

Benefits and Challenges of Trade under NAFTA: The Case of Texas

AUBER Fall Conference
Albuquerque New Mexico
October 2017

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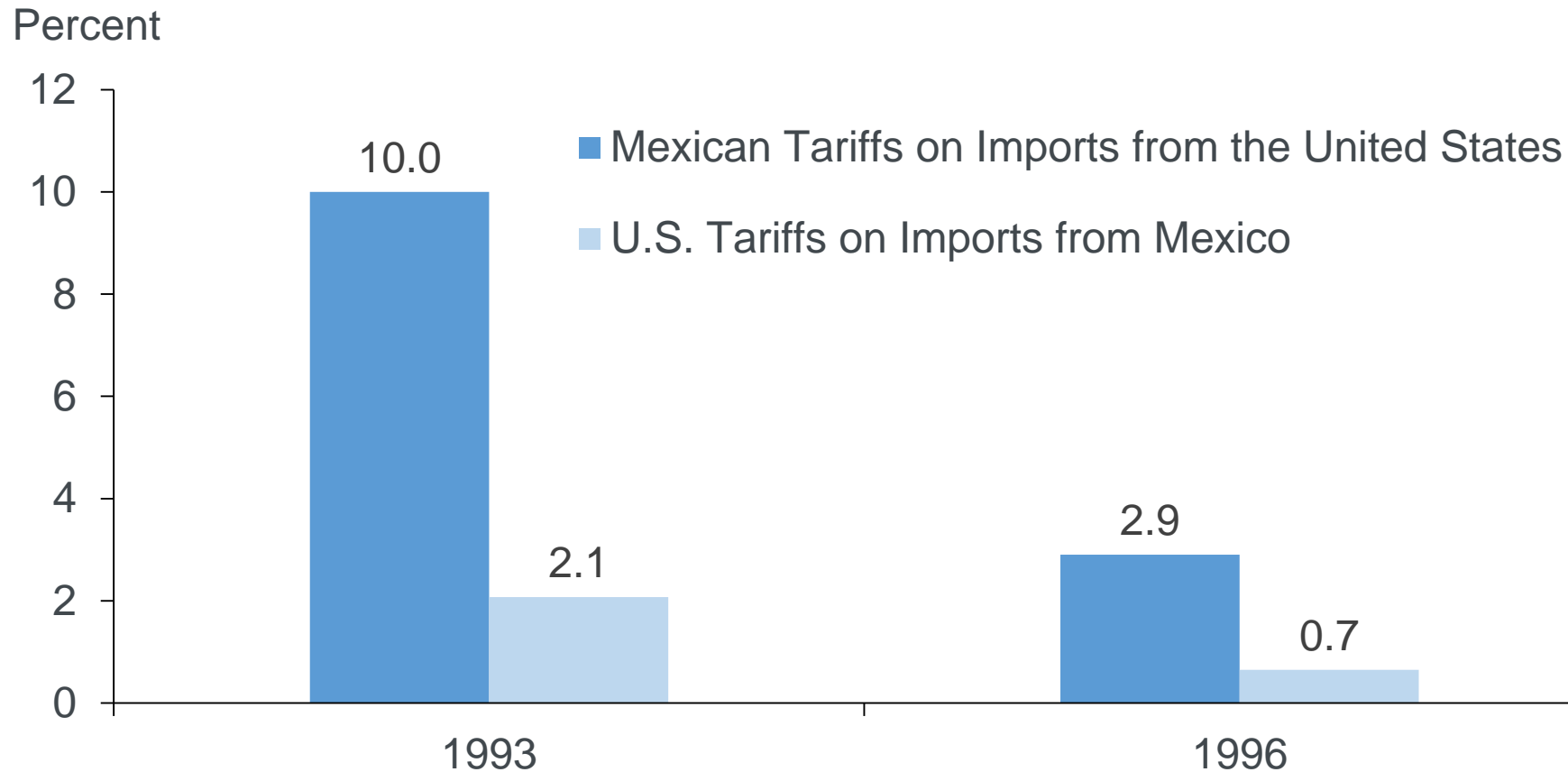
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The views expressed in this presentation
are strictly those of the author.

Overview

- NAFTA's track record
 - Trade and investment
 - Labor market effects
- Texas in the NAFTA era
 - Border cities: On the front lines of trade
- Summary

Average tariffs fell most in Mexico following NAFTA



SOURCE: Executive Office of the President, Study on the Operation and Effects of the North American Free Trade Agreement, July 1997, p. 7.

A Historic Agreement

- Canada and U.S. already had an agreement
 - Adding Mexico broke the mold
- NAFTA's stated objectives
 - Eliminate barriers to trade & investment
 - *Remove tariffs and non-tariff barriers*
 - *Facilitate cross border movement*
 - *Resolve disputes*

U.S. trade with NAFTA partners more than doubled since 1993

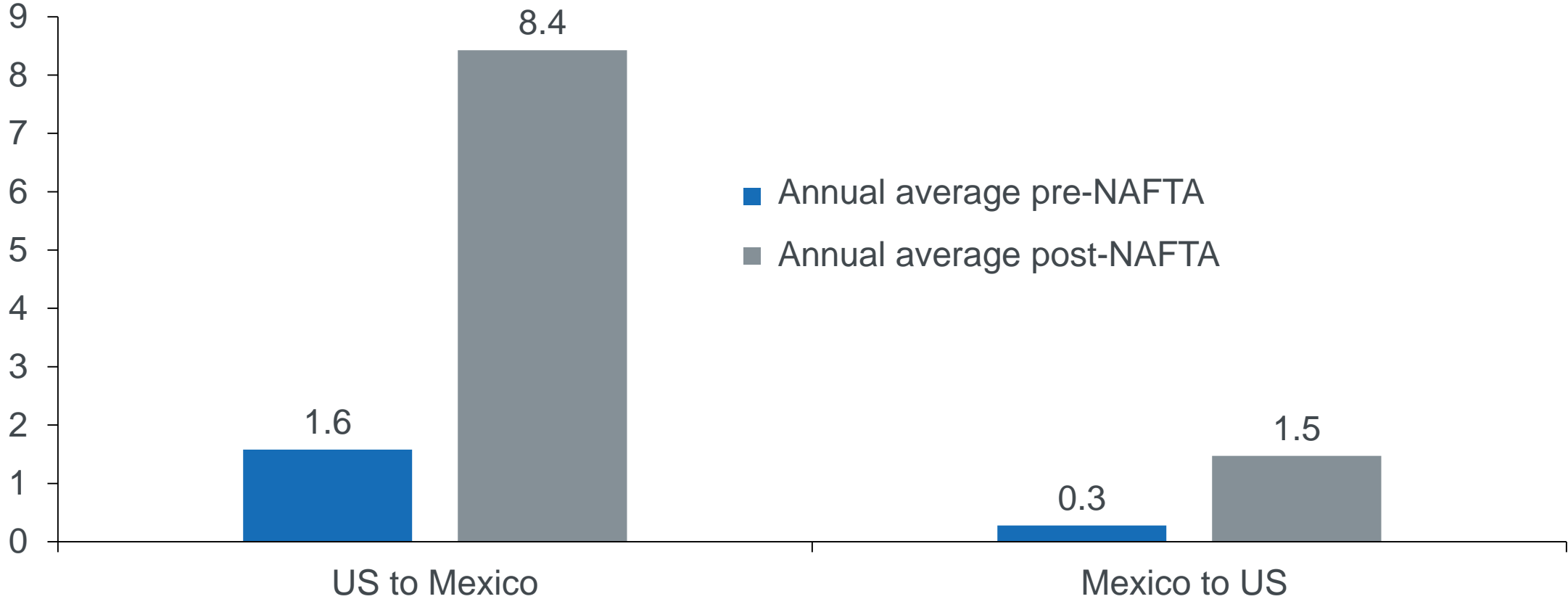
	1993	2016	
	Billions of Dollars		% Change
<u>Exports</u>			
Canada	166.9	266.8	59.9
Mexico	69.1	231.0	234.3
<u>Imports</u>			
Canada	184.8	278.1	50.5
Mexico	66.3	294.2	343.7
<u>Total</u>			
Canada	351.7	544.9	54.9
Mexico	135.4	525.2	287.9

NOTE: Data is in billions of 2016 U.S. dollars.

SOURCE: U.S. Census Bureau.

Foreign direct investment higher after NAFTA

Billions, real 2016 \$



NOTES: Pre-NAFTA U.S. to Mexico represents years 1982-1993; Pre-NAFTA Mexico to U.S. represents years 1987-1993. Post-NAFTA represents years 1994-2015.

SOURCE: Bureau of Economic Analysis.

Aggregate effects of NAFTA tariff reductions

Country	Volume of Trade	Terms of Trade	Real Wages
Mexico	++	-	++
Canada	+	-	+
United States	+	+	+

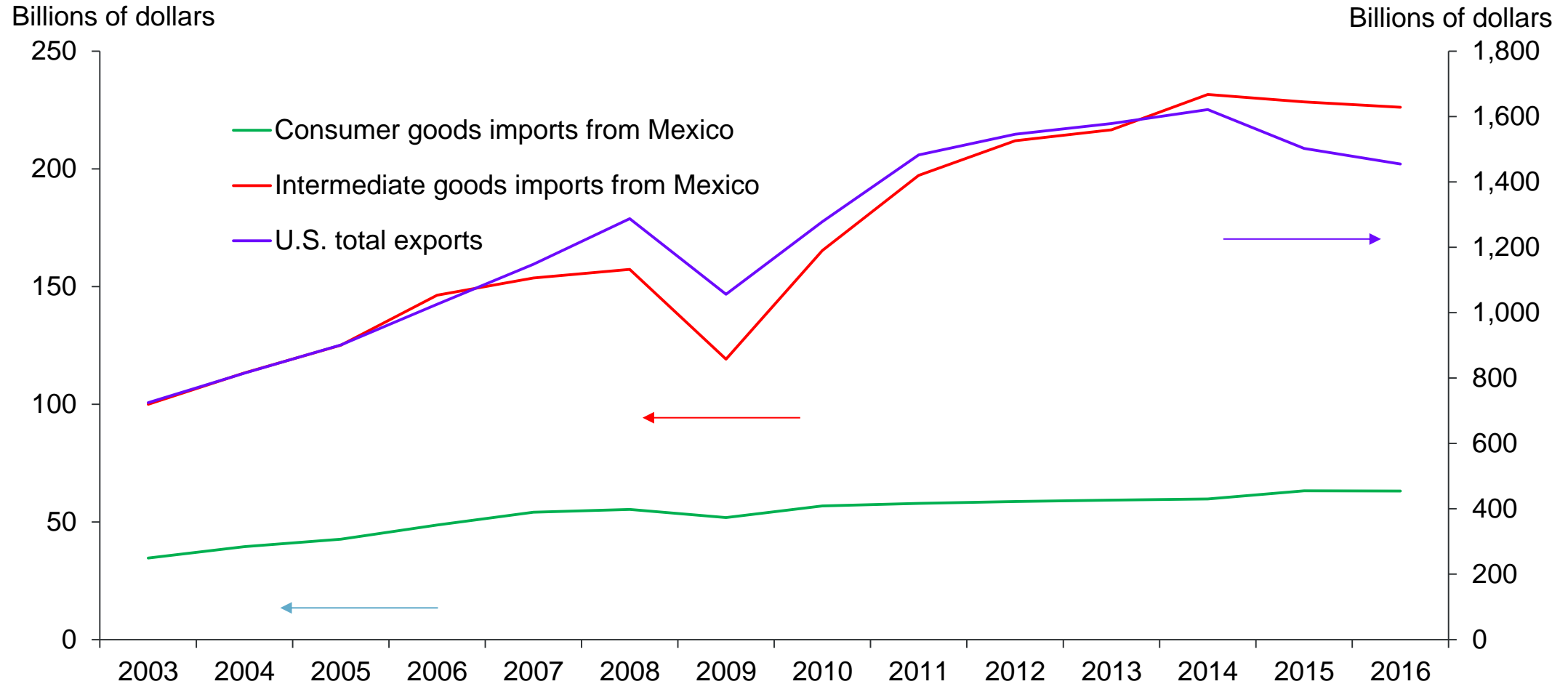
SOURCE: Lorenzo Caliendo and Fernando Parro, "Estimates of the Trade and Welfare Effects of NAFTA," NBER working paper No. 18508, 2012.

Aggregate gains mask winners, losers

- Recent research identifies losers from trade
 - Manufacturing workers, whose industries have been most affected by Mexican imports—including along the border—experienced substantially lower wage growth than their counterparts in other industries
 - Limitations on the mobility of workers both geographically and across industries appear to be very important

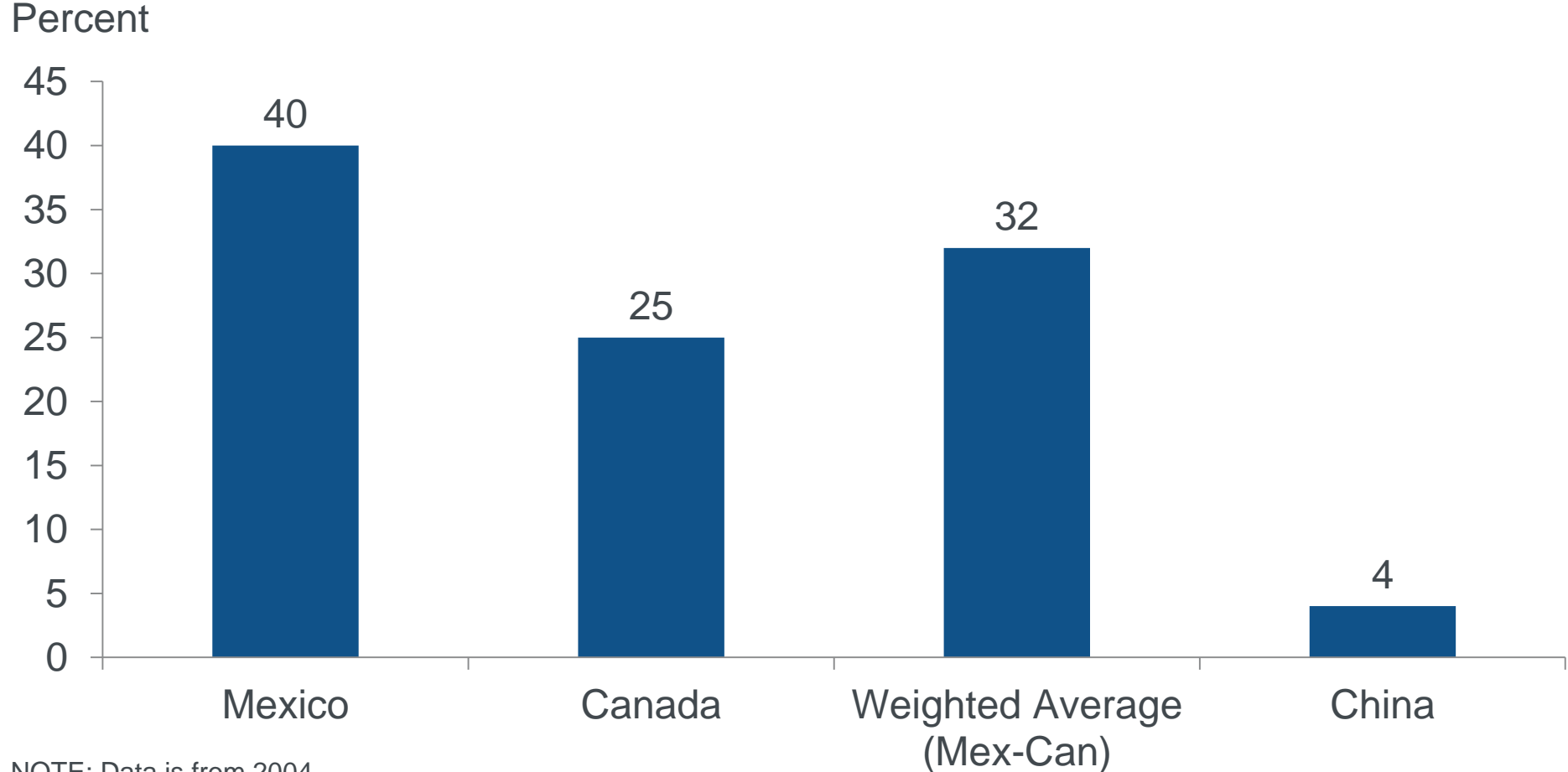
SOURCE: “Looking for Local Labor Market Effects of NAFTA,” by John McLaren and Hakobyan Shushanik, *Review of Economics and Statistics*, vol. 98, no. 4, October 2016.

U.S. Exports Highly Correlated with Intermediate Imports from Mexico



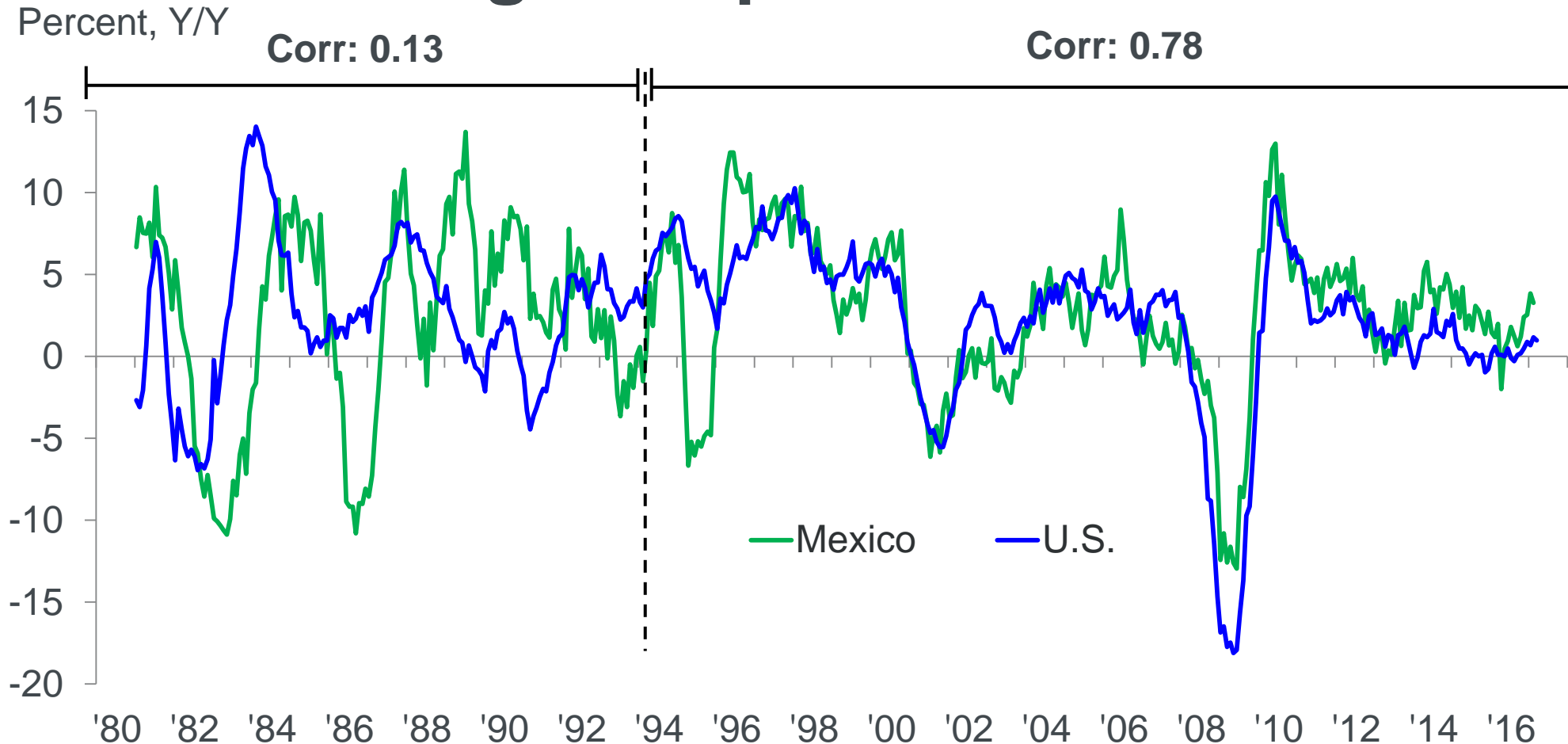
SOURCES: Bureau of Economic Analysis and Haver Analytics.

Intra-industry trade high within NAFTA: U.S. content highest in imports from Mexico, Canada



NOTE: Data is from 2004.
SOURCE: Robert Koopman, William Powers, Zhi Wang, and Shang-Jin Wei, "Give Credit Where Credit is Due," NBER Working Paper No. 16426, 2011.

U.S. and Mexico business cycle synchronicity grows post-NAFTA



NOTE: Monthly changes in manufacturing component of industrial production.

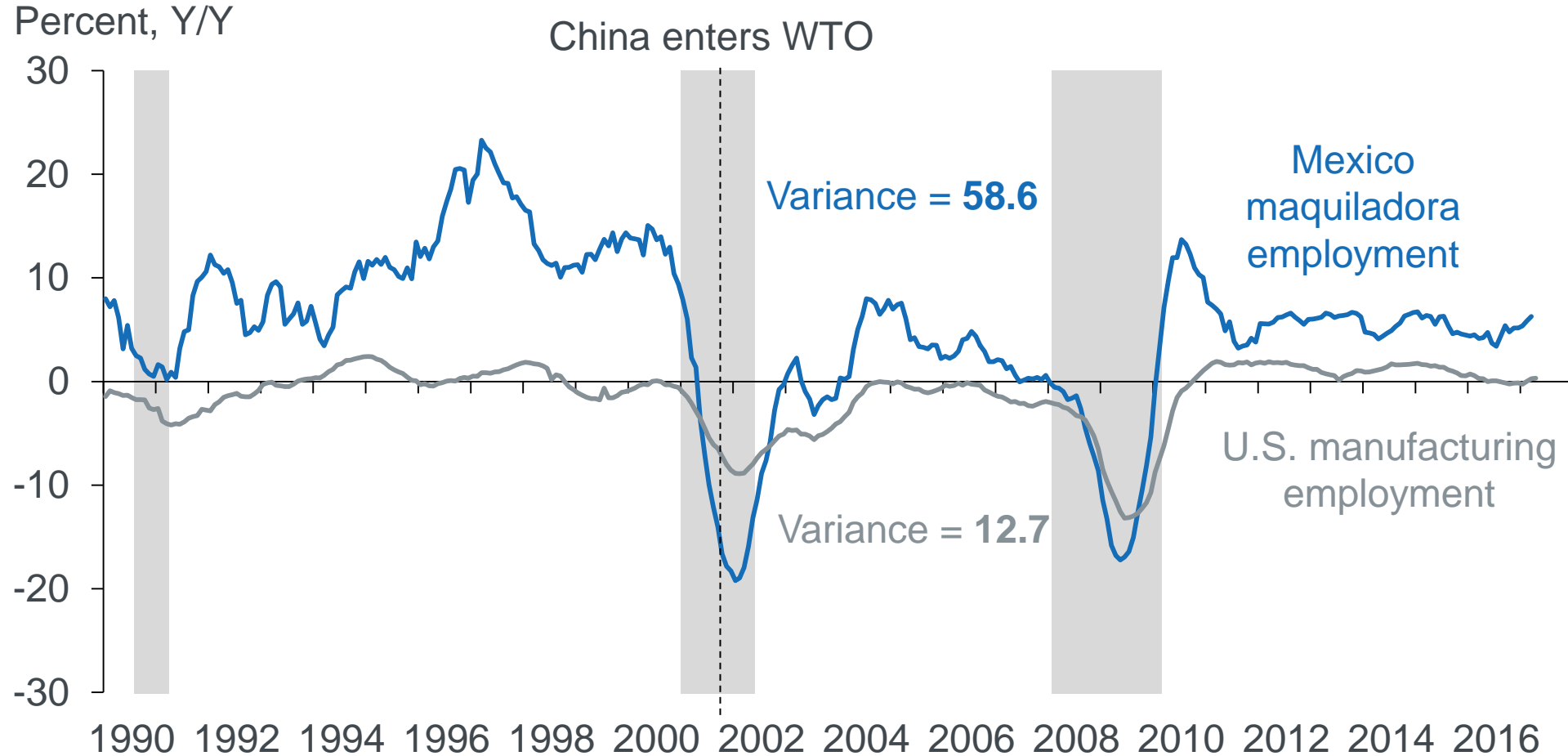
SOURCES: INEGI; Federal Reserve Board.

Cross-border manufacturing has been able to mitigate some of the impact of economic shocks

- China's entry to the World Trade Organization in 2002
- Great Recession

SOURCE: "Offshoring and Volatility: Evidence from Mexico's Maquiladora Industry," by Paul R. Bergin, Robert C. Feenstra, and Gordon H. Hanson, *American Economic Review*, vol. 99, no. 4, 2009, pp. 1664–71.

U.S.–Mexico integrated processes help reduce volatility in U.S. manufacturing

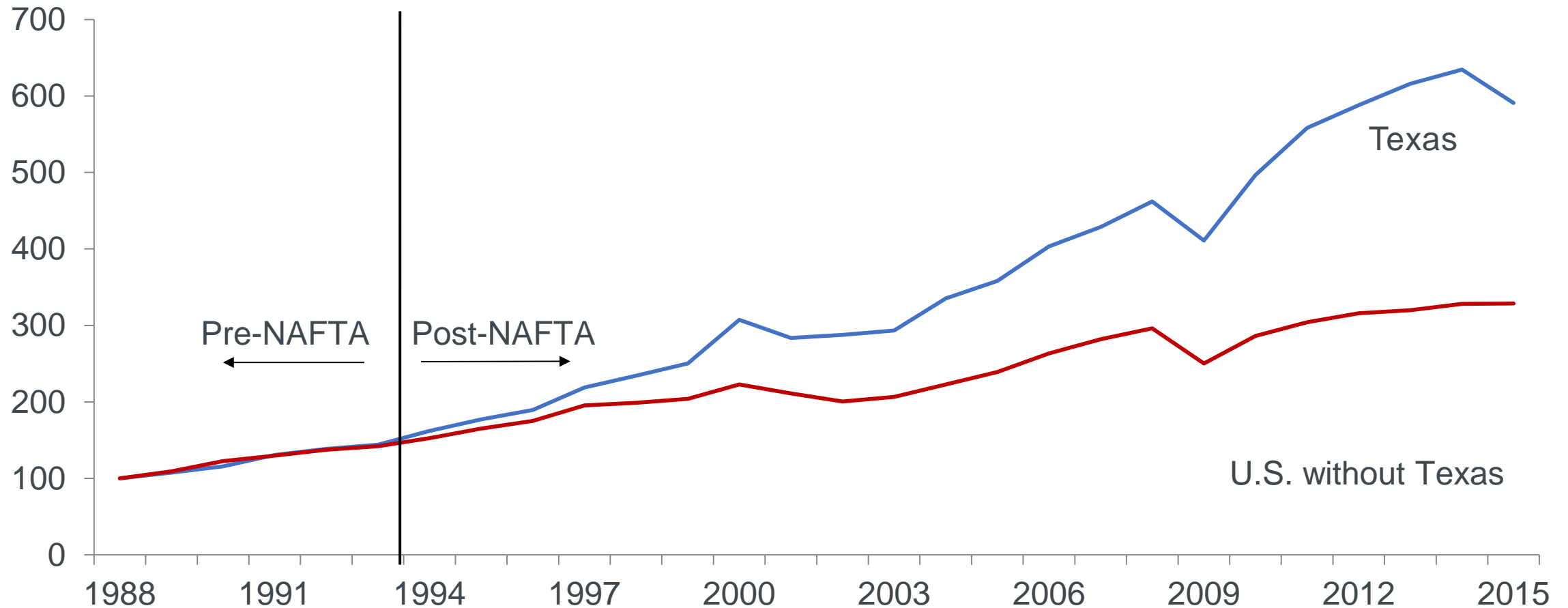


NOTES: Mexico's employment combines maquiladora and IMMEX. Shading is for manufacturing recession and the great recession.
SOURCES: Bureau of Labor Statistics and INEGI.

Texas Trade in NAFTA Era

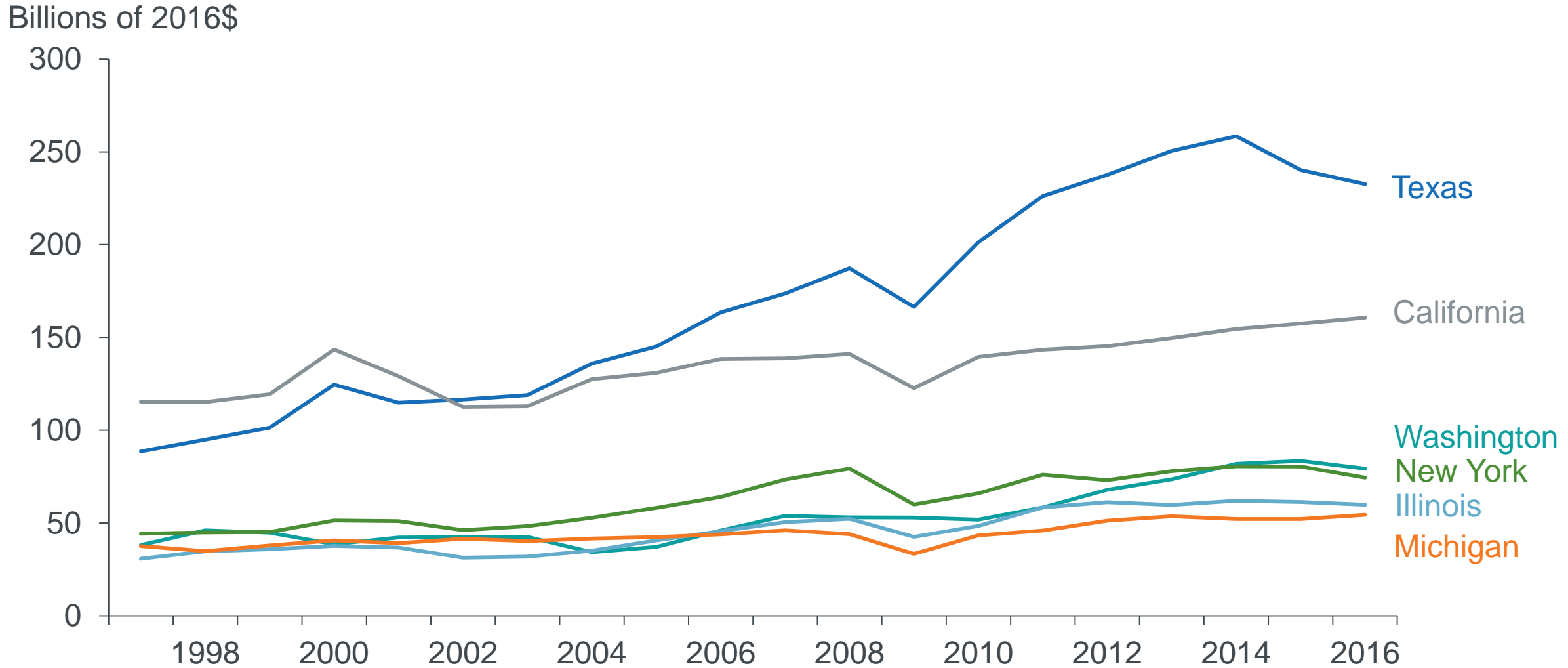
Texas exports grow faster in post-NAFTA period

Index, 1988 = 100; real values



SOURCES: WISERTrade; Census Bureau.

Texas becomes top exporter in 2002

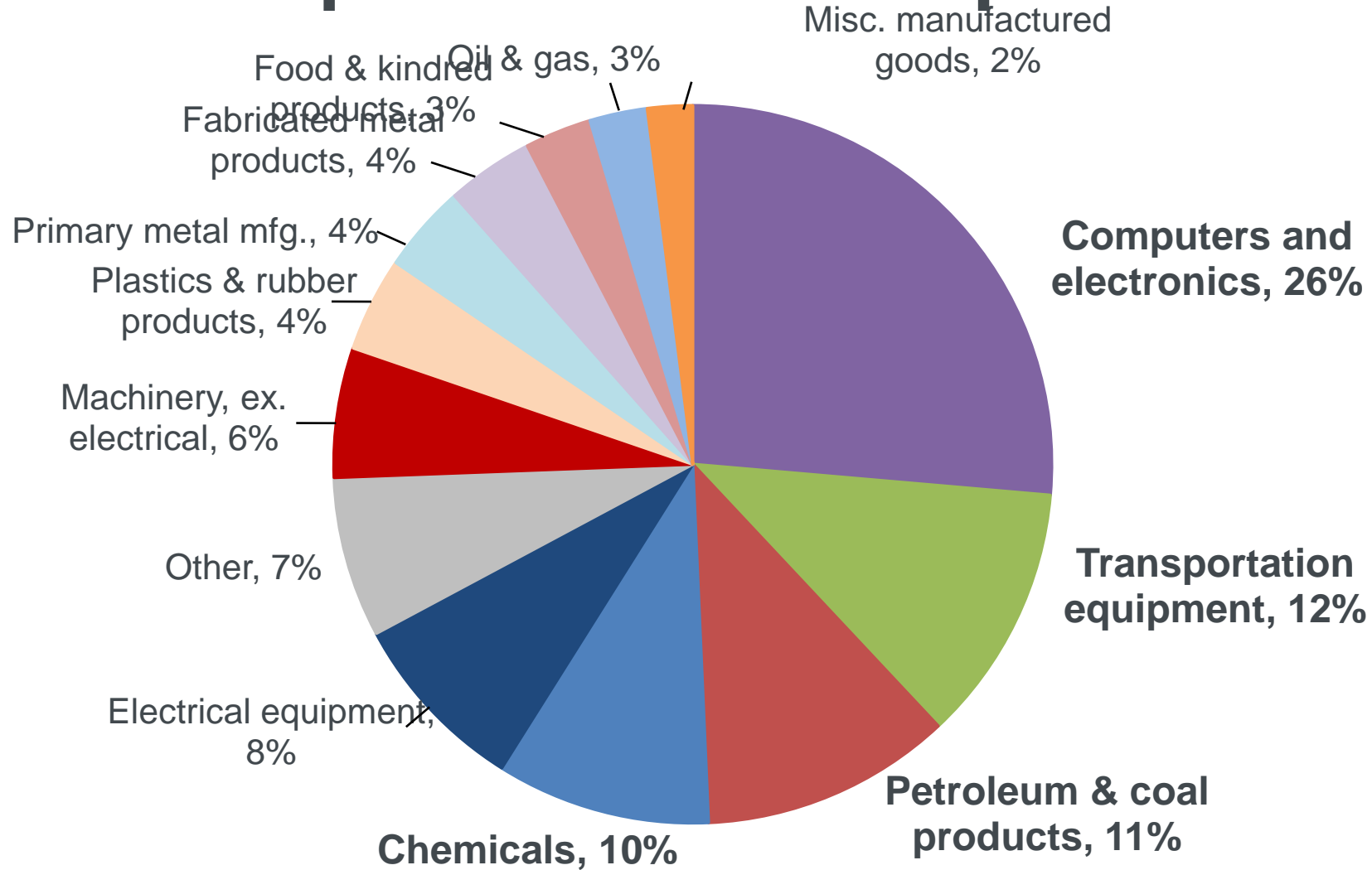


SOURCES: WISERTRADE; Census Bureau; BLS.

Texas: Nation's biggest exporter

- Texas exports reached \$247 billion in 2015
 - California at \$163 billion; Washington state \$86 billion
- Census Bureau estimates manufactured goods exports supported an estimated 990,000 jobs in Texas in 2015
 - Equal to 8.2 percent of total employment
- 75 percent of U.S.–Mexico land trade (\$343 billion in 2015) crosses via a Texas port of entry

Texas exports to Mexico quite diverse



NOTES: Data from 2015. "Other" includes all categories under 2 percent.

SOURCE: U.S. Trade Database, Census Bureau.

Texas gains jobs, income in NAFTA era

- Job growth a percentage point higher than nation
 - Over 4 million jobs gained between 1994-2015
- Per capita income growth faster than the nation
 - Rose from \$30,000 to \$47,000
 - Household income has caught up to the nation (\$56,000)

Texas gains jobs, income in NAFTA era

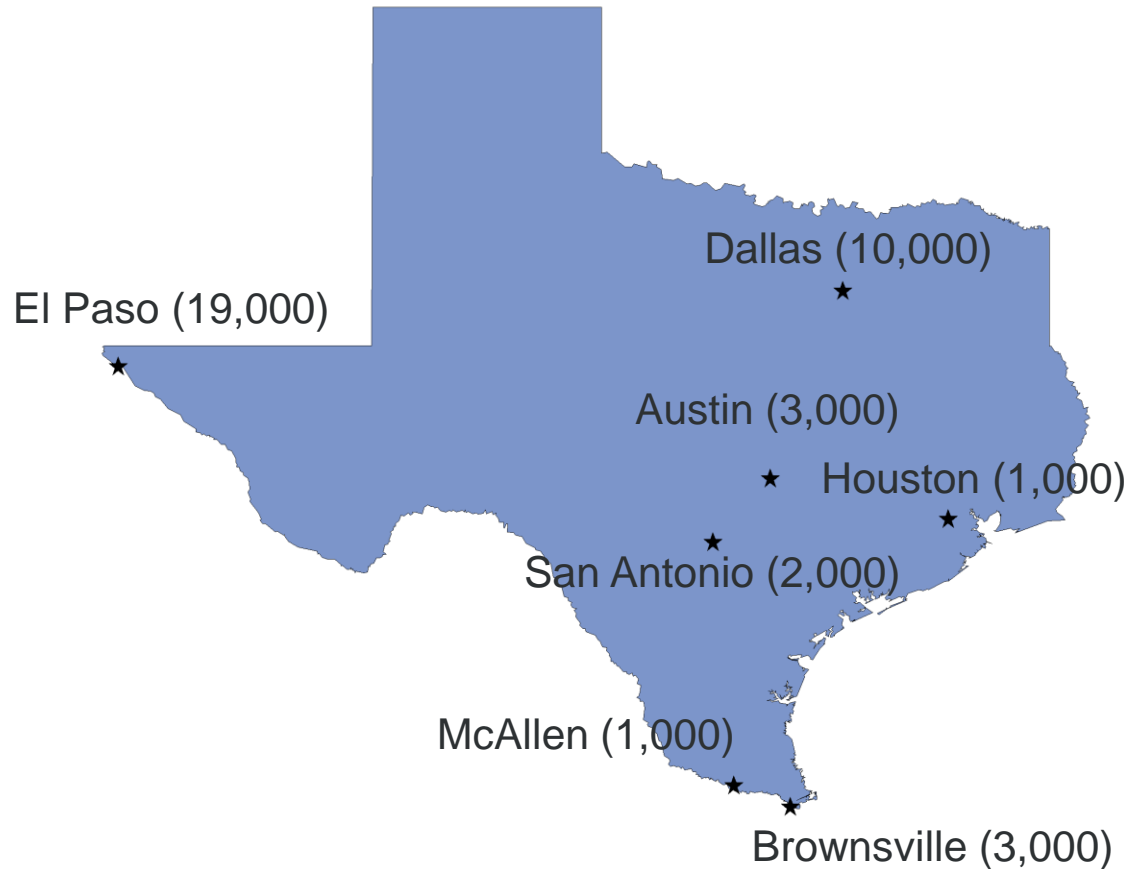
- Unique attributes helped state adjust and diversify
 - Key sea and land ports, geographic proximity to Mexico
 - Central location in US
 - Relatively low taxes, light regulation, low cost of living
 - Open, flexible labor markets

Texas Border Cities: On the Front Lines of Trade

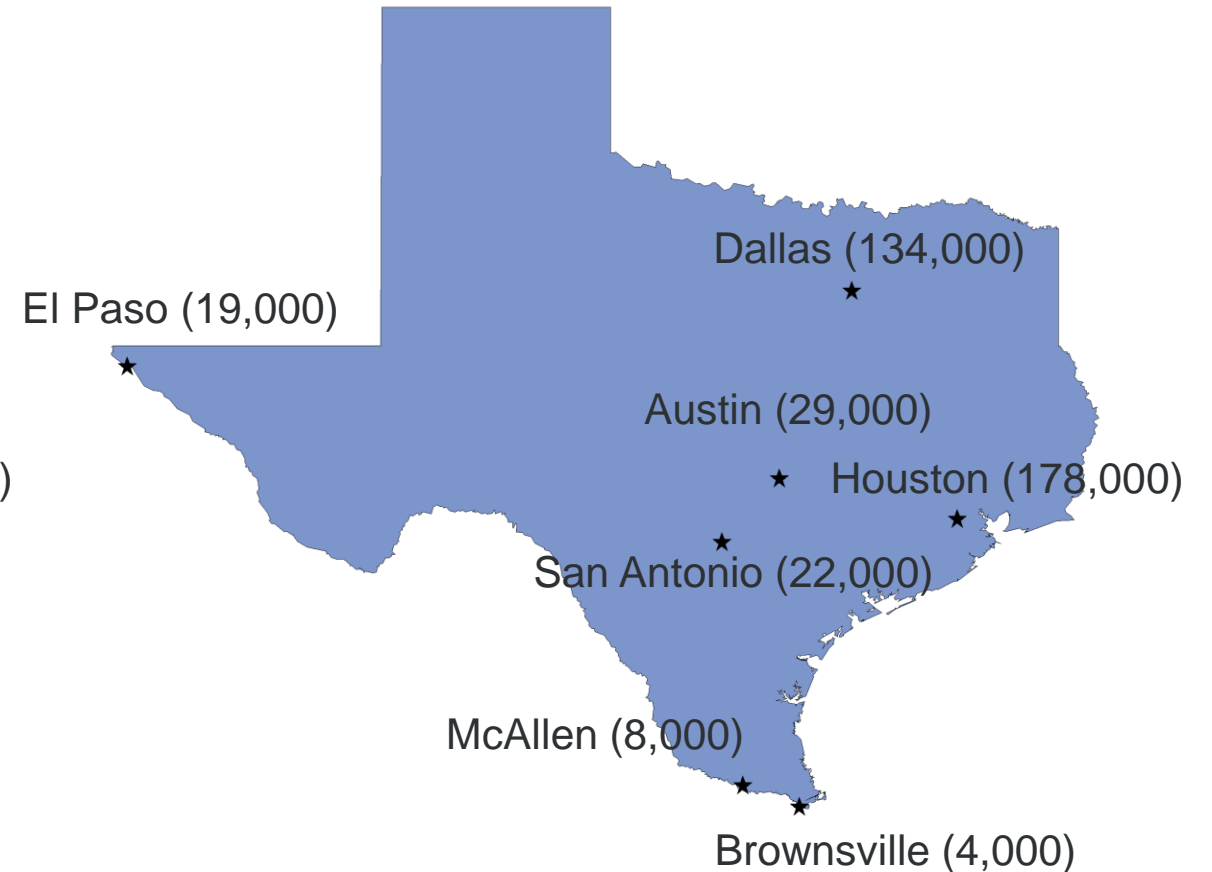
Costs of opening up to trade

- 50,000 Texas jobs lost due to NAFTA, according to BLS
- More than 45 percent of Texas job losses were concentrated along the Texas–Mexico border
 - El Paso textile and apparel industry
 - Trade Adjustment Assistance (TAA)
 - Low educational levels and limited English proficiency
 - Levi-Strauss (3,369 displaced workers)

Displaced workers concentrated along the border



Foreign firms' hiring more than offsets jobs lost



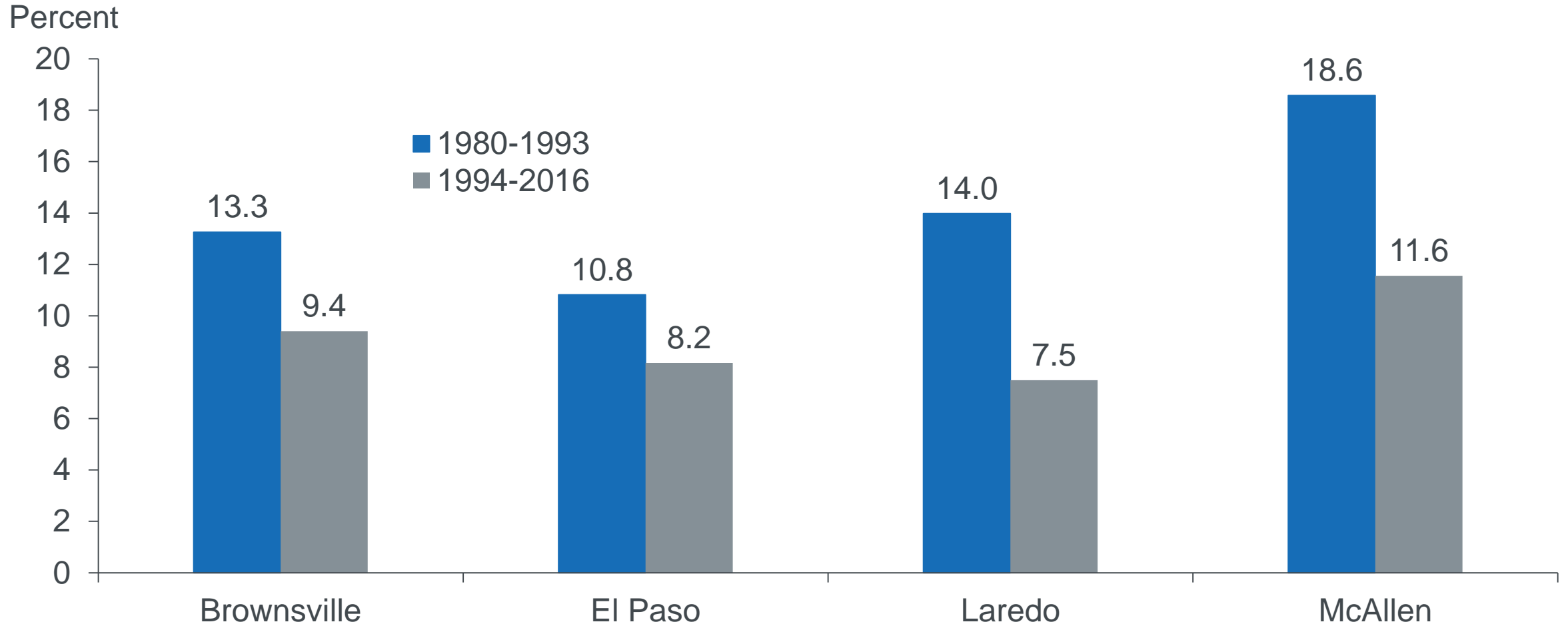
Maquiladora activity boosts employment in Texas border cities

Estimation method: IV	El Paso	Laredo	McAllen	Brownsville
TOTAL	2.77*	4.62	6.58*	2.21
Construction	0.20	3.19	4.04*	1.29*
Manufacturing	-1.28	1.02	1.64	0.66
Transportation	5.30*	7.21*	6.63*	4.6*
Wholesale	0.43	1.96	4.01*	0.84
Retail	1.31	0.66	3.21*	1.34*
FIRE	2.12*	8.23*	4.63*	0.64
Services	1.84*	5.93*	7.38*	3.89*

NOTES: This table shows elasticity estimates. That is the table shows the percentage increase in local employment from a 10 percent increase in maquiladora production for each Texas Border Cities. * indicates significant at the 10% level.

SOURCE: J. Cañas, R. Coronado, R. Gilmer, E. Saucedo (2011) "The Impact of Maquiladoras on U.S. Border Cities", Federal Reserve Bank of Dallas, working paper.

Unemployment rates declined along the border after NAFTA

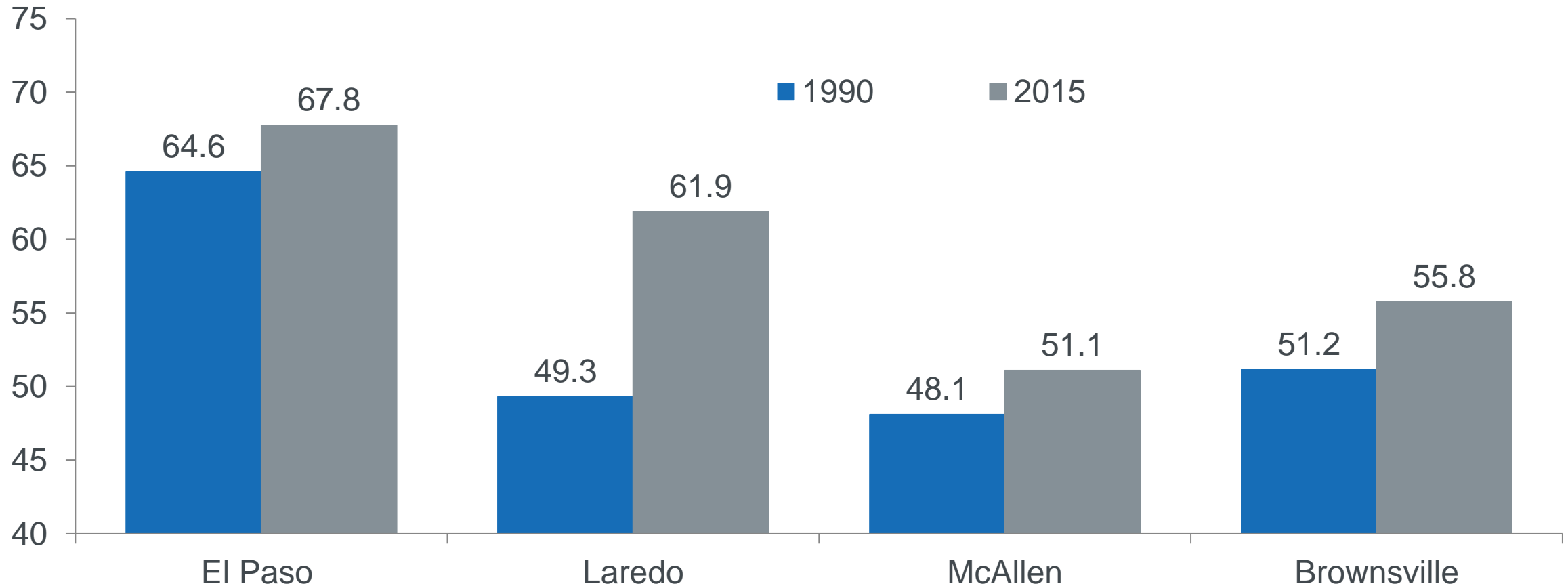


SOURCE: Bureau of Labor Statistics.

Texas border cities narrowing the income gap with nation

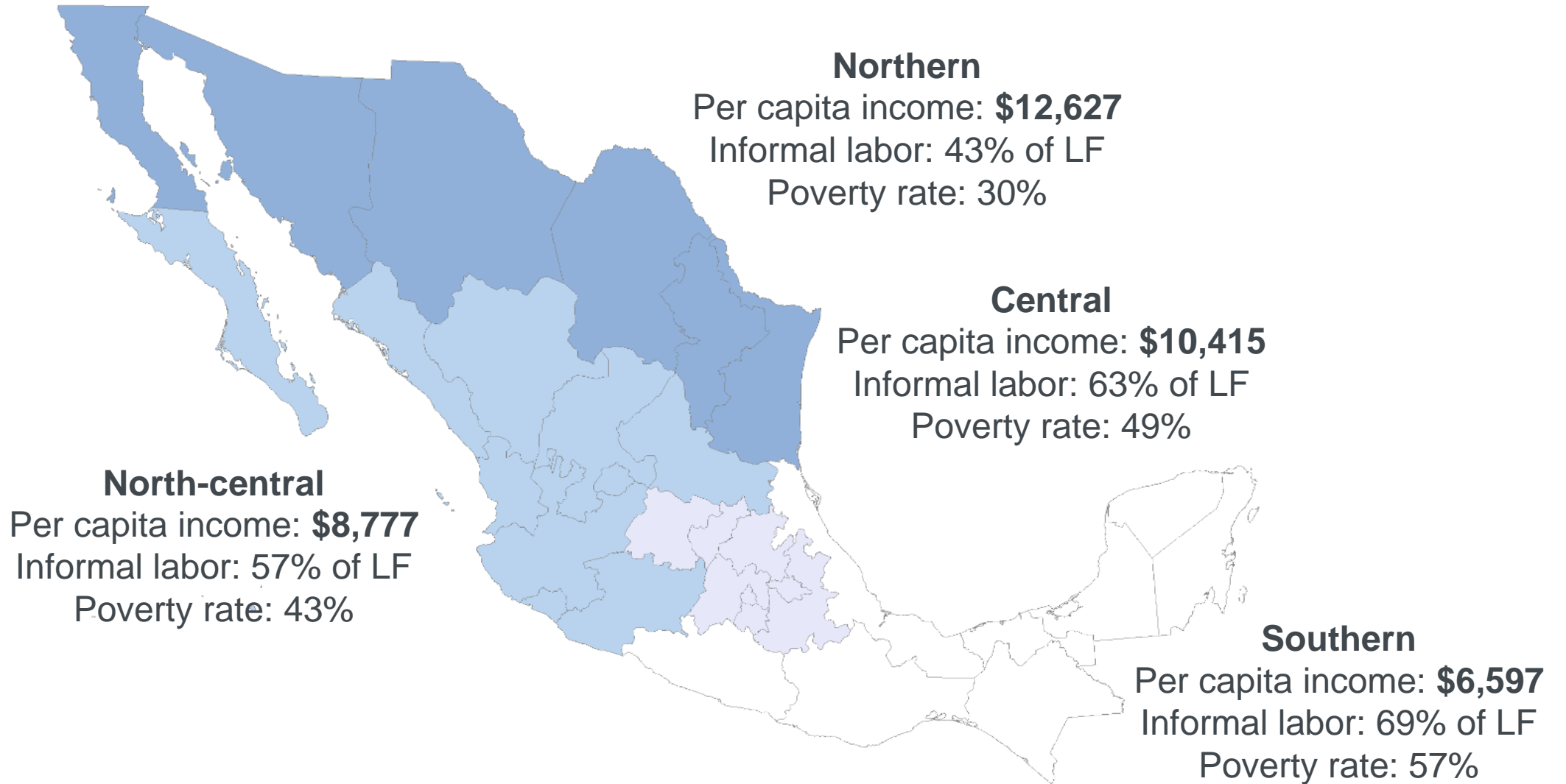
(income as a share of U.S. total)

Percent



SOURCE: Bureau of Economic Analysis.

Texas borders with the rich north of Mexico



Summary

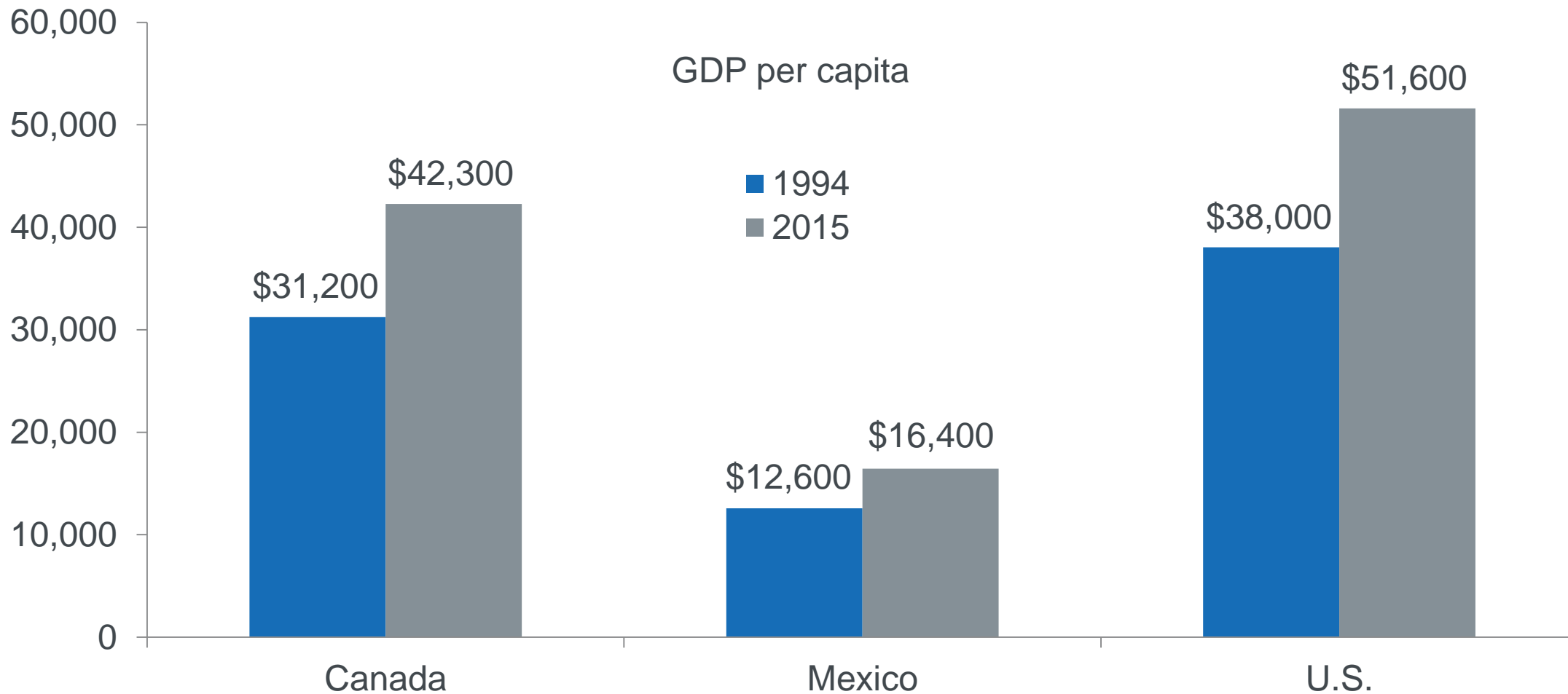
- Texas: a winner from globalization
 - Ability to adjust, diversify and grow
- Border cities overcame initial job losses
 - Found new paths to growth
 - Taking advantage of trade-inspired opportunities
 - Useful case study
 - *What attributes and strategies may help trade-impacted communities transition to the next level of economic development*
 - *Programs to identify and assist displaced workers*

What will be in the new NAFTA?

- According to U.S. Trade Representative, NAFTA will not be repealed but renegotiated
 - Modernized to include digital and services trade, new standards
 - Intellectual property rights, regulatory prices, state-owned enterprises, small and medium enterprises
 - Customs procedures, rules of origin, sanitary measures, environment & labor issues
- Other: update migration accord (TN visa)

Still unequal trading partners...

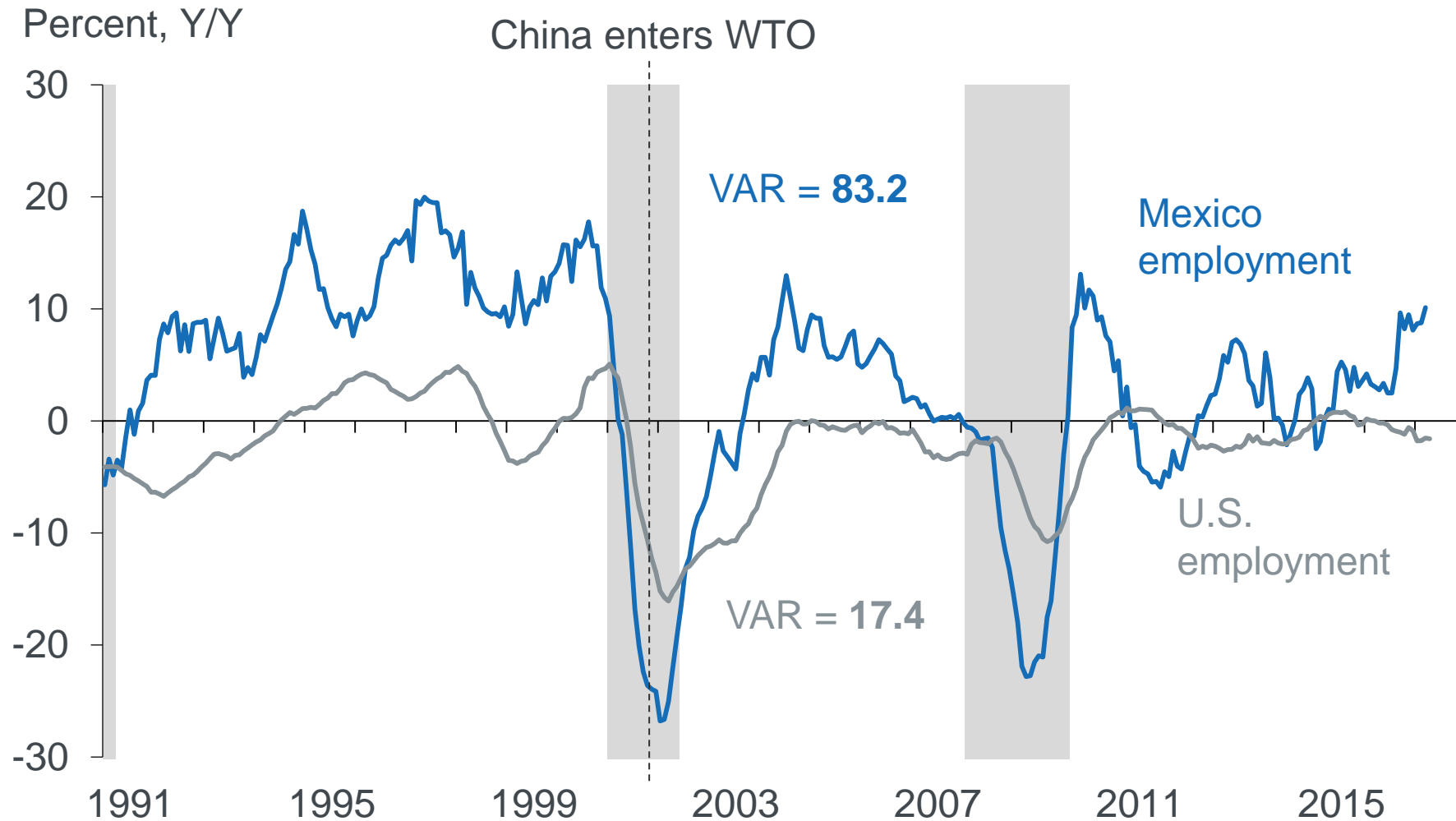
2005 U.S. \$, PPP adjusted



SOURCE: OECD.

U.S. volatility is lower in highly integrated sectors

Computer and electronic products



U.S. volatility is lower in highly integrated sectors

Transportation Equipment

