

**2018  
BREAKFAST  
WITH THE ECONOMISTS**

THE UNIVERSITY OF ARIZONA  
Eller College  
of Management

Wednesday, June 6, 2018 | Loews Ventana Canyon Resort

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**Welcome.**



**Paulo Goes**  
Dean, Eller College of Management



**Our region**  
Outlook for Tucson



**George Hammond, Ph.D.**  
Director, Economic and Business Research Center

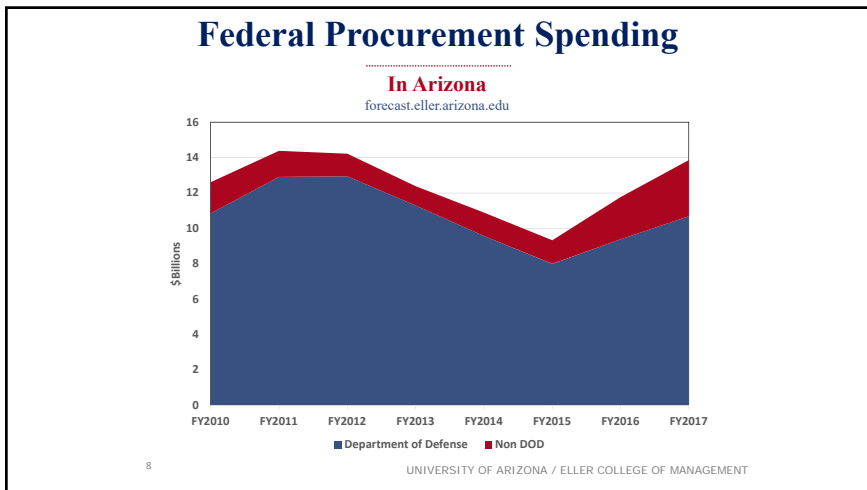
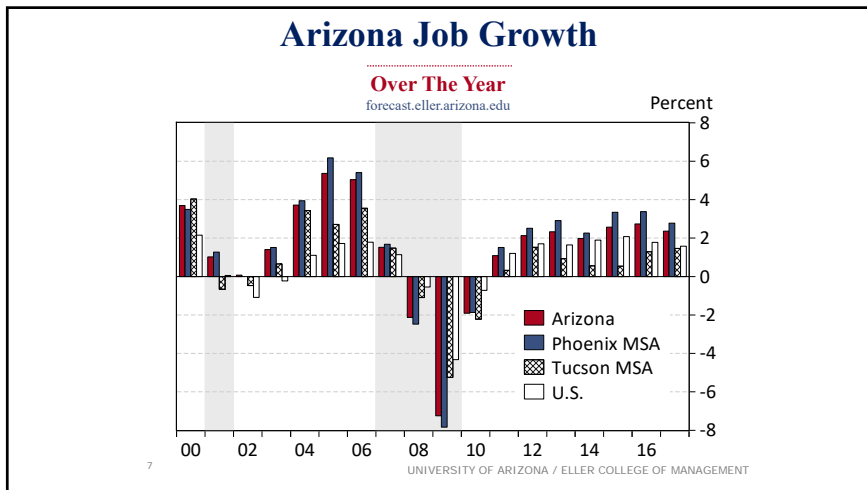
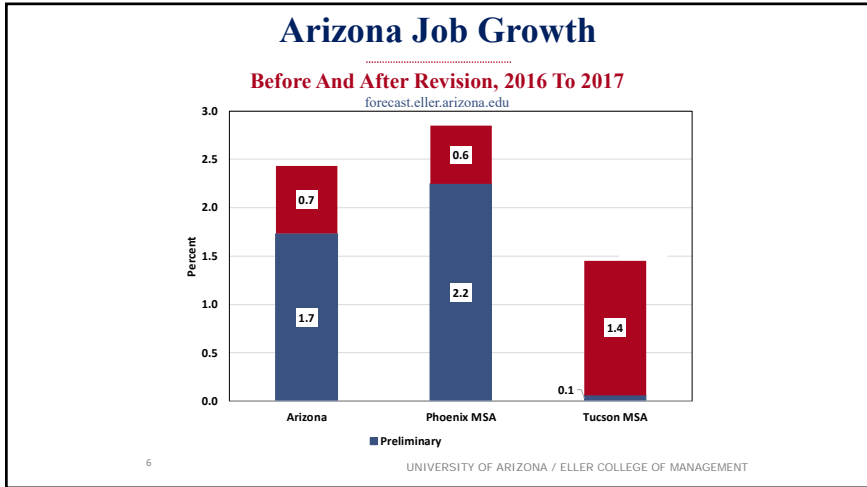
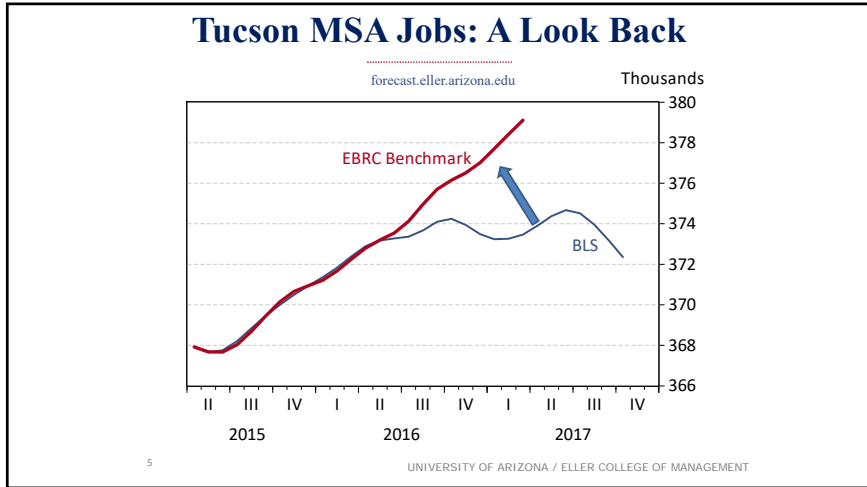


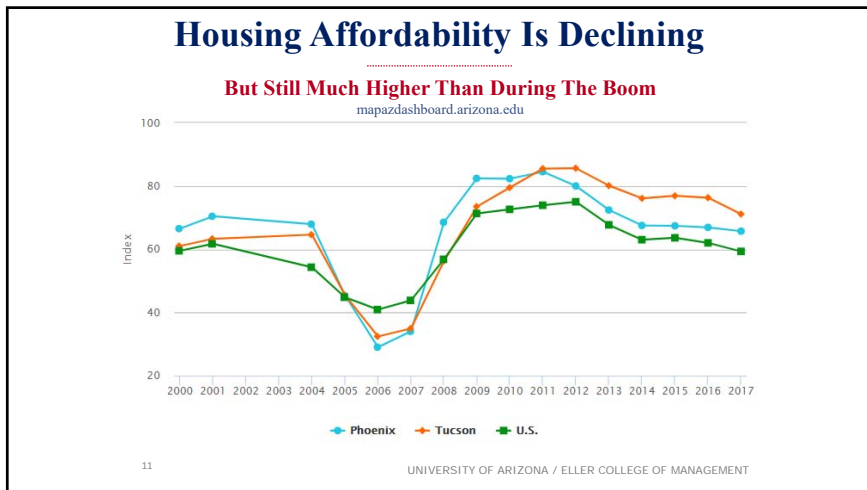
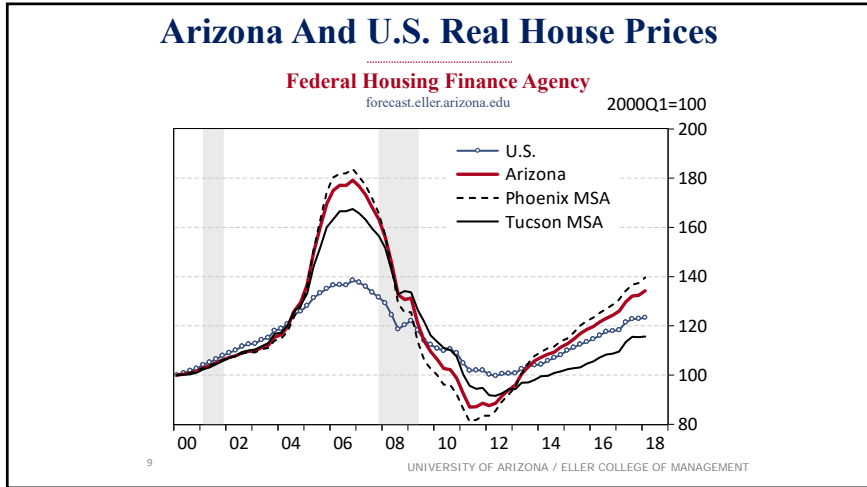
**A Look Ahead**

- ▶ **Revised Arizona job data show stronger growth**
  - ▶ Particularly for Tucson
- ▶ **Federal procurement spending in Arizona is on the rise**
  - ▶ Which matters for defense/aerospace/Tucson
- ▶ **Arizona exports to Mexico have declined significantly**
  - ▶ But there are signs of stabilization
- ▶ **Interest rates and gas prices are moving up**
  - ▶ Increasing risks to the expansion
- ▶ **Continued growth is on the horizon, but keep an eye on risks**

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### Housing Cost Burden Varies By Income

Housing Affordability: Low Income Residents Struggle

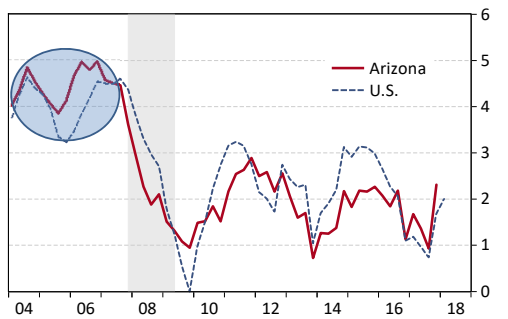
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INCOME	TUCSON	ARIZONA	U.S.
Less than \$20,000	15.2%	12.5%	12.5%
\$20,000 - \$34,999	10.2%	9.7%	8.9%
\$35,000 - \$49,999	4.5%	5.2%	4.9%
\$50,000 - \$74,999	2.5%	3.2%	3.9%
\$75,000 or more	1.1%	1.4%	2.7%

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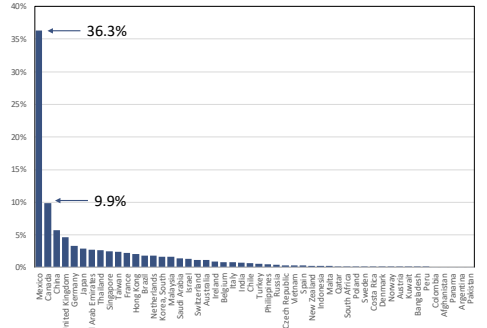
### Arizona And U.S. Wages Per Job

Smoothed, Over-The-Year Growth Rates  
 forecast.eller.arizona.edu



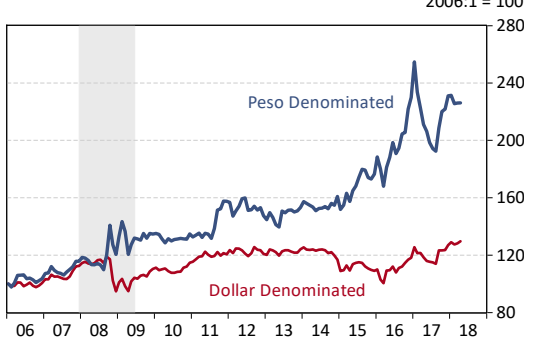
### Arizona Merchandise Exports

Country Share Of Arizona Exports In 2017  
 azmex.eller.arizona.edu



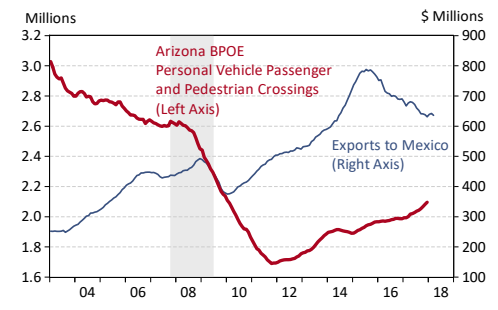
### Arizona-Mexico Tourism Cost Index

Tucson MSA: Lodging, Gasoline, Food Away From Home  
 azmex.eller.arizona.edu



### Arizona Exports To Mexico

Merchandise Exports And Legal Northbound Border Crossings  
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### Tucson MSA Economy Scorecard

INDICATOR	HOW ARE WE DOING?	HOW DO WE COMPARE?	RECENT CHANGE
BUSINESS GROWTH	0.4%	FROM 2015 TO 2016	▲
EMPLOYMENT GROWTH	1.5%	FROM 2016 TO 2017	▲
HOUSING AFFORDABILITY	71.1%		▼
MEDIAN HOUSEHOLD INCOME	\$46,764		▲
PATENTS	17.4	PER 10,000 WORKERS	▼
REAL GDP	0.2%		▲

☀️ Ranked in Top 1/3
☁️ Ranked in Middle 1/3
☁️ Ranked in Bottom 1/3
☁️ Ranked Last

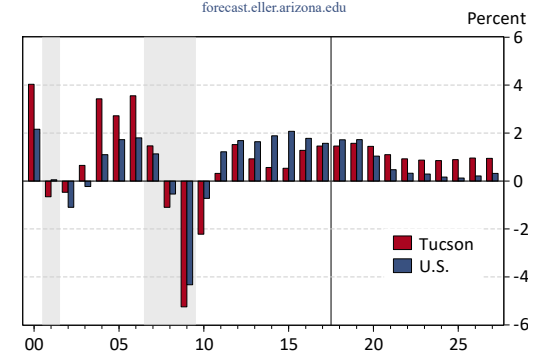
MAP Scorecard "How Do We Compare?" Rankings Are Relative To The Following Peer Metropolitan Areas: Albuquerque, Austin, Colorado Springs, Denver, El Paso, Las Vegas, Phoenix, Portland, Salt Lake City, San Antonio, and San Diego  
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### Tucson MSA And U.S. Job Growth

Annual Growth Rates  
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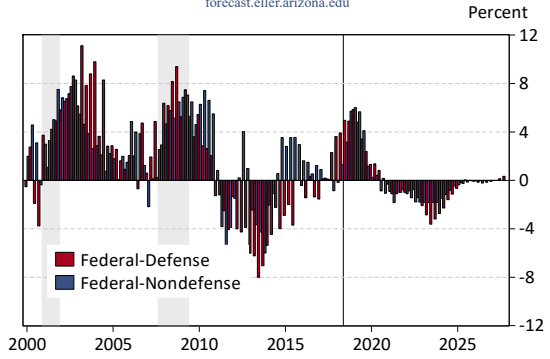


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### U.S. Real Federal Spending Growth

Excluding Transfers, IHS Markit, May 2018  
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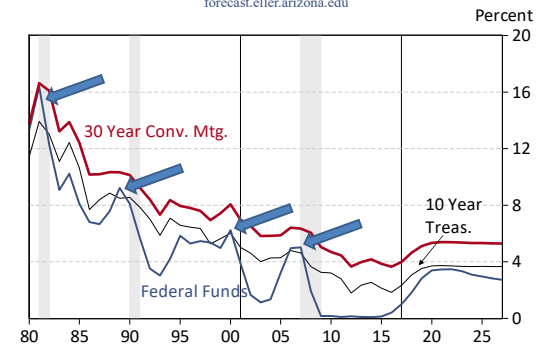


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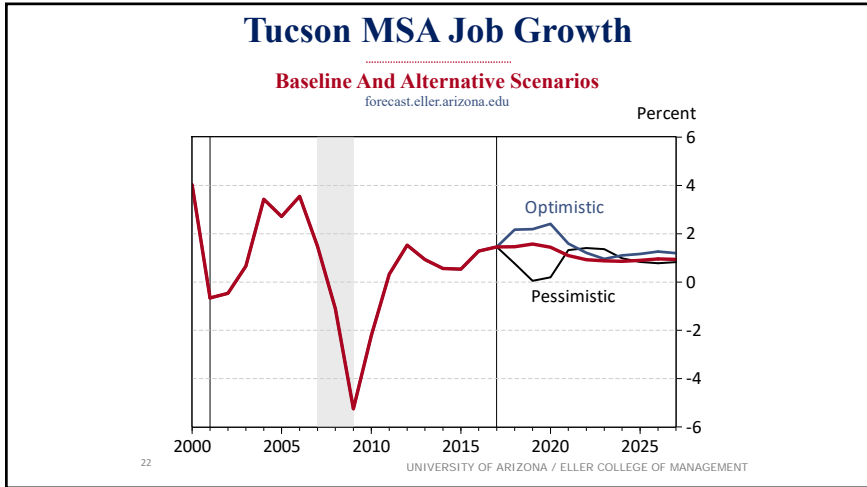
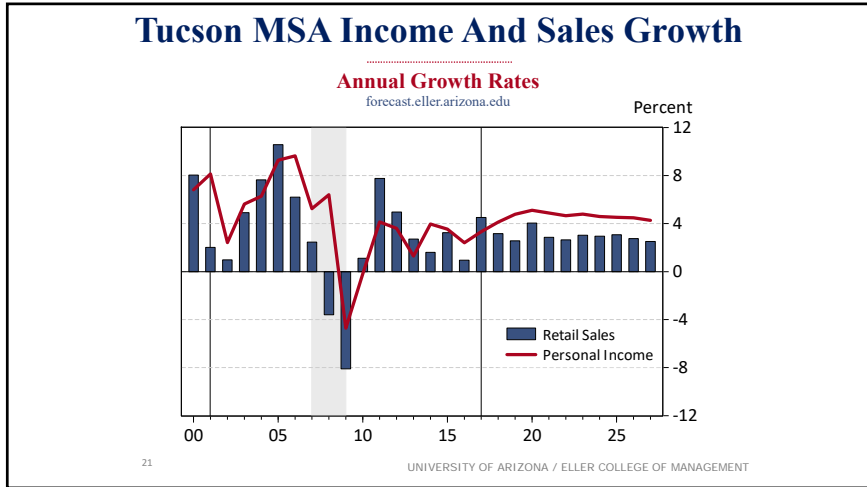
### U.S. Interest Rates

IHS Markit, May 2018  
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**Explore data for border economies.**  
**Arizona-Mexico Economic Indicators**

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**Learn about Southern Arizona.  
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National, State and Local Recognition**




**Our world**  
U.S.-Mexico Trade and NAFTA



**Jesus Cañas**  
Senior Business Economist, Federal Reserve Bank of Dallas



## Benefits and Challenges of Trade under NAFTA

Breakfast with the Economists, 2018  
University of Arizona  
June 2018

Jesus Cañas and Pia Orrenius  
Federal Reserve Bank of Dallas



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

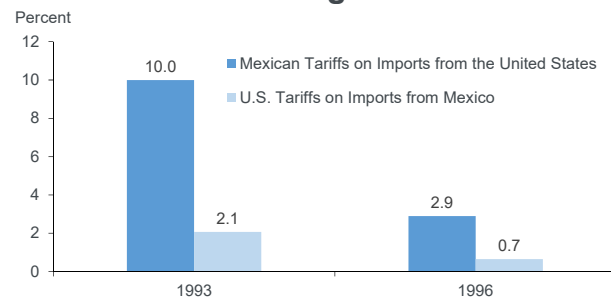
## A Historic Agreement -1-

- 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*

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## 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.

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## A Historic Agreement -2-

- U.S. fears: Massive job losses, falling wages
  - “There will be a giant sucking sound going south”
    - -Ross Perot; October 15, 1992
- Fears unrealized, but so were aspirations
  - Elusive Mexican economic development

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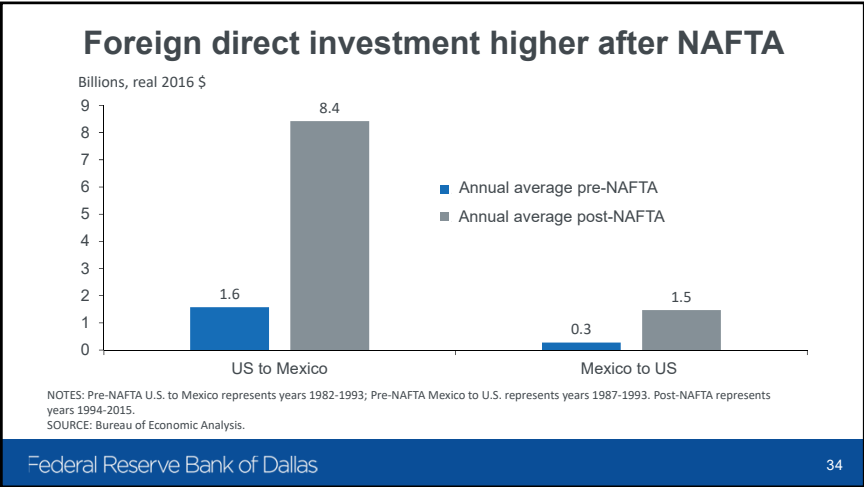
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### U.S. trade with NAFTA partners more than doubled since 1993

	1993	2016	
Billions of Dollars			
<b>Exports</b>			<b>% Change</b>
Canada	166.9	266.8	59.9
Mexico	69.1	231.0	234.3
<b>Imports</b>			
Canada	184.8	278.1	50.5
Mexico	66.3	294.2	343.7
<b>Total</b>			
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.

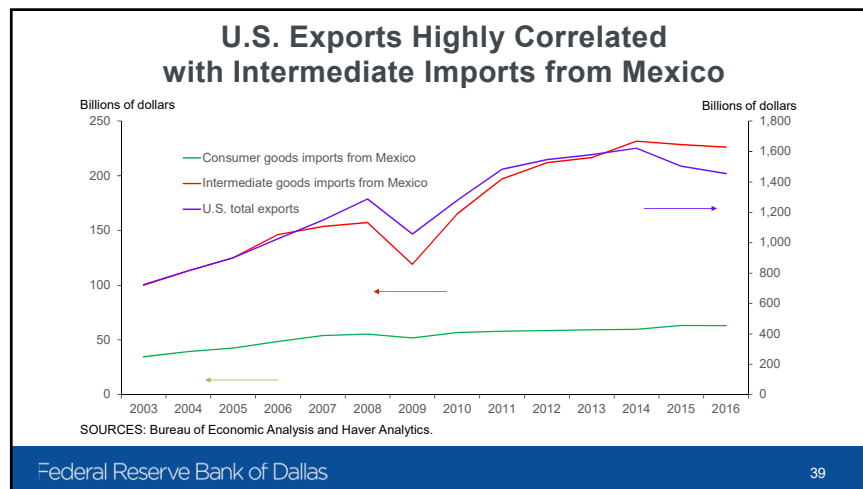
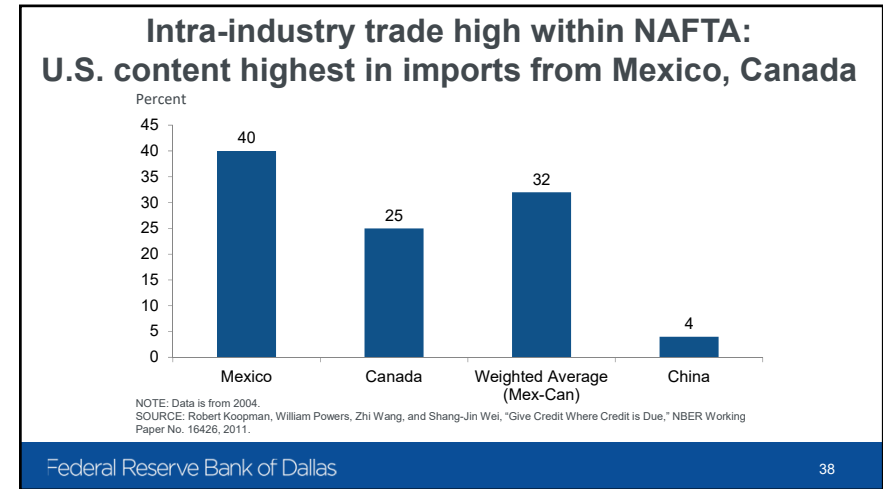
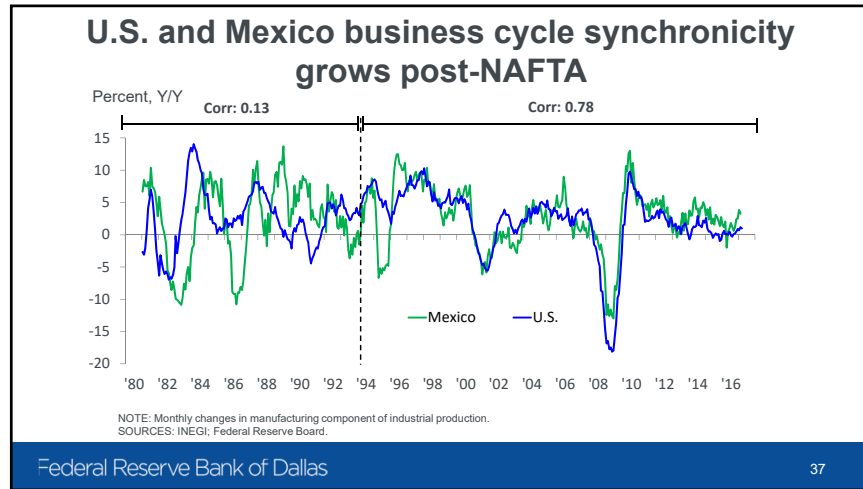


### Aggregate effects of NAFTA tariff reductions

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.

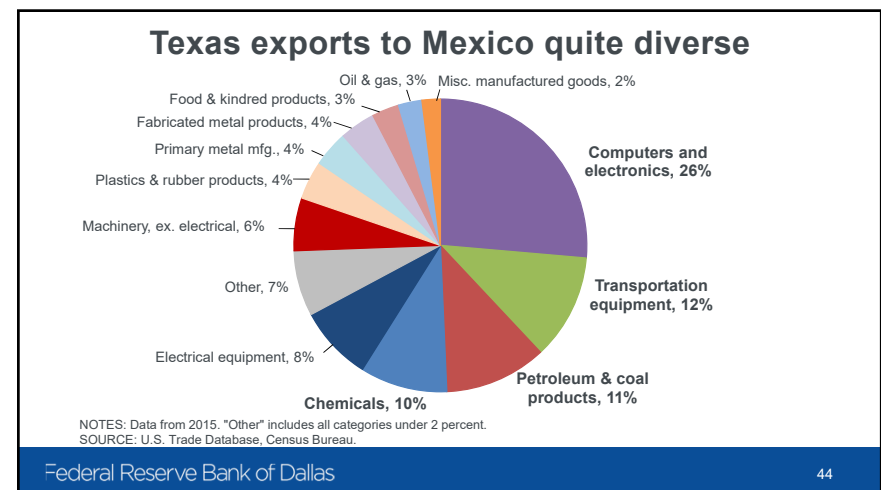
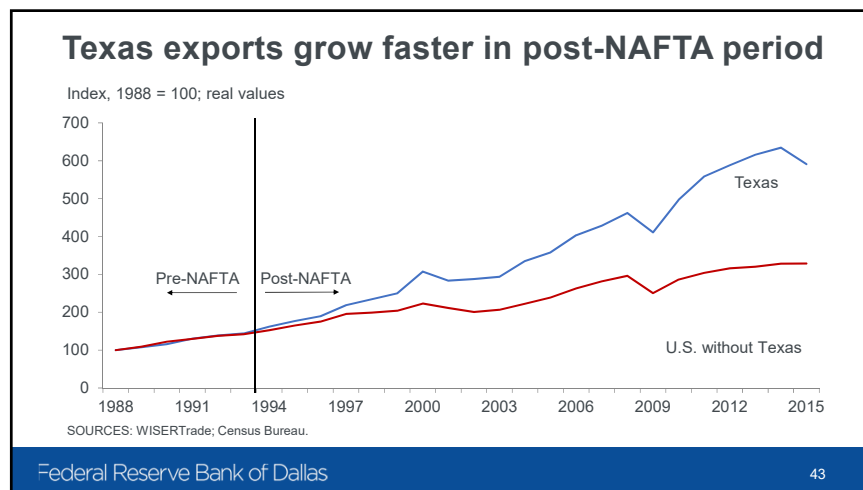
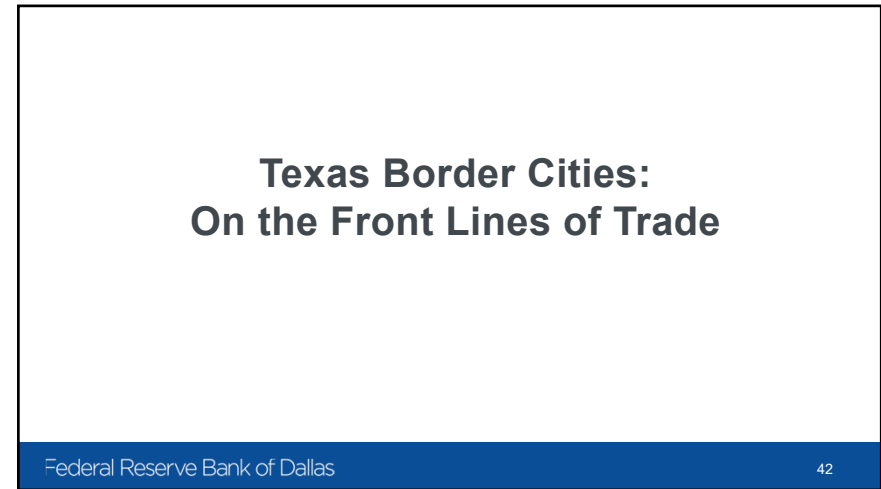
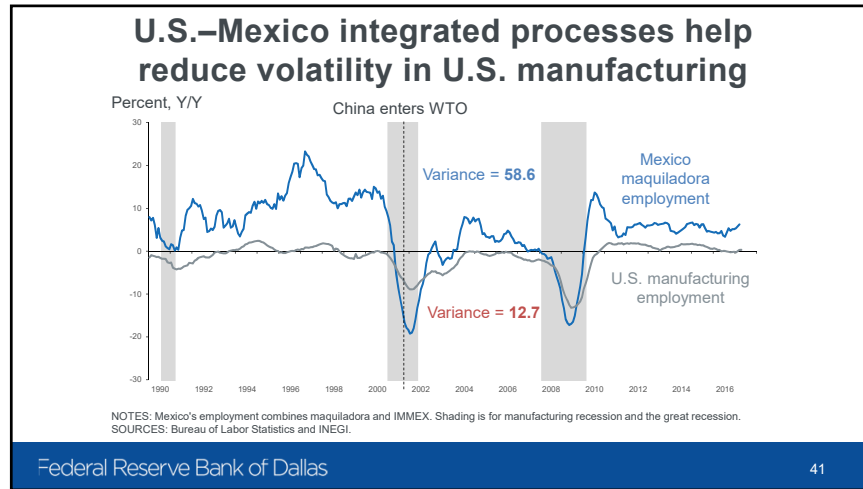


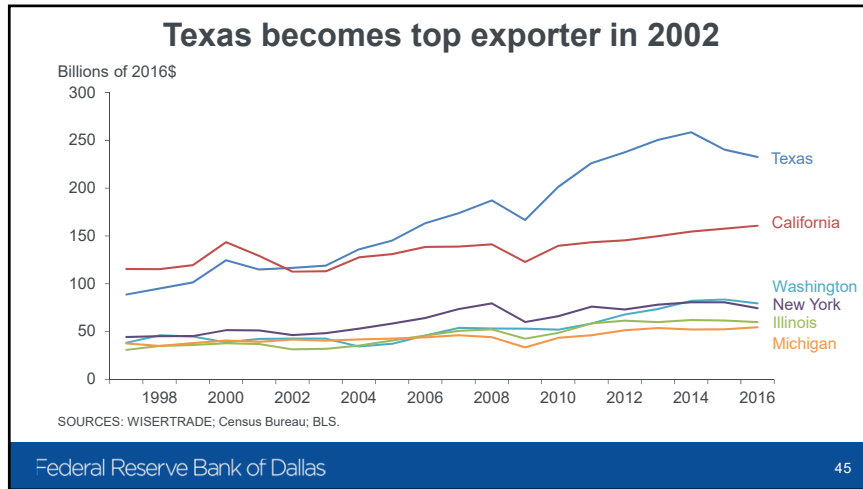
### Cross-border manufacturing has been able to mitigate some of the impact of economic shocks

- 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.

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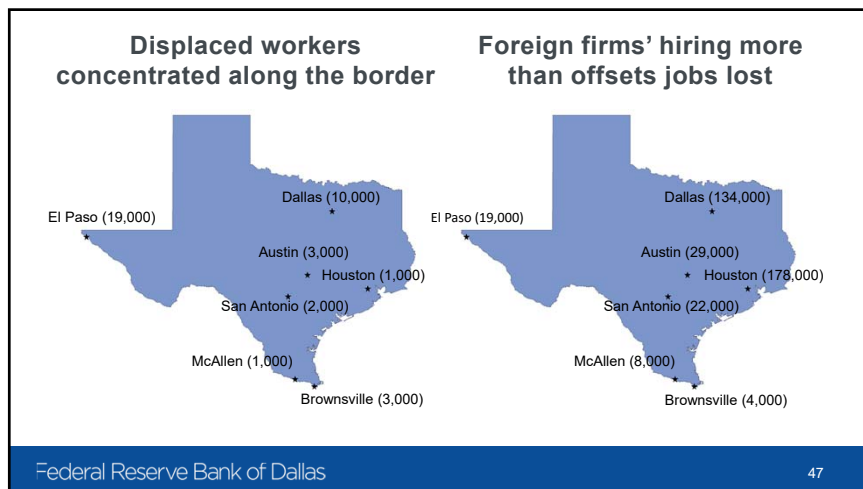




### Costs of opening up to trade

- 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)

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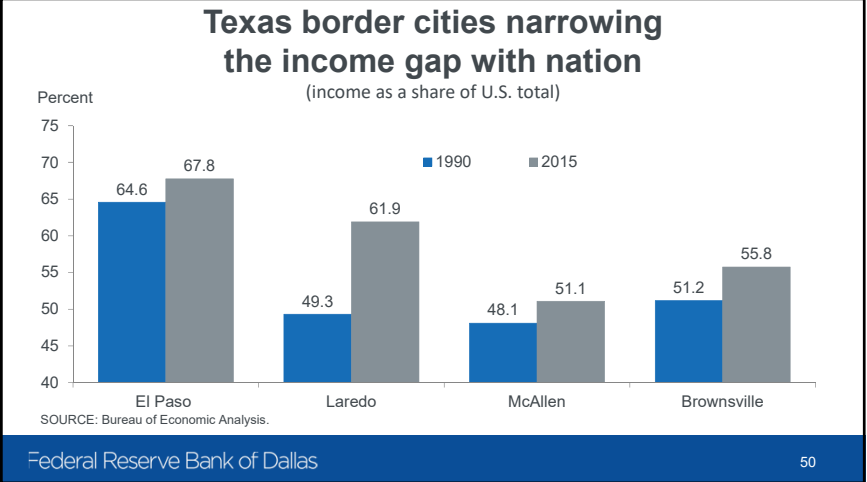
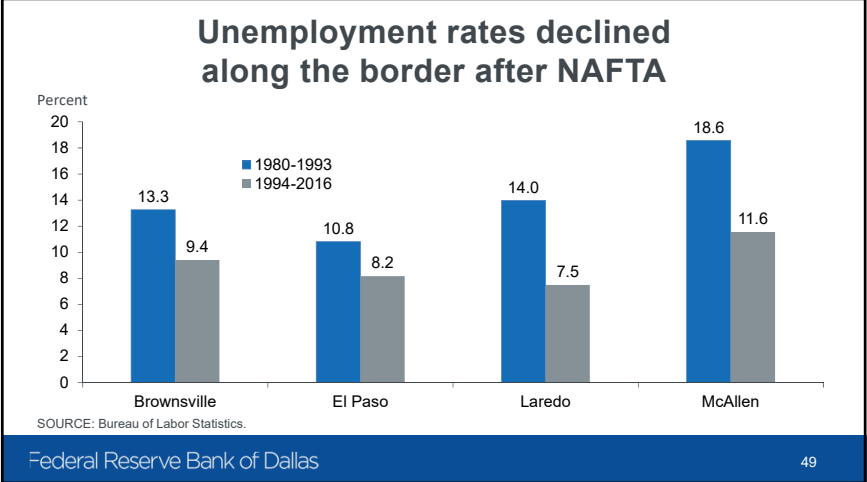


### Maquiladora activity boosts employment in Texas border cities

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*

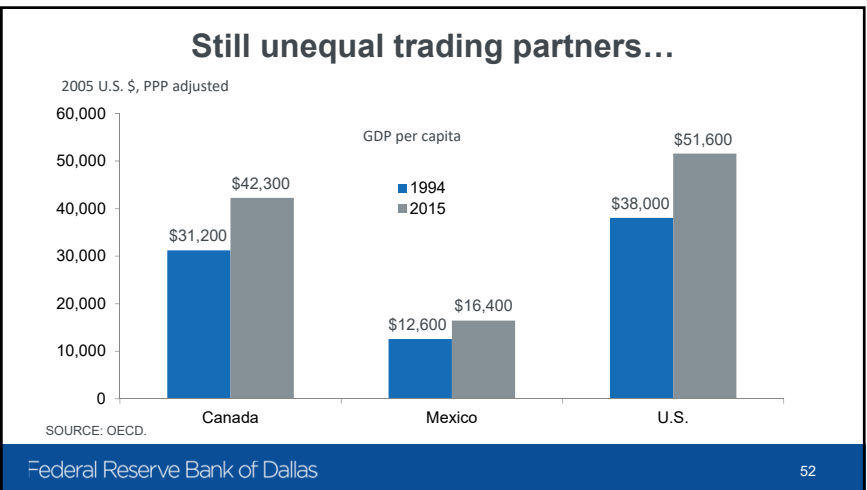
NOTES: This table shows elasticity estimates. That is the table shows the percentage increase in local employment from a 10 percent increase in maquiladora production for each Texas Border Cities. \* indicates significant at the 10% level.  
 SOURCE: J. Cañas, R. Coronado, R. Gilmer, E. Saucedo (2011) "The Impact of Maquiladoras on U.S. Border Cities", Federal Reserve Bank of Dallas, working paper.

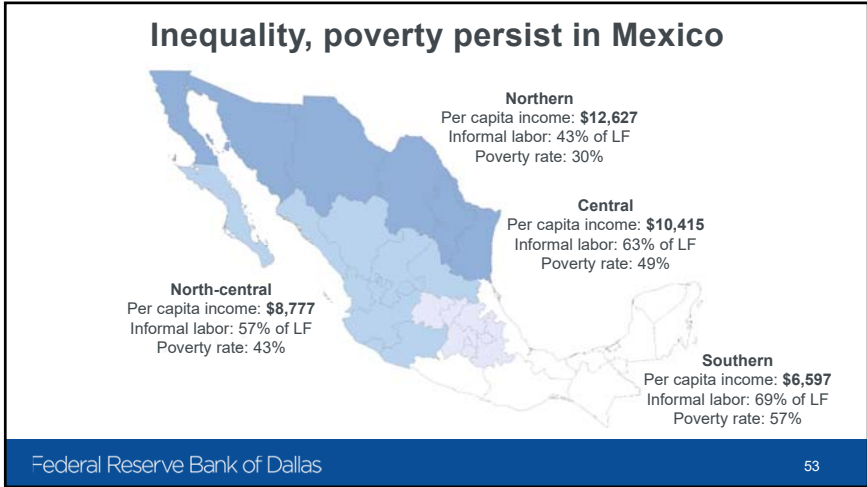
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## What's left to be done

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- ### Future calls for more NAFTA, not less
- Mexico: manufacturing sector has boomed, but spillovers have been limited
    - Will reforms spread the gains from trade to rest of sectors and reduce inequality?
  - U.S. labor market effects
    - Need for programs to identify and assist displaced workers
    - Ability to adjust, diversify and grow
    - Border cities overcame initial job losses, went on to thrive
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