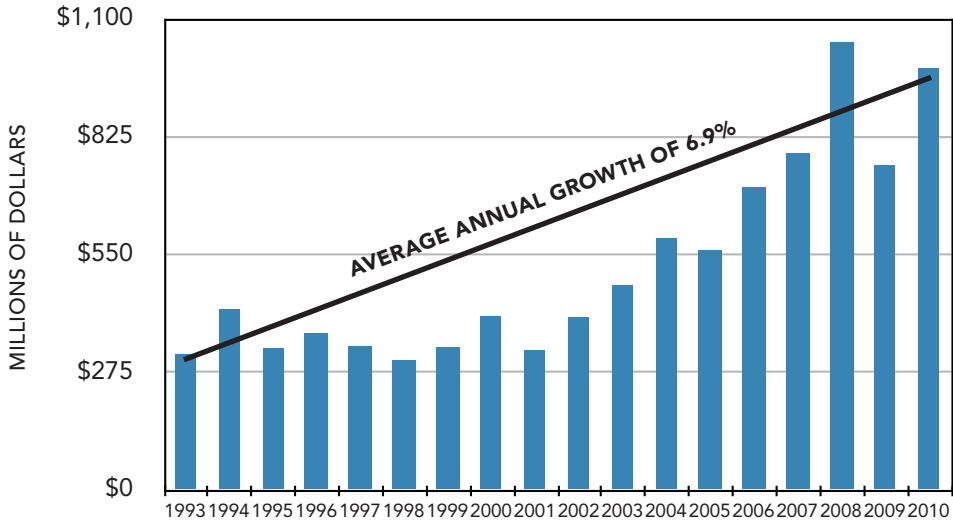


### COLORADO EXPORTS TO MEXICO, 1993–2010



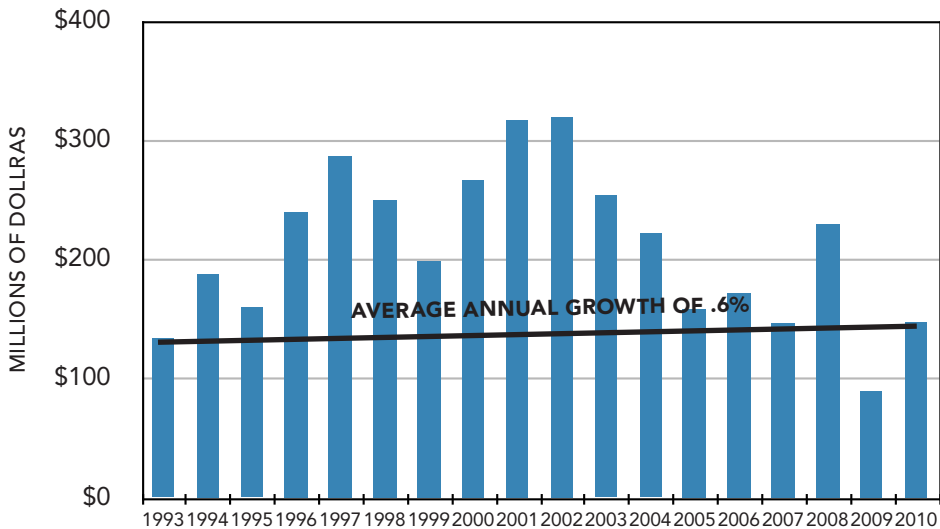
Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### CONNECTICUT EXPORTS TO MEXICO, 1993–2010



- 74,000 Connecticut Jobs Depend on Trade with Mexico
- Mexico is Connecticut's 5th Largest Export Market

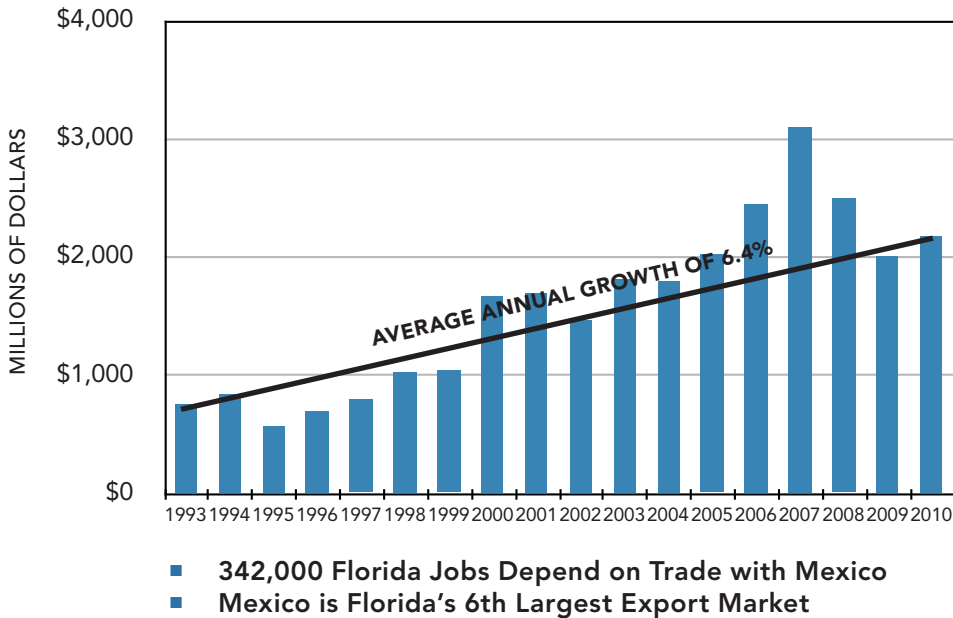
### DELAWARE EXPORTS TO MEXICO, 1993–2010



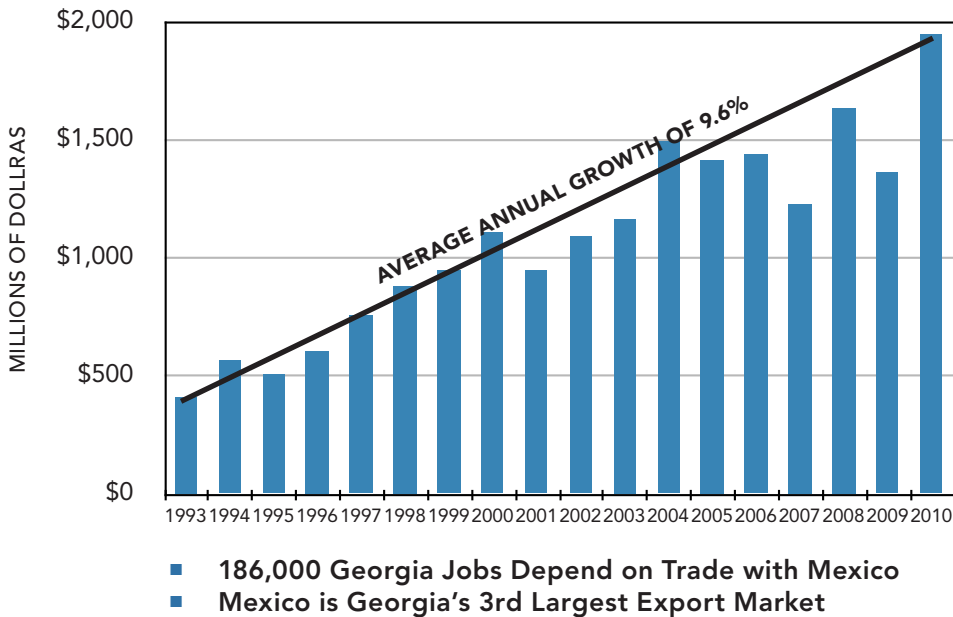
- 18,000 Delaware Jobs Depend on Trade with Mexico
- Mexico is Delaware's 7th Largest Export Market



### FLORIDA EXPORTS TO MEXICO, 1993–2010

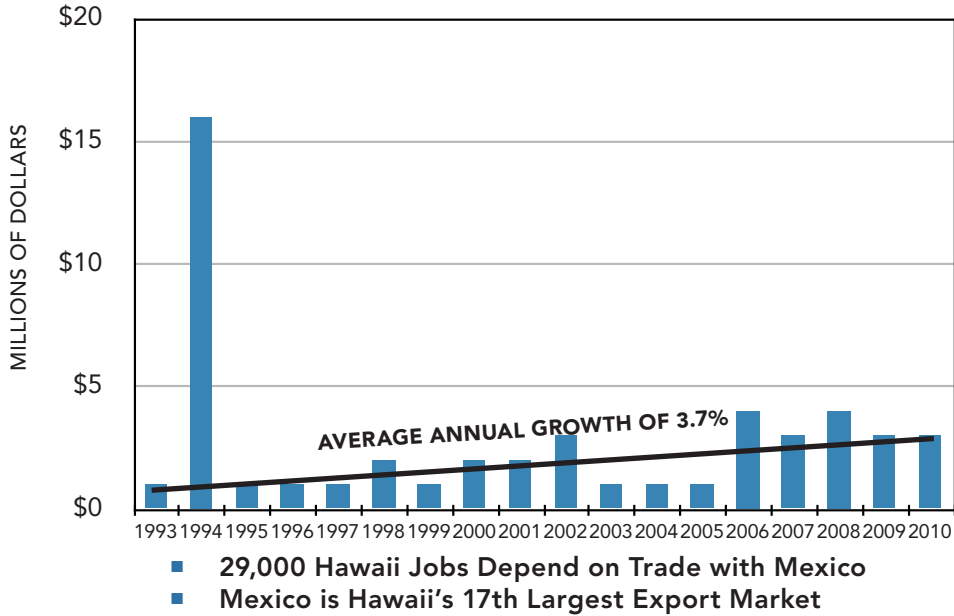


### GEORGIA EXPORTS TO MEXICO, 1993–2010

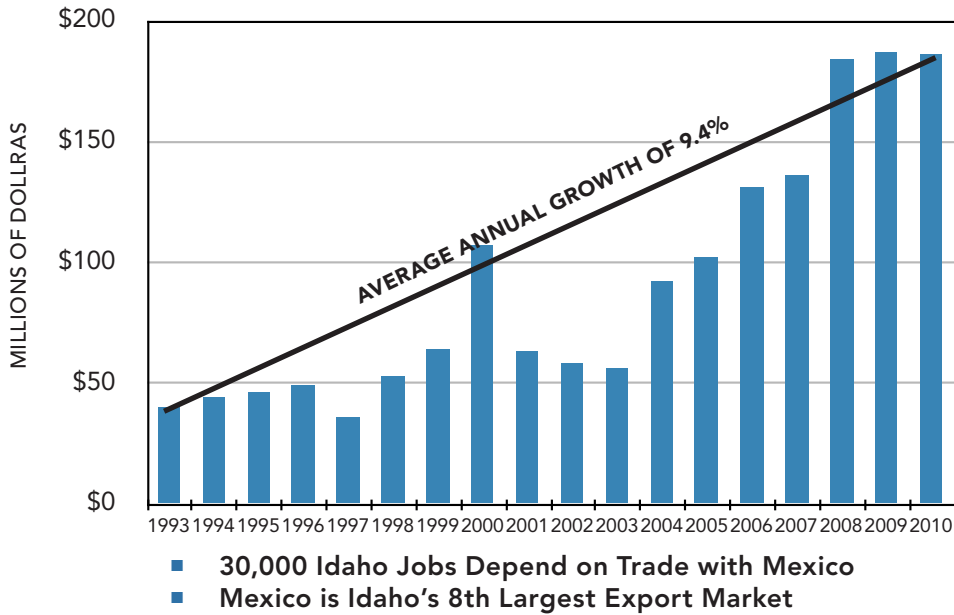


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### HAWAII EXPORTS TO MEXICO, 1993–2010

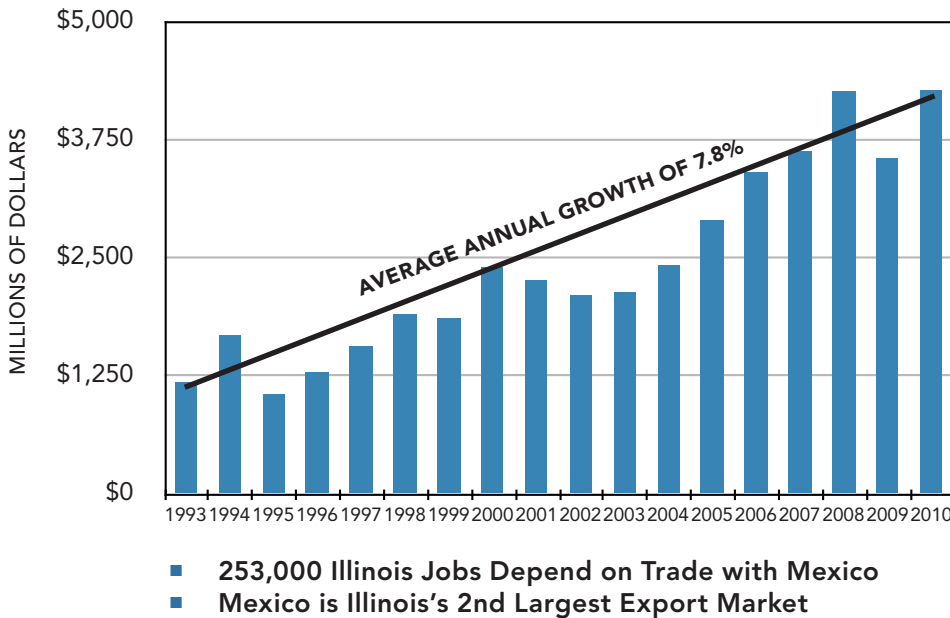


### IDAHO EXPORTS TO MEXICO, 1993–2010

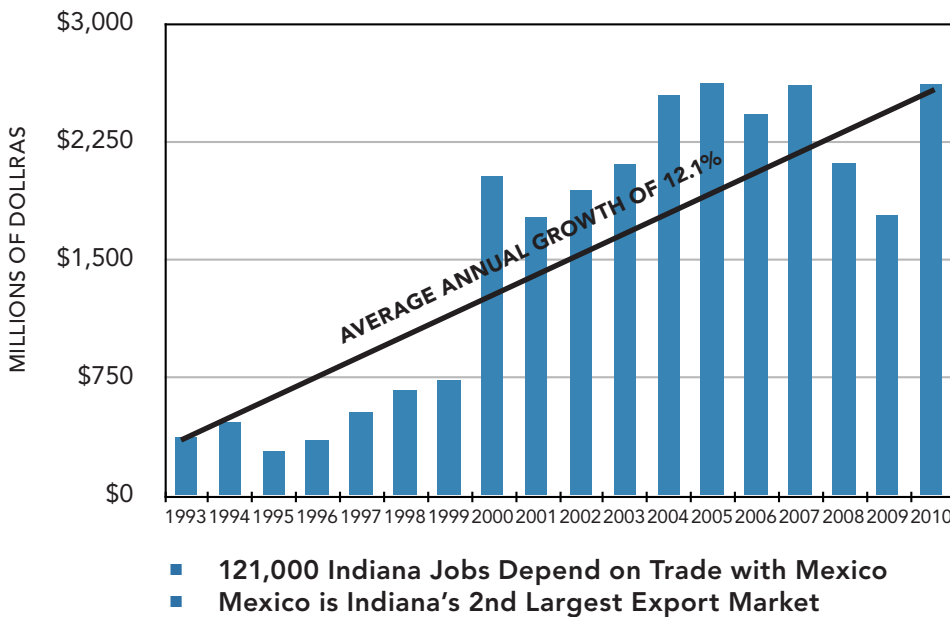


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### ILLINOIS EXPORTS TO MEXICO, 1993–2010

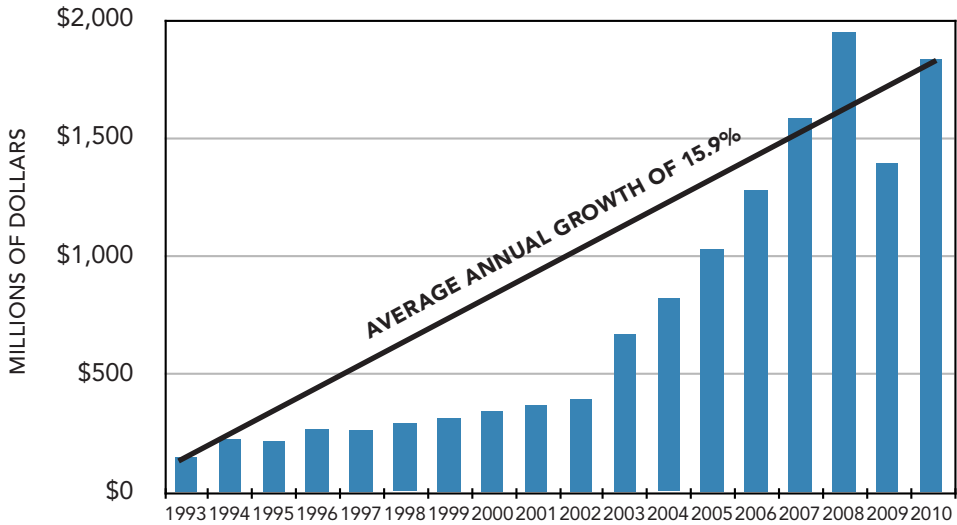


### INDIANA EXPORTS TO MEXICO, 1993–2010



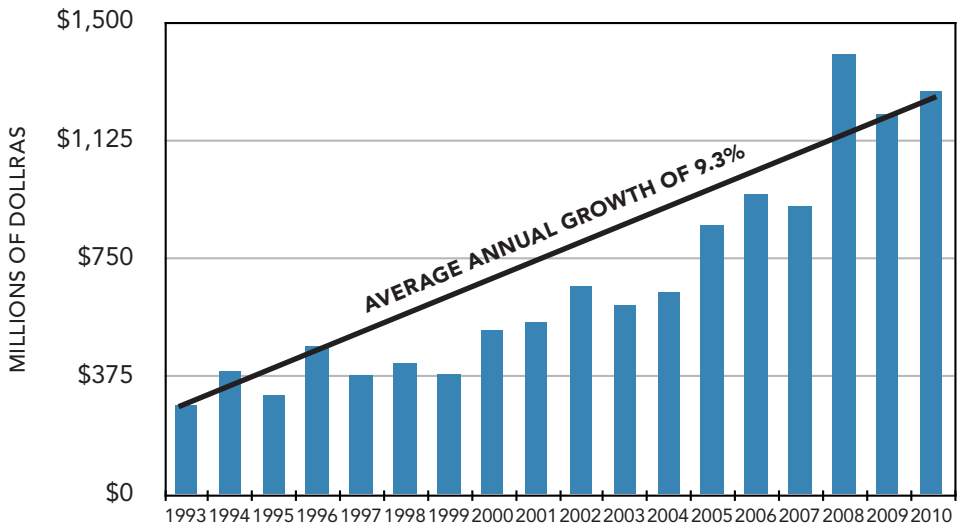
Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### IOWA EXPORTS TO MEXICO, 1993–2010



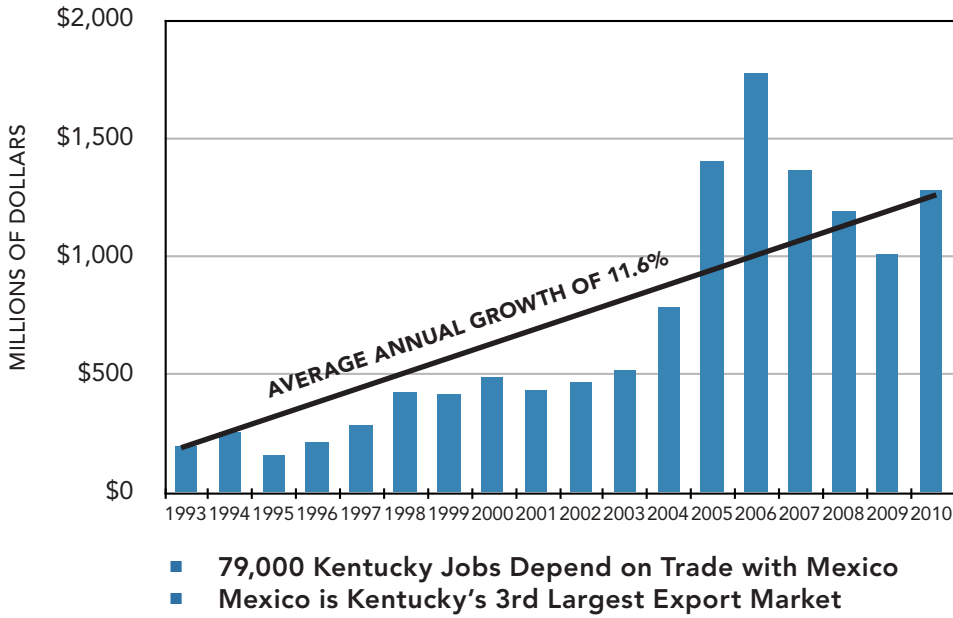
- 65,000 Iowa Jobs Depend on Trade with Mexico
- Mexico is Iowa's 2nd Largest Export Market

### KANSAS EXPORTS TO MEXICO, 1993–2010

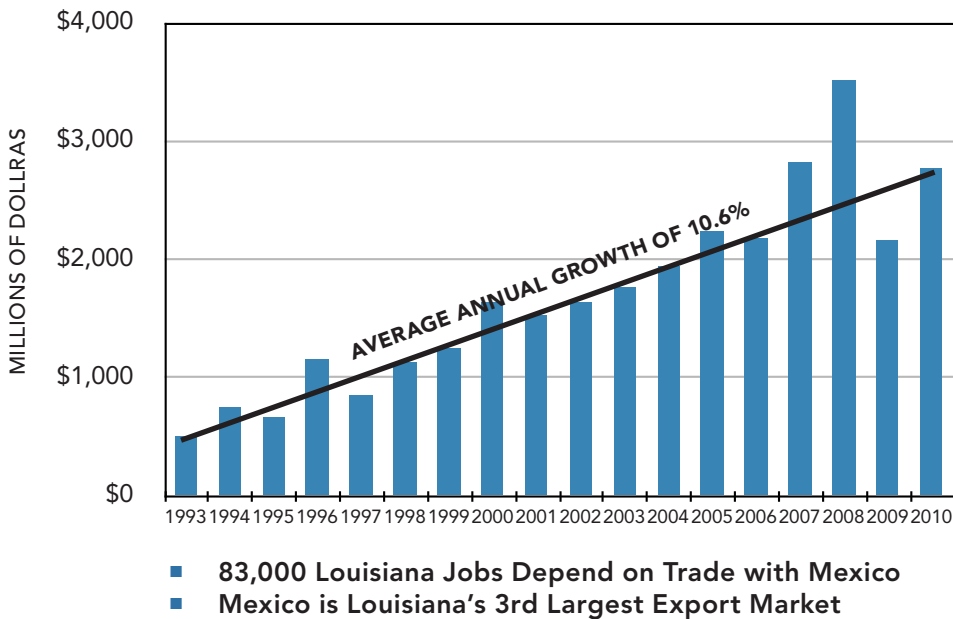


- 59,000 Kansas Jobs Depend on Trade with Mexico
- Mexico is Kansas's 2nd Largest Export Market

### KENTUCKY EXPORTS TO MEXICO, 1993–2010

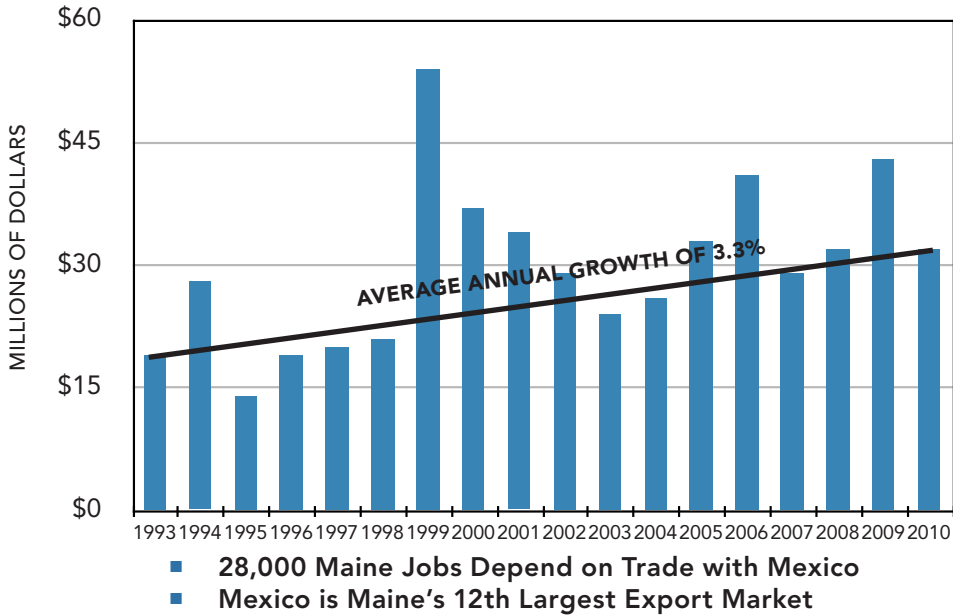


### LOUISIANA EXPORTS TO MEXICO, 1993–2010

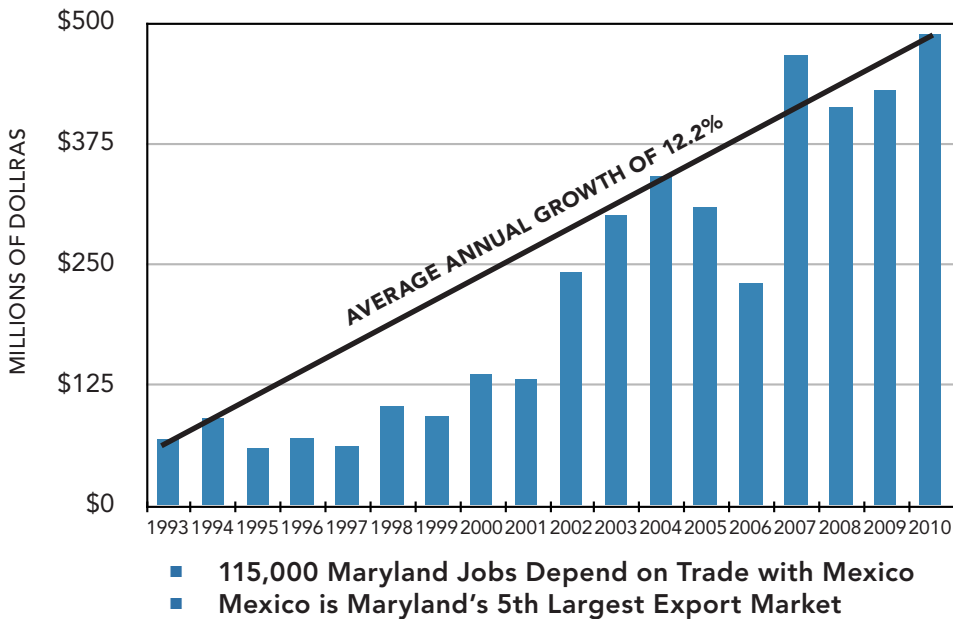


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### MAINE EXPORTS TO MEXICO, 1993–2010

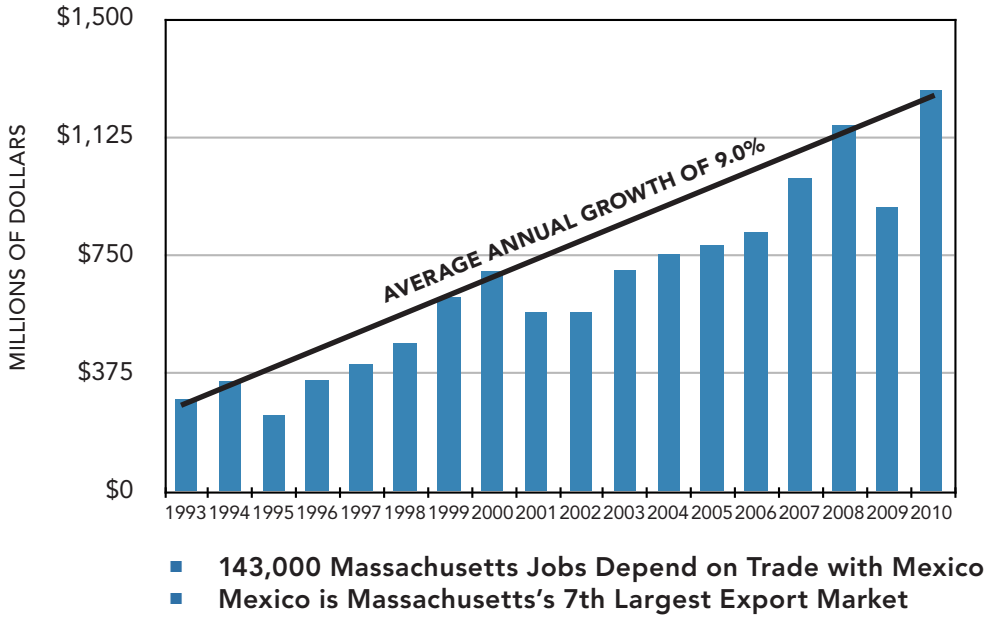


### MARYLAND EXPORTS TO MEXICO, 1993–2010

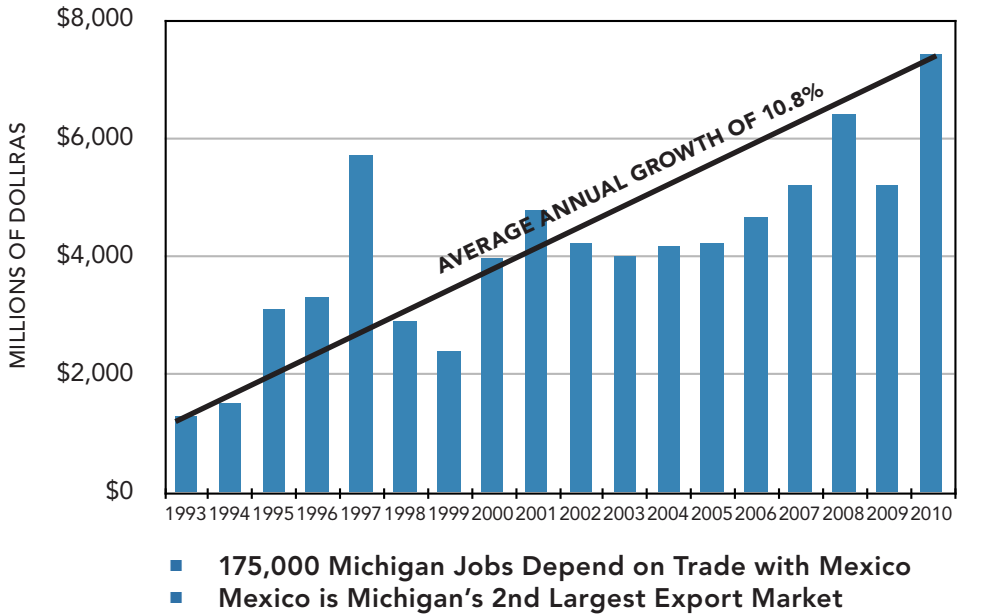


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### MASSACHUSETTS EXPORTS TO MEXICO, 1993–2010

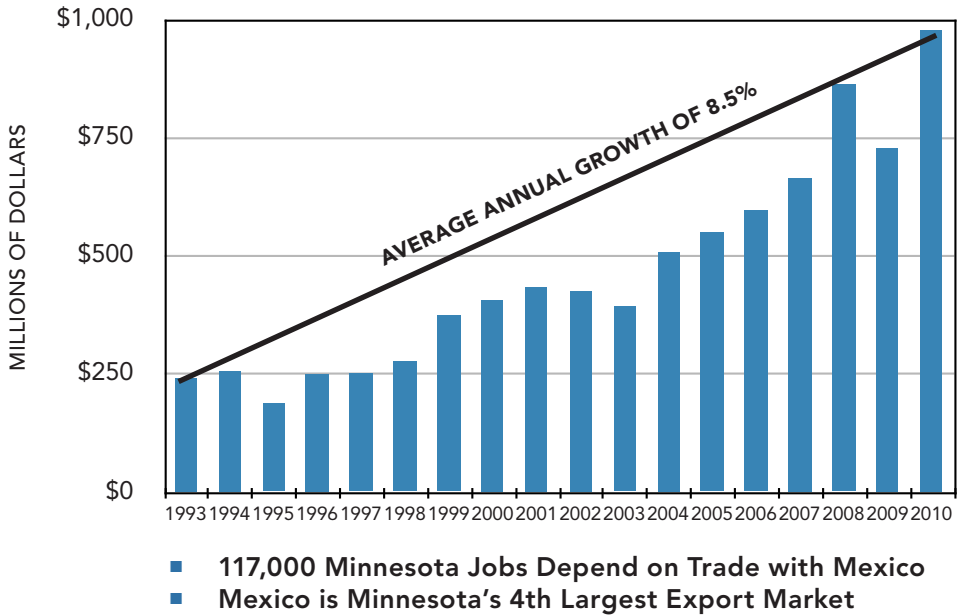


### MICHIGAN EXPORTS TO MEXICO, 1993–2010

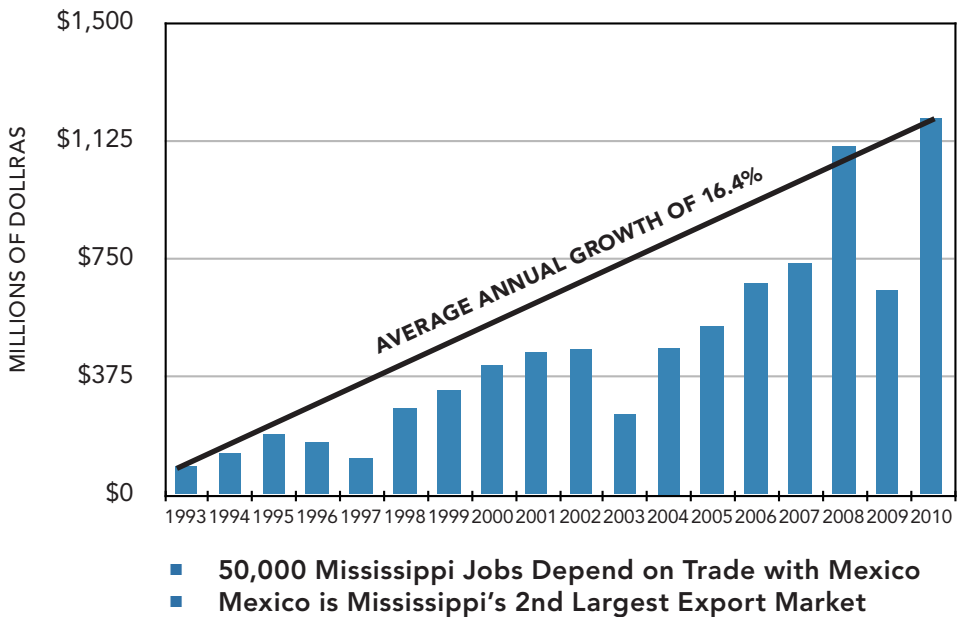


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### MINNESOTA EXPORTS TO MEXICO, 1993–2010



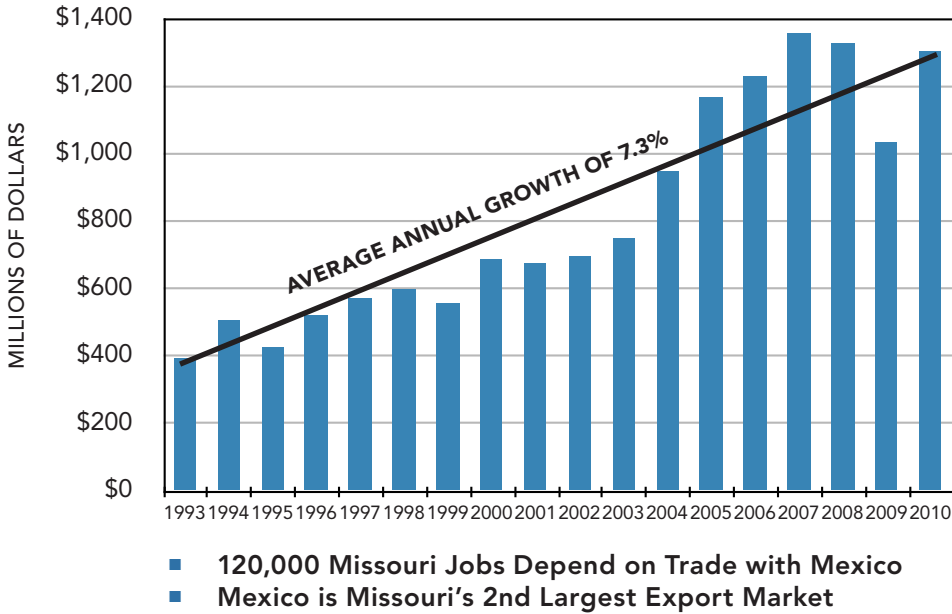
### MISSISSIPPI EXPORTS TO MEXICO, 1993–2010



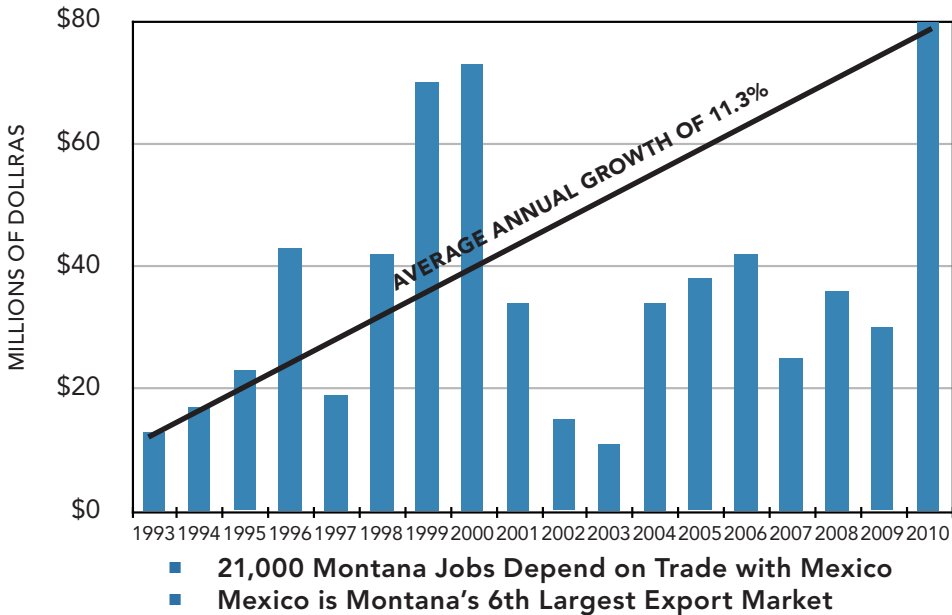
Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.



### MISSOURI EXPORTS TO MEXICO, 1993–2010

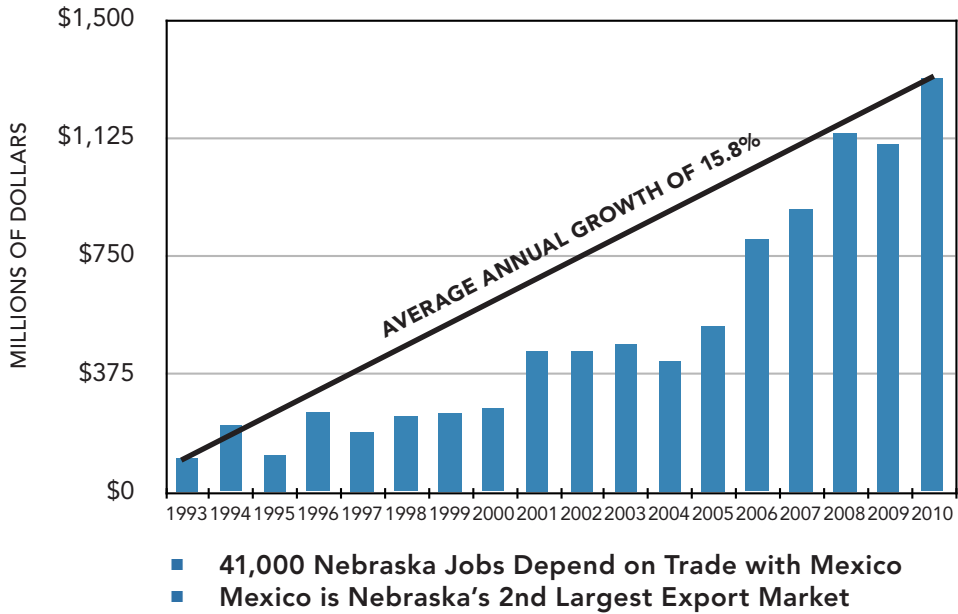


### MONTANA EXPORTS TO MEXICO, 1993–2010

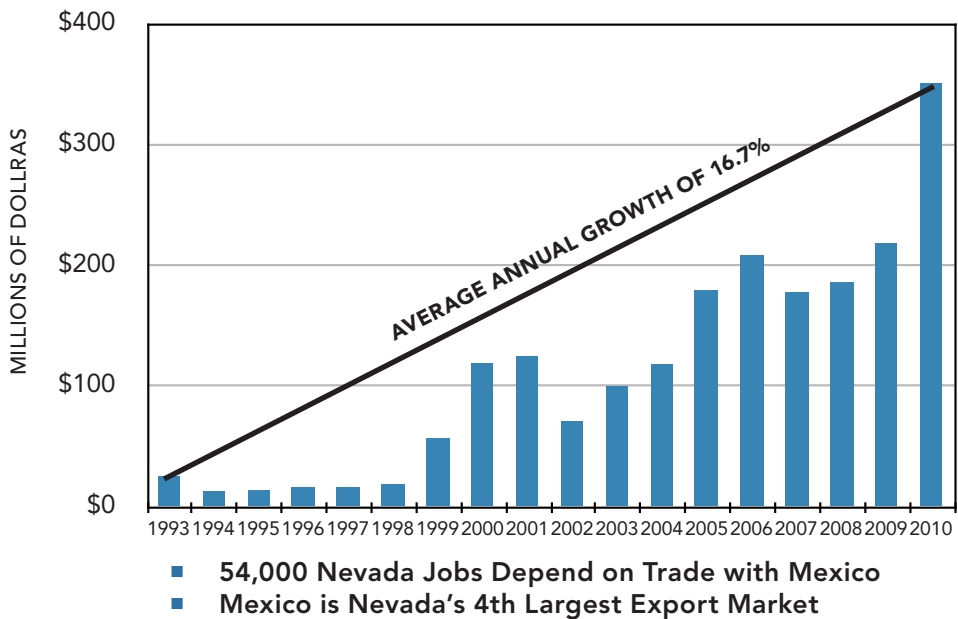


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### NEBRASKA EXPORTS TO MEXICO, 1993–2010

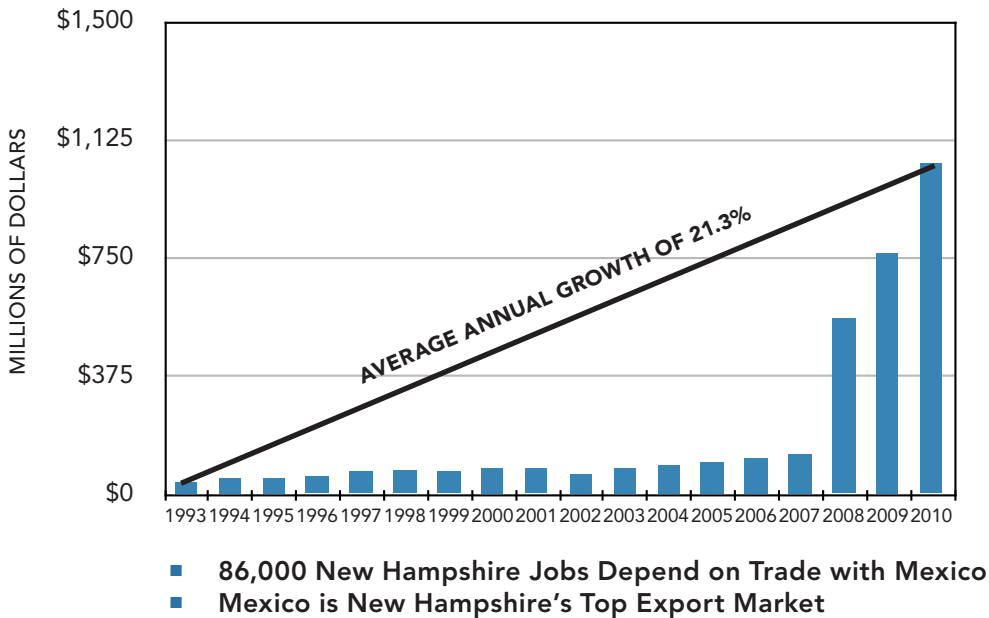


### NEVADA EXPORTS TO MEXICO, 1993–2010

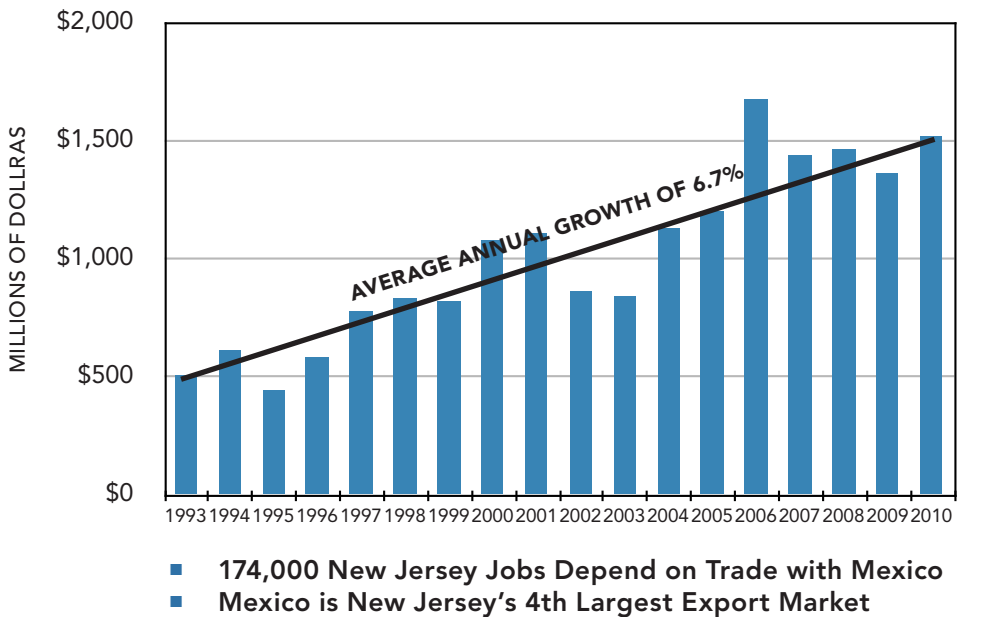


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### NEW HAMPSHIRE EXPORTS TO MEXICO, 1993–2010

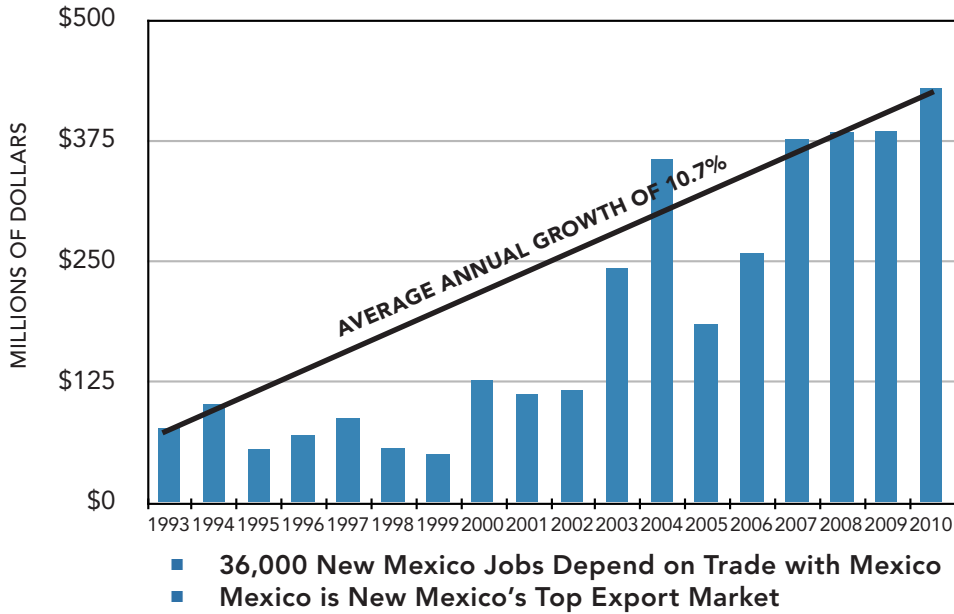


### NEW JERSEY EXPORTS TO MEXICO, 1993–2010

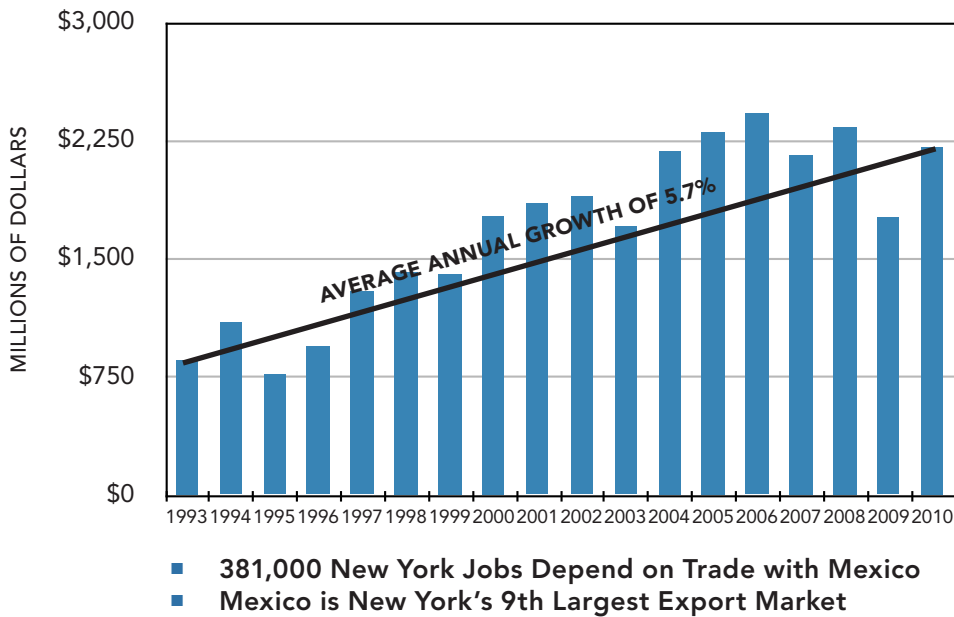


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

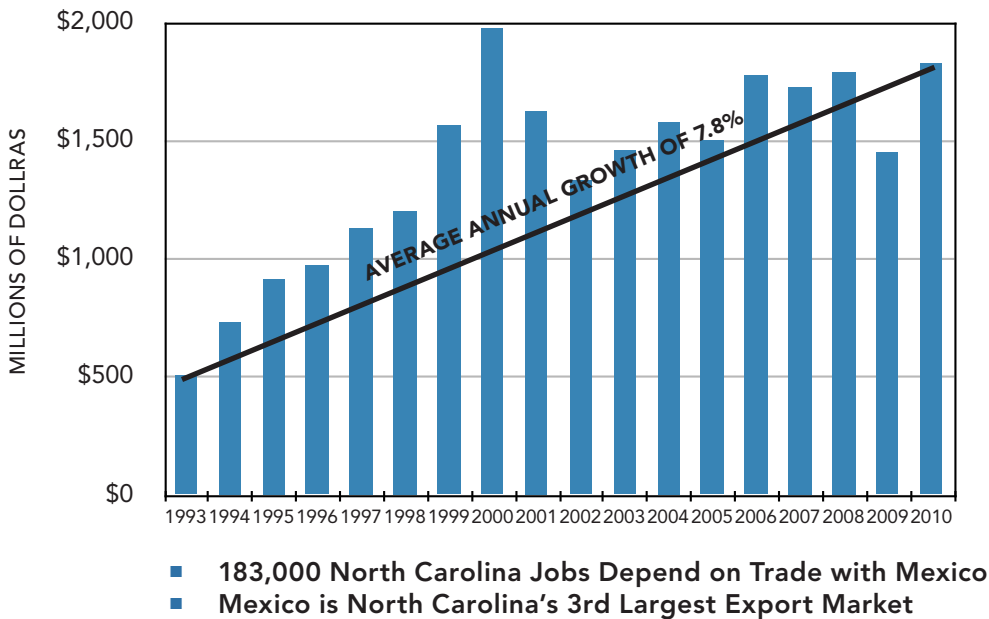
### NEW MEXICO EXPORTS TO MEXICO, 1993–2010



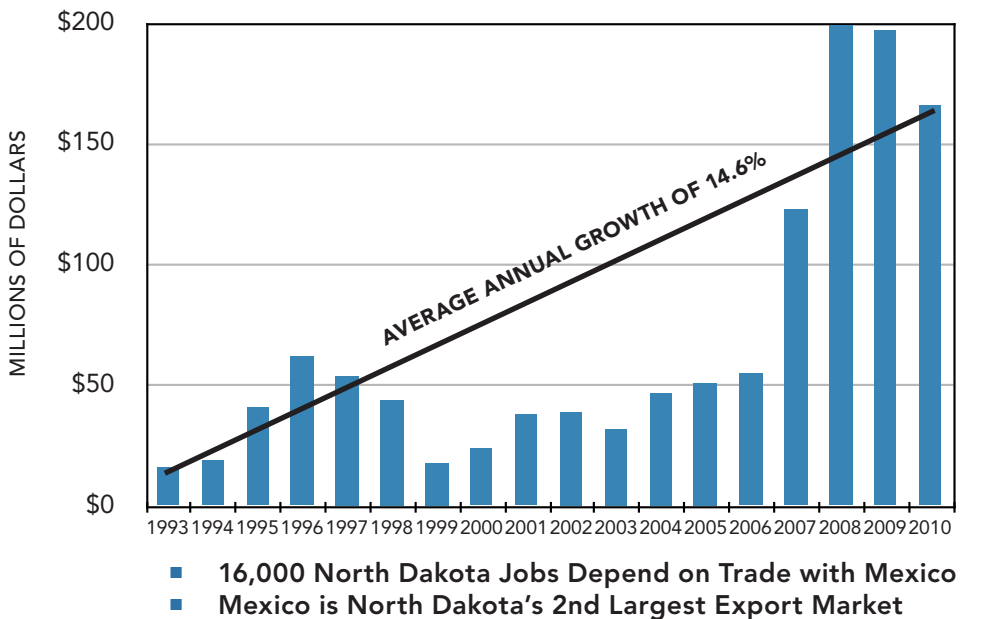
### NEW YORK EXPORTS TO MEXICO, 1993–2010



### NORTH CAROLINA EXPORTS TO MEXICO, 1993–2010

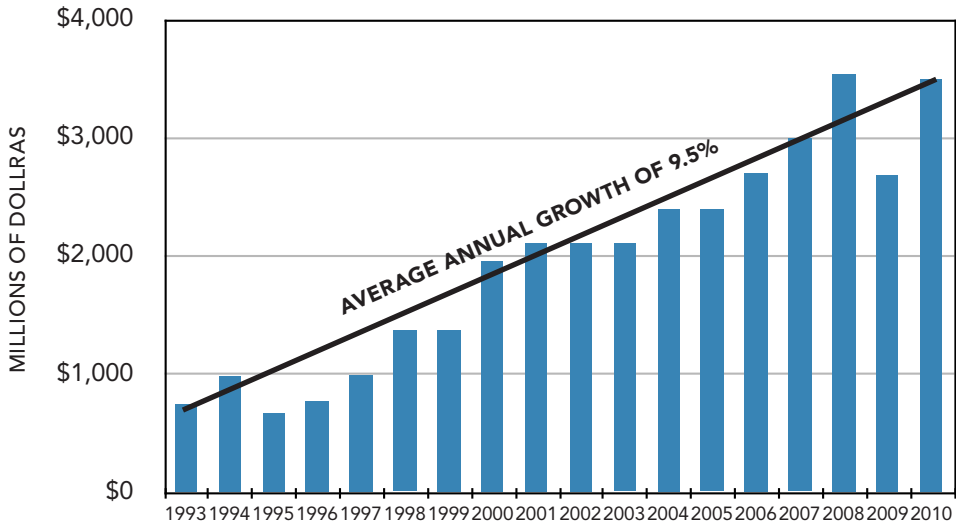


### NORTH DAKOTA EXPORTS TO MEXICO, 1993–2010



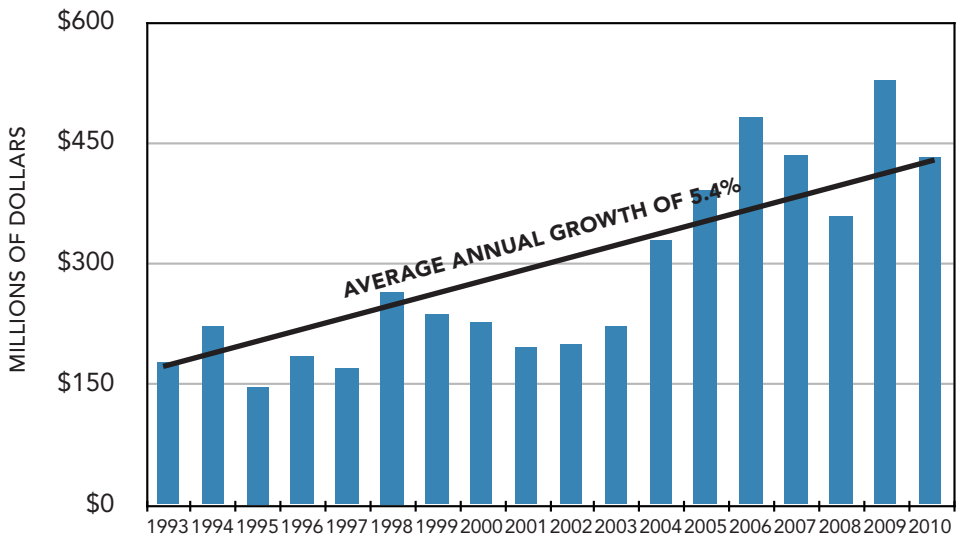
Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and data.

### OHIO EXPORTS TO MEXICO, 1993–2010



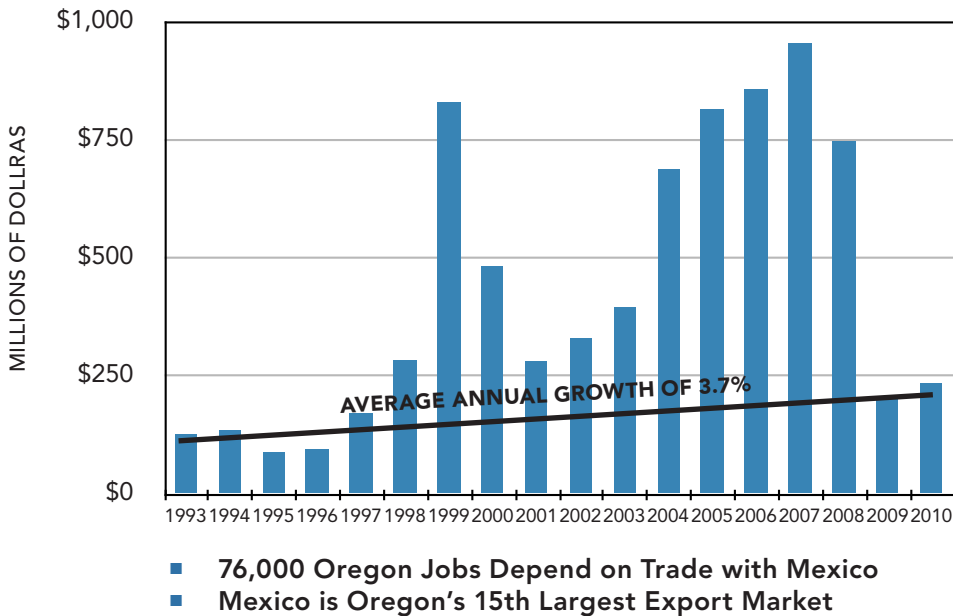
- 224,000 Ohio Jobs Depend on Trade with Mexico
- Mexico is Ohio's 2nd Largest Export Market

### OKLAHOMA EXPORTS TO MEXICO, 1993–2010

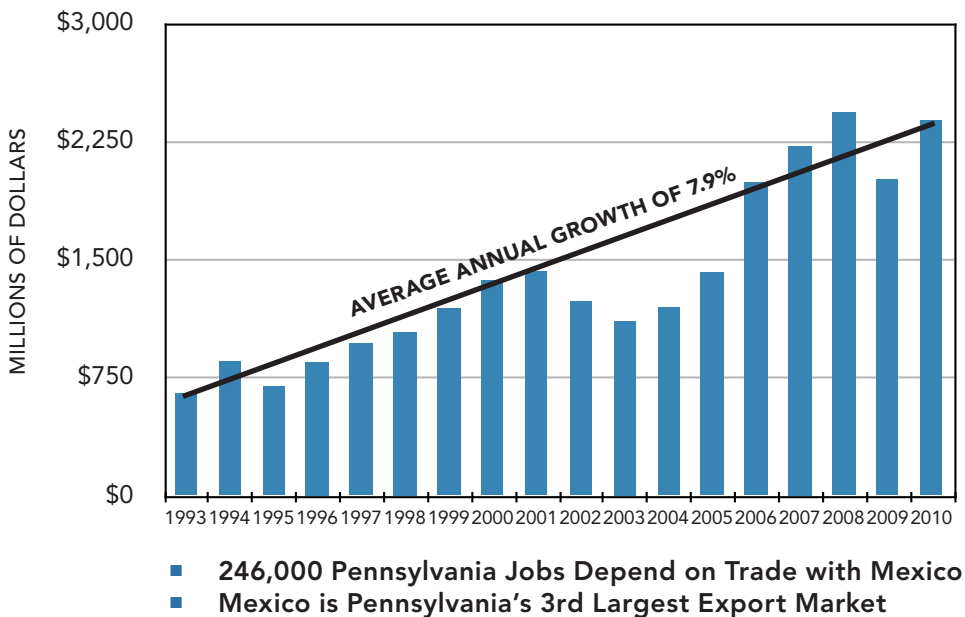


- 68,000 Oklahoma Jobs Depend on Trade with Mexico
- Mexico is Oklahoma's 2nd Largest Export Market

### OREGON EXPORTS TO MEXICO, 1993–2010

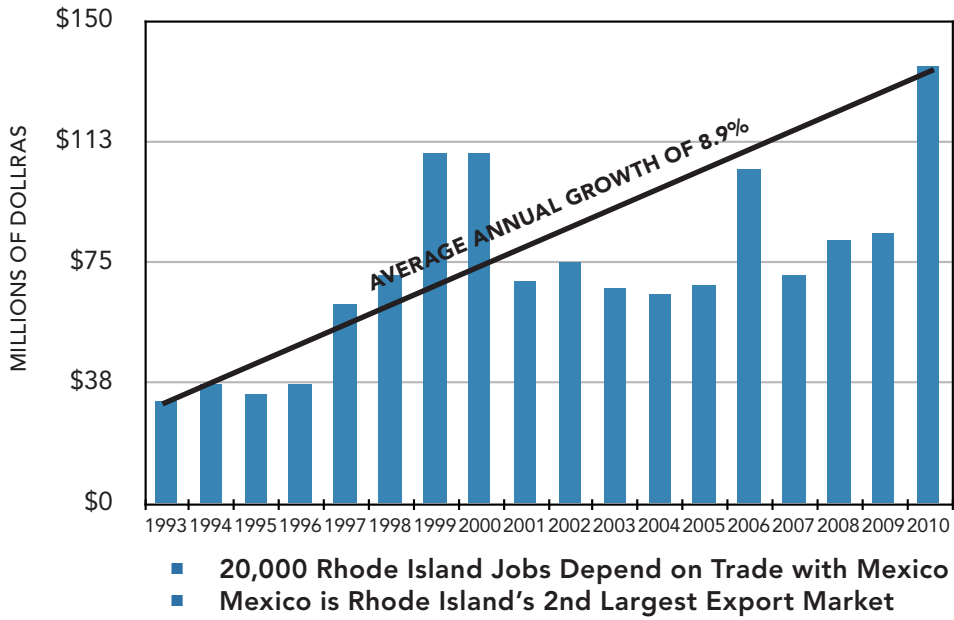


### PENNSYLVANIA EXPORTS TO MEXICO, 1993–2010

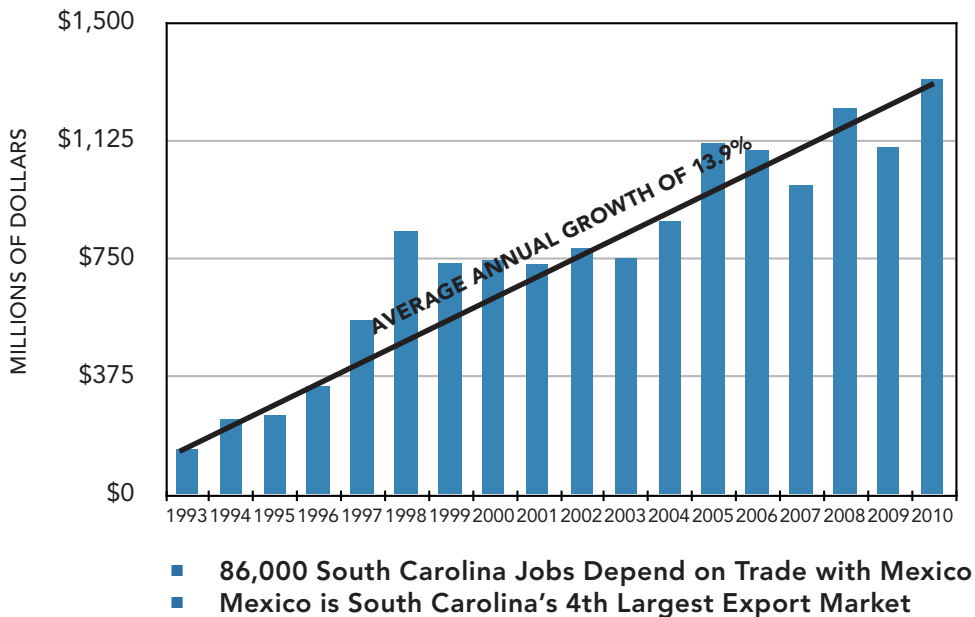


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### RHODE ISLAND EXPORTS TO MEXICO, 1993–2010

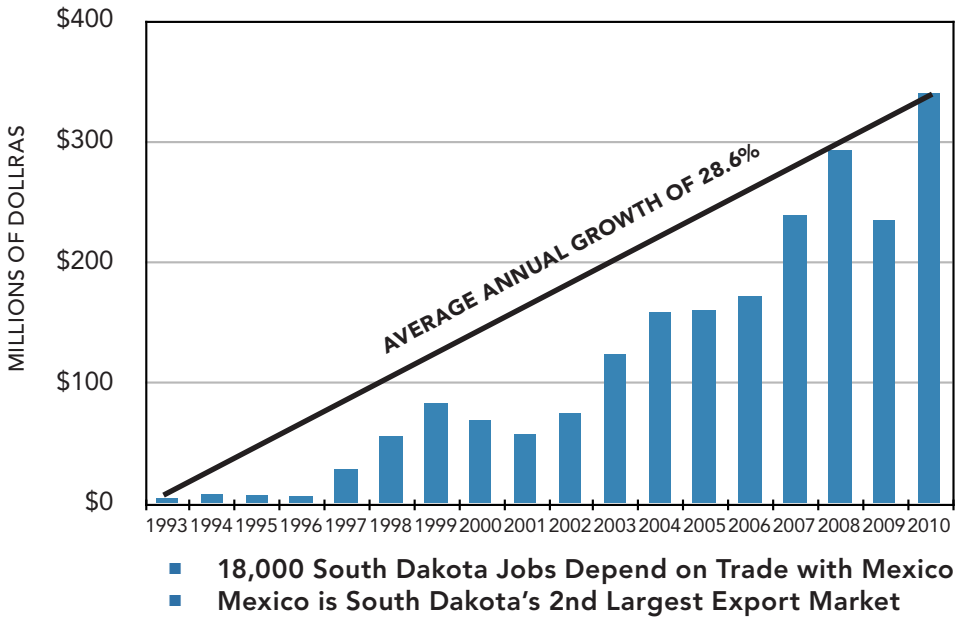


### SOUTH CAROLINA EXPORTS TO MEXICO, 1993–2010

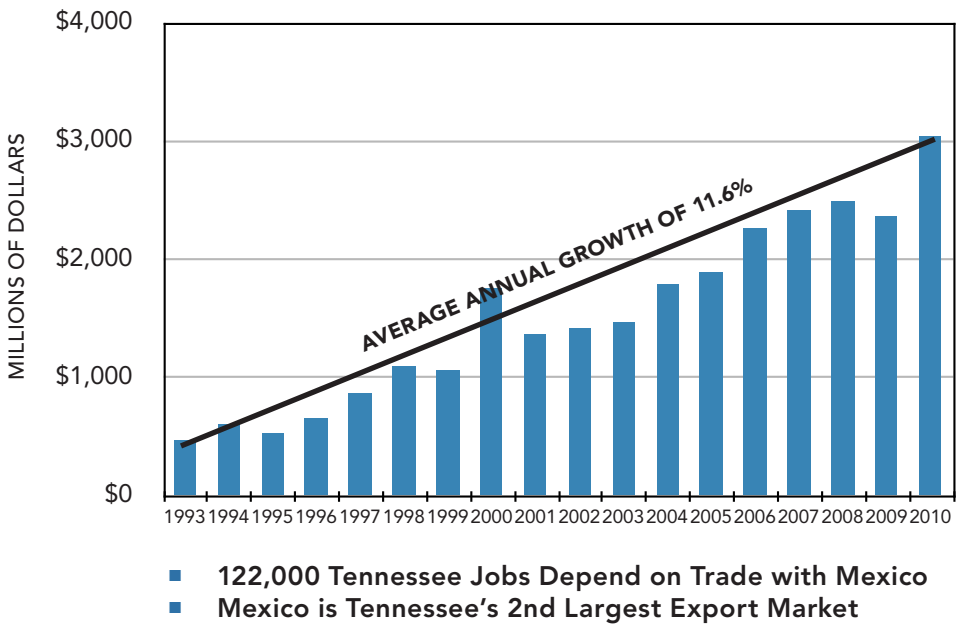




### SOUTH DAKOTA EXPORTS TO MEXICO, 1993–2010

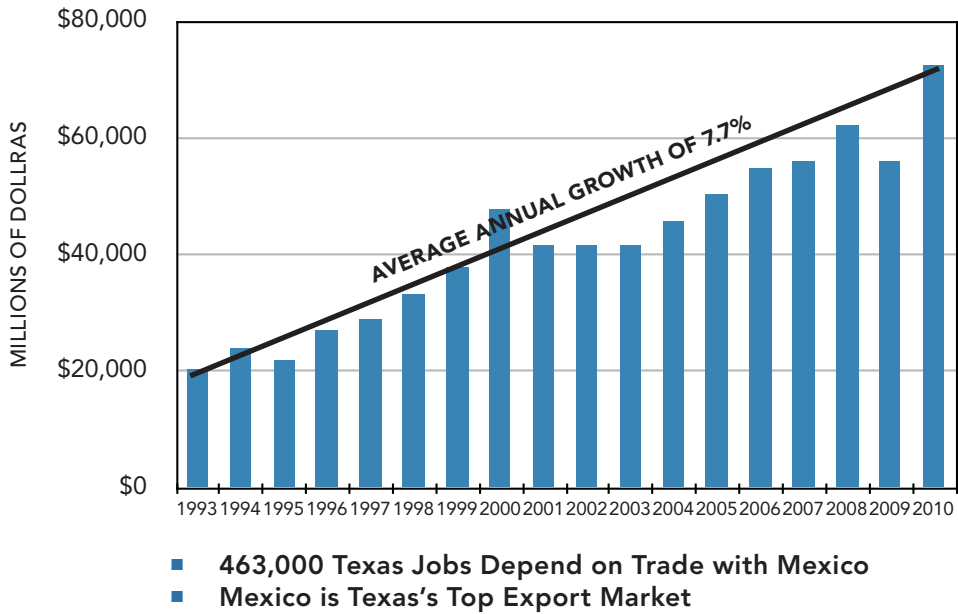


### TENNESSEE EXPORTS TO MEXICO, 1993–2010

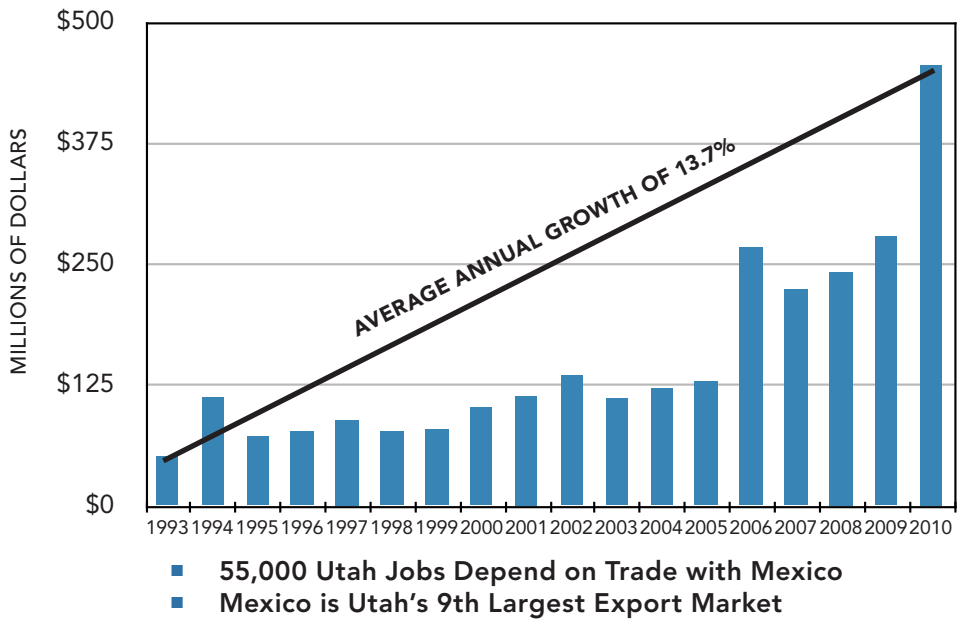


Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

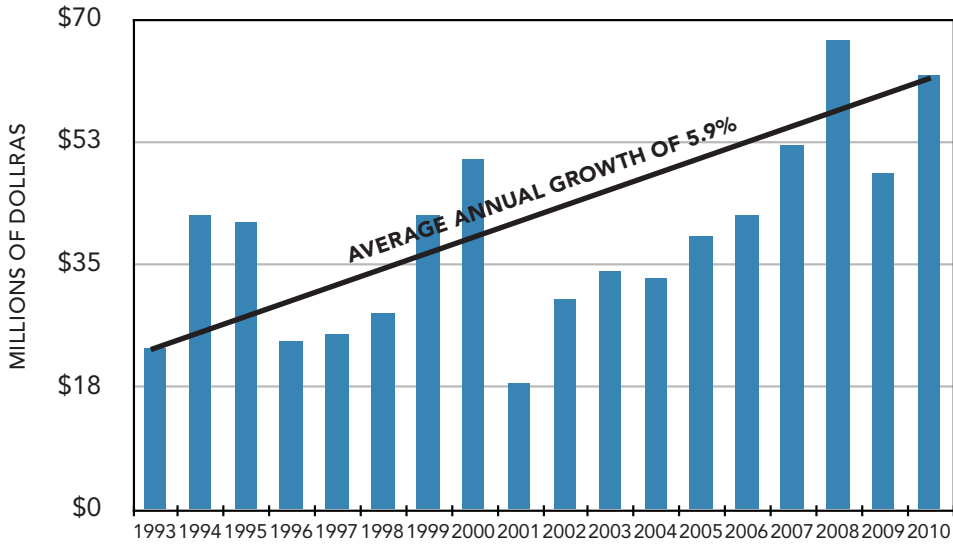
### TEXAS EXPORTS TO MEXICO, 1993–2010



### UTAH EXPORTS TO MEXICO, 1993–2010

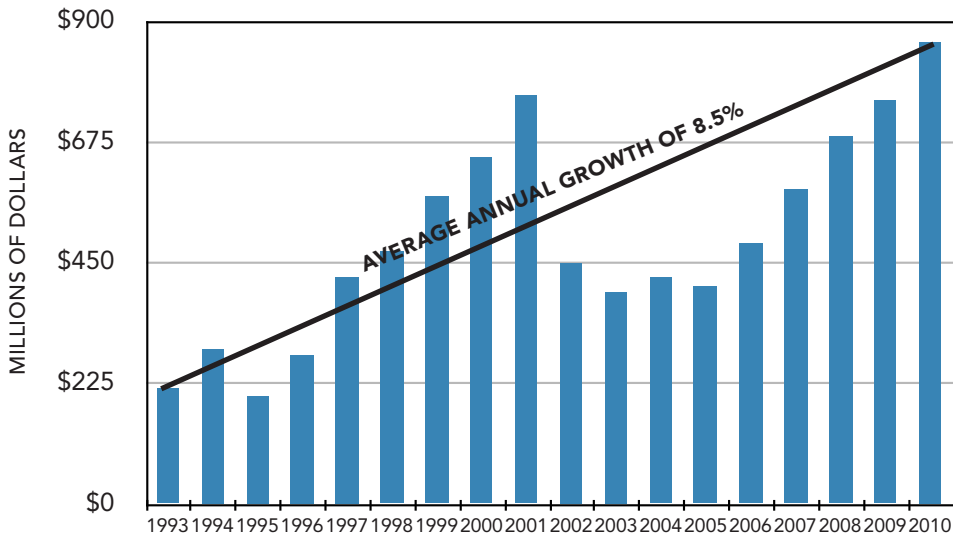


### VERMONT EXPORTS TO MEXICO, 1993–2010



- 14,000 Vermont Jobs Depend on Trade with Mexico
- Mexico is Vermont's 10th Largest Export Market

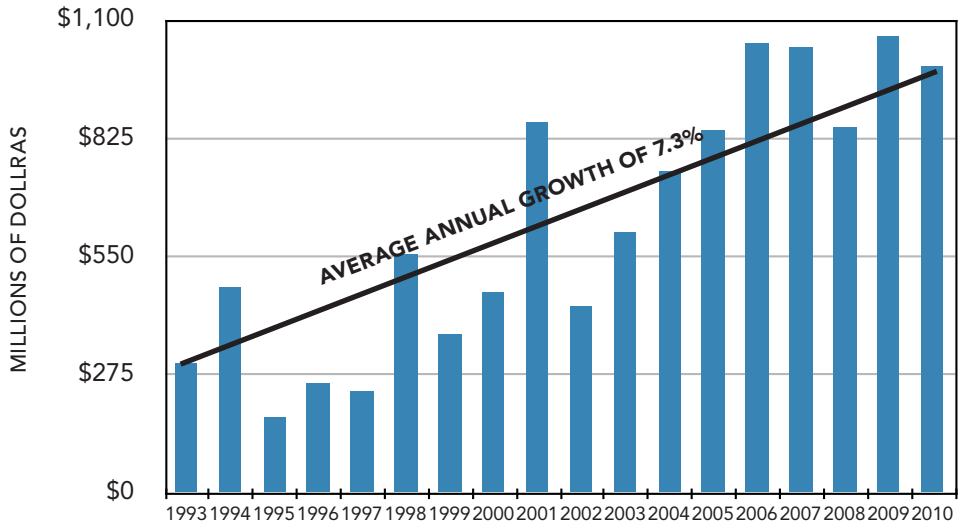
### VIRGINIA EXPORTS TO MEXICO, 1993–2010



- 161,000 Virginia Jobs Depend on Trade with Mexico
- Mexico is Virginia's 5th Largest Export Market

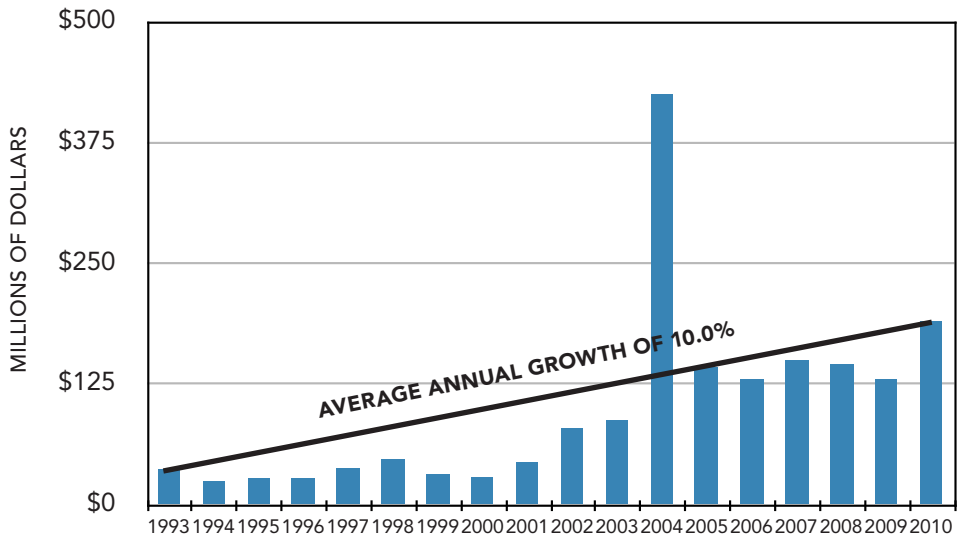
Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.

### WASHINGTON EXPORTS TO MEXICO, 1993–2010



- 128,000 Washington Jobs Depend on Trade with Mexico
- Mexico is Washington’s 13th Largest Export Market

### WEST VIRGINIA EXPORTS TO MEXICO, 1993–2010

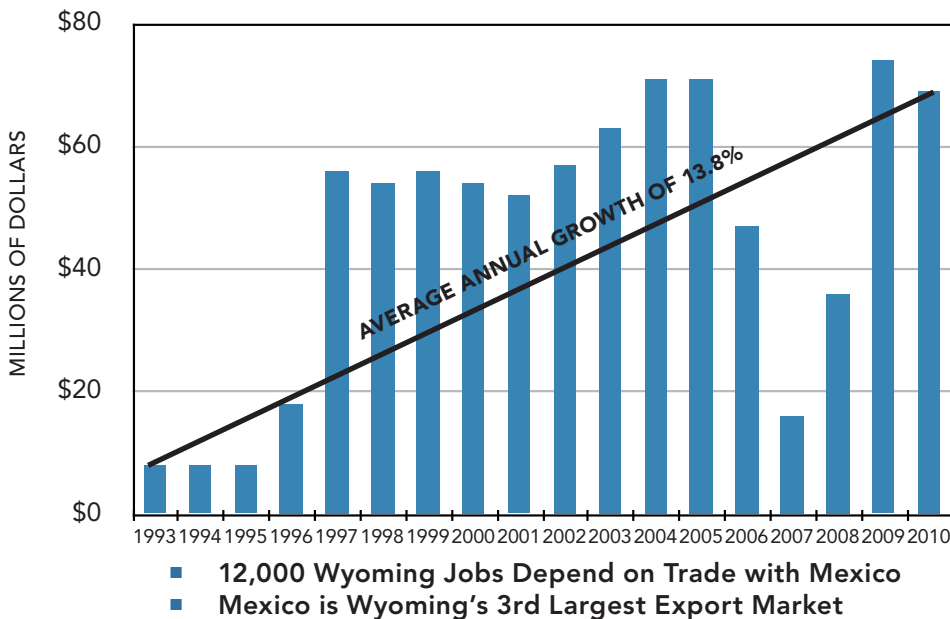


- 30,000 West Virginia Jobs Depend on Trade with Mexico
- Mexico is West Virginia’s 12th Largest Export Market

### WISCONSIN EXPORTS TO MEXICO, 1993–2010



### WYOMING EXPORTS TO MEXICO, 1993–2010



Source: See the appendix on pg. 73 for information regarding the sources and methodology used for trade and employment data.



## APPENDIX: DATA SOURCES AND NOTES

State level trade data for 2010 is from: U.S. Department of Commerce, U.S. Census Bureau, *Foreign Trade Statistics*. State level trade data from 1993–2010, as represented in the graphs, is from: U.S. Census Bureau, with adjustments by the World Institute for Strategic Economic Research (WISER) and SE-NAFTA, 1993–1999 SIC, and 2000–2005 NAICS. The 2010 figures on state exports to Mexico from each of these sources are identical.

Employment statistics are based on 2008 data, and are from: Trade Partnership Worldwide, LLC/U.S. Chamber of Commerce, 2010. These statistics were estimated using a computable multi-sector model of the U.S. economy and include direct and indirect effects. They are comprehensive measures of the employment effects of exports and imports of both goods and services. The figures were estimated using the Global Trade Analysis Project computable general equilibrium (CGE) model, as updated for 2008 by Laura Baughman and Joseph Francois, working with the U.S. Chamber of Commerce. For more information on their methodology, see: Laura M. Baughman and Joseph F. Francois, *Opening Markets, Creating Jobs: Estimated U.S. Employment Effects of Trade with FTA Partners*, Washington, DC: U.S. Chamber of Commerce, May 14, 2010.





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Center for Scholars**

Christopher Wilson is Program Associate with the Woodrow Wilson Center's Mexico Institute, where he focuses on U.S.-Mexico economic integration and border issues. He previously served as a Mexico Analyst for the U.S. Military and has also worked with the Center for North American Studies at American University and IQOM, Inteligencia Comercial, in Mexico City. Christopher completed his M.A. in International Affairs at American University and is the author or co-author of several publications, including *More Than Neighbors: The United States and Mexico* (Wilson Center, 2010).

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