TEXAS

AEROSPACE AND OTHER TRANSPORTATION EQUIPMENT MANUFACTURING

The aerospace manufacturing industry designs and builds aircraft, missiles, space vehicles and their components, including engines and auxiliary parts. The industry uses innovative production processes such as 3-D modeling to design prototypes for parts and components. It contributes heavily to research and development investment and export activity. Other transportation manufacturing industries include railroad equipment, ship and boat manufacturing facilities, motorcycles and military armored vehicle manufacturing.

176,440
DIRECT & INDIRECT EMPLOYMENT

$12.9 Billion
STATE SUBSECTOR GDP

$97,836
AVERAGE ANNUAL WAGE

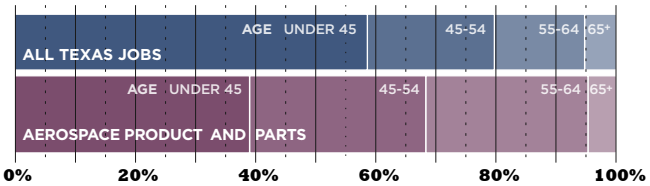
$9.8 Billion
EXPORTS

Sources: U.S. Bureau of Economic Analysis, Regional Economic Models, Inc., Emsi, U.S. Census Bureau Annual Survey of Manufacturers

AEROSPACE WORKFORCE SKILLED AND AGING

The aerospace industry employs a highly educated and skilled workforce. About 60 percent of its Texas employees have at least some college experience, compared to 47 percent of all employed Texans in 2016. But many workers are reaching retirement age. About 32 percent of them were aged 55 and older in 2016, compared to just 20 percent for all Texas jobs. These trends are spurring concerns of a skills shortage in the industry.

TEXAS WORKFORCE AGE DISTRIBUTION IN AEROSPACE PRODUCT AND PARTS, 2016



Sources: Emsi, Texas Comptroller of Public Accounts

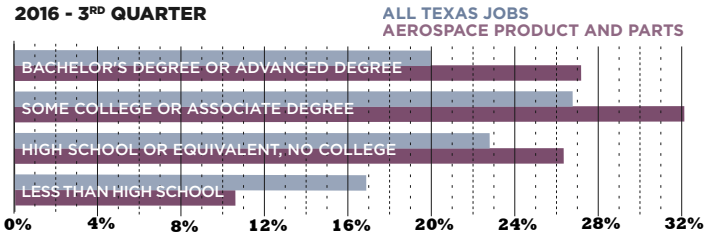
	DIRECT JOBS 2016	AVERAGE TEXAS SALARIES 2016	LOCATION QUOTIENT* 2016
SUBSECTOR TOTALS	**51,829**	**$97,836**	**0.92**
AEROSPACE PRODUCT AND PARTS MANUFACTURING	44,639	$103,498	1.10
RAILROAD ROLLING STOCK MANUFACTURING	3,060	$65,754	1.42
SHIP AND BOAT BUILDING	3,713	$62,575	0.33
OTHER TRANSPORTATION EQUIPMENT	417	$41,180	0.15

*Location quotient compares an industry's share of jobs in a specific region with its share of nationwide employment. Source: Emsi

THE U.S. AEROSPACE INDUSTRY CARRIED AN $86.8 BILLION TRADE SURPLUS IN 2016.

Source: U.S. Department of Commerce International Trade Administration

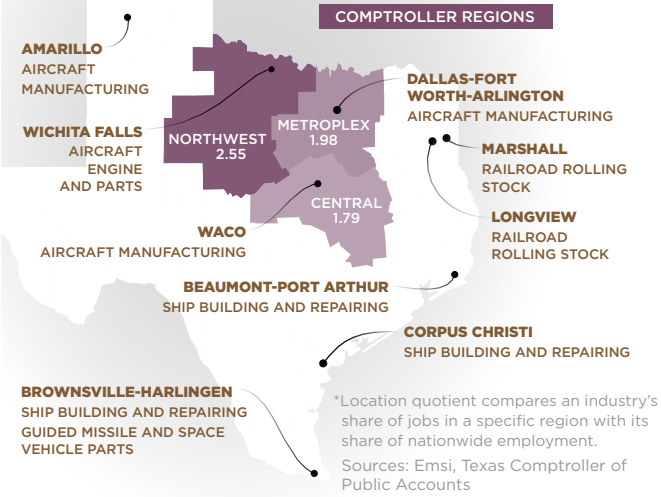
EDUCATIONAL LEVELS OF EMPLOYED TEXANS* 2016 - 3RD QUARTER



*Does not include workers aged 24 or younger for which educational attainment data are not available. Source: U.S. Census Bureau, Quarterly Workforce Indicators

REGIONAL SUBSECTOR LQs* AND AREAS OF INDUSTRY SPECIALIZATION BY METRO AREA

Aerospace and other transportation employment is 2.55 times more concentrated in the Northwest region than in the U.S. overall. The Metroplex and Central Texas regions also have high industry employment concentrations.



*Location quotient compares an industry's share of jobs in a specific region with its share of nationwide employment.

Sources: Emsi, Texas Comptroller of Public Accounts

CONCLUSION

Manufacturing continues to drive output and productivity in the Texas economy, creating jobs paying well above the statewide average. It also contributes significantly to job creation in other industries, particularly in design operations and services.

Unlike many manufacturing industries, the aerospace industry generates a trade surplus, as the U.S. leads in innovative production processes. Recent U.S. aerospace business earnings have been strong, benefiting from global economic growth, rising incomes and greater demand for leisure travel in emerging economies. Texas added 1,500 aerospace jobs from January to July 2017, a 3.5 percent increase, compared to 0.6 percent nationally.

To see more in-depth Texas manufacturing data, visit:
comptroller.texas.gov/economy/economic-data/manufacturing/

Glenn Hegar Texas Comptroller of Public Accounts

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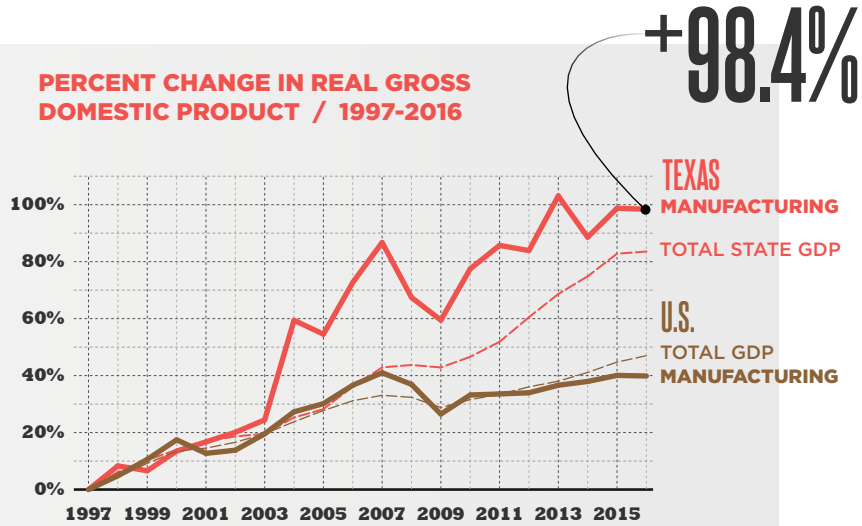
TEXAS MANUFACTURING

Texas has an extraordinary manufacturing economy. The state's resources make it a natural leader in petroleum and chemical manufacturing; its research institutions have fostered computer-related and other high-tech manufacturing; and a business-friendly environment and skilled labor have helped create a burgeoning automotive manufacturing sector. **IN ALL, MANUFACTURING CONTRIBUTED $226 BILLION TO TEXAS' GROSS DOMESTIC PRODUCT** (GDP) in 2016, an amount larger than the entire economy of Portugal.

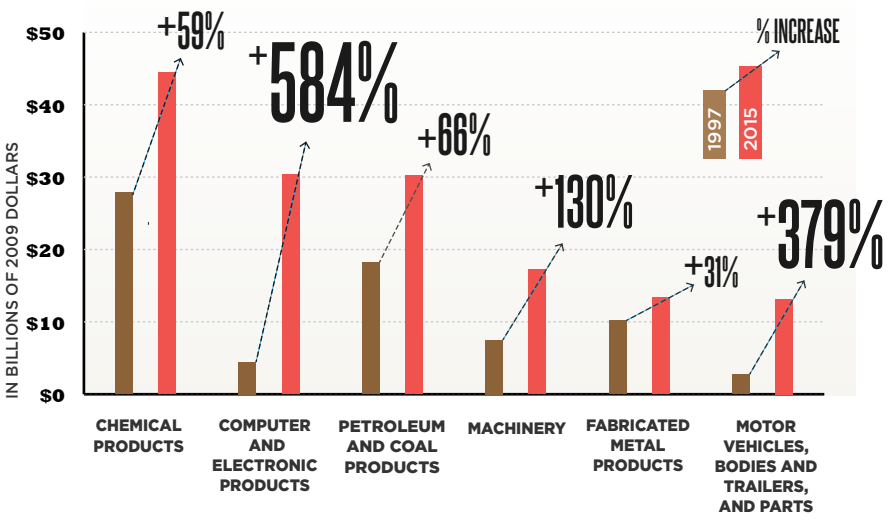
Glenn Hegar
Texas Comptroller of Public Accounts

PERCENT CHANGE IN REAL GROSS DOMESTIC PRODUCT / 1997-2016



Sources: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics

LARGEST MANUFACTURING SUBSECTORS IN TEXAS BY GDP: GROWTH FROM 1997 TO 2015



Sources: U.S. Bureau of Economic Analysis, Texas Comptroller of Public Accounts

TEXAS MANUFACTURING OUTPUT HAS OUTPACED THE TOTAL TEXAS ECONOMY.

TEXAS MANUFACTURING ACCOUNTED FOR 10.4 PERCENT OF U.S. MANUFACTURING GDP IN 2016.

From 1997 through 2016, growth in Texas manufacturers' economic output more than doubled U.S. manufacturing gains of 40 percent.

BETWEEN 1997 AND 2016, MANUFACTURING REAL GDP INCREASED 98 PERCENT, COMPARED WITH AN 84 PERCENT GAIN ACROSS ALL TEXAS INDUSTRIES.

Sources: U.S. Bureau of Economic Analysis, Texas Comptroller of Public Accounts

3,000,000
DIRECT & INDIRECT EMPLOYMENT

$225.8 Billion
TEXAS MANUFACTURING GDP

$73,738
AVERAGE ANNUAL WAGE

$210.3 Billion
EXPORTS

Sources: U.S. Bureau of Economic Analysis, Regional Economic Models, Inc., Emsi, U.S. Department of Commerce International Trade Administration

While Texas' manufacturing employment has diminished as a result of automation, technological advances and other factors, its economic output has increased. From 1997 through 2016, Texas' manufacturing job count fell by 19 percent, but its real GDP rose by 98 percent. Texas has **858,000 DIRECT MANUFACTURING JOBS**, as well as another **2.2 MILLION JOBS** indirectly created or supported by manufacturers. In 2016, average annual Texas wages in manufacturing approached **$74,000**, much higher than the statewide average of $54,000.

To see more in-depth Texas manufacturing data, visit:
comptroller.texas.gov/economy/economic-data/manufacturing/