

# Outlook for the Texas Economy



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## About this Report

Real Estate Center economists continuously monitor many facets of the global, national, and Texas economies. *Outlook for the Texas Economy* summarizes significant state economic activity and trends. All measurements are calculated annually, unless stated otherwise.

This publication is designed to be a one-stop resource for economic indicators. We hope you find them as useful as we do. Your feedback is always appreciated. Send comments and suggestions to [info@recenter.tamu.edu](mailto:info@recenter.tamu.edu).

Dr. Luis Torres, Wesley Miller, and Bailey Cuadra

Data current as of February 6, 2018

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## 2017 Annual Summary<sup>1</sup>

The Texas economy reversed trend in the wake of the energy sector downturn. Oil price increases induced a resurgence in energy activity, leading to job growth and near-record levels of production. Robust global demand and flourishing crude oil exports provided further support for rising output. Aside from promising developments in the energy sector, the Texas economy grew roughly around the post-recession average. Single-family housing sales held steady at 4 percent growth, but affordability issues persist. Employment growth picked up after a sluggish 2016, driving down unemployment but failing to bolster wage increases. Additionally, demographic changes drove the Texas labor force participation rate to an all-time low of 63.5 percent. In general, the Texas economic expansion should continue throughout 2018. Potential headwinds to the Texas economy include energy price volatility and trade uncertainty, especially with Mexico as NAFTA negotiations progress.

Texas' economic expansion continued as the **Dallas Fed's Business-Cycle Index** (a measure of current economic activity in the state) rose 3.7 percent but remained below the 4.3 percent post-recession average. End-of-year labor market improvements provided upward momentum proceeding into 2018. The metropolitan business cycle indices fared similarly, led by Austin at 6.6 percent annual growth. The Dallas and Fort Worth indices decelerated below trend at 4.6 and 2.5 percent, respectively, amid innocuous job growth. Economic activity slowed in San Antonio to 4.2 percent, but a stretch of ten consecutive monthly increases indicated improvement in the region. In Houston, a stagnant first quarter and subsequent hurricane shock constrained economic activity to 1.1 percent annual growth. However, reconstruction related stimuli drove the Houston index up 6.8 percent in December, its largest growth since the 2015 energy crisis.

The state's long-term outlook remained positive as the **Texas Leading Economic Index** (a measure of *future* directional changes in the business cycle) rose 2.8 percent annually after faltering the last two years. Rising energy prices and a healthy national economy bode well for Texas in the coming year. The **Texas Consumer Confidence Index** reflected this optimism, jumping 19.6 percent from elevated expectations of a continued expansion.

Interest rates closed the year on a high note after U.S. legislators passed tax legislation, and the Federal Reserve raised the federal funds rate for a third time this year. Investors sold off bonds in expectation of rising inflation and further interest rate increases. The **ten-year U.S. Treasury bond yield** increased nearly half a percent annually, settling at 2.33 percent. As expected, the **Federal Home Loan Mortgage Corporation 30-year fixed-rate** ticked up similarly to 3.99 percent, mirroring changes in the ten-year bond yield. Rates remained low by historical standards but showed signs of trending upward.

The Texas housing market held steady as sales rose 4 percent, maintaining the current four-year average despite shortages of homes priced under \$300,000. Current residential construction

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<sup>1</sup> All measurements are calculated annually, unless stated otherwise.

activity, measured by the **Residential Construction Cycle (Coincident) Index**, accelerated 3.8 percent as residential construction values and industry employment advanced. Growth in weighted building permits and housing starts pushed the Texas **Residential Construction Leading Index** up 3.6 percent, signaling increased residential construction activity in early 2018. (For additional housing commentary and statistics, see *Texas Housing Insight* at [recenter.tamu.edu](http://recenter.tamu.edu).)

The **West Texas intermediate crude oil spot price** increased seven straight months to close the year at \$57.88 (December average), more than \$15 higher than in 2016 amid strong global demand. A combination of reduced crude inventories, geopolitical tension in the Middle East, and a 20-day shutdown of the Forties pipeline system in the North Sea propelled oil prices a two-year high. In Texas, the number of **active rigs** matched 2015 levels at an annual average of 430, accounting for nearly half of all working rigs in the nation, but peaked in the summer months. In response to higher prices, **crude oil production** jumped 8 percent and is set to surpass record levels previously attained in 1970. The **Henry Hub natural gas spot price** settled \$2.99 per million BTU (British thermal unit), the third straight year below \$3, as temperate weather and surging U.S. production failed to subdue the global surplus.

Texas added more than 278,000 nonfarm jobs in 2017 after soft growth during the energy sector downturn. Job gains pulled the Texas **unemployment rate** down to 4.4 percent annually, nearly halving the recessionary peak of 8.2 percent. Unemployment was even lower in the major metros. Austin unemployment averaged 3.2 percent, while rates in Dallas and Fort Worth hovered at 3.7 and 3.8 percent, respectively. The San Antonio unemployment rate reached a 19-year low of 3.6 percent despite slowing job growth. The unemployment rate trended downward in Houston before spiking after the hurricane, holding the annual average at 5.1 percent. However, reconstruction efforts and rising oil prices should more than offset the temporary increase, pulling Houston unemployment back to its underlying trend.

**Texas initial unemployment insurance claims** remained relatively unchanged despite third quarter volatility. At the national level, initial claims sunk for the eighth straight year, breaking a 47-year-old record low. Despite improved economic fundamentals, the **Texas labor force participation rate** continued its 20-year slide to 63.5 percent. An aging workforce and changing immigration patterns challenged labor force participation across the nation.

At the metropolitan level, Dallas led the state in annual employment growth with 81,300 new jobs, down slightly from the last three years. Employment contractions in the information sector and a slowdown in trade and transportation accounted for most of the falloff. After stagnating in 2016, Houston employment rebounded with 39,600 new jobs, led by growth in professional and business services. Strength in the manufacturing industry generated 6,800 Houston jobs, primarily in the durable-goods subsector. In 2018, Houston employment is projected to return to trend, adding between 55,000 and 60,000 jobs. Fort Worth also benefitted from a manufacturing resurgence, pushing total employment growth up 2.7 percent with 27,500 new jobs. Austin employment increased by 27,300 jobs but slowed across industries. Contractions in wholesale and retail trade pulled San Antonio growth to its lowest level since 2012, adding a little more than 25,000 jobs.

On par with last year, the Texas service sector created 227,000 jobs. Gains in real estate, finance, and energy related subsectors offset 8,600 jobs lost in the information sector. The **Texas Service Sector Outlook Survey** indicated favorable employment conditions in the industry as all of the labor market indices advanced. The revenue index averaged 5.9 points higher than in 2016 but remained below 2014 levels. The future outlook and expectations for service providers remained on a 22-month upward trend, as multiple respondents welcomed tax reform and decreased regulation. However, labor shortages and NAFTA concerns persisted.

Texas retail employment struggled throughout 2017, adding just 4,900 jobs, as the industry grappled with structural changes toward an online economy. The **Texas Retail Outlook Survey** indicated improved labor conditions late in 2017, as the employment, hours worked, and wage indices increased. Furthermore, the retail sales revenue index jumped 12.2 points over the year amid elevated consumer confidence and favorable economic conditions.

The goods-producing sector reversed trend after two annual declines, creating 51,900 jobs. Supported by higher oil prices, the mining and logging industry regained 29,400 of the 39,500 lost during the energy downturn. Despite the stabilization, energy sector and durable goods employment remained considerably below the 2014 peak.

Texas manufacturing employment increased 2.7 percent, the most since 2012, adding 22,500 jobs throughout the year. Dallas and Fort Worth manufacturers created 2,300 and 2,700 jobs, respectively, while Austin generated 1,900. In San Antonio, manufacturing employment rose 5.7 percent since 2013, reaching almost 50,000 jobs in the industry. Houston remained the leader in Texas with more than 230,000 manufacturing jobs, adding 6,800 this year despite supply chain disruptions in the aftermath of Hurricane Harvey.

The **Texas Manufacturing Outlook Survey** confirmed a rebound in the industry as wages, employment, and the number of hours worked elevated. The production index reached a 12-year high, and manufacturer sentiment surpassed record levels regarding their outlook on the future. However, respondents hinted that the global economic expansion may be weaker than perceived.

Construction employment slowed for the fourth straight year in spite of growing claims of labor shortages. The industry added the fewest number of jobs (14,300) since recessionary declines between 2009 and 2011. The **total value of Texas construction** reached an all-time high at \$32.4 billion but observed a similar slowdown. Substantial declines in multifamily housing and office construction dragged down values across the state. A short-term boost is expected in 2018 as reconstruction continues along the Gulf Coast.

Despite low unemployment levels, employee compensation remained stagnant as **real Texas private hourly earnings** increased only 1.1 percent. Wages fell for the third year in Fort Worth, dropping 3.7 percent since 2014. Similarly, Houston wages fell 3.6 percent over the past two years. San Antonio led the state in wage growth for the second straight year at 2.7 percent, after a delayed recovery from the Great Recession. Wages improved 2.5 percent in Dallas following a small

slip in 2016, while Austin observed a 1.9 percent wage increase for the fifth straight year of positive growth.

After rising 42.1 percent between 2010 and 2016, Texas manufacturing wage growth flattened, inching down 0.2 percent on the year. Fort Worth and Dallas had the highest manufacturing wages but observed a 1.2 and 1.1 percent annual decline, respectively. Houston manufacturing wages rose further above the national level amid 2.7 percent growth. In San Antonio, wages lagged the statewide level but posted explosive growth, rising 24.5 percent in just two years.

Throughout much of 2017, the **U.S. Consumer Price Index (CPI)** hovered around the Fed's 2 percent year-over-year (YOY) target. However, the core inflation rate, which excludes the often-volatile food and energy sectors, remained suppressed. Increased business competition and dormant wage growth hindered core inflation. The Houston CPI tracked national prices relatively closely, averaging 2 percent YOY. Houston inflation jumped in 3Q17 but quickly normalized as shortages of food, gasoline, and medical care subsided to close the year.

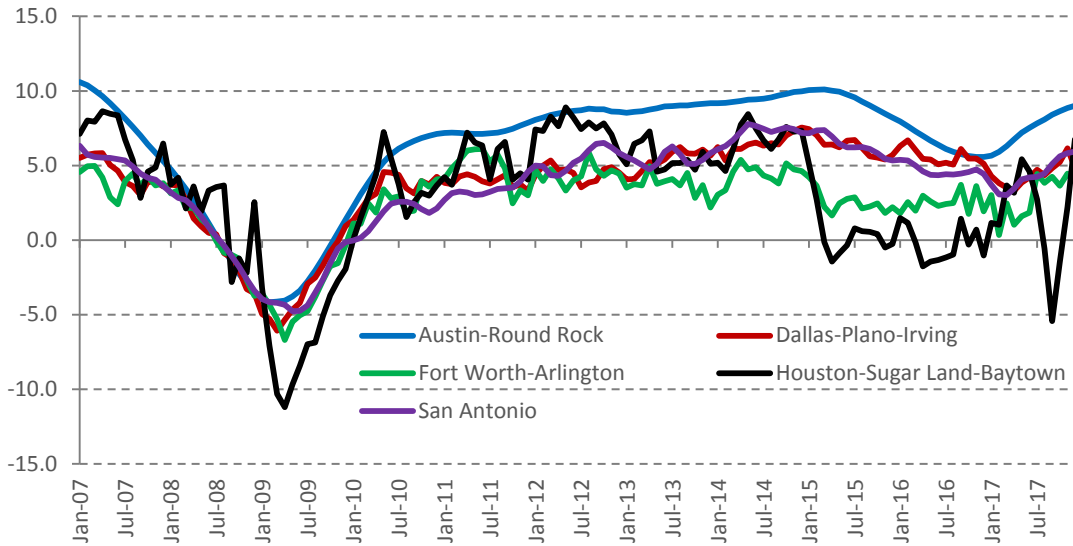
After a three-year climb, the **Texas trade-weighted value of the dollar** balanced, thereby increasing the attractiveness of Texas goods and services to foreign consumers. Currency stabilization and Texas' economic expansion boosted **goods exports** 11.6 percent after contracting the last two years. **Texas crude oil exports** posted massive 253 percent annual growth, shattering last year's record high and accounting for 77 percent of the national export total. On a lesser scale, **manufacturing exports** recovered 3.8 percent, surpassing national growth for the first time since 2013.

A strong global economy and stable currency will likely support export growth throughout the next year. Exports to China increased 61.3 percent since 2014 and trended upward as economic activity expanded in Asia. Mexico, Texas' largest trade partner, received more than 36 percent of exports but slowed economically in recent months. NAFTA renegotiations and the weakness of the Mexican economy remain potential headwinds to Texas-Mexico trade activity.



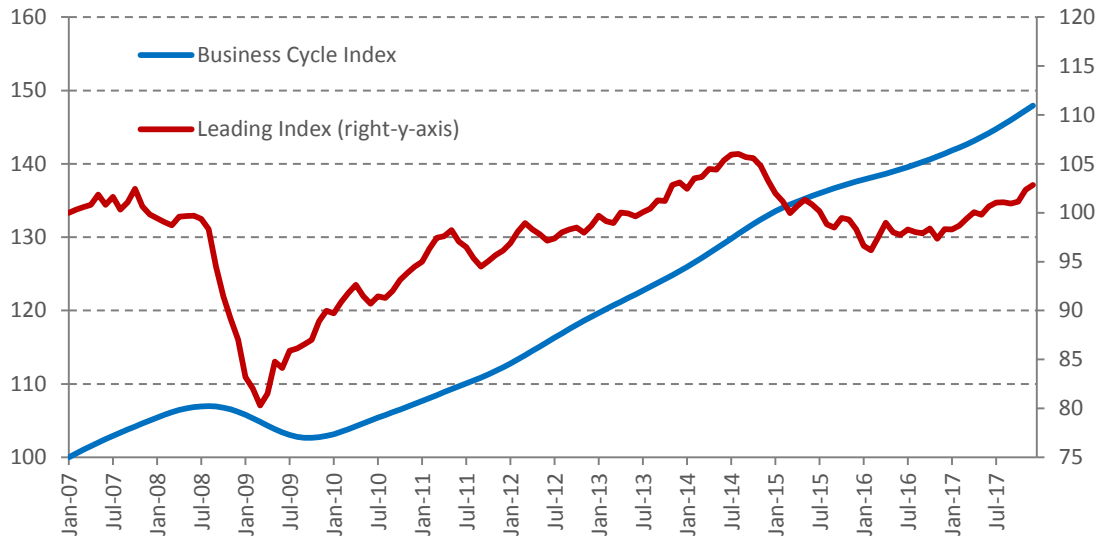
## Economic Activity

**Major Metros Business Cycle Index**  
(Quarter-over-Quarter Percentage Change)



Note: Seasonally adjusted. For more information, see [Texas Business Cycle Index](#).  
Source: Federal Reserve Bank of Dallas

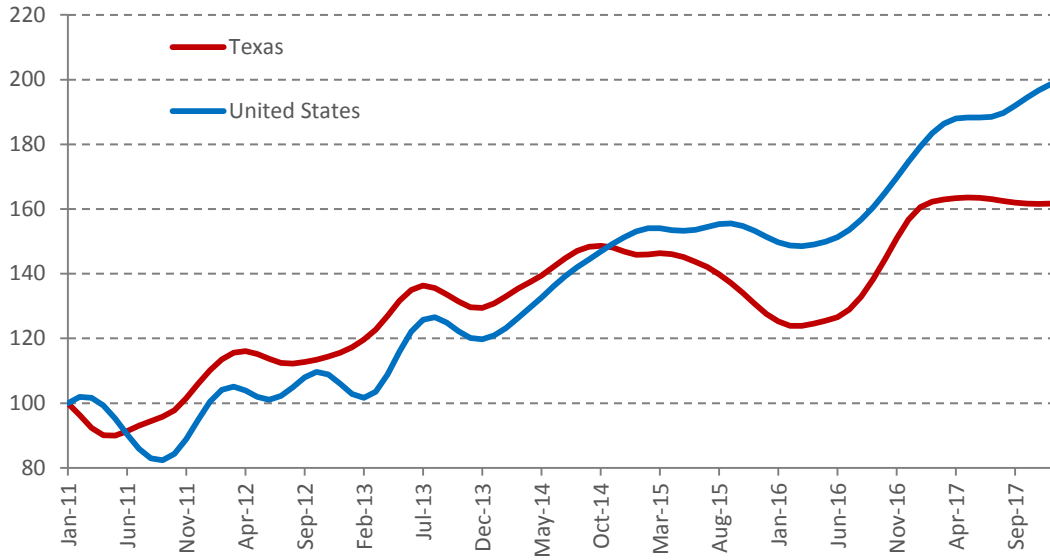
**Texas Business Cycle Index and Leading Index**  
(Index Jan 2007 = 100)



Note: Seasonally adjusted. For more information, see [Texas Business Cycle Index](#).  
Source: Federal Reserve Bank of Dallas



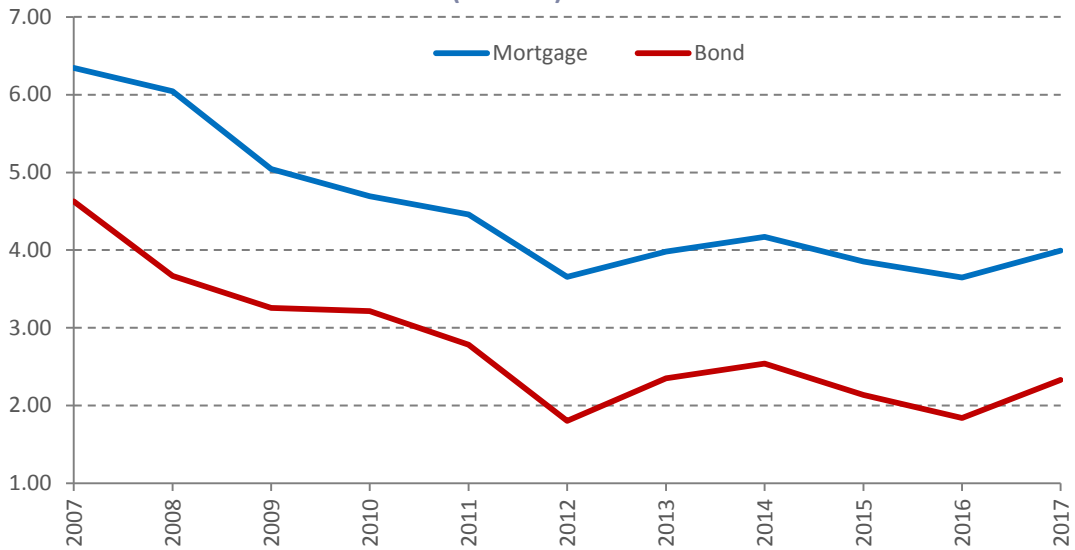
**Consumer Confidence Index**  
(Index Jan 2011 = 100)



Note: Seasonally adjusted and detrended.  
Source: Conference Board

**Financial Activity**

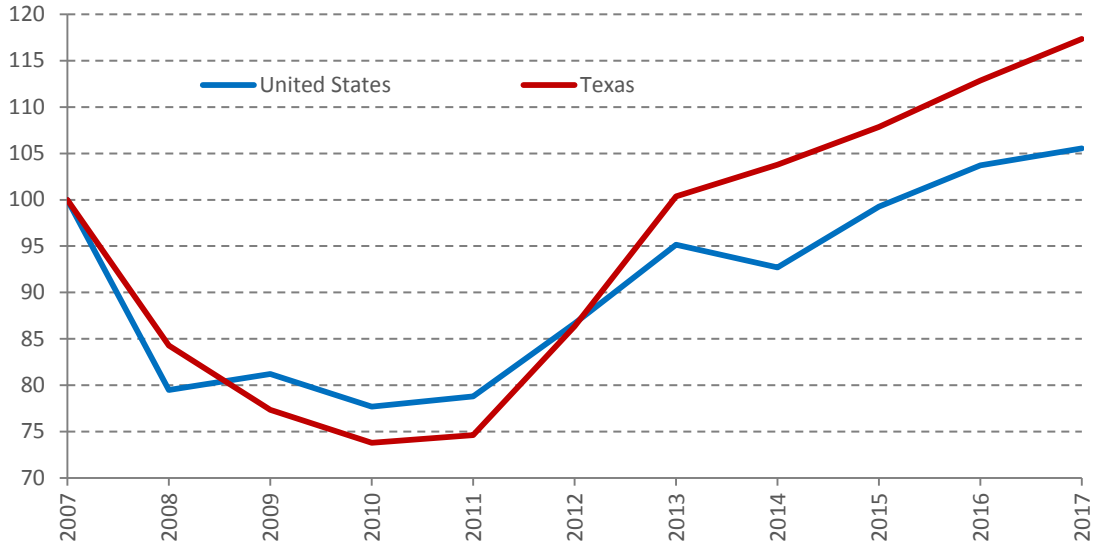
**30-Year Mortgage Rate and 10-Year Bond Yield**  
(Percent)



Note: Annual average.  
Sources: Federal Home Loan Mortgage Corporation and Federal Reserve Board

## Housing

**Housing Sales**  
(Index 2007 = 100)

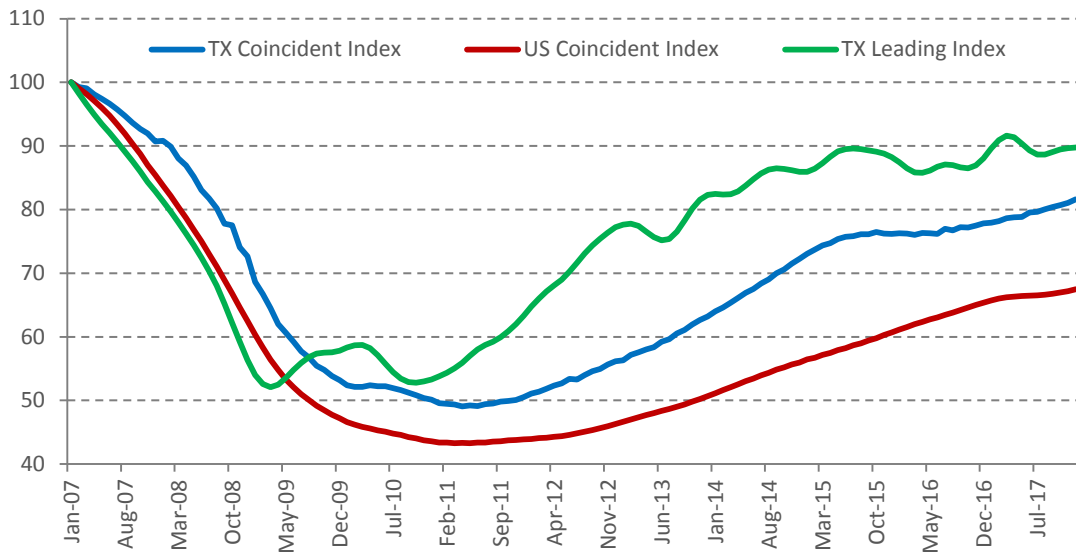


Note: Annual sum. Sales for the United States include all existing homes and new single-family homes; new non-single-family homes are not included. Texas includes all existing and new homes.

For more information, see [Housing Sales](#).

Sources: U.S. Census Bureau, National Association of Realtors, and Real Estate Center at Texas A&M University

**Residential Construction Coincident and Leading Indicator**  
(Index Jan 2007 = 100)

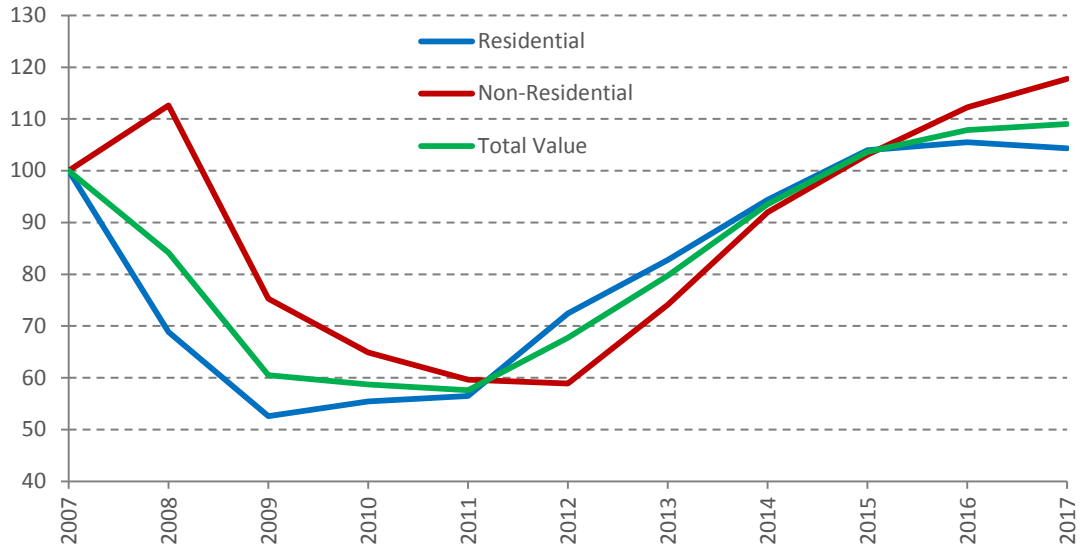


Note: Seasonally adjusted and detrended.

Sources: Real Estate Center at Texas A&M University and Federal Reserve Bank of Dallas

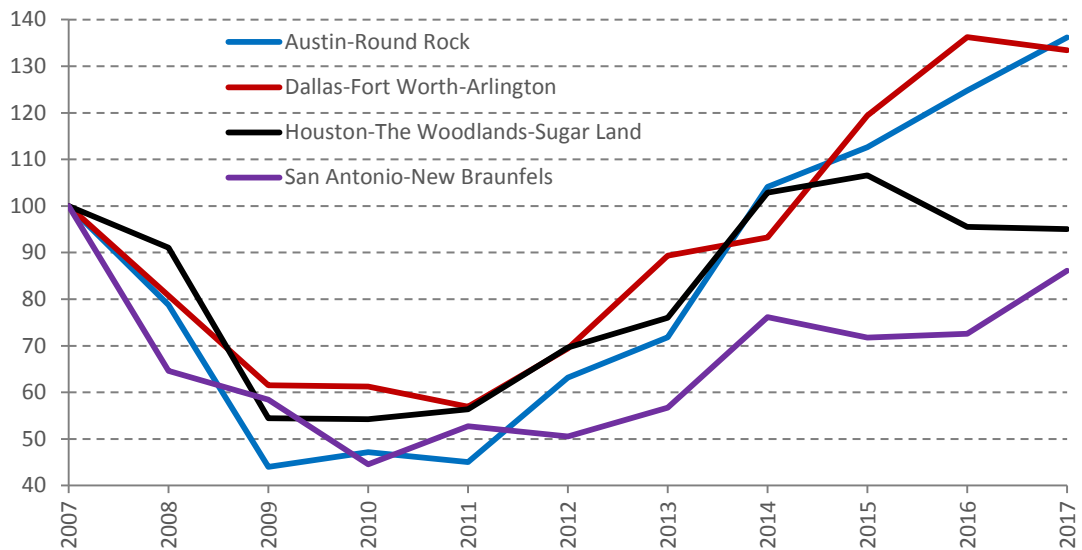


**Texas Construction Values**  
(Index 2007 = 100)



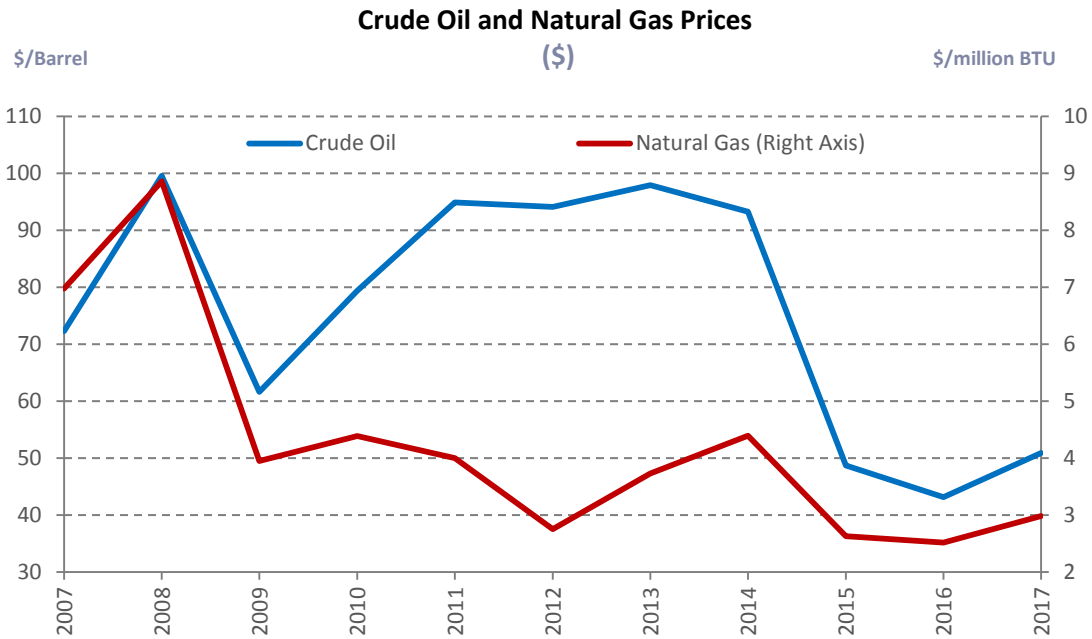
Note: Real value. Annual Sum.  
Source: Dodge Analytics

**Major Metros Total Construction Values**  
(Index 2007 = 100)



Note: Real values. Annual sum.  
Source: Dodge Analytics

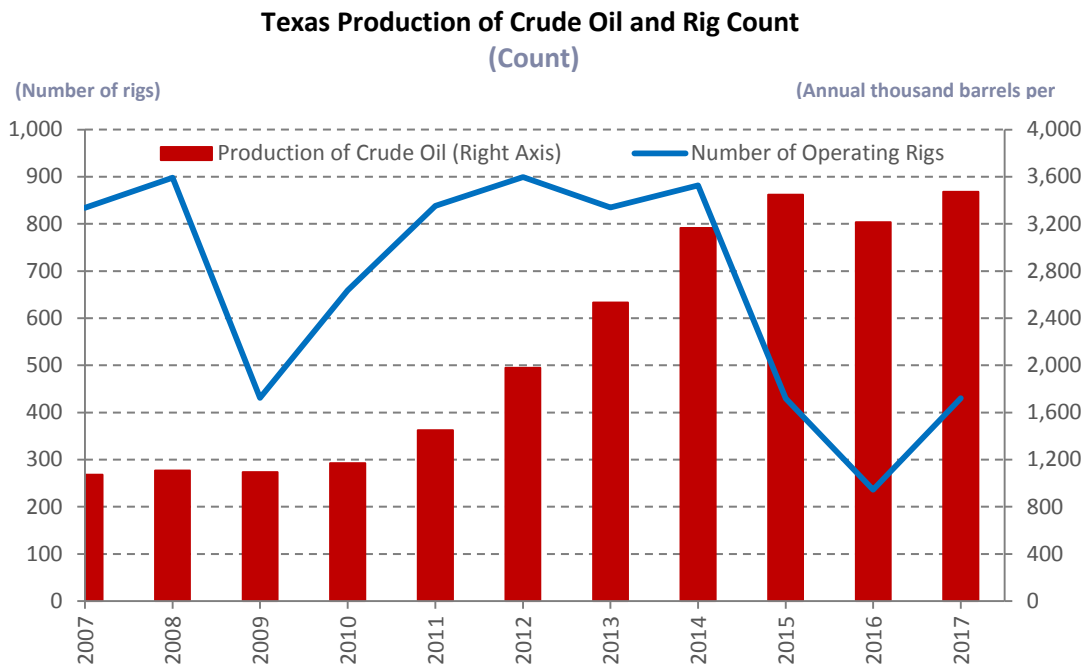
## Energy



Note: Annual average.

For more information, see [Crude Oil and Natural Gas Prices](#).

Source: U.S. Energy Information Administration received from Thomson Reuters



Note: Annual average.

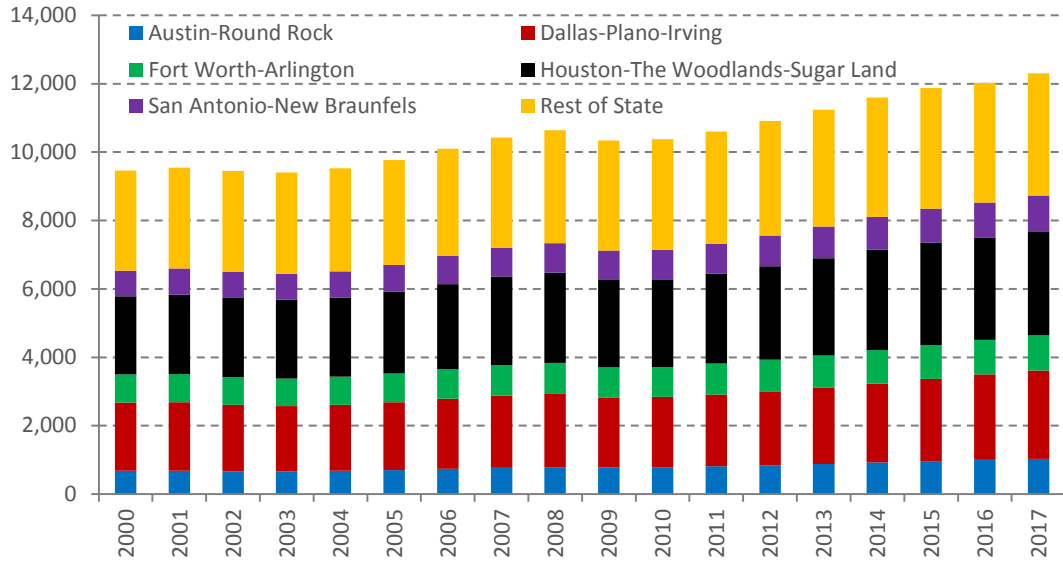
For more information, see [Texas Production of Crude Oil and Rig Count](#).

Sources: Baker Hughes and U.S. Energy Information Administration



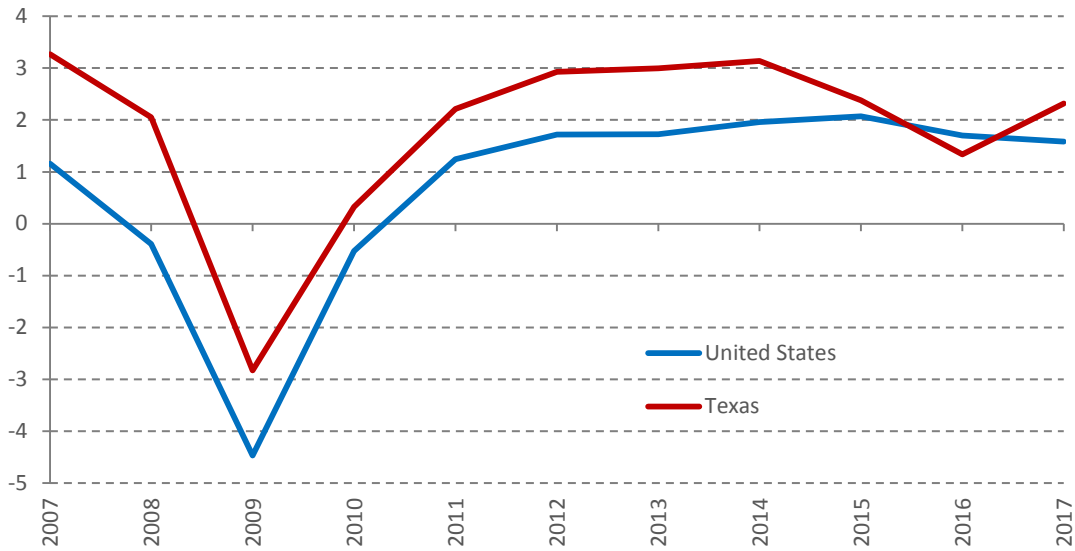
## Employment

**Total Nonfarm Annual Employment**  
(Average in Thousands)



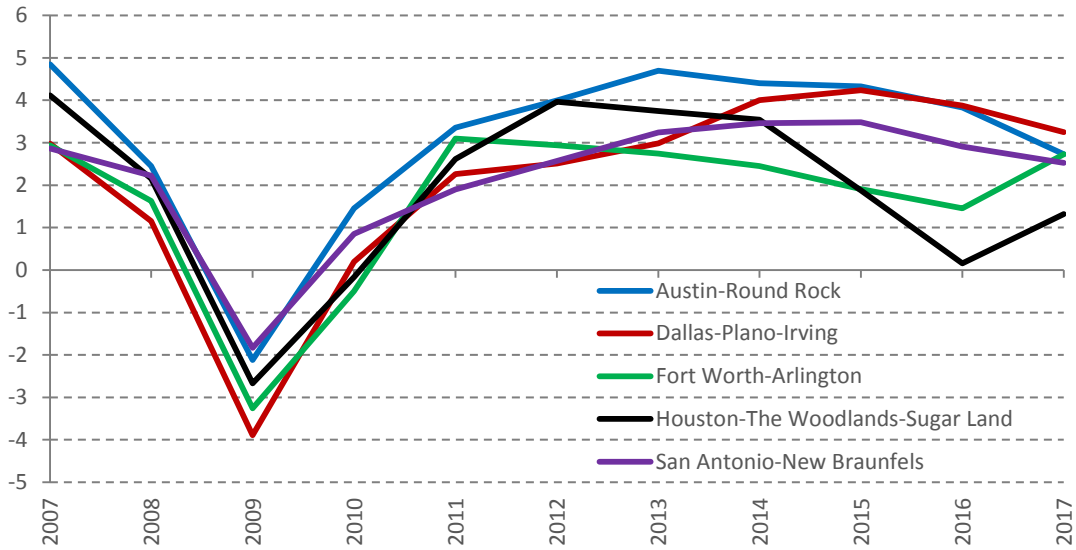
Note: Annual average. December 2017 is preliminary.  
For more information, see [Employment Growth Rate](#).  
Source: Bureau of Labor Statistics

**Employment Growth Rate**  
(Annual Percentage Change)



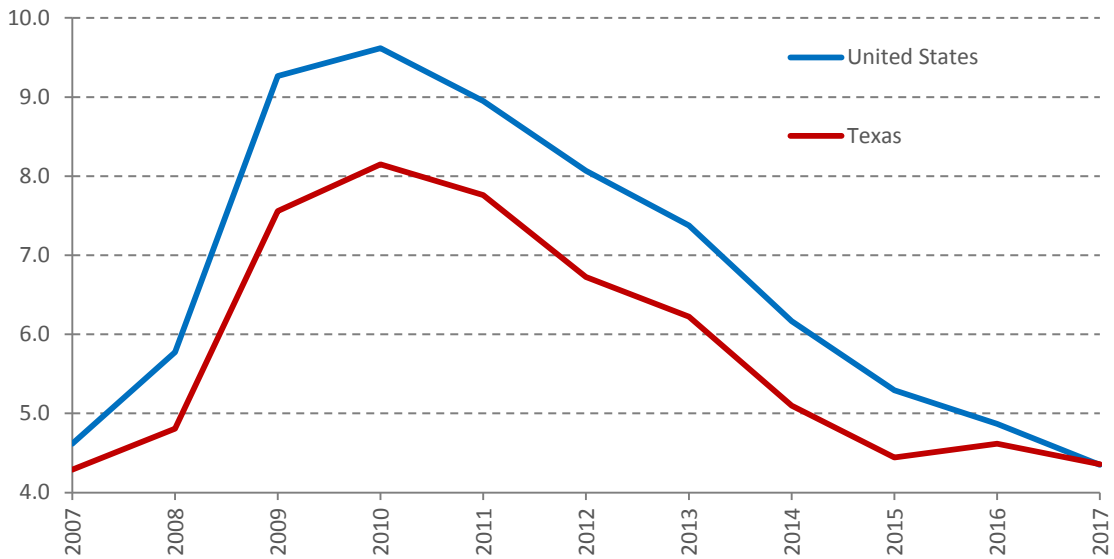
Note: Annual average. December 2017 is preliminary.  
For more information, see [Employment Growth Rate](#).  
Source: Bureau of Labor Statistics

### Major Metros Employment Growth Rate (Annual Percentage Change)



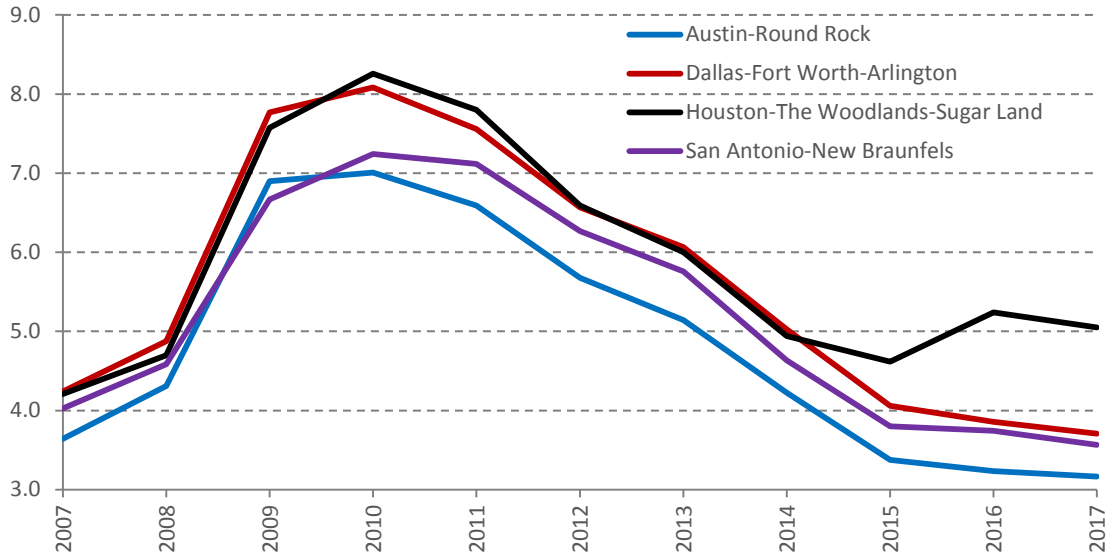
Note: Annual average. December 2017 is preliminary.  
For more information, see [Employment Growth Rate](#).  
Source: Bureau of Labor Statistics

### Unemployment Rate (Percent)



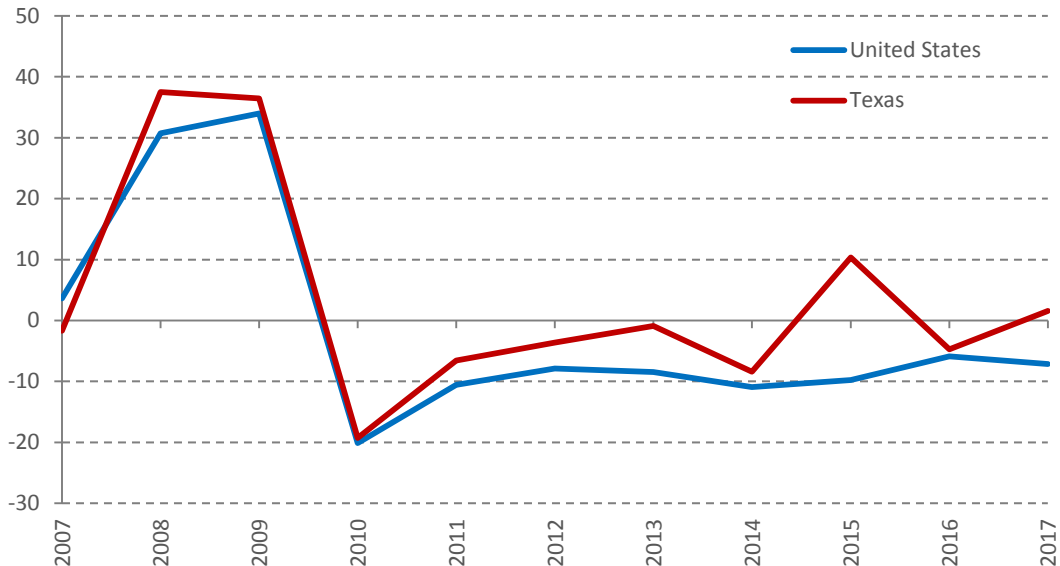
Note: Annual. December 2017 is preliminary. For more information, see [Unemployment Rate](#).  
Source: Bureau of Labor Statistics

### Major Metros Unemployment Rate (Percent)



Note: Annual. December 2017 is preliminary. For more information, see [Unemployment Rate](#).  
Sources: Bureau of Labor Statistics and Real Estate Center at Texas A&M University

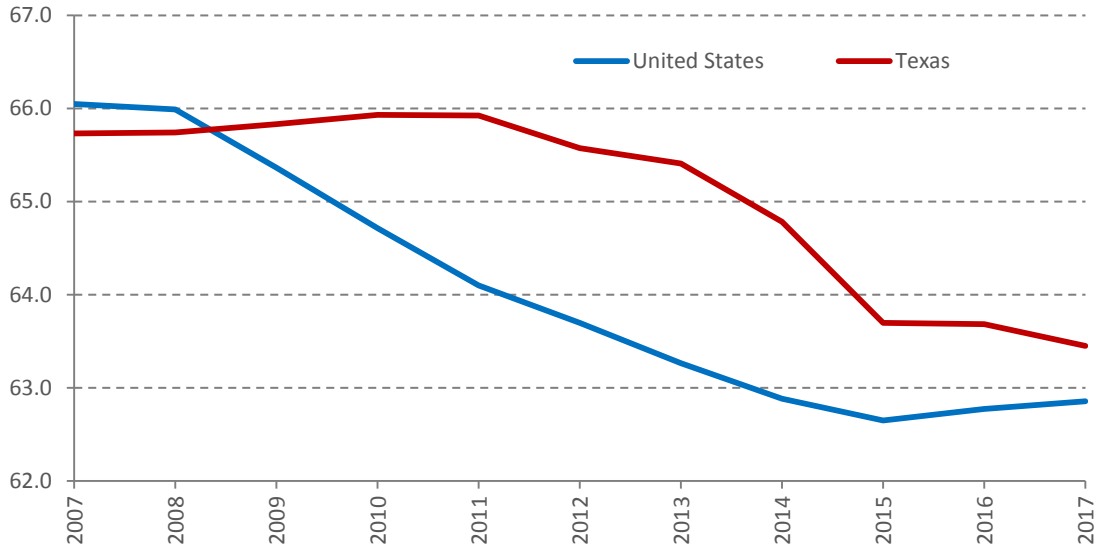
### Unemployment Insurance Claims: Initial Applications (Annual Percentage Change)



Note: Annual average. For more information, see [Unemployment Insurance Claims: Initial Applications](#).  
Source: Department of Labor

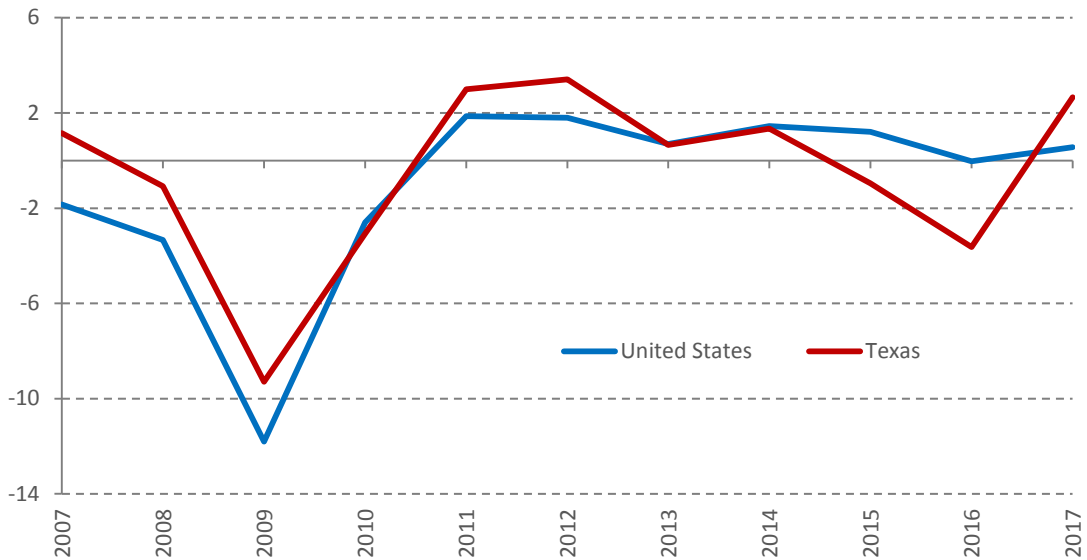


### Labor Force Participation Rate (Percent)



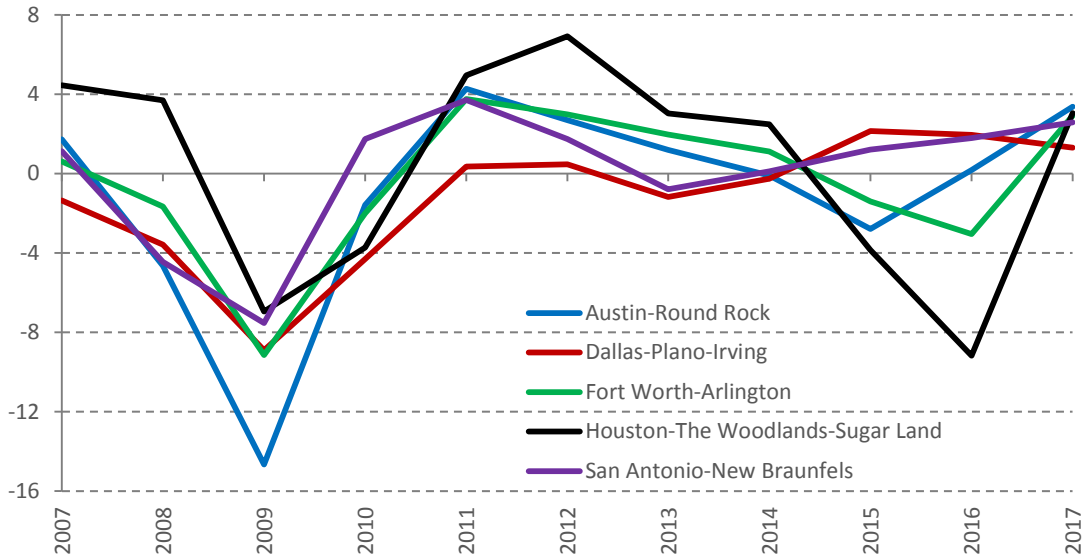
Note: Annual. For more information, see [Unemployment Rate](#).  
Source: Bureau of Labor Statistics

### Manufacturing Employment (Annual Percentage Change)



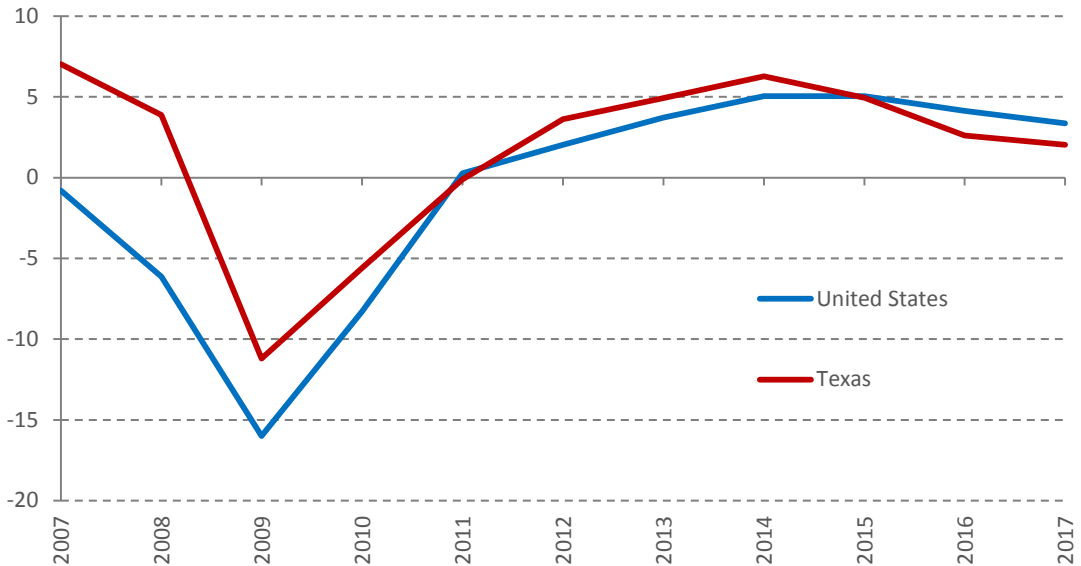
Note: Annual. December 2017 is preliminary.  
For more information, see [Employment Growth Rate](#).  
Source: Bureau of Labor Statistics

### Major Metros Manufacturing Employment (Annual Percentage Change)



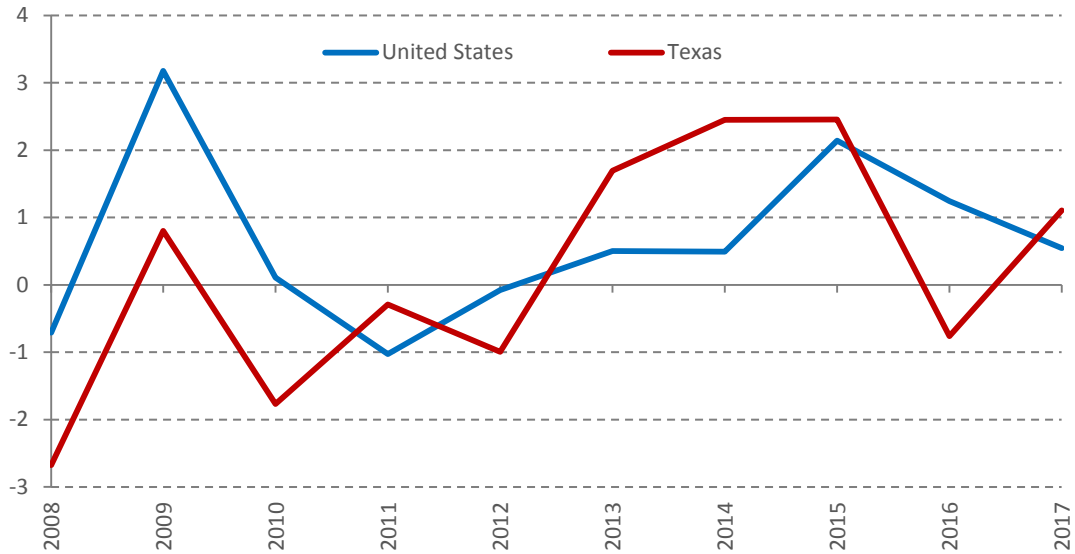
Note: Annual. December 2017 is preliminary.  
 For more information, see [Employment Growth Rate](#).  
 Source: Bureau of Labor Statistics

### Construction Employment (Annual Percentage Change)



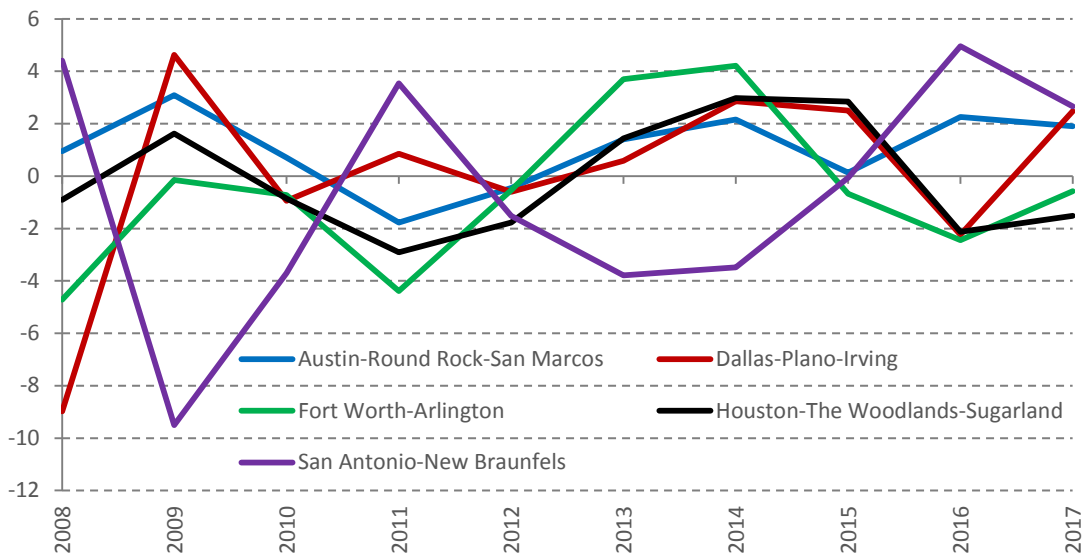
Note: Annual. December 2017 is preliminary.  
 For more information, see [Employment Growth Rate](#).  
 Source: Bureau of Labor Statistics

### Total Private Employee Hourly Earnings (Annual Percentage Change)



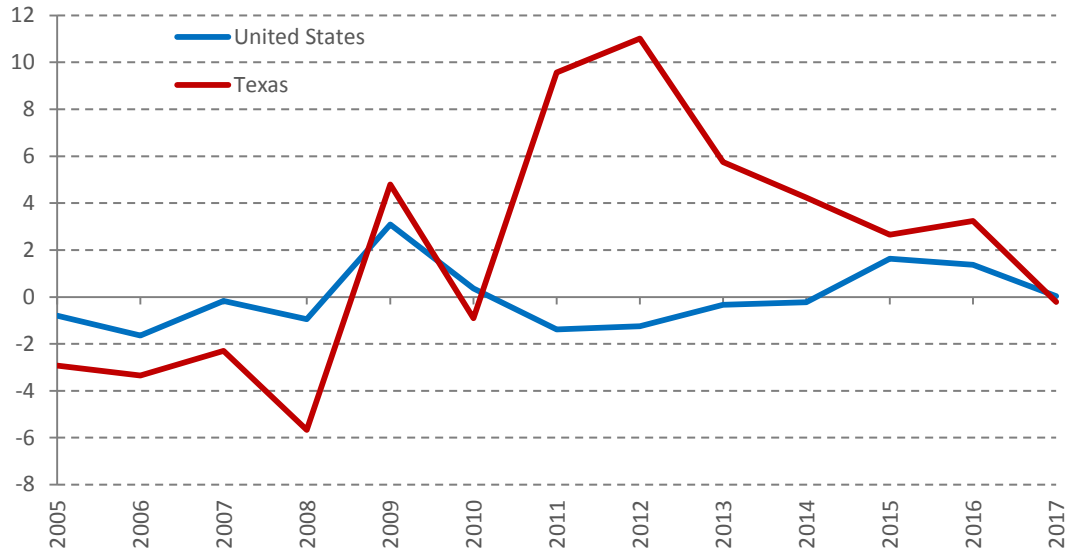
Notes: Inflation adjusted. Annual average. December 2017 is preliminary.  
For more information, see [Total Private Employee Hourly Earnings](#).  
Source: Bureau of Labor Statistics

### Major Metros Total Private Employee Hourly Earnings (Annual Percentage Change)



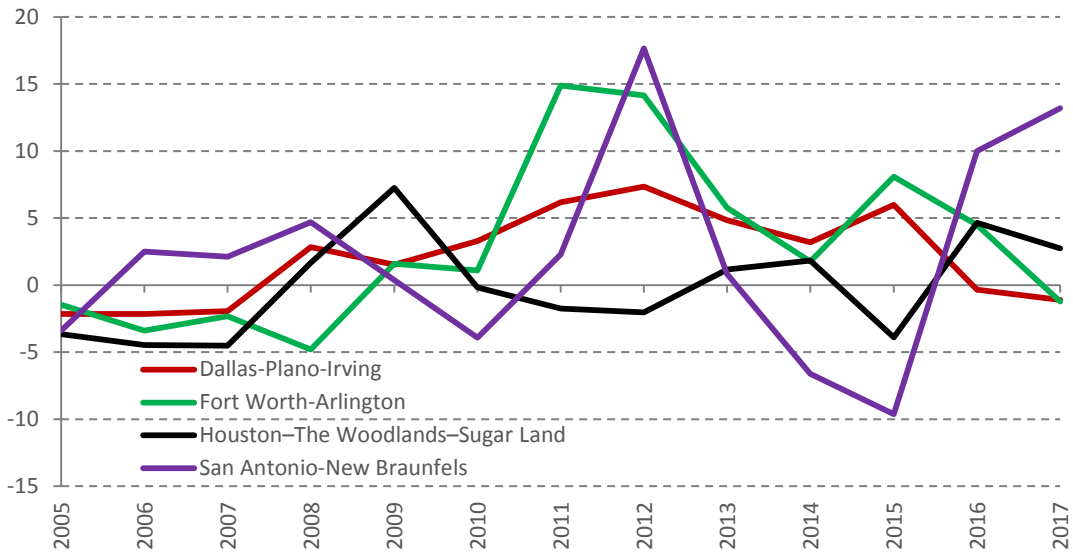
Notes: Inflation adjusted. Annual average. December 2017 is preliminary.  
For more information, see [Total Private Employee Hourly Earnings](#).  
Source: Bureau of Labor Statistics

### Manufacturing Employee Hourly Earnings (Annual Percentage Change)



Notes: Inflation adjusted. Annual Average. December 2017 is preliminary.  
 For more information, see [Total Private Employee Hourly Earnings](#).  
 Source: Bureau of Labor Statistics

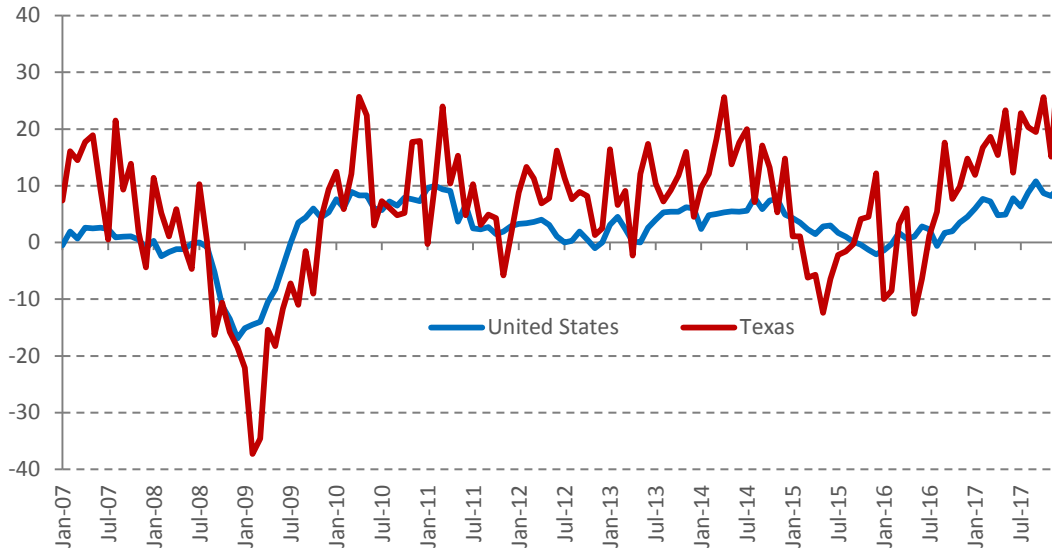
### Major Metros Manufacturing Employee Hourly Earnings (Annual Percentage Change)



Notes: Inflation adjusted. Annual average. December 2017 is preliminary.  
 For more information, see [Total Private Employee Hourly Earnings](#).  
 Source: Bureau of Labor Statistic

## Manufacturing

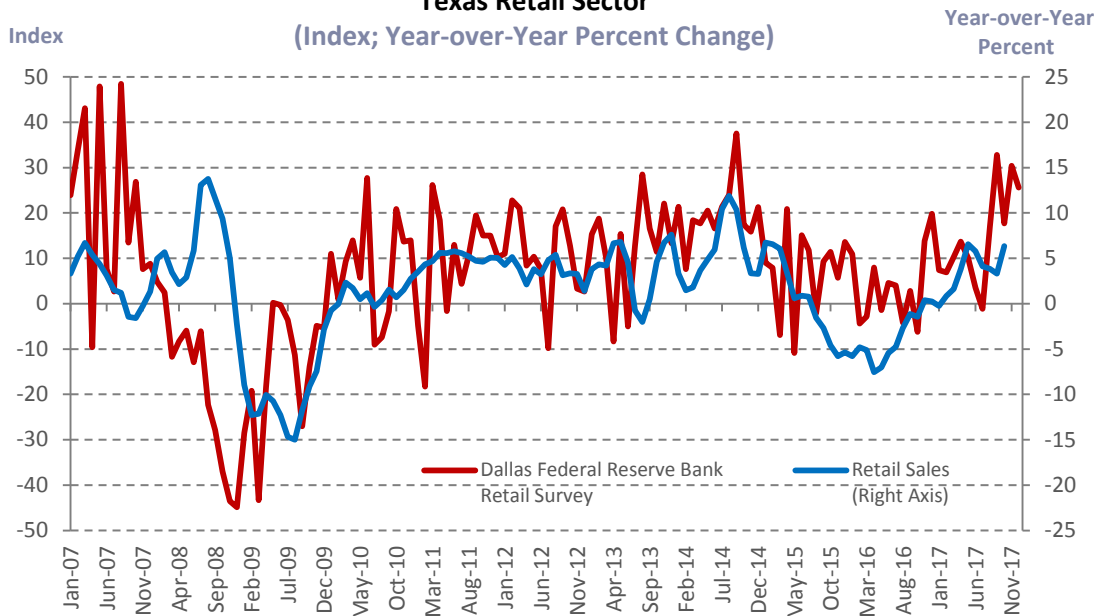
**Manufacturing Outlook Survey  
(Index)**



Note: Seasonally adjusted. For more information, see [Manufacturing Outlook Survey](#).  
Sources: Federal Reserve Bank of Dallas and Institute for Supply Management. United States index is adjusted -50 to be on scale with Texas index

## Services

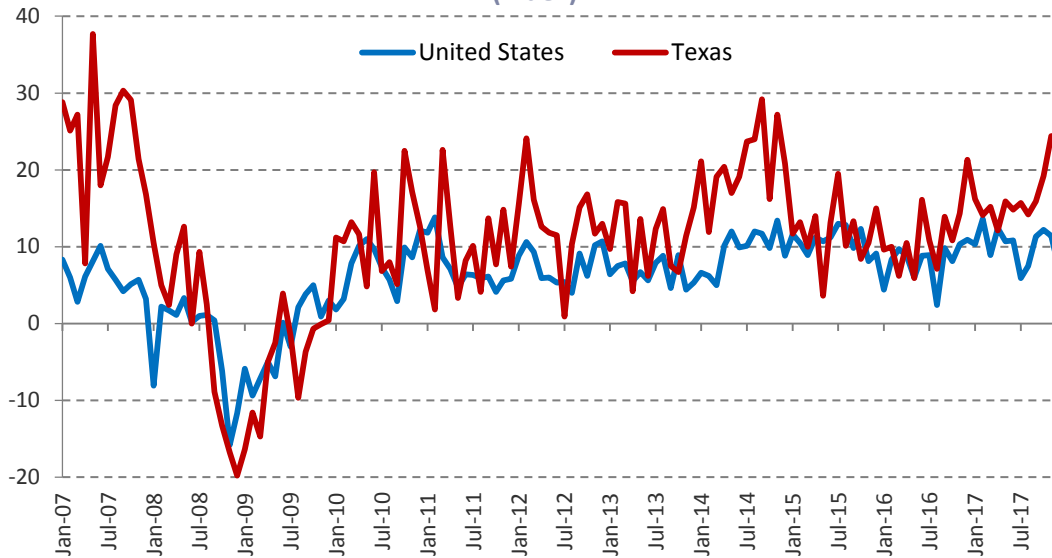
**Texas Retail Sector  
(Index; Year-over-Year Percent Change)**



Note: Seasonally adjusted and inflation adjusted. For more information, see [Texas Retail Sector](#).  
Sources: Retail Sector Outlook Survey from the Federal Reserve Bank of Dallas, Retail Sales from Texas Comptroller of Public Accounts



### Services Sector Outlook Survey (Index)

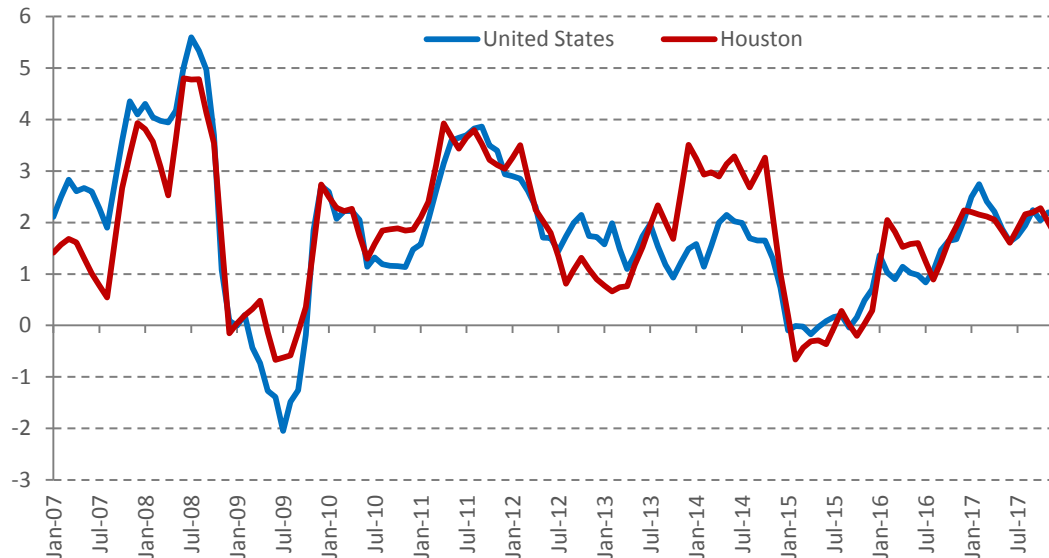


Note: Seasonally adjusted. For more information, see [Services Sector Outlook Survey](#).

Sources: Federal Reserve Bank of Dallas and Institute for Supply Management. United States index is adjusted -50 to be on scale with Texas index.

### Prices

#### CPI Inflation Rates (Year-over-Year Percentage Change)

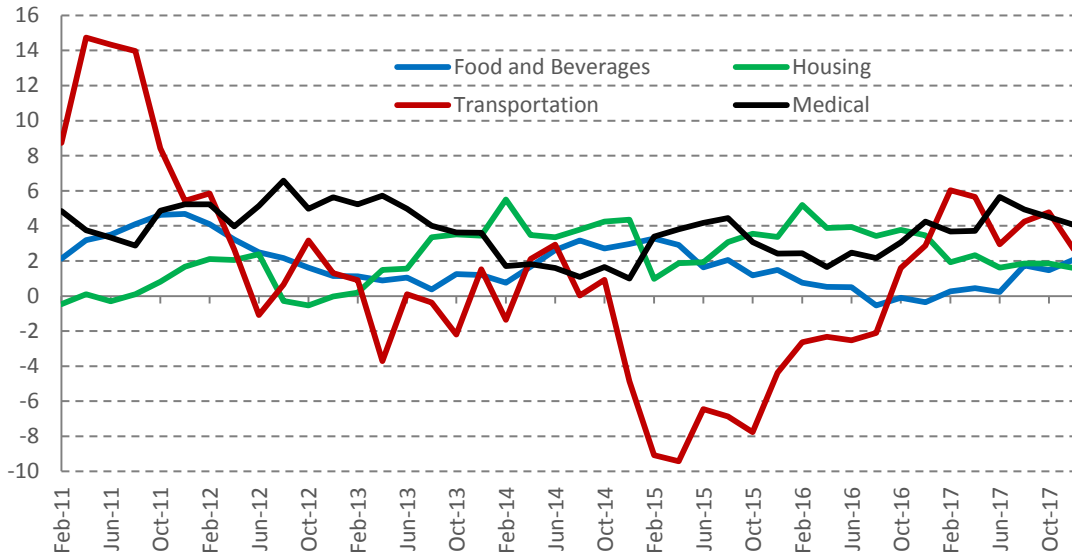


Note: Seasonally adjusted. For more information, see [CPI Inflation Rates](#).

Source: Bureau of Labor Statistics



### CPI Inflation Rates (Houston Components) (Year-over-Year Percentage Change)

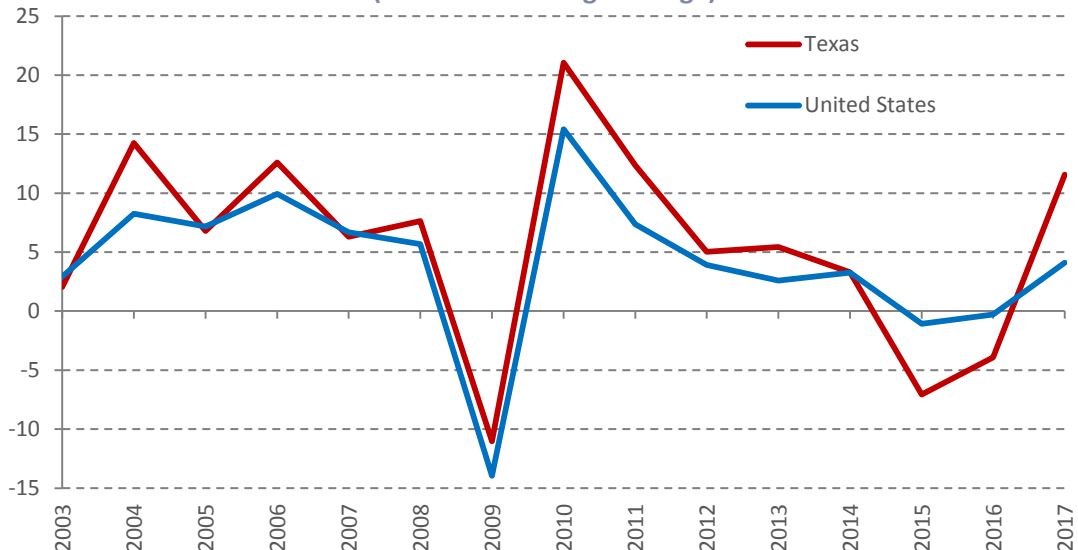


Note: The Houston CPI is composed of the following major groups: Food and Beverages, Housing, Apparel, Transportation, Medical Care, Recreation, Education and Communication, and Other Goods and Services. The four major components are included in the graph above.

Source: Bureau of Labor Statistics

### Trade

#### Exports (All Commodities) (Annual Percentage Change)

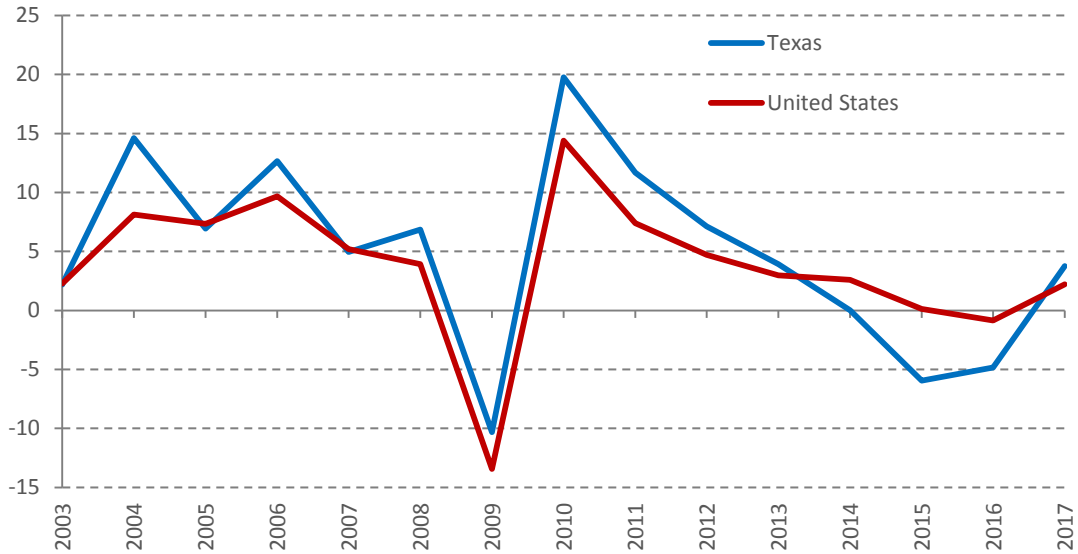


Note: Inflation adjusted with Bureau of Labor Statistics export indices. Annual sum. For more information, see [Exports](#).

Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau



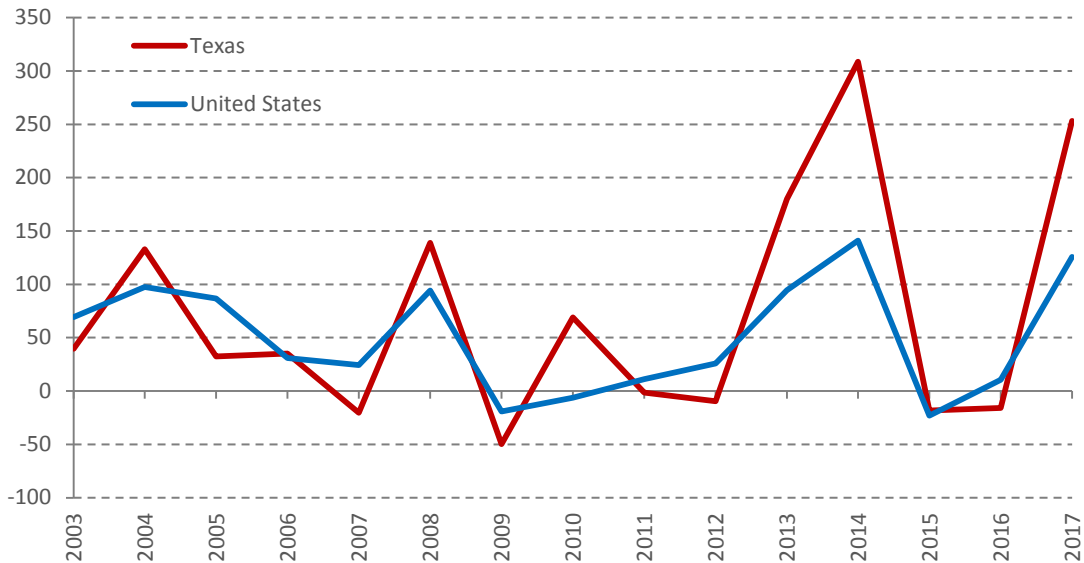
### Manufacturing Exports (Annual Percentage Change)



Note: Inflation adjusted with Bureau of Labor Statistics export indices. Annual sum. For more information, see [Manufacturing Exports](#).

Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau

### Crude Oil Exports (Annual Percentage Change)



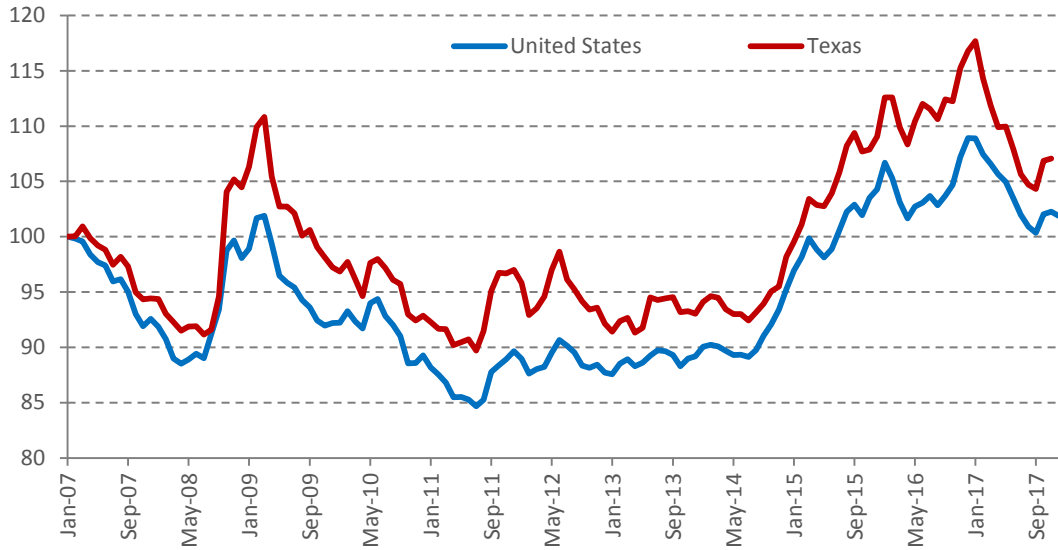
Note: Inflation adjusted and detrended with Bureau of Labor Statistics export indices. Annual sum. For more information, see [Crude Oil Exports](#).

Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau



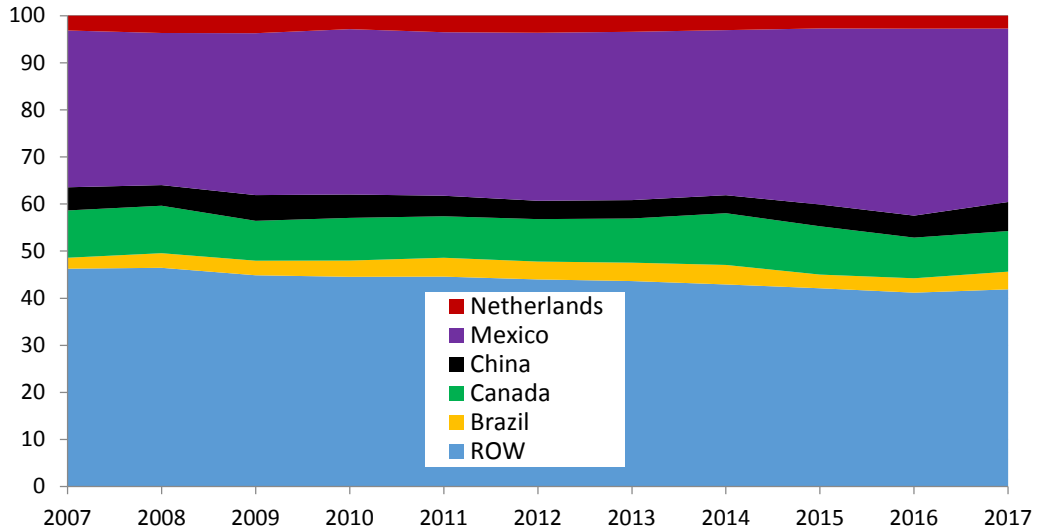


### Real Trade Weighted Value of U.S. Dollar (Index Jan 2007 = 100)



Note: For more information, see [Real Trade Weighted Value of U.S. Dollar](#).  
Sources: Federal Reserve Bank of Dallas and Federal Reserve Bank of St. Louis

### Texas Exports by Country (Percent)



Note: For more information, see [Exports](#).  
Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau



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