

GROWING ARIZONA'S ECONOMY – OPPORTUNITIES FOR MANUFACTURING COLLABORATION WITH MEXICO



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EXECUTIVE SUMMARY

- i Arizona's economy can benefit more from manufacturing opportunities in Mexico
 - § Increase exports from Arizona firms to supply Mexican export manufacturing sector
 - § Economic growth from increased manufacturing activities at or near the border
- i Key Opportunities for Competitive Advantage
 - § CANAMEX
 - § Manufacturing at-or-near the border
 - § Complementary industry strengths

OVERVIEW: ARIZONA MANUFACTURING SECTOR

Manufacturing Stats

- 148,700 jobs
- 7% of non-farm, non-government jobs
- 8% of state GDP
- 86% of state exports
- 2009 average wage \$61,942

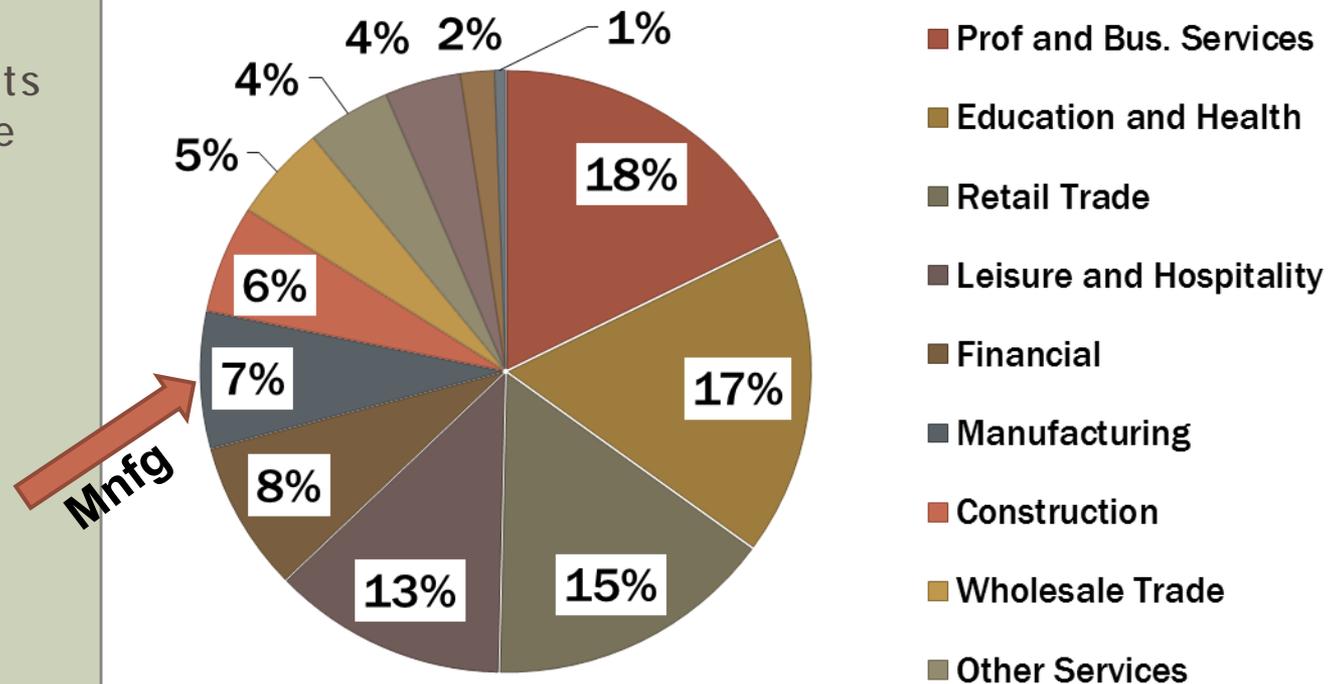
High-Tech Dominates

- Aerospace
- Navigation and Control
- Semiconductor
- Electronics

Knowledge Jobs

- Fabrication
- Engineering
- R&D

Arizona Non-Farm, Non-Government Employment November 2010



Source: Bureau of Labor Statistics, Current Employment Statistics

EXPORT MANUFACTURING SECTOR IN MEXICO

IMMEX - MAQUILADORA MANUFACTURING INDUSTRY AND EXPORT SERVICES

- IMMEX firms - 33 percent of Mexico manufacturing jobs in 2009.
- Largest foreign currency income source, exceeding petroleum and tourism.
- 47 % of all inputs to the maquiladoras exported from US, valued at US \$41 billion.
- More than 2,800 plants throughout Mexico (60% along the border) will have an ongoing need to source quality inputs, equipment and services from U.S. industry.

Table 1

Top Cities for Mexico's Export-Related Jobs

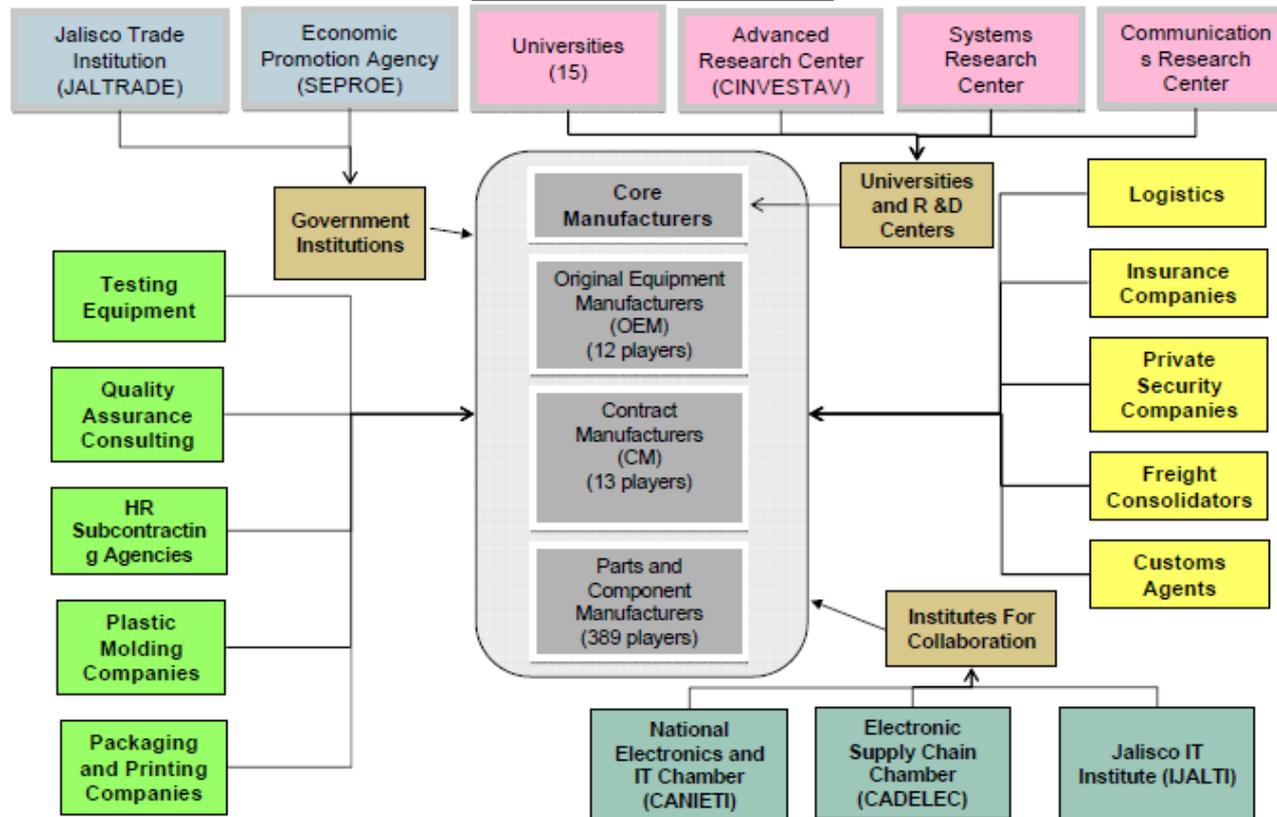
Maquiladora Manufacturing Industry and Export Services
Employment
(January–December 2009 average)

Rank	City	Employment	Share (percent)
1	Juárez, Chihuahua	164,613	10.2
2	Tijuana, Baja California	137,580	8.5
3	Reynosa, Tamaulipas	72,372	4.5
4	Apodaca, Nuevo León	55,969	3.5
5	Distrito Federal	52,812	3.3
6	Mexicali, Baja California	45,145	2.8
7	Matamoros, Tamaulipas	39,953	2.5
8	Chihuahua, Chihuahua	37,800	2.3
9	Aguascalientes, Aguascalientes	35,408	2.2
10	San Luis Potosí, San Luis Potosí	32,461	2.0

Sources: Southwest Economy: Maquiladora Employment, 2Q 2010, Federal Reserve Bank of Dallas, U.S. Dept. of Commerce buyusa.gov

TOP 2 SEGMENTS: ELECTRONICS AND TRANSPORTATION EQUIPMENT

Successful Mexican Clusters Jalisco's Electronics



Sources: Harvard Microeconomics of Competitiveness student team research (2009) - Julian Arber Alison Chick, Gustavo De Loyola, Ina Mogollon, and Bernardo Novick
 20091006 - Monterrey Mexico ppt
 30
 Copyright 2009 © Professor Michael E. Porter

OPPORTUNITIES TO
ENHANCE
COLLABORATION WITH
MEXICO

OPPORTUNITY #1: BROADEN CANAMEX VISION TO SUPPORT MANUFACTURING COMPETITIVENESS

Connecting 21st century, high-growth centers in North America

A compelling vision, starting with existing, globally competitive industries located on the corridor

- In Arizona: aerospace, defense, electronics, semiconductors
- In Sonora: automotive, aerospace, electronics
- Explore industry connection opportunities in other states and provinces in the U.S., Mexico and Canada



EXAMPLE CORRIDOR: NASCO



- **Founded in 1994**
- **Private sector-leadership of public-private partnership**

“NASCO’s initiatives have profound potential to transform the entirety of the Corridor into the single most attractive location to retain, expand and attract new business for the international trade, manufacturing and transportation industries, especially global supply chain and logistics and shipping industry activities requiring the highest-efficiency, lowest-cost operating environments.”

Source: NASCO Website



NASCO Mexico Committee

Years of solid cooperation by North America's Corridor Coalition, Inc. with public and private sector leaders in Mexico resulted in the 2006 founding of the NASCO Mexico Committee to formally unify and empower the growing number of NASCO supporters in Mexico.

EXAMPLE NASCO CORRIDOR CITY: SAN ANTONIO




City of San Antonio

INTERNATIONAL RELATIONS OFFICE

Protocol
Sister Cities
Foreign Trade Offices

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Export Leaders Program

City of San Antonio

Does your company's leader have a vision to reach the Mexican market or other markets abroad?

This program cultivates manufacturing or service companies seeking to expand their skill set to export successfully. With partners in the community like the South-West Texas Border International Trade Center, the U.S. Department of Commerce Export Assistance Center and our three *Casas* in Mexico, the program provides your company with the tools, training, consultation, coaching and real world experience necessary to succeed in international markets. While you receive experience in Mexico, the training applies world wide. The training sessions provide a hands-on understanding of how to enter foreign markets, marketing strategies, pricing, customs, regulations, shipping and transportation, export financing and legal issues. The program also includes two on-site trips to Mexico.

OPPORTUNITY #2: ECONOMIC GROWTH FROM MANUFACTURING AT OR NEAR THE BORDER

- i A study of the impact of maquiladoras found that, in general, a 10% increase in maquiladora activity in Mexican border cities led to ¹
 - § 1.1% to 2.0% employment increase in U.S. border cities side
 - § 2.1% to 2.7% in wholesale trade
 - § 1.7% to 2.7% in transportation
 - § 1.2% to 2.1% in manufacturing
 - § 1.0% to 1.8% in retail trade
- i A University of Arizona researcher estimated that in the 1990's, for every 100 maquiladora jobs generated in Sonora, about 81 jobs were created in the U.S.²

¹ ***“U.S.–Mexico Integration and Regional Economies: Evidence from Border-City Pairs”***

Gordon H. Hanson, *Journal of Urban Economics*, 2001

² Source: Vera Pavlovich-Kochi, University of Arizona

ARIZONA BORDER SHARE OF IMMEX SHRINKING

Table 1
Maquiladora Employment Patterns Shifting

	Share of total hours worked			Employment*
	1990	2000	2006	2006
17 principal cities	78.4	66.4	67.9	837,828
Other cities	21.6	33.6	32.1	396,471
Border cities	70.3	56.7	61.1	753,846
Texas border	45.6	33.0	38.4	474,434
California border	18.9	20.0	19.2	236,968
Arizona border	5.8	3.7	3.4	42,398
Interior cities	8.1	9.7	6.8	83,982
Border interior	7.0	7.2	6.4	79,276
Distant interior	1.1	2.5	.4	4,706
Texas border cities				
Juárez	25.1	17.9	20.6	253,937
Reynosa	5.3	5.1	8.3	101,882
Matamoros	7.4	4.7	4.4	54,208
Acuña	3.2	2.4	2.6	32,579
Nuevo Laredo	3.0	1.7	1.8	22,036
Piedras Negras	1.6	1.1	.8	9,774
Nation	100	100	100	1,234,299

*Full-time-equivalent employment, based on annual hours worked per city, divided by annual hours per employee. Annual hours per employee is based on 44 hours a week and a standard vacation and holiday schedule.

NOTE: Numbers may not total due to rounding.

SOURCES: Instituto Nacional de Estadística y Geografía; authors' calculations.

ARIZONA BORDER SHARE OF IMMEX

§ 1990	5.8%
§ 2000	3.7%
§ 2006	3.4%

***REDUCED OVER
50% IN 15 YEARS***

Source: "Southwest Economy: The Maquiladora's Changing Geography," 2Q 2009, Federal Reserve Bank of Dallas

OPPORTUNITY #3: STRENGTHEN COMPETITIVE ADVANTAGE IN COMPLEMENTARY AREAS



Borderless Biotech & Mexico's Emerging Life Sciences Industry

| Example:
Life Sciences focus
in Southern
California



Source: SanDiegoDialogue.org

BUILD ON COMPLEMENTARY PRODUCT AND SERVICE OPPORTUNITIES

- Example:
Advanced Manufacturing/
Aerospace focus in South Texas



Advanced Manufacturing/Aerospace

The Rio South Texas region is perfectly situated to capitalize on our bi-national manufacturing and distribution corridors. Reynosa and Matamoros are home to hundreds of major manufacturing operations, with employment of almost 200,000 in that sector. Rio South Texas has a diverse population of logistics and warehouse operations that support this advanced manufacturing cluster, as well as suppliers who manufacture components, corrugated products, provide Tool & Die design and service, heat treating, plating, and a host of other related manufacturing functions. Numerous other manufacturing operations have chosen to locate in our region, ranging from jet engine component refurbishing to manufacturing of rocket components and offshore oil platform construction. The Rio South Texas region has the resources to support a strong manufacturing sector.



BUILD ON COMPLEMENTARY PRODUCT AND SERVICE OPPORTUNITIES

Bi-National Sustainability Laboratory English / Spanish

Bridging Technology Concepts to Commercial Success.

HOME

- BUSINESS PLANNING
- IP CONSULTING
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- SPECIALIZED FACILITIES
- ADVANCED TRAINING
- STRATEGIC PARTNERING
- TECHNOLOGY COMMERCIALIZATION
- BUSINESS ACCELERATION

Grow your Idea

Do you have an innovative idea? Have you ever thought about starting your own business? Do you want to expand your market? BNSL helps entrepreneurs turn innovative ideas into commercializeable products. We can help you succeed, [Contact Us](#) today

The BNSL is a bi-national non-profit organization that creates and promotes technology-based businesses on the U.S.-Mexico border be they start-ups, small & medium sized businesses, or large well-established companies. Our vision is to make the U.S.-Mexico border a model for prosperity and economic development. With binational stakeholders and partners in government, business, and academia, we are poised to make it happen.

- Example:
Bi-National
Incubator in El
Paso

Source: *Bi-National Sustainability Laboratory website*

SUMMARY

- i Manufacturing is a critical foundation for the growth of Arizona's economy
- i The Export Manufacturing sector in Mexico is an important source of opportunity for growing Arizona's economy
 - § Increase manufacturing exports from Arizona firms to supply Mexican manufacturing
 - § Economic growth from increased manufacturing activities at or near the border
- i Arizona can take more advantage of this opportunity
 - § Expand CANAMEX Corridor to focus on increasing manufacturing competitiveness
 - § Encourage more manufacturing in the Arizona-Mexico border region
 - § Identify and build on complementary strengths to create competitive advantage

Thank You !

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