# Texas Workforce Report

2022 to 2023

**Texas Workforce Commission's
Labor Market Information Texas**

# I.  Introduction

The 2022 Texas Annual Economic Report provides a detailed analysis of the state's demographics, labor market, job market, and occupational employment trends.

The Labor Market Information Department of the Texas Workforce Commission (TWC) has produced this report to fulfill its commitment to providing the past year's statistical information to the Employment and Training Administration (ETA).

# II. Executive Summary – State of the Workforce

The Texas labor market has continued to trend positively following the COVID pandemic, as the population swelled, driven by plentiful job opportunities. Texas added more people than any other state over the year at more than 470,000. The total population reached 30,029,572 as the diverse labor force continued to grow.

As of June 2023, the civilian labor force, which is the number of non-institutionalized people aged 16 and over participating in the labor market, reached a 30th high over the previous 33 months. Related, employed Texans also reached new heights, peaking in 22 of the last 23 months. In May 2023, the civilian labor force participation rate, which is the proportion of the civilian labor force to the population 16 and over, rose to the highest point since January 2015 with an equal reading of 64.2 percent and held steady as of June. Finally, the unemployment rate improved from a series high 12.8 percent for April 2020 to 4.1 percent in May and June 2023.  Despite a higher mark than the previous year of 3.8 percent, the reading of 4.1 percent matched the eighth lowest level in series history dating back to 1976.

Following an explosive rebound immediately after the negative effects of COVID on the labor market, Texas employment continued to expand although at a slower rate than the previous year. For the year ending June 2023, employment increased at a 4.0 percent annual growth rate compared to the 5.7 percent pace set the prior year. Despite this, growth was still robust and outperformed the pre-COVID February 2020 rate of 2.0 percent. Annually, the state added 540,700 positions, as the job count reached 21 consecutive series high employment levels. Positive annual growth was reflected in all 11 major industries as the job count increased for at least 21 consecutive months.

Texas Total Nonfarm employment rose by 971,500 positions since February 2020 and led all states in COVID recovery. By June 2023 all but one major industry recovered, led by Professional and Business Services at 116.2 percent. Information and Financial Activities followed at 114.6 and 111.7 percent, respectively. Mining and Logging was the sole industry yet to recover at 94.3 percent, however the industry has enjoyed increased productivity and output for over a decade.

Finally, Texas employment is expected to increase by over 2.3 million jobs by 2030. This equates to a change of 18.3 percent which is more than double the expected increase for the United States overall at 7.7 percent. In order to fulfill expectations, connecting the needs of employers and job seekers should continue to be a main component of maintaining economic prosperity.

# III.  Demographics

## General population trends

Between 2021 and 2022, the Texas population grew at a faster rate than the national population, increasing by 1.6 percent as compared to 0.4 percent, respectively. Of the five largest states in the U.S., Texas had the second-highest percentage growth in population, adding 470,708 (1.6 percent) people as noted in the table below.

**Table 1: Population Growth in Top Five Most-Populous States and the U.S., 2021 to 2022**

| Area | 2021 | 2022 | OTY Percent Change |
|---|---|---|---|
| **United States** | 332,031,554 | 333,287,557 | 0.4% |
| **Florida** | 21,828,069 | 22,244,823 | 1.9% |
| **Texas** | 29,558,864 | 30,029,572 | 1.6% |
| **California** | 39,142,991 | 39,029,342 | -0.3% |
| **Pennsylvania** | 13,012,059 | 12,972,008 | -0.3% |
| **New York** | 19,857,492 | 19,677,151 | -0.9% |

**Data Source: U.S. Census Bureau, Annual Estimates of Resident Population, July 1, 2021 to July 1, 2022**

Figure 1 shows the historical population trends in Texas since 1990. The U.S. Census Bureau estimates the Texas population at 30,029,572 persons in 2022. That represents an increase of 3.9 million persons from 2012-2022 or 15.1 percent.

**Figure 1: Texas Historical Population Trend, 1990 to 2022**
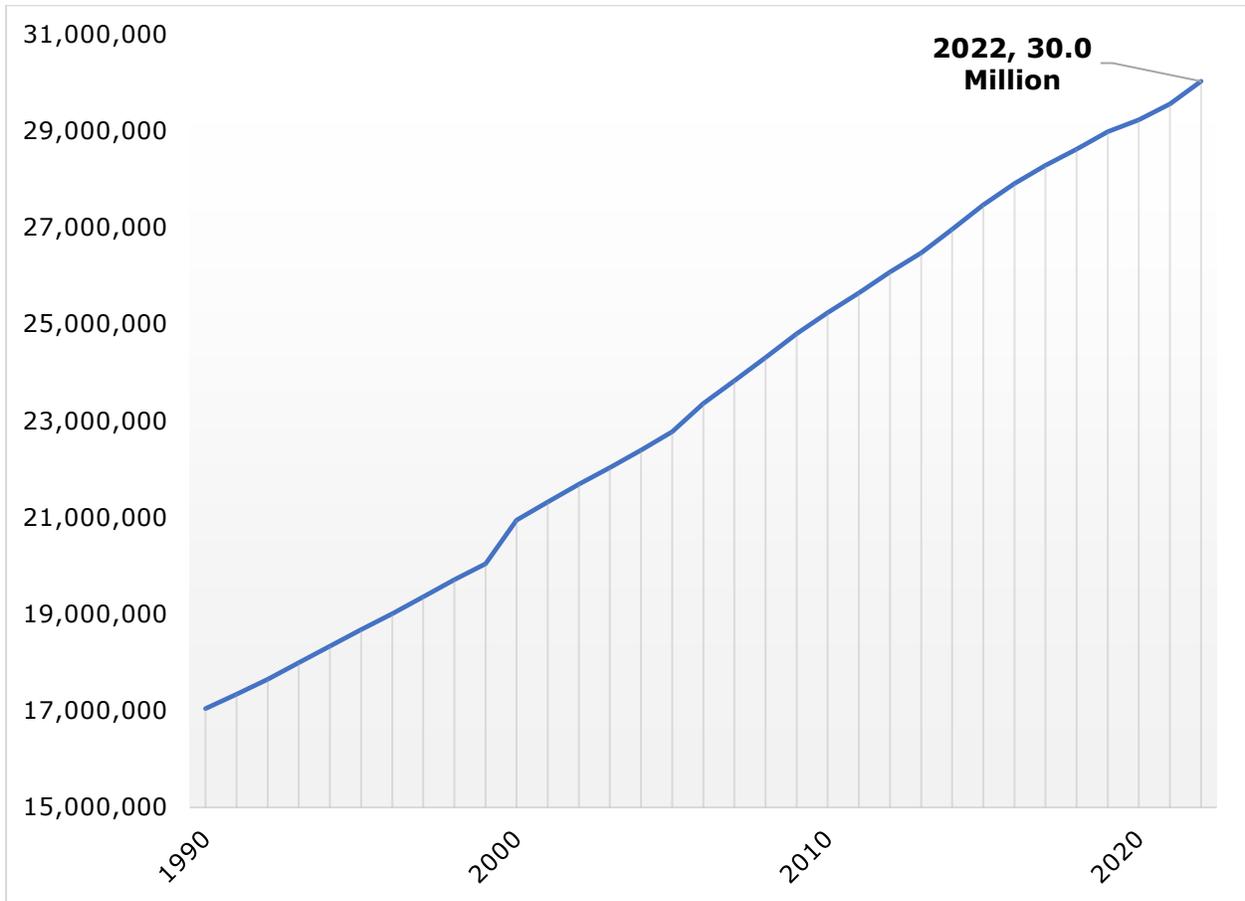


**Data Source: U.S. Census Bureau, Annual Estimates of Resident Population, July 1, 1990 to July 1, 2022**

Population growth among metropolitan areas in Texas continues to increase. Texas metro areas held the first, second, sixth and eighth rankings in actual growth among Metropolitan Statistical Areas in the United States and Puerto Rico from July 1, 2021 to July 1, 2022. The Dallas-Fort Worth-Arlington MSA added the most people of any MSA nationally from 2021 to 2022. The Houston-The Woodlands-Sugar Land and Austin Round-Rock MSAs ranked second and sixth, respectively for number of people added from 2021 to 2022, and San Antonio-New Braunfels ranked eighth. All six of Texas' largest metropolitan areas experienced growth over the year as shown in Table 2.

The table below also contains percentages of population age 25 and older with a high school diploma or higher and a bachelor's degree or higher for the largest MSAs. Educational attainment is closely watched since it is highly correlated with high-wage jobs.

**Table 2: Annual Growth Rates and Educational Attainment in Texas' Largest Metropolitan Statistical Areas, 2021-22**

| Texas Metropolitan Statistical Area | Population Estimate July 1, 2021 | Population Estimate July 1, 2022 | Number Change, 2021-2022 | Percent Change, 2021-2022 | Percent of Population with HS Diploma and Above | Percent of Population with Bachelor's Degree and Above |
|---|---|---|---|---|---|---|
| Dallas-Fort Worth-Arlington | 7,773,289 | 7,943,685 | 170,396 | 2.2% | 87.8% | 39.4% |
| Houston-The Woodlands-Sugar Land | 7,215,837 | 7,340,118 | 124,821 | 1.7% | 85.1% | 36.0% |
| San Antonio-New Braunfels | 2,604,931 | 2,655,342 | 50,411 | 1.9% | 88.4% | 32.7% |
| Austin-Round Rock | 2,358,130 | 2,421,115 | 62,985 | 2.7% | 92.1% | 52.1% |
| McAllen-Edinburg-Mission | 880,633 | 888,367 | 7,734 | 0.9% | 69.7% | 21.3% |
| El Paso | 871,375 | 872,195 | 820 | 0.1% | 81.1% | 25.8% |

Data Sources: U.S. Census Bureau, Annual Estimates of Resident Population, July 1, 2021 to July 1, 2022; U.S. Census Bureau, American Community Survey, 1-Year Estimates, 2022. Educational attainment Age 25 and older.

# Minority Business Ownership

As Texas becomes more diverse, so do our businesses. According to the US Census Bureau's 2020 Annual Business Survey, 58,900 Texas firms are Hispanic-owned, with a payroll of $19.8 billion and 599,466 employees. In 2020, 10,291 Texas firms are owned by non-Hispanic African-Americans, with a payroll of $3.0 billion and 109,454 employees. According to the 2012 Census Bureau Survey of Business Owners, 48,596 Texas firms were Hispanic-owned, with a payroll of $15.3 billion and 546,523 employees. In 2012, 9,042 Texas firms were owned by non-Hispanic African-Americans with a payroll of $2.1 billion and 88,175 employees.

**Figure 2: Number of Paid Employees by both Hispanic Total and Non-Hispanic Black or African American Business Owners in Texas 2012 and 2020**
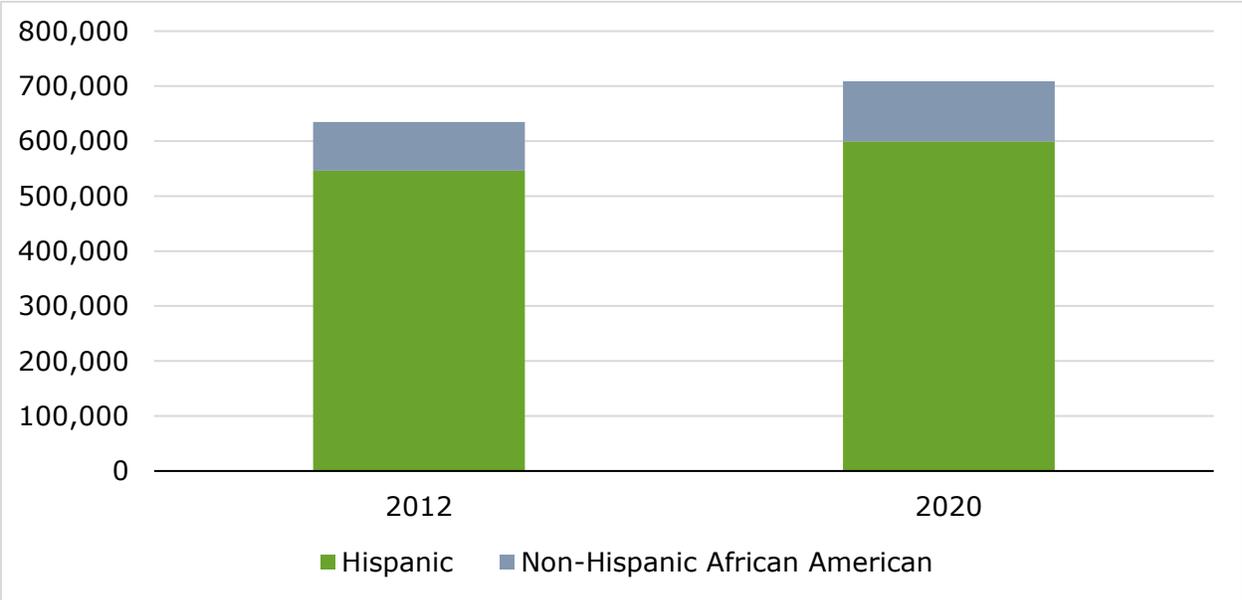


**Data Sources: U.S. Census Bureau, Survey of Business Owners, 2012; U.S. Census Bureau, American Business Survey, 2020**

# County Population Growth

Population growth rates varied considerably across counties from 2021 to 2022, ranging from a low of -10.5 percent in Loving County to a high of 8.9 percent in Kaufman County as shown in Figure 3 below. Twenty-eight counties had a population growth rate of 3.0 percent or higher. Eighteen of the top 20 counties were also located within Metropolitan Statistical Areas. This suggests that in Texas, metropolitan areas continue to be a target for population growth. From 2021 to 2022, 158 counties experienced growth over the year, while 95 counties experienced a decline in population.

**Figure 3: Annual Population Growth Rates for Counties in Texas, 2021-2022**
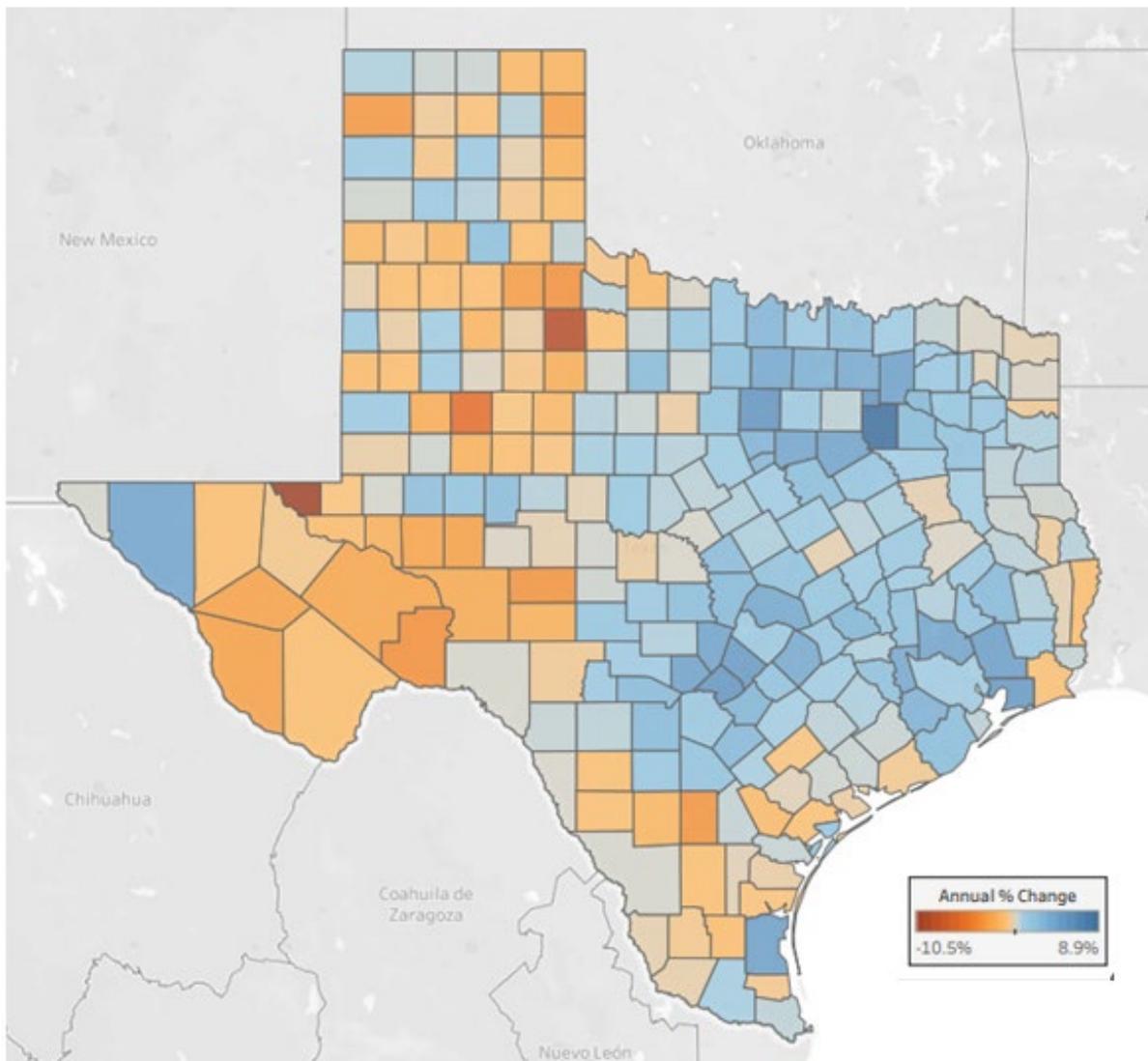


**Data Sources: U.S. Census Bureau, Annual Estimates of Resident Population for Counties in Texas, July 1, 2021 to July 1, 2022**

# IV.  Local Area Unemployment Statistics

## Unemployment & Labor Force Participation Rates

The novel coronavirus impacted many industries and labor forces across the United States and the world, resulting in lower labor force participation rates (LFPR) and higher unemployment rates. Since then, Texas has observed multiple signs of recovery. As of June 2023, the Texas labor force boasts a record high labor force of over 15 million. The Labor force Participation rate has surpassed pre-pandemic levels and exceeds the national average. Despite Texas' unemployment rate sitting above the national average, the June 2023 Texas unemployment rate is lower than the 2010 to 2019 average Texas rate of 5.5 percent. The unemployment rate for Texas of 4.1 percent is only half of a percentage point above that of the United States rate of 3.6 percent as is shown in Figure 4.

**Figure 4: Unemployment Rates, Seasonally Adjusted**
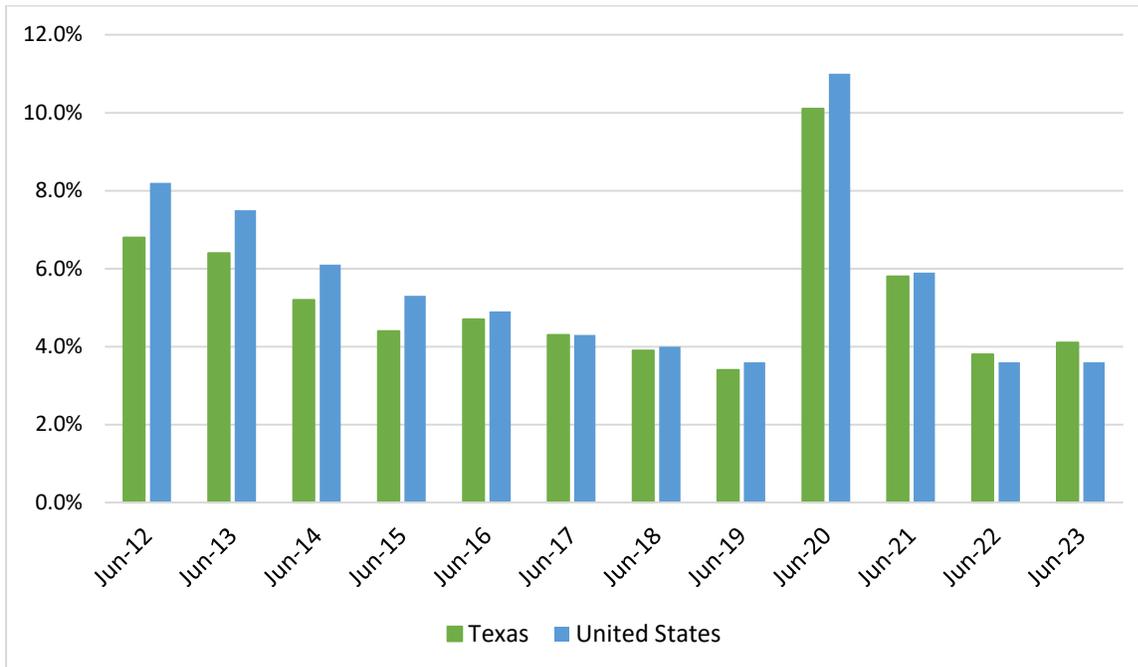


**Data Source: Local Area Unemployment Statistics**

The unemployment rate is a relatively simple measure of labor surplus, representing the fraction of the total labor force that is not employed, but looking for work. Because of this, many experts consider the labor force participation rate a better gauge of labor market conditions. The LFPR is the percentage of the total civilian population that is either employed or unemployed (that is, either working or actively seeking work).

Figure 5 shows LFPRs for both Texas and the United States since 1979. As shown in this figure, participation rates have been declining over time for both Texas and the United States. This decline can be attributed to a variety of factors including: an aging population, an increase in disability, and an increase in young people delaying work to pursue higher education.

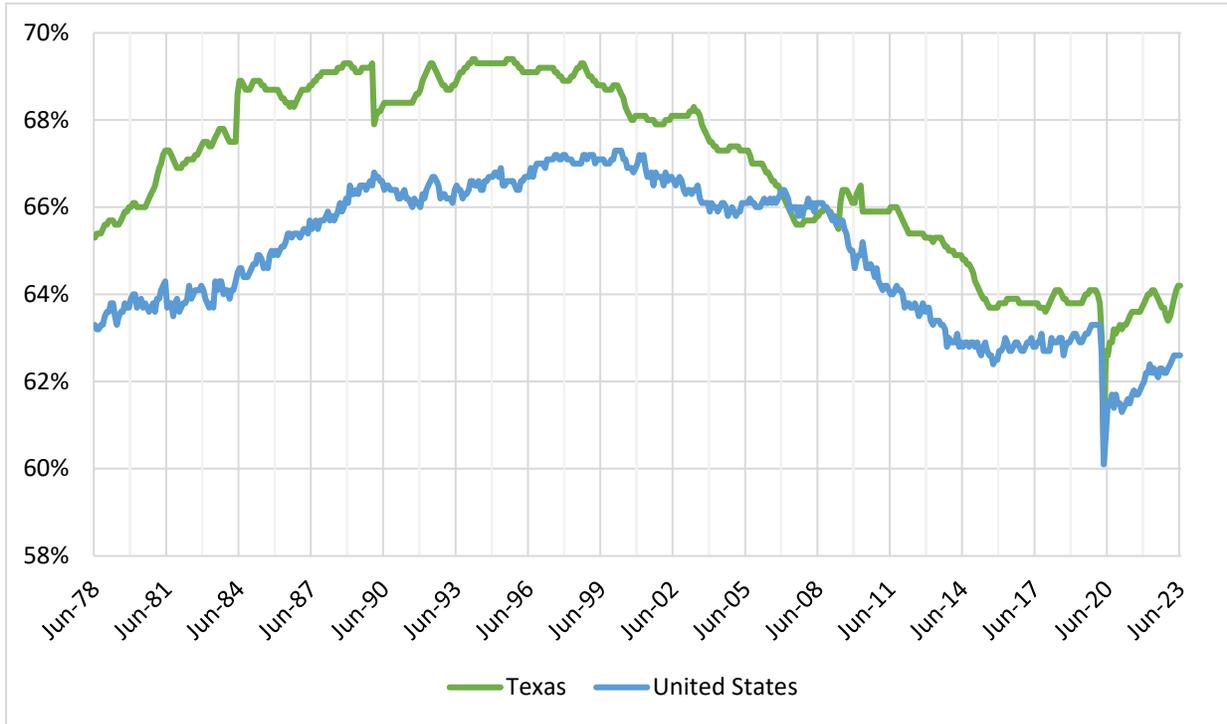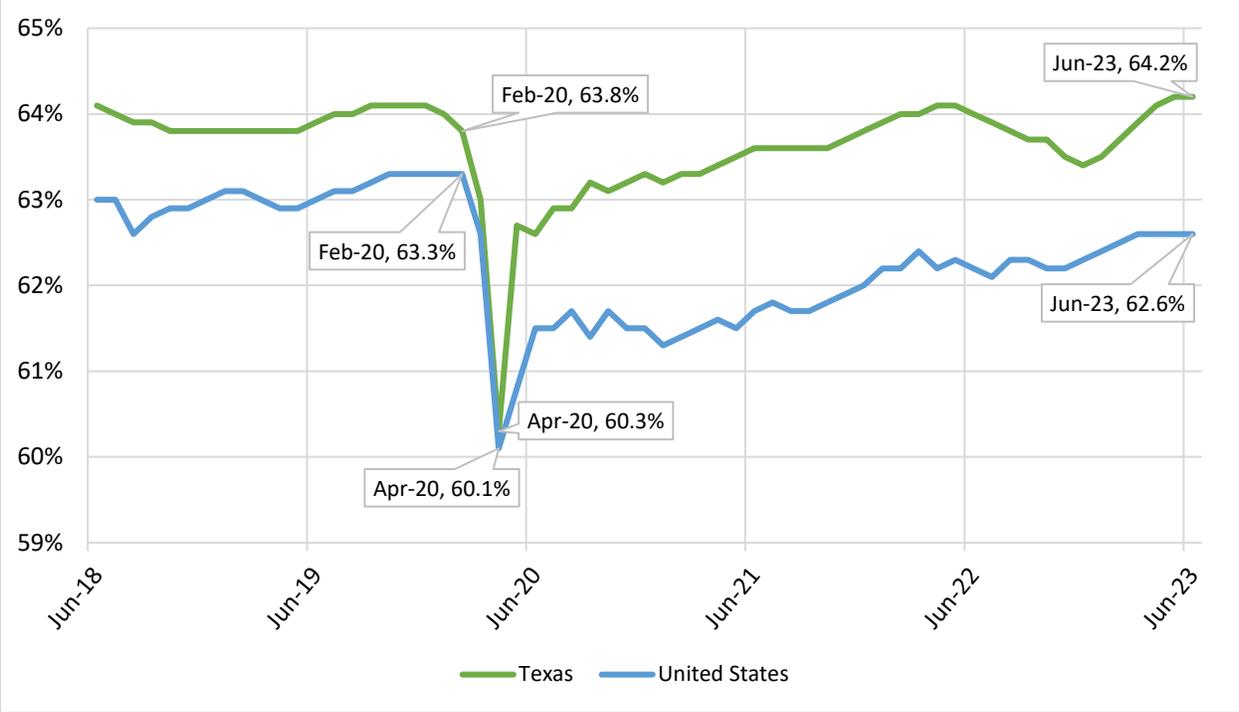**Figure 5: Labor Force Participation Rates June 1978 to June 2023**

**Figure 6: Labor Force Participation Rates June 2018 to June 2023**



**Data Source: Local Area Unemployment Statistics (Seasonally Adjusted)**

Between February 2015 and February 2020, the labor force participation rate held nearly constant at about 64 percent for Texas and 63 percent for the United States. As shown in the figure above, in April 2020, both Texas and the United States hit their lowest rates, at 60.3 percent for Texas and 60.1 percent for the nation. In June 2023, 64.2 percent of Texas' civilian non-institutional population participated in the labor force. The United States had a 62.6 percent participation rate during the same period. The U.S. rate has not yet risen to pre-pandemic levels; however, the Texas rate as of June 2023 is four-tenths of a percentage point higher than the pre-pandemic level of 63.8 percent.

# Educational Attainment

Figure 7 displays the average LFPR by educational attainment for June 2022 and 2023. A trend of those with more education having a higher likelihood of participating in the labor force can be seen. COVID dropped participation rates across all education levels. The effects of the pandemic have since receded as participation rates for all education levels rose over the last year. Those without a high school diploma experienced the largest OTY increase of 1.6 percentage points.

**Figure 7: Texas' Labor Force Participation Rate by Educational Attainment**
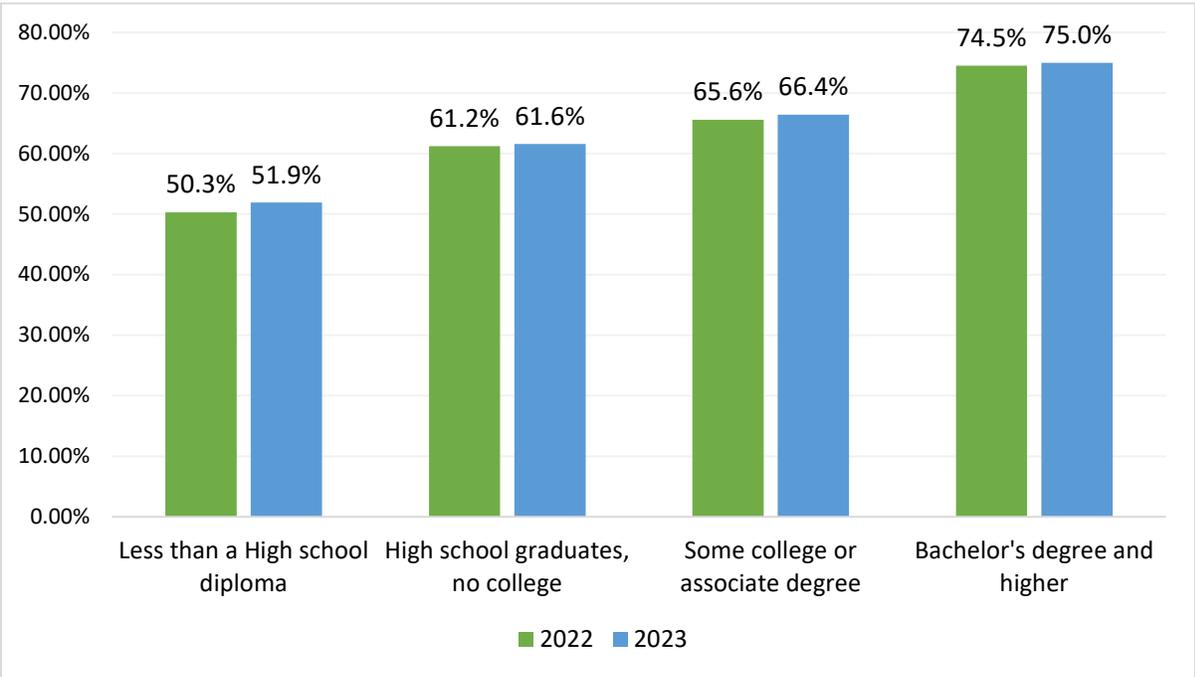


**Data Source: Local Area Unemployment Statistics & Current Population Survey, 12-month rolling average July 2022 to June 2023 (Based on CPS)**

Table 3 lists the June 2023 LFPR, Employment to Population Ratio (EP Ratio), and Unemployment Rate (U Rate), including a comparison to what the estimate was a year ago. The table shows those with more education have a higher tendency both of participating in the labor force and being employed. Those with some college or an associate degree have an unemployment rate of three percent, while the unemployment rate of those with less than a high school diploma is highest at 4.7 percent.

**Table 3: Educational Attainment by Labor Force Statistics**

| Education Level | LFPR | Annual Change | EP Ratio | Annual Change | U Rate | Annual Change |
|---|---|---|---|---|---|---|
| Less than a high school diploma | 51.9% | 1.6% | 49.4% | 2.4% | 4.7% | -1.9% |
| High school graduates, no college | 61.6% | 0.4% | 59.3% | 0.8% | 3.8% | -0.6% |
| Some college or associate degree | 66.4% | 0.8% | 64.4% | 1.4% | 3.0% | -1.0% |
| Bachelor's degree and higher | 75.0% | 0.5% | 73.2% | 0.5% | 2.4% | 0.0% |

**Data Source: Local Area Unemployment Statistics & Current Population Survey, 12-month rolling average July 2022 to June 2023 (Based on CPS)**

# Veterans

Figure 8 compares unemployment rates for veterans and nonveterans, including the rates for veterans of Gulf War I and II. Over the year, the unemployment rate for veterans dropped by 2.0 percentage points. Whereas last year there was a notable contrast between the unemployment rates for Gulf War I and II veterans, the difference is less pronounced in 2023 with a difference of two-tenths of a percentage point. All veteran groups shown experienced a larger decrease in unemployment rates than did nonveterans over the year.

**Figure 8: Unemployment Rates for Veterans in Texas**
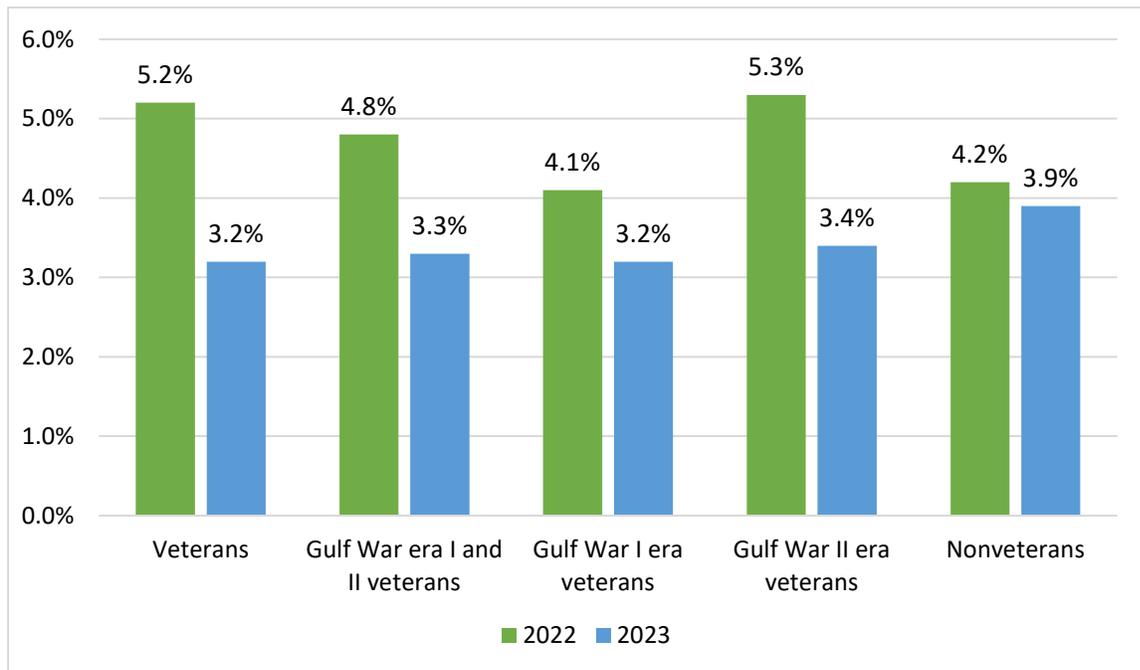


**Data Source: Local Area Unemployment Statistics & Current Population Survey, 12-month rolling average July 2022 to June 2023 (Based on CPS)**

# Age Groups

Unemployment rates in Texas vary noticeably by age group. Figure 9 below shows higher unemployment rates among younger age groups. A significant decrease is experienced by those age 25 or above, with all these age groups having a rate below 4.0 percent.
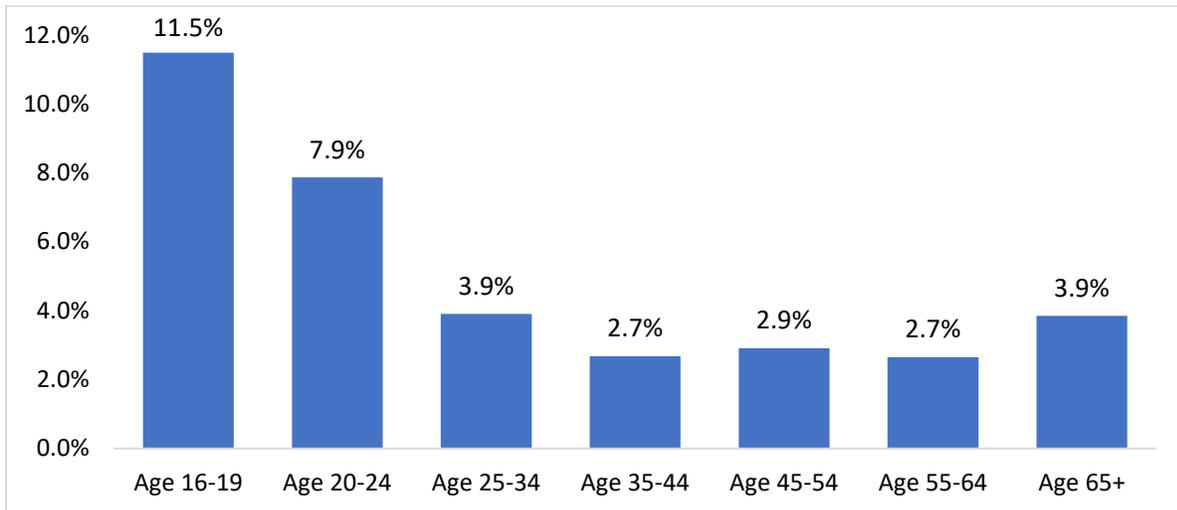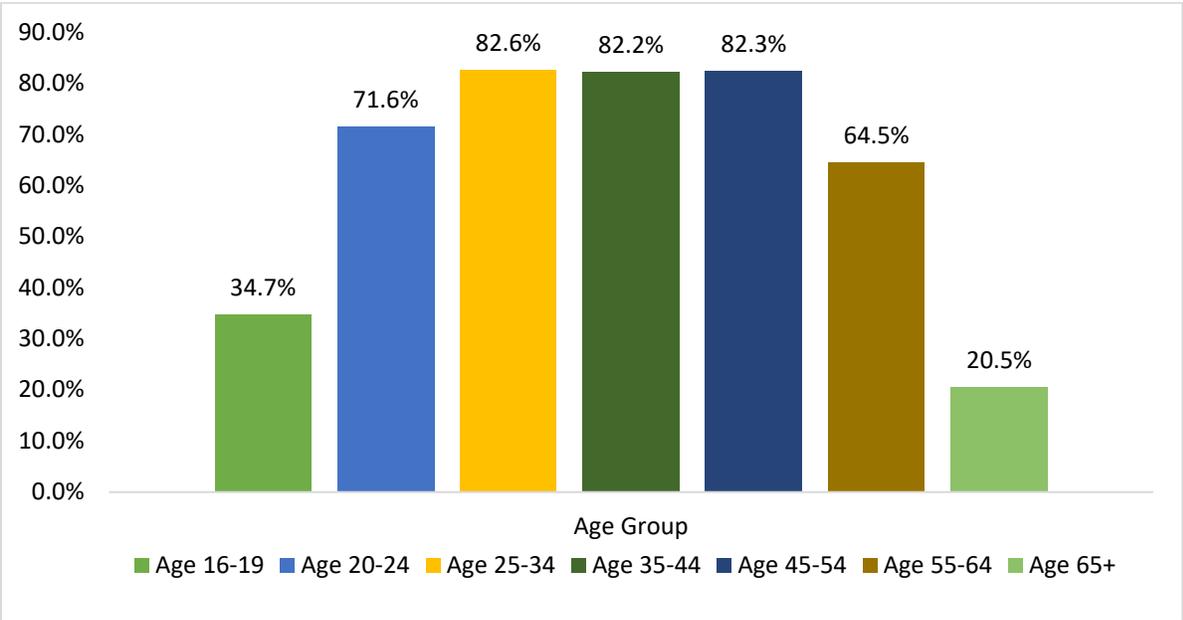
**Figure 9: Unemployment Rates by Age Group in Texas**



**Data Source: Local Area Unemployment Statistics & Current Population Survey, 12-month rolling average July 2022 to June 2023 (Based on CPS)**

Figure 10 lists the LFPR for all available age groups 16 and above. LFPRs are on the lower ends for both the youngest and oldest age groups. This is to be expected, as those on the lower end of the age spectrum often forgo working to pursue education, and those on the upper end have a higher likelihood of being retired. The age ranges from 25 to 54 make up 66.7 percent of the Texas labor force and have the highest LFPRs, all of which are above 82 percent.

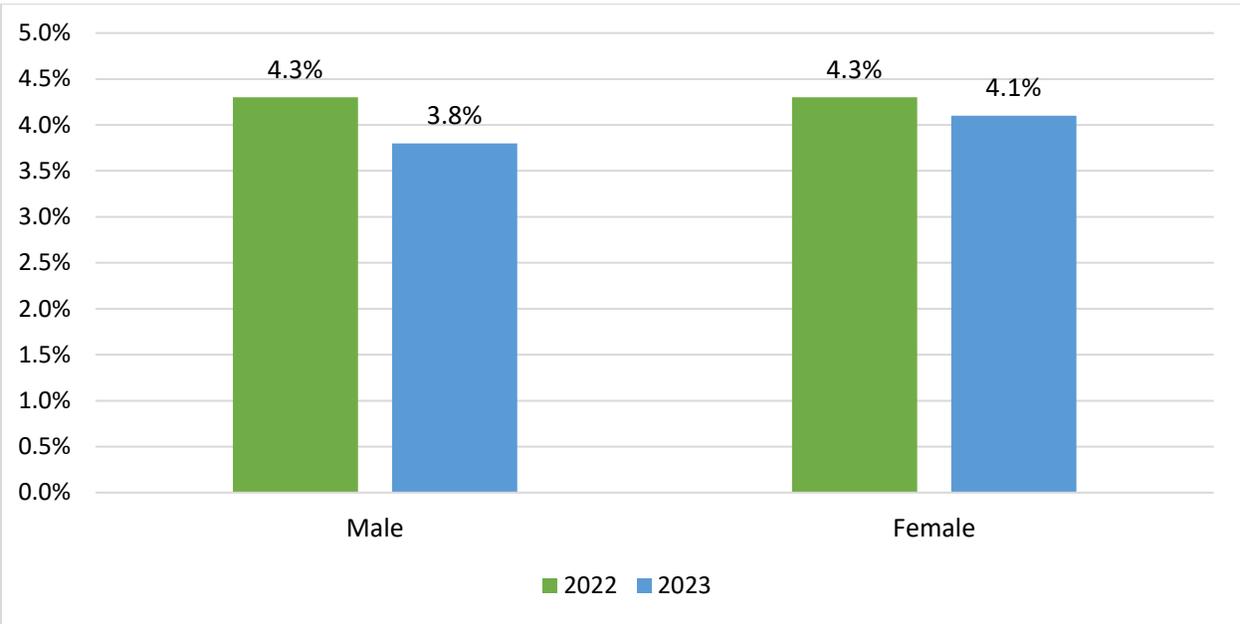**Figure 10: Labor Force Participation Rate by Age Group**



**Data Source: Local Area Unemployment Statistics & Current Population Survey, 12-month rolling average July 2022 to June 2023 (Based on CPS)**

# Sex

Prior to 2020, female unemployment rates were on average three-tenths of a percentage point higher than those of males. The post-covid economic recovery saw this dynamic shift with males experiencing a higher unemployment rate than females in 2021. Figure 11 illustrates the unemployment rates for males and females aged 16 and up for 2022 and 2023 in Texas. We can see the unemployment rates for both males and females have dropped over the last year by five-tenths and two-tenths of a percentage point, respectively. With the effects of COVID waning, the 12-month rolling average unemployment rates for both groups have decreased with female workers experiencing an unemployment rate three-tenths of a percentage point higher than male workers in 2023, as was the case pre-pandemic.

## Figure 11: Unemployment Rate by Sex



**Data Source: Local Area Unemployment Statistics & Current Population Survey, 12-month rolling average July 2022 to June 2023 (Based on CPS)**

# Unemployment Rates by Race

The unemployment rate has decreased for White, Hispanic, Black and Asian workers between 2012 and 2022 despite the rise in unemployment rates in 2020. Throughout the 11-year period, Black workers experienced the highest unemployment rates, followed by Hispanic workers. White and Asian workers had the lowest rates, with Asian workers having the lowest rates for a majority of the time frame. In 2022, all categories were within 0.3 percentage points of their pre-pandemic 2019 unemployment rate.

**Figure 12: Unemployment Rates by Race in Texas**
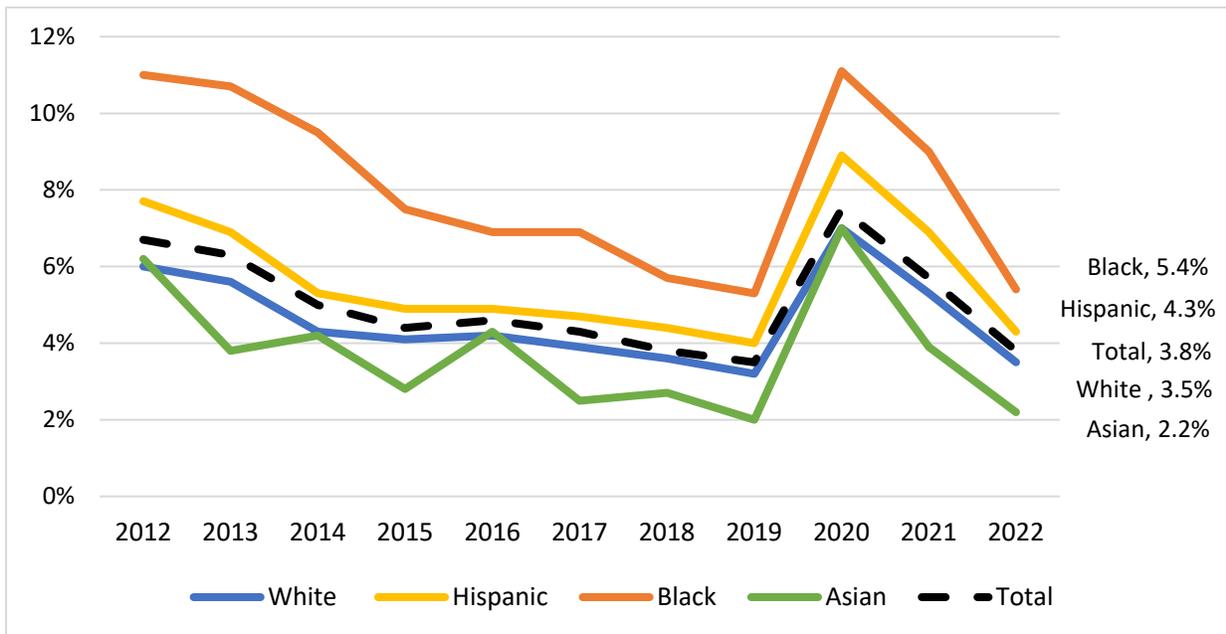


**Data Source: BLS Geographic Profile, Table 14 (2012-2022)**

# Educational Attainment by Race

The graphs in this section look at 5-year estimates for Texans ages 25 years and older. From 2011-2021, people identifying as Hispanic have trailed behind other races in terms of educational attainment with over 30 percent of the population receiving less than a H.S. diploma or equivalent. Hispanic people, however, have shown the most improvement since 2011 as the percentage for this category fell from a 2011 level of 41.0 percent to 31.0 percent in 2021. The Black population have experienced the second-largest improvement with a 6.7 percentage point decrease over the period. In 2013, the percentage of Black people attaining less than a high school diploma dropped below the percentage for Asian people and has remained lower through 2021. People identifying as White alone had the lowest percentage of other races with less than a H.S. diploma at 5.4 percent in 2021. All groups have shown improvement over the 11-year period.

**Figure 13: Educational Attainment by Race: Less than High School Diploma**
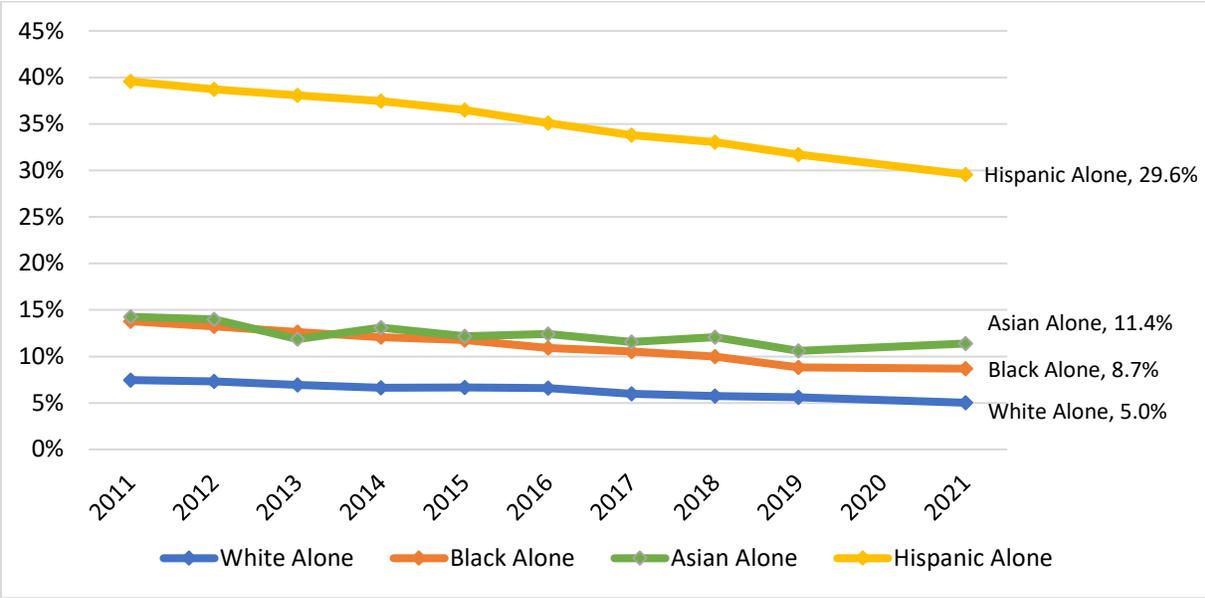


**Data Source: American Community Survey 5-Year Estimates**

Over the last decade, people that identify as Asian alone have experienced a steady decline in the rate of people that obtain a High School degree and/or Associate's degree. In 2017, the rate drops below 30 percent, the lowest of all races. A drop in this level of educational attainment over the period is also seen for the White and Black populations. One reason for this drop could be due to the fact that these three categories are getting Bachelor's degrees and higher at an increasing rate as seen in Figure 15. The Hispanic population are the only group that experienced an increase over this period, a positive development due to the decreasing percentage of Hispanic people attaining less than a High School degree. Comparing the educational attainment of the four groups, Black people have the highest percentage at the High School and/or Associate's degree level.

**Figure 14: Educational Attainment by Race: High School but less than Bachelor's Degree**
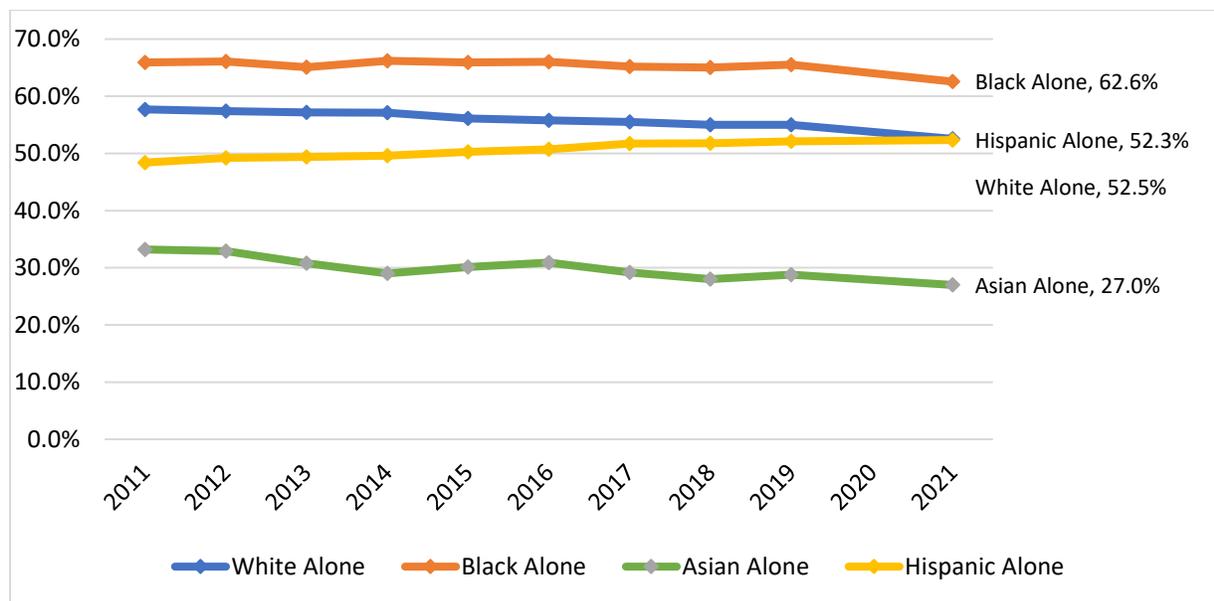


**Data Source: American Community Survey 5-Year Estimates**

In 2021, Hispanic people continued to trail other races in terms of attaining a Bachelor's Degree or higher with only 16.8 percent of those aged 25 years or older having attained this level, although this has improved since 2011. The Asian population continue to lead all races in this category with more than half of all Asian people receiving a Bachelor's Degree or higher. Over the 11-year period, all groups experienced improvement at this level, with Black people showing the greatest improvement with 17.4 percent having earned a Bachelor's degree or higher in 2011 versus 26.9 percent in 2021.

**Figure 15: Educational Attainment by Race: Bachelor's Degree or higher**
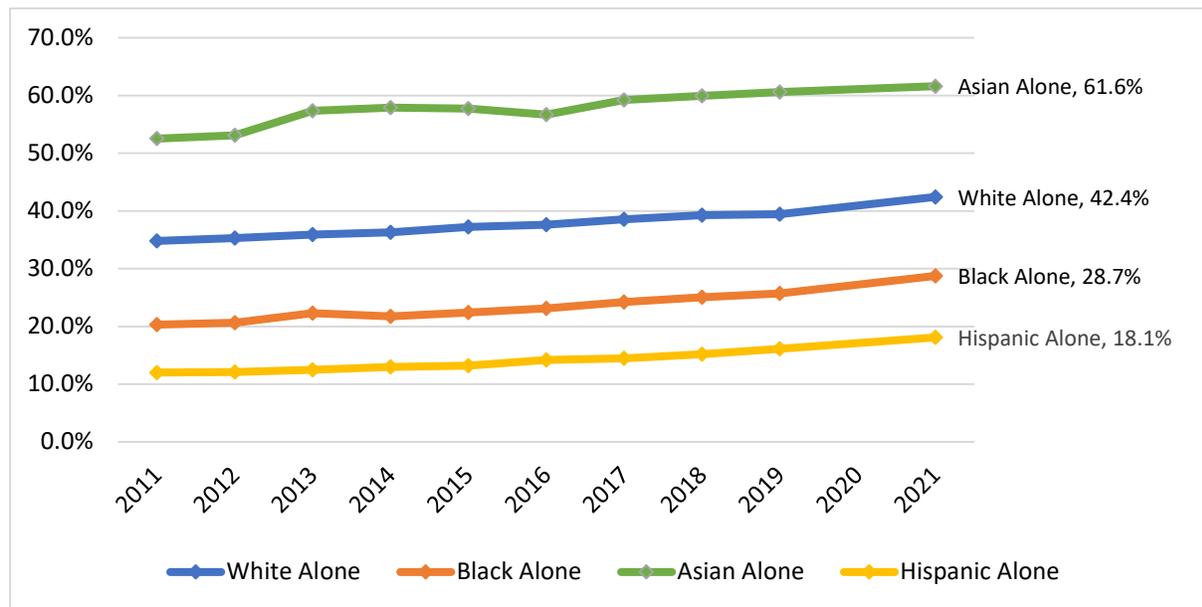


**Data Source: American Community Survey 5-Year Estimates**

# Median Household Income by Race

Median household incomes have been steadily increasing for most racial groups over the last 10 years. In 2021, Asians had the highest median household income of $96,961 followed by non-Hispanic Whites at $82,254, both above the Texas median household income of $67,321 which has increased by 32.2 percent since 2011. From 2011 to 2021, Asian households experienced an income increase of $29,632, the greatest increase of the four groups. Over the same period, Black households observed the smallest increase in earnings with an increase of only $13,497. As depicted in the graph, the disparities in household incomes by race group have grown over the 11-year period.

**Figure 16: Median Household Income by Race**
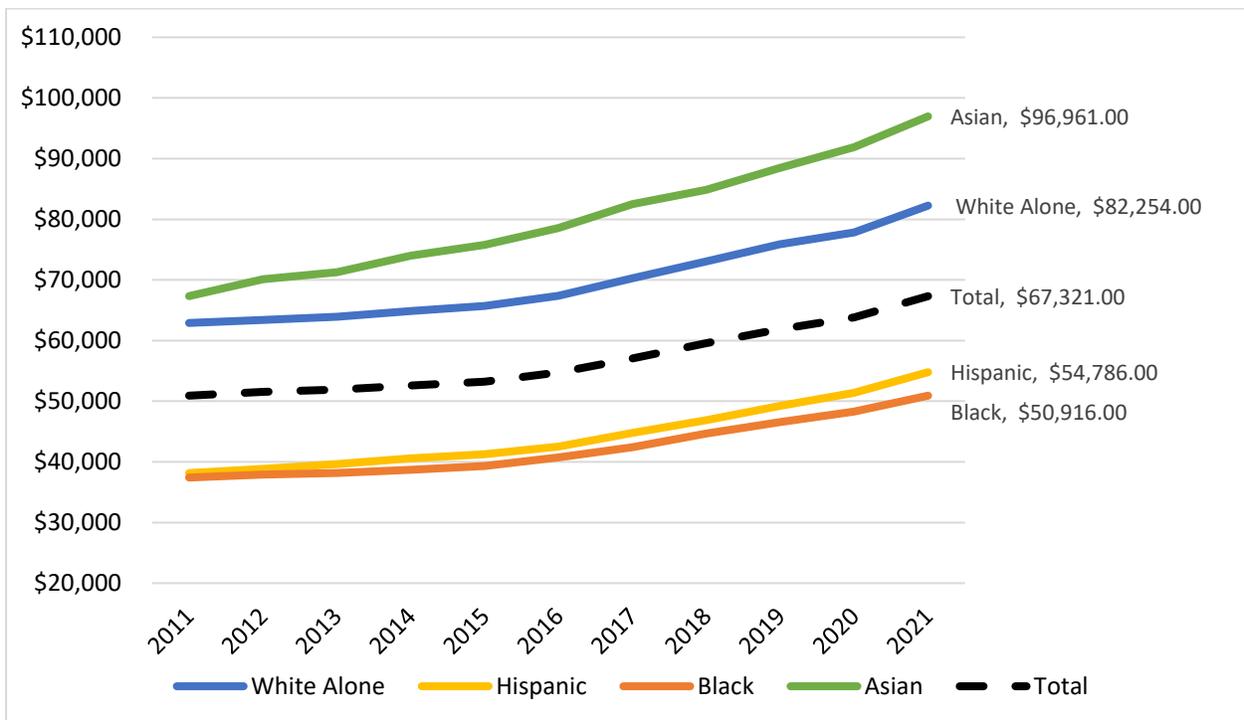


**Data Source: American Community Survey 5-Year Estimates**

# V.  Job Openings and Labor Turnover Survey (JOLTS)

As the economy continued to expand following COVID, employers demanded more workers to fill much needed positions which reached a maximum of 1,088,000 seasonally adjusted job openings for March 2022. Since then, labor demand has softened slightly as job openings lessened but have remained elevated compared to the February 2020 pre-COVID level. As of June 2023, job openings stood at 782,000, which was down 246,000 positions from June 2022, but up 238,000 from February 2020. The job openings rate, which is job openings compared to employment, stood at 5.3 percent versus a peak value of 7.6 percent in March 2022. In February 2020, the job openings rate was 4.0 percent.

Months after the COVID rebound, the labor market remains tight. Job openings still outnumber hires and have done so consistently since December 2020. The difference between both metrics has improved recently, but as of June 2023, job openings still outnumber hires by 210,000. The series average before COVID is 66,700 more hires than job openings. When considering the unemployed or *supply of available labor*, the ratio of unemployment persons to job openings was 0.8 for June 2023. Any value less than 1.0 implies there are more job openings than unemployed. This ratio has consistently been less than 1.0 since June 2021 and as recently as December 2022, reached a series low 0.5.

**Figure 17: Texas Job Openings versus Hires, Seasonally Adjusted (SA)**
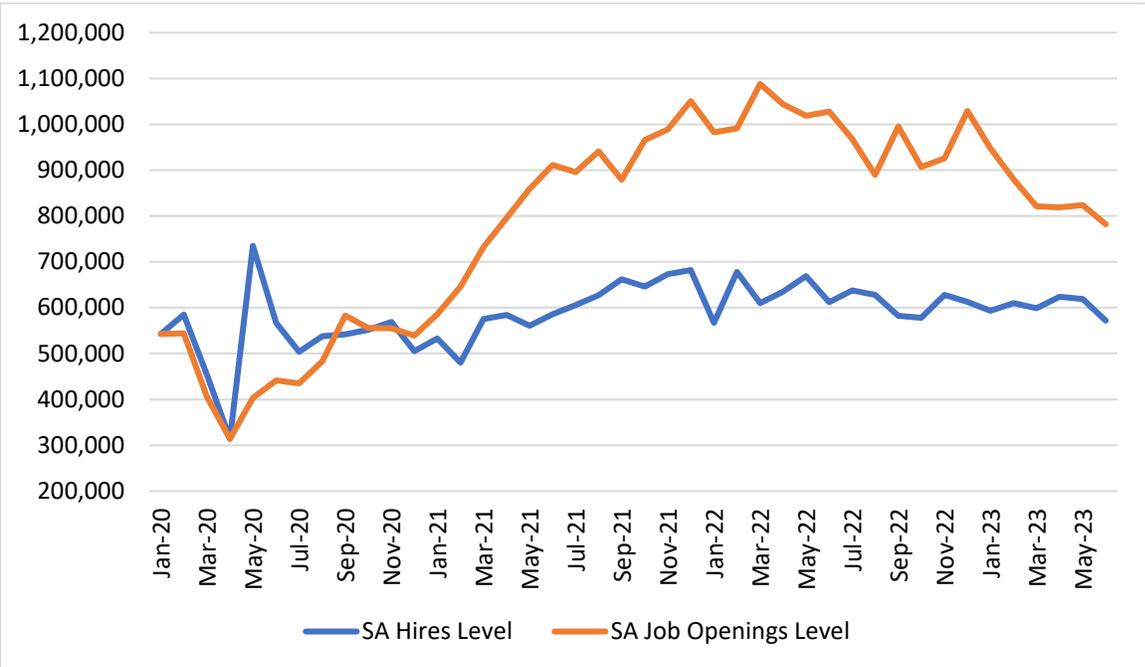


**Figure 18: Number of Unemployed Persons per Job Openings, Seasonally Adjusted**
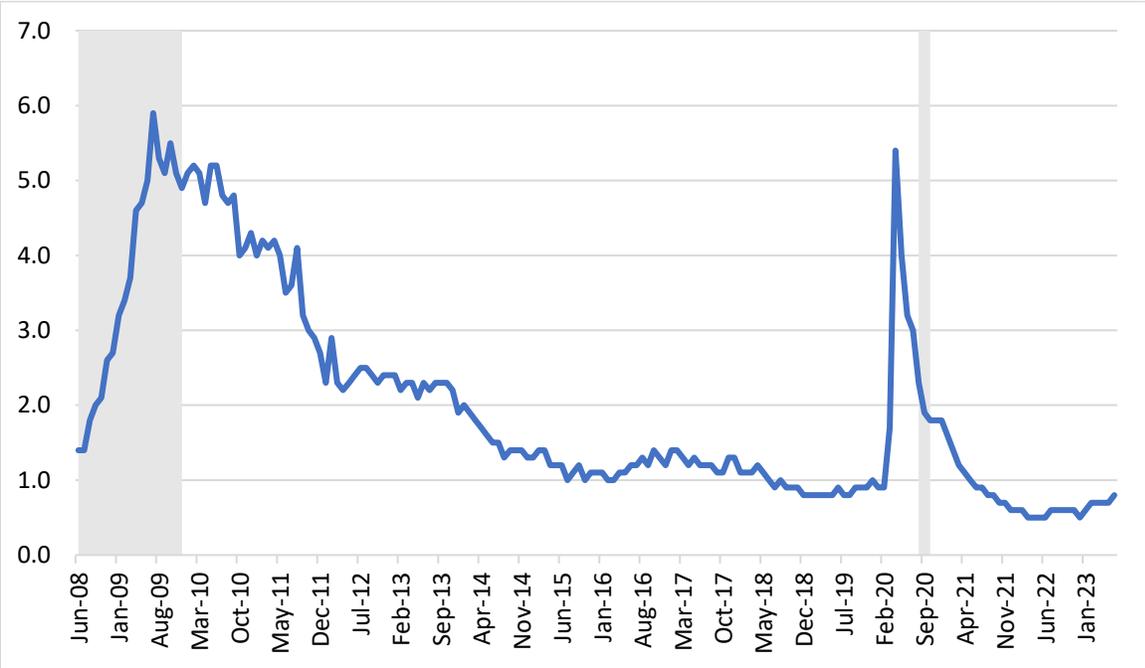


**Source Figures 17 and 18: U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS), Jan 2020-June 2023**

Conversely, sensing a tight labor market, employers tended to keep the workers they had. The layoffs and discharges level reached a series-low 80,000 in October 2021, and continued to remain below the pre-COVID series average of 145,500 for much of the 12 months ending June 2023. During this timeframe, the level rose slightly from a reading of 103,000 in July 2022 to 141,000 for June 2023. The layoffs and discharges rate which compares layoffs and discharges to employment stood at 1.0 percent for June 2023, down from a series peak of 6.6 percent for March 2020, but slightly up from a June 2022 reading of 0.8 percent. The pre-COVID series average layoffs and discharges rate is 1.3 percent.

The quits level remained relatively stable in the time since COVID and reached a series high 474,000 for March 2022 which, as previously stated, occurred at the same time job openings reached a series-high 1,088,000. Typically quits rise as workers sense more opportunities and may leave their current employer to find a job that offers higher pay or more flexibility among other advantages. In June 2023, quits numbered 411,000, up slightly from a June 2022 mark of 409,000. The quits rate stood at 2.9 percent which was slightly higher than the February 2020 rate of 2.6.

# VI.   Current Employment Statistics

## Statewide Payroll Employment

Texas Total Nonfarm employment expanded by 7.5 percent from February 2020—the pre-COVID employment peak—to June 2023. Like the nation, Texas faced unprecedented employment declines in 2020 due to COVID and efforts to slow its spread. In October 2021 Texas total nonfarm employment first surpassed the pre-COVID employment peak. By June 2023, 10 of the 11 major industries in Texas exceeded February 2020 job counts. Overall, Private Sector employment expanded by 8.5 percent since February 2020.

Texas' recovery outpaced that of U.S. employment, which as of June 2023 surpassed the pre-COVID peak by 2.5 percent. The Professional and Business Services industry led major industries in June 2023 compared to February 2020, expanding by 16.2 percent over that span. Professional and Business Services employment first recovered in March 2021.

From February 2020 to June 2023 Mining and Logging employment declined by 5.7 percent, the only decline over that timespan among major industries. However, the industry was the fastest growing annually for 11 consecutive months from August 2022 to June 2023, peaking at 13.2 percent in September and registering 12.1 percent in June. West Texas Intermediate crude oil prices peaked post-COVID at $114.84 per barrel in June 2022 but declined to $70.25 in June 2023.

**Table 4: Industry Employment, February 2020 (pre-COVID) to June 2023**

| Industry | Feb 2020 | Jun 2023 | Change | Percent Change | Months to Recovery |
|---|---|---|---|---|---|
| **Total Nonagricultural** | 12,971,300 | 13,942,800 | 971,500 | 7.5% | 20 |
| **Total Private** | 10,969,500 | 11,896,800 | 927,300 | 8.5% | 20 |
| **Goods-Producing** | 1,926,800 | 1,985,900 | 59,100 | 3.1% | 30 |
| **Service-Providing** | 11,044,500 | 11,956,900 | 912,400 | 8.3% | 19 |
| **Mining & Logging** | 235,300 | 221,900 | -13,400 | -5.7% | 41 and counting |
| **Construction** | 780,700 | 806,900 | 26,200 | 3.4% | 29 |
| **Manufacturing** | 910,800 | 957,100 | 46,300 | 5.1% | 25 |
| **Trade, Transportation, & Utilities** | 2,521,900 | 2,785,500 | 263,600 | 10.5% | 15* |
| **Information** | 212,700 | 243,700 | 31,000 | 14.6% | 20 |
| **Financial Activities** | 819,000 | 914,800 | 95,800 | 11.7% | 13 |
| **Professional & Business Services** | 1,838,800 | 2,136,500 | 297,700 | 16.2% | 13 |
| **Private Education & Health Services** | 1,779,300 | 1,902,300 | 123,000 | 6.9% | 26 |
| **Leisure & Hospitality** | 1,417,800 | 1,454,200 | 36,400 | 2.6% | 30 |
| **Other Services** | 453,200 | 473,900 | 20,700 | 4.6% | 31 |
| **Government** | 2,001,800 | 2,046,000 | 44,200 | 2.2% | 29** |

**Data Source: Current Employment Statistics, Seasonally Adjusted**

* The industry first exceeded pre-COVID employment in March 2021, but declined in April 2021 below pre-COVID employment before recovering in May 2021.

** Unlike most industries, Government did not decline in March 2020. It did decline due to COVID in April 2020. It surpassed its pre-COVID employment first in August 2022.

The Mining and Logging and Construction industries each comprise a larger share of Texas employment than they do at the national level. Combined, the two industries account for 7.4 percent of Texas employment, while accounting for 5.5 percent of nonfarm jobs nationally. Texas has a lower share of Private Education and Health Services jobs compared to the United States (13.6 percent to 16.2 percent). From February 2020 to June 2023, the Professional and Business Services industry in Texas grew 16.2 percent, the highest percent growth among major industries in Texas during that time, and outpaced nationwide industry employment. Mining and Logging declined compared to pre-COVID at both the state (-5.7 percent) and national (-6.4 percent) levels.

**Table 5: Comparing Texas to U.S. Industry Percent Share and Growth Rates, February 2020 to June 2023**

| Industry | Texas Percent Share | U.S. Percent Share | Texas Growth Rate | U.S. Growth Rate |
|---|---|---|---|---|
| **Total Nonagricultural** | 100.0% | 100.0% | 7.5% | 2.5% |
| **Total Private** | 85.3% | 85.5% | 8.5% | 3.1% |
| **Goods-Producing** | 14.2% | 13.8% | 3.1% | 2.4% |
| **Service-Providing** | 85.8% | 86.2% | 8.3% | 2.5% |
| **Mining & Logging** | 1.6% | 0.4% | -5.7% | -6.4% |
| **Construction** | 5.8% | 5.1% | 3.4% | 4.5% |
| **Manufacturing** | 6.9% | 8.3% | 5.1% | 1.6% |
| **Trade, Transportation, & Utilities** | 20.0% | 18.5% | 10.5% | 4.0% |
| **Information** | 1.7% | 2.0% | 14.6% | 6.1% |
| **Financial Activities** | 6.6% | 5.9% | 11.7% | 3.1% |
| **Professional & Business Services** | 15.3% | 14.8% | 16.2% | 7.5% |
| **Private Education & Health Services** | 13.6% | 16.2% | 6.9% | 3.0% |
| **Leisure & Hospitality** | 10.4% | 10.6% | 2.6% | -2.2% |
| **Other Services** | 3.4% | 3.8% | 4.6% | -1.2% |
| **Government** | 14.7% | 14.5% | 2.2% | -0.8% |

**Data Source: Current Employment Statistics, Seasonally Adjusted**

# Statewide Payroll Employment Growth, the Price of Oil, and Pandemic Recovery

Figure 19 below shows the last five years of growth and decline for West Texas Intermediate (WTI) crude oil prices compared to Mining and Logging and Total Nonfarm annual employment growth rates. WTI remained at or above $60 per barrel beginning in March 2021. By June 2021, Mining and Logging employment achieved positive annual growth for the first time since July 2019. The industry reached 10.0 percent annual growth in April 2022 and by August 2022 became the fastest growing major industry on an annual basis, including 12.1 percent expansion in June 2023. The sustained elevated prices have been linked to several factors including tight supply concerns coupled with increased demand as consumers worldwide continue to reengage post-pandemic in activities such as business commutes and long-distance travel. Following the trough of April 2020, the WTI price trended up sharply, first as employment levels rebounded and demand increased, then again later in 2022 when new sanctions reduced the oil and gas supply in Europe, resulting in price increases rippling across the world, reaching an average of $114.84 in June 2022. WTI has since declined to $70.25 in June 2023, but did not result in a significant slowdown in Mining and Logging employment as of that period. Texas' total nonfarm annual growth rate in June stood at 4.0 percent.

**Figure 19: Annual Employment Growth vs. West Texas Intermediate Crude Spot Price**
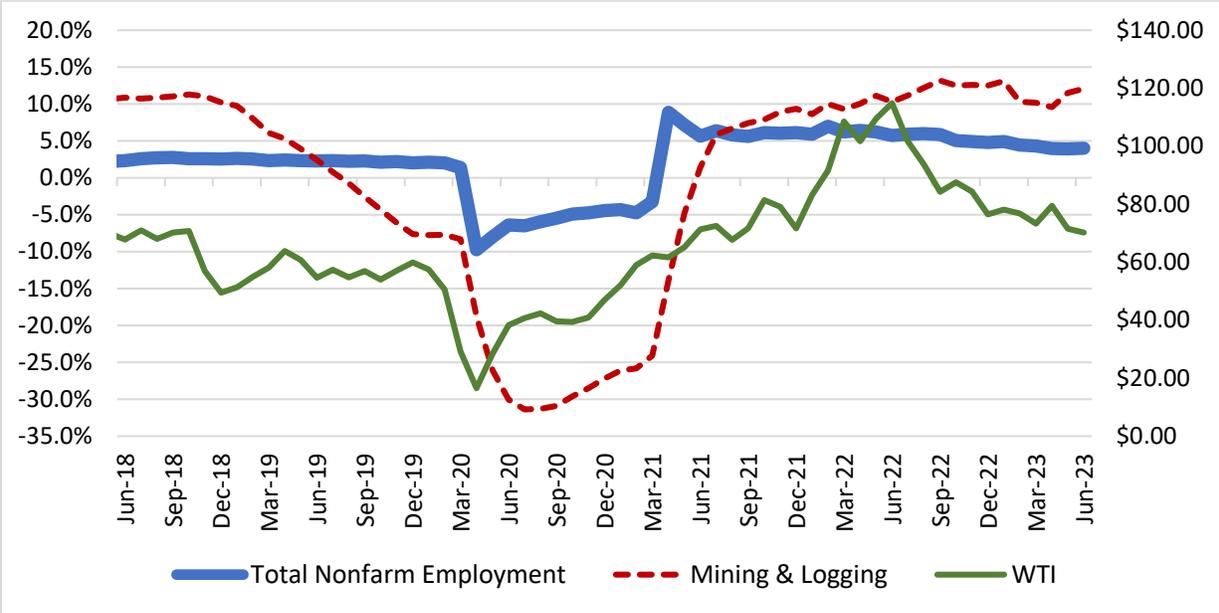


**Data Source: Current Employment Statistics, Seasonally Adjusted; West Texas Intermediate Crude Oil Spot Price, monthly average.**

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# Payroll Employment Change in Largest Metro Areas

## Houston-The Woodlands-Sugar Land MSA

Measured over a rolling four-year timeframe, the Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (MSA) experienced total nonfarm employment declines for the first time in series history with the advent of COVID in 2020. Total nonfarm employment declined on a rolling four-year basis for eight of the 11 months from April 2020 through February 2021. The MSA added 193,100 positions from June 2019 to June 2023, meaning the area expanded compared to the same time of year before COVID. By that measure, six of 11 major industries in the MSA achieved positive growth compared to June 2019, led by Private Education and Health Services at 11.1 percent, followed by Trade, Transportation, and Utilities at 10.9 percent.

The industry with the most ground yet to cover remains Mining and Logging, which contracted by 12.8 percent over the four-year span. It grew by 8.7 percent annually, the fastest among major industries in the area. Annual growth slowed somewhat from 11.3 percent in September 2022, likely due in part to lower WTI prices going into summer 2023.

**Figure 20: Houston-The Woodlands-Sugar Land MSA Annual Employment Growth Rate**
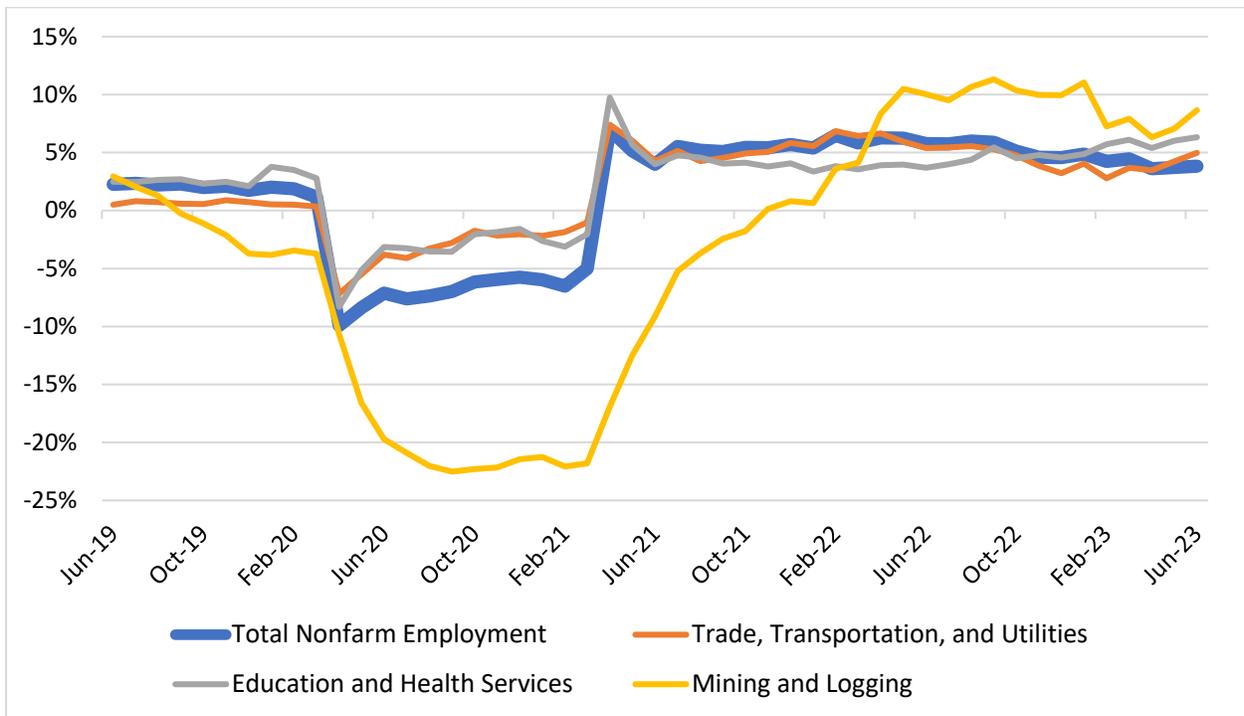


**Data Source: Current Employment Statistics, Not Seasonally Adjusted**

# Austin-Round Rock MSA

The Austin-Round Rock MSA added 206,200 positions from June 2019 to June 2023, surpassing pre-pandemic total nonfarm employment levels by 18.4 percent, leading the four largest MSAs in Texas. The area reached an all-time high in June 2023 at 1,329,400. All of the area's 10 major industries exceeded June 2019 employment. Professional and Business Services led with 39.5 percent expansion based on 81,400 positions gained. Information expanded by 36.7 percent with 14,400 jobs added.

Other Services expanded more slowly than any other private industry over four years, adding 3,200 positions which equaled 6.6 percent. Government employment expanded by 0.8 percent over that period. Local Government employment drove that increase, as the sector expanded 4.2 percent. Federal Government employment was unchanged and State Government contracted 3.3 percent.

**Figure 21: Austin-Round Rock MSA Annual Employment Growth Rate**
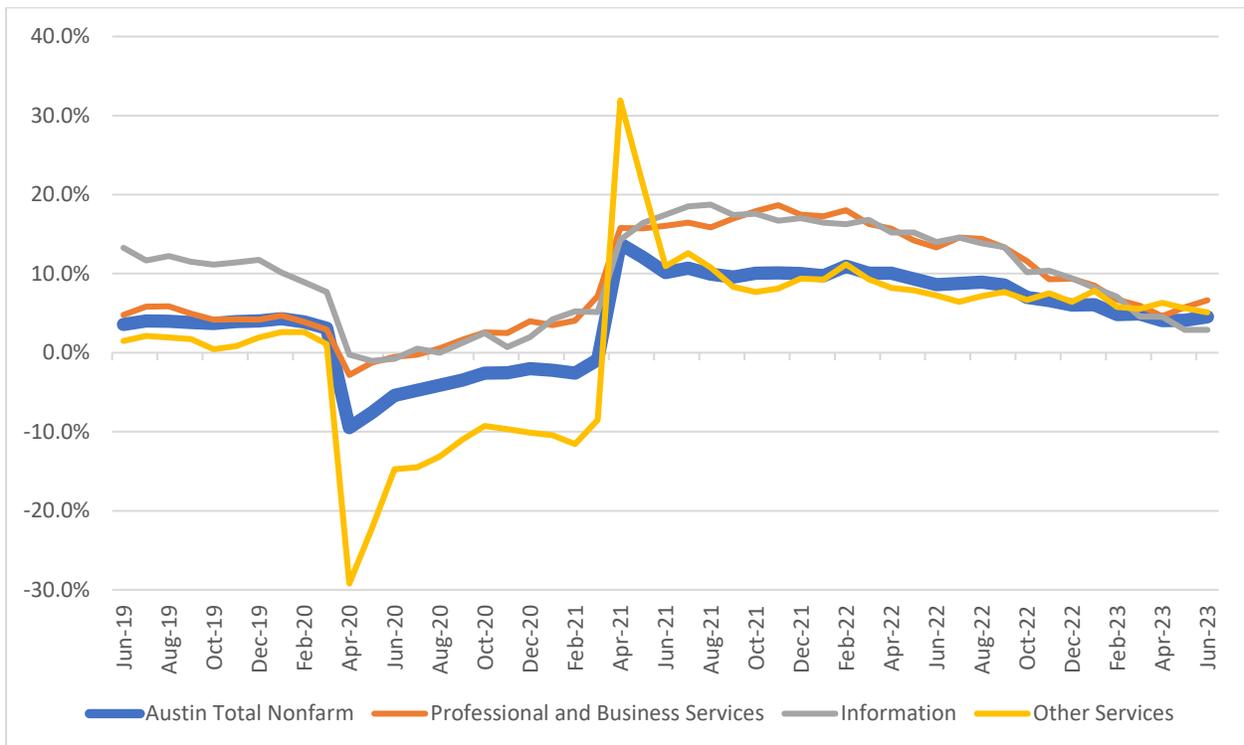


**Data Source: Current Employment Statistics, Not Seasonally Adjusted**

# Dallas-Fort Worth-Arlington MSA

Dallas-Fort Worth-Arlington MSA total nonfarm employment expanded by 12.7 percent in the four years ending June 2023. The area added 482,700 jobs in the 48 months ending June 2023, more than any other large metro, including 167,000 in Professional and Business Services, which expanded by 26.3 percent. Financial Activities also expanded rapidly by 18.6 percent with 59,500 positions added.

Leisure and Hospitality saw the least growth in percentage terms among private industries in the metro with 4.9 percent expansion based on 19,800 positions over four years. Government employment expanded by 4.0 percent.

**Figure 22: Dallas-Fort Worth-Arlington MSA Annual Employment Growth Rate**
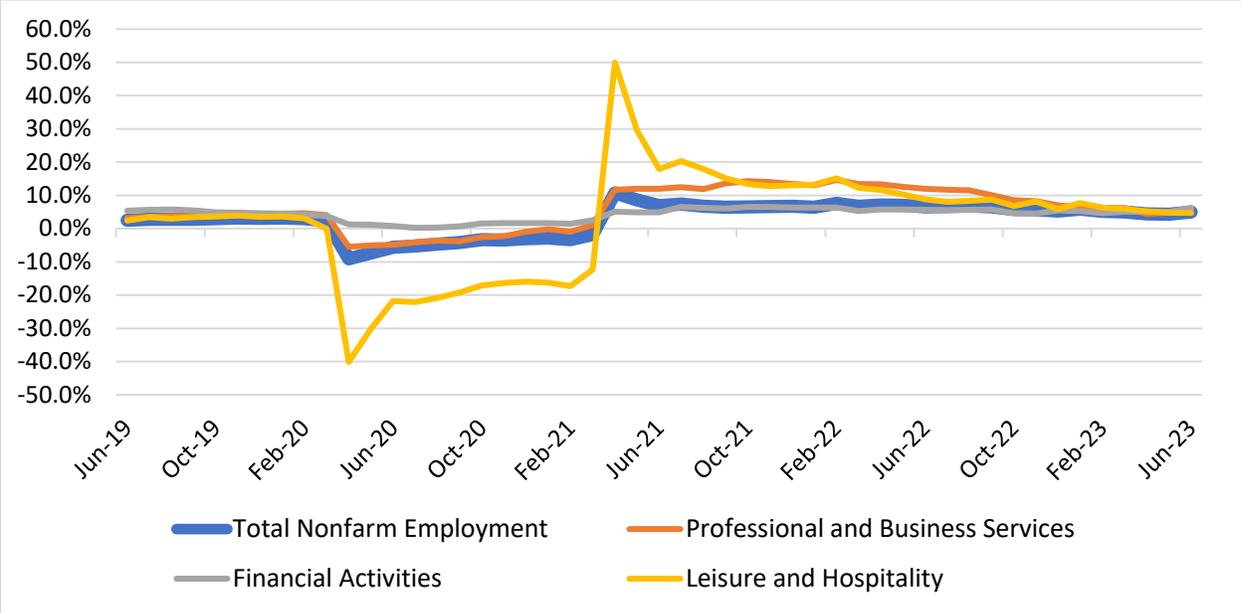


**Data Source: Current Employment Statistics, Not Seasonally Adjusted**

# San Antonio-New Braunfels MSA

San Antonio-New Braunfels MSA total nonfarm employment expanded by 8.0 percent during the 48 months ending in June 2023, based on 86,900 positions added. Nine of 11 major industries achieved positive growth during that time, led by Professional and Business Services which expanded by 14.8 percent with 21,000 jobs gained. Trade, Transportation, and Utilities expanded by 13.5 percent based on 24,600 jobs gained, which was more than any other major industry.

Mining and Logging was 3,600 positions shy of its June 2019 mark, a 33.0 percent decline due to a highly pronounced COVID-related employment impact. However, the major industry led in annual expansion for 14 consecutive months from May 2022 to June 2023.

**Figure 23: San Antonio-New Braunfels MSA Annual Employment Growth Rate**
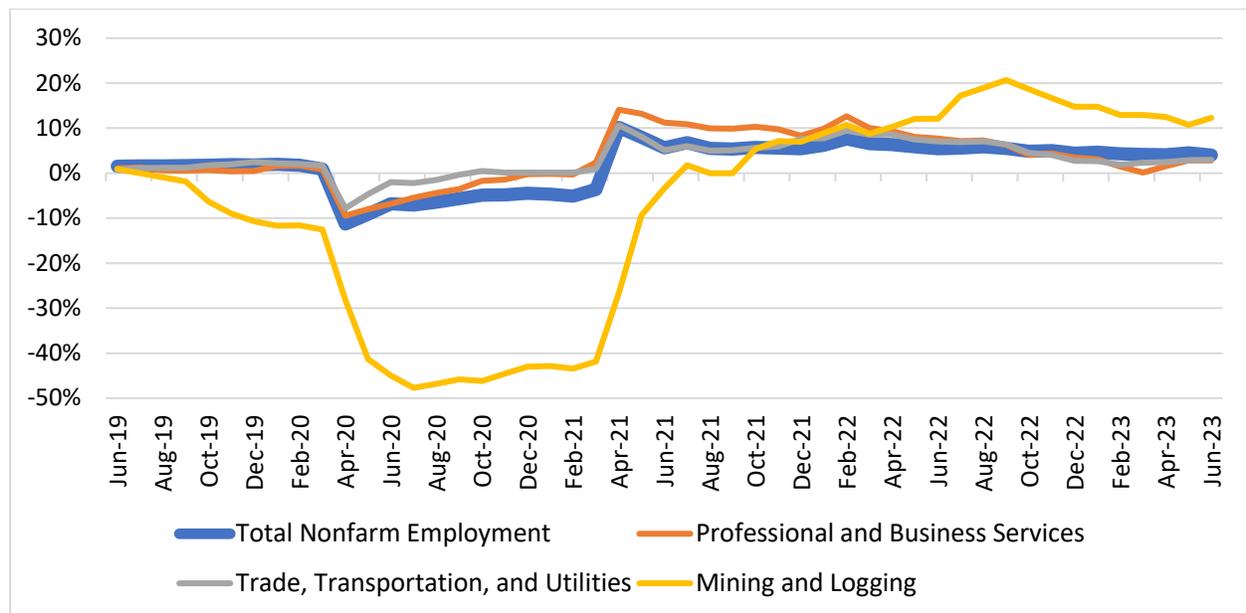


**Data Source: Current Employment Statistics, Not Seasonally Adjusted**

# VII.  Industry and Occupational Projections

Positive growth continues to drive demand for workers in Texas and across the nation. In some key occupations, local supply has at times struggled to keep up with demand. Texas remains driven by a continued economic shift towards high-skilled jobs in the Professional and Business Services sector, while the state's rapid population growth and aging baby-boomer population increases demand for service sector jobs, primarily in Education and Health Services. These two industries in addition to Trade, Transportation, and Utilities account for over 56 percent of the jobs in Texas.

The Projections program examines more than 750 occupations, segmenting them for specific industries. Employment in Texas is projected to grow by 18.3 percent from 2020 to 2030, which represents approximately 2.4 million jobs. On an annual basis, Texas is projected to have about 1.8 million job openings due to exits from the labor force, transfers from occupations, and growth. In this section, we will examine more closely projected growth in key industries and in-demand occupations in Texas over the 10-year period.

# Health Care and Social Assistance

The Health Care and Social Assistance industry employed roughly 1,798,862 persons in Texas during the first quarter of 2023. This average reflects a positive over-the-year (OTY) employment change of 87,761 (5.1 percent) compared to the first quarter of 2022, according to the Quarterly Census of Employment and Wages. Long-term industry projections indicate the Health Care and Social Assistance sector is expected to grow to approximately 1,935,146 jobs by 2030, a 23.4 percent growth rate from 1,567,737 positions in 2020. Current Employment Statistics indicate the industry—which reflects only private sector and not government-funded employment—reached an employment series high most recently in June 2023 with 1,658,900 jobs statewide, a maximum OTY increase of 104,900 positions (6.8 percent).

Ambulatory Health Care Services, which consists of doctors' and dentists' offices, outpatient care centers, and medical and diagnostic laboratories, made up nearly 47 percent of employment in the Health Care and Social Assistance industry during the first quarter 2023. The number of positions in Ambulatory Health Care in Texas increased by 37,116 (4.6 percent) from first quarter of 2022 to the first quarter of 2023. Employment in Hospitals followed closely behind, comprising 27.2 percent of jobs in the industry, and growing by 5.4 percent (24,818 positions) during the same period.

Occupations within Health Care and Social Assistance continue to exhibit strong employment growth and robust wages. Of the top five occupations in the industry adding the most jobs and paying above the statewide median salary, nursing occupies three of the spots. Help Wanted OnLine (HWOL) data from Lightcast supports these projections as the latest job posting numbers indicate high demand for nurses. Registered Nurses rank first among occupations across all industries in the HWOL database from May 2023 to June 2023 with 28,852 unique listings in Texas.

The top 10 occupations in the Health Care and Social Assistance industry that paid more than the 2022 state median annual wage and are projected to add the most jobs in the long term can be found below.

**Table 6: Health Care and Social Assistance Industry Long-Term Occupational Projections**

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Registered Nurses | 186,821 | 219,435 | 32,614 | 17.5 | $79,371 |
| Medical and Health Services Managers | 27,813 | 39,759 | 11,946 | 43.0 | $102,242 |
| Licensed Practical and Licensed Vocational Nurses | 58,775 | 68,904 | 10,129 | 17.2 | $50,943 |
| Nurse Practitioners | 12,707 | 22,049 | 9,342 | 73.5 | $121,753 |
| Speech-Language Pathologists | 8,891 | 13,141 | 4,250 | 47.8 | $98,322 |
| Dental Hygienists | 12,320 | 16,357 | 4,037 | 32.8 | $79,605 |
| Respiratory Therapists | 10,852 | 14,518 | 3,666 | 33.8 | $71,196 |
| Physician Assistants | 8,001 | 11,630 | 3,629 | 45.4 | $124,988 |
| Physical Therapists | 13,198 | 16,784 | 3,586 | 27.2 | $100,297 |
| Radiologic Technologists and Technicians | 15,293 | 18,178 | 2,885 | 18.9 | $64,956 |

Data Source: Texas Statewide Projections 2020 to 2030

Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463.

# Educational Services

Demand for Educational Services will continue to grow in Texas due to an ever-expanding population. According to the U.S. Census Bureau's American Community Survey, from 2012 to 2022, Texas added 3,970,369 people—more than any other state in the nation. School enrollment for the Texas population three years of age and over increased by 427,332 from 2012 to 2022, a 5.8 percent increase.

The growth in this industry can be seen when looking at the CES data, which does not include government educational services. While COVID restrictions did result in this industry losing 31,400 jobs in March and April 2020, pre-pandemic levels of employment reported in February 2020 were surpassed in September 2021, and now in June 2023 the industry has achieved 109.1 percent of those pre-pandemic employment levels.

According to QCEW data, which includes both public and private educational data, the Educational Services industry added 79,696 jobs over five years from first quarter 2018, a 6.5 percent increase. This places the industry's employment at 1,299,672 for first quarter 2023. The industry is expected to expand by another 13.6 percent from 2020 to 2030 according to TWC's long-term industry projections.

TWC's Occupational projections data estimates that Elementary School Teachers, Except Special Education, Secondary School Teachers, Except Special and Career/Technical Education, and Middle School Teachers, Except Special and Career/Technical Education will have a total increase of nearly 40,000 from 2020 to 2030.

Educational Services occupations projected to add the most jobs in the long term that pay a wage above the state median are listed below.

**Table 7: Educational Services Industry Long-Term Occupational Projections**

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Elementary School Teachers, Except Special Education | 129,817 | 147,406 | 17,589 | 13.5% | $61,405 |
| Secondary School Teachers, Except Special and Career/Technical Education | 95,797 | 108,890 | 13,093 | 13.7% | $61,603 |
| Middle School Teachers, Except Special and Career/Technical Education | 64,807 | 73,598 | 8,791 | 13.6% | $61,377 |
| Health Specialties Teachers, Postsecondary | 13,566 | 17,813 | 4,247 | 31.3% | $114,441 |
| Education Administrators, Kindergarten through Secondary | 28,616 | 32,576 | 3,960 | 13.8% | $81,976 |
| Educational, Guidance, and Career Counselors and Advisors | 23,397 | 27,307 | 3,910 | 16.7% | $62,488 |
| Coaches and Scouts | 9,868 | 13,429 | 3,561 | 36.1% | $46,414 |
| Instructional Coordinators | 15,686 | 17,943 | 2,257 | 14.4% | $64,770 |
| Kindergarten Teachers, Except Special Education | 15,224 | 17,311 | 2,087 | 13.7% | $61,112 |
| Special Education Teachers, Kindergarten and Elementary School | 15,389 | 17,436 | 2,047 | 13.3% | $62,147 |

Data Source: Texas Statewide Projections 2020 to 2030

Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463

# Retail Trade

Retail Trade is a large and changing industry. Texas' expanding economy and population have increased demand for retail goods.

Not seasonally adjusted Current Employment Statistics data for June 2023 indicates the industry represents 10.1 percent of Total Nonfarm employment in Texas at 1,407,000 jobs. According to industry projections, Retail Trade will add nearly 165,263 jobs by 2030, growing to 1,430,027 jobs total. COVID sent the industry into negative five-year change starting in April 2020 after a long period of expansion. As of June 2023, the five-year change has returned to its highest level since November of 2018. From June 2018 to June 2023, the industry saw a change rate of 6.3 percent. From April 2020 to March 2021, the industry saw the highest 12-month decline in employment since January 1991. The industry has since recovered, reaching a series high employment in December 2022.

Retail Trade occupations projected to add the most jobs in the long term that pay a wage above the state median are listed below.

## Table 8: Retail Trade Industry Long-Term Occupational Projections

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| General and Operations Managers | 23,171 | 26,803 | 3,632 | 15.7% | $64,642 |
| Automotive Service Technicians and Mechanics | 21,477 | 24,337 | 2,860 | 13.3% | $45,738 |
| Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel | 14,874 | 16,711 | 1,837 | 12.4% | $46,850 |
| Pharmacists | 11,545 | 12,894 | 1,349 | 11.7% | $129,972 |
| First-Line Supervisors of Mechanics, Installers, and Repairers | 5,324 | 6,292 | 968 | 18.2% | $64,660 |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 4,951 | 5,856 | 905 | 18.3% | $55,841 |
| Securities, Commodities, and Financial Services Sales Agents | 3,332 | 3,987 | 655 | 19.7% | $135,366 |
| Sales Managers | 4,582 | 5,088 | 506 | 11.0% | $74,593 |
| First-Line Supervisors of Office and Administrative Support Workers | 11,744 | 12,131 | 387 | 3.3% | $48,774 |
| First-Line Supervisors of Non-Retail Sales Workers | 3,159 | 3,536 | 377 | 11.9% | $69,510 |

**Data Source: Texas Statewide Projections 2020 to 2030**

**Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463**

# Construction

The Construction industry is projected to grow by 21.5 percent from 2020 to 2030, creating the need for 154,740 more workers over 10 years.

Occupational projections also indicate that some of the highest demand will be for construction managers, first-line supervisors of construction and extraction workers, and electricians.

According to first quarter 2023 Quarterly Census of Employment and Wages report, private employment with the Construction industry reached 802,148 workers and has increased 6.3 percent over the last year.

Global supply chain issues have made it harder for builders to get materials to complete projects which makes them take longer to complete and cost more money.

According to the Federal Reserve Bank of St. Louis in 2023, the 5-year change in Lumber prices rose 11 percent. This was the smallest increase since 2019.

After 12 months of decline onset by COVID, demand for construction workers has risen above pre-Pandemic levels. The average price of a home in Texas was $410,835 in 2022, an annual increase of $39,772 over the 2021 average price according to Texas A&M's Real Estate Center.

For the month of July 2023, the housing inventory is amongst the highest (3.3 months) in the series since November 2019 published by Texas A&M Real Estate Center. This indicates a return to pre-Pandemic demand for and a shortage of residential housing in Texas. According to Texas A&M Real Estate Center, if inventory levels are around 6.5 months, there is a balanced housing market. The year-over-year average home price increased very slightly in 2023 after increasing sharply in 2021 and 2022 as reported by the Real Estate Center. These trends indicate very strong demand and increased supply for residential building projects.

Construction occupations projected to add the most jobs long-term and pay above the Texas median wage of $43,463 are listed below in Table 9.

**Table 9: Construction Industry Long-Term Occupational Projections**

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Electricians | 45,811 | 59,824 | 14,013 | 30.6% | $54,102 |
| First-Line Supervisors of Construction Trades and Extraction Workers | 47,414 | 58,149 | 10,735 | 22.6% | $63,416 |
| Construction Managers | 33,093 | 43,107 | 10,014 | 30.3% | $86,582 |
| Plumbers, Pipefitters, and Steamfitters | 31,965 | 39,767 | 7,802 | 24.4% | $57,138 |
| Operating Engineers and Other Construction Equipment Operators | 28,072 | 35,090 | 7,018 | 25.0% | $46,966 |
| General and Operations Managers | 24,602 | 29,855 | 5,253 | 21.4% | $94,234 |
| Carpenters | 28,245 | 32,732 | 4,487 | 15.9% | $47,066 |
| Heating, Air Conditioning, and Refrigeration Mechanics and Installers | 17,756 | 22,183 | 4,427 | 24.9% | $47,990 |
| Heavy and Tractor-Trailer Truck Drivers | 12,638 | 15,640 | 3,002 | 23.8% | $44,325 |
| Welders, Cutters, Solderers, and Brazers | 10,563 | 13,211 | 2,648 | 25.1% | $63,400 |

**Data Source: Texas Statewide Projections 2020 to 2030**

**Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463**

# Professional, Scientific, and Technical Services

The Professional, Scientific, and Technical Services industry continues to grow in Texas, projected to increase by 26.8 percent from 2020 to 2030, resulting in 204,135 jobs being added to the workforce.

This growth is clear when looking at CES data. In June 2023 the Professional, Scientific, and Technical Services industry reached an all-time high of 1,056,200 jobs. In the 12 months ending June 2023, this industry grew by 69,300 positions for an annual growth rate of 7.0 percent. In addition to this, June marks the 30th consecutive month of positive annual growth for the industry.

Due to COVID restrictions, 37,400 jobs were lost in March and April 2020. However, pre-pandemic employment levels reported in February 2020 were surpassed in February 2021 and now in June 2023 the industry has achieved 124.2 percent of this threshold. Not seasonally adjusted CES data shows that all five subsectors of this industry have recovered. Computer Systems Design and Related Services led with 144.1 percent followed by Management, Scientific and Technical Consulting Services with 139.5 percent.

According to the first quarter 2023 QCEW report, employment in the Professional, Scientific, and Technical Services reached an average of 1,037,188 workers and has grown 20.5 percent over the last two years. The average weekly wage from QCEW for first quarter 2023 was $2,231.

In 2022, this industry produced 7.1 percent of the gross state product, or $168.0 billion, according to the Bureau of Economic Analysis. The BEA also reported that from fourth quarter 2022 to first quarter 2023, the personal income in Texas increased by 6.7 percent; 3.8 percentage points was due to an increase in total earnings of which the Professional, Scientific, and Technical Services industry was the number one contributor.

In the Professional, Scientific, and Technical Services industry, Software Developers and Software Quality Assurance Analysts and Testers are projected to be the most in-demand occupation through 2030 with an estimated employment of 67,204 jobs—a 10-year increase of 60.8 percent. Projections indicate other highly skilled jobs in high demand for this industry will be Project Management Specialists and Business Operations Specialist, All Other, and Accountants and Auditors.

Professional, Scientific, and Technical Services occupations projected to add the most jobs in the long term that pay a wage above the state median are listed below.

**Table 10: Professional, Scientific, & Technical Services Industry Long-Term Occupational Projections**

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Software Developers and Software Quality Assurance Analysts and Testers * | 41,789 | 67,204 | 25,415 | 60.8% | $101,982 |
| Project Management Specialists and Business Operations Specialists, All Other * | 25,607 | 33,965 | 8,358 | 32.6% | $84,579 |
| Accountants and Auditors | 33,589 | 41,109 | 7,520 | 22.4% | $80,030 |
| General and Operations Managers | 23,469 | 30,742 | 7,273 | 31.0% | $106,571 |
| Lawyers | 30,290 | 37,067 | 6,777 | 22.4% | $136,330 |
| Computer User Support Specialists | 14,127 | 20,202 | 6,075 | 43.0% | $55,637 |
| Computer Systems Analysts | 15,775 | 21,482 | 5,707 | 36.2% | $102,432 |
| Paralegals and Legal Assistants | 22,456 | 27,884 | 5,428 | 24.2% | $50,236 |
| Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel | 15,818 | 21,125 | 5,307 | 33.6% | $72,436 |
| Management Analysts | 13,893 | 18,717 | 4,824 | 34.7% | $100,369 |

Data Source: Texas Statewide Projections 2020 to 2030

Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463

* - Hybrid occupation

# Transportation and Warehousing

According to long term industry projections, Transportation and Warehousing employment is expected to grow 19.5 percent to 695,289 positions by 2030, an addition of 113,391 jobs. Heavy and Tractor-Trailer Truck Drivers are expected to be the most in-demand through 2030 with an estimated employment of 128,610 jobs. Heavy and Tractor-Trailer Truck Drivers while showing strong growth has over 84 percent of its total annual openings in Texas for Total All Industries credited to the need to replace workers who are transferring to new occupations or exiting the workforce.

According to CES not seasonally adjusted data, Transportation and Warehousing employment grew 17.4 percent from June 2020 to June 2023. Adding 104,900 jobs over this time period. This industry has shown itself to be very resistant to the effects that the COVID9 pandemic had on much of the labor market.

One major impact on this industry brought about by the pandemic was an increase in e-commerce as a percent of retail sales. According to the Census Bureau of the Department of Commerce seasonally adjusted e-commerce as a percent of retail sales was 11.4percent in Q1 2020 and reached 15.7 percent in Q2 2020. Current e-commerce sales across the US have maintained an elevated demand and in Q2 2023 they accounted for 15.4 percent of total retail sales. Total e-commerce sales according to preliminary estimates is expected to rise 7.5 percent from Q2 2022 to Q2 2023.

Transportation and Warehousing occupations projected to add the most jobs in the long term are listed in Table 11.

**Table 11: Transportation and Warehousing Industry Long-Term Occupational Projections**

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Heavy and Tractor-Trailer Truck Drivers | 103,922 | 128,610 | 24,688 | 23.8 | $47,547 |
| Light Truck Drivers | 33,690 | 44,150 | 10,460 | 31.0 | $46,818 |
| Industrial Truck and Tractor Operators | 28,791 | 35,064 | 6,273 | 21.8 | $43,762 |
| Flight Attendants | 16,253 | 21,331 | 5,078 | 31.2 | $61,328 |
| Stockers and Order Fillers | 18,953 | 22,694 | 3,741 | 19.7 | $46,417 |
| First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors | 14,898 | 18,299 | 3,401 | 22.8 | $64,366 |
| General and Operations Managers | 7,479 | 9,172 | 1,693 | 22.6 | $85,828 |
| Aircraft Mechanics and Service Technicians | 9,092 | 10,782 | 1,690 | 18.6 | $75,332 |
| Bus and Truck Mechanics and Diesel Engine Specialists | 6,877 | 8,431 | 1,554 | 22.6 | $48,915 |
| Airline Pilots, Copilots, and Flight Engineers | 8,826 | 10,118 | 1,292 | 14.6 | $221,159 |

Data Source: Texas Statewide Projections 2020 to 2030

Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463

# Manufacturing

According to the Federal Reserve Bank of Dallas, the production index, a key measure of state manufacturing conditions, ticked down three points to (-4.2), an indication of contraction in output. In 2022, Texas Manufacturing was forecast to produce 11.2 percent of the gross state product, $262.4 billion in manufacturing output according to the Texas Comptroller of Public Accounts.

As of June 2023, statewide seasonally adjusted employment in Manufacturing is 957,100, compared with 910,800 in February 2020 (the last month prior to the pandemic-induced downturn), according to data from the Current Employment Statistics program. The June 2023 Manufacturing employment is 102,600 jobs above where it was in April 2020 (the trough of the economic downturn).

According to seasonally adjusted Current Employment Statistics data, the number of jobs in manufacturing changed from 881,400 in June 2018 to 859,200 in June 2020 to 957,100 in June 2023. That equates to an 8.6 percent increase for the five-year period June 2018-2023 and an 11.4 percent increase during the three-year period June 2020-2023.

With increased automation and robotics, the Manufacturing industry has changed in recent years with increased computerization, driving up manufacturing wages. This continues a demand increase for higher-skilled employees. Manufacturing industry employment is expected to increase by 111,642 jobs or 13.0 percent from 2020 to 2030. This increase includes a broad range of occupations as shown in Table 12 below. The three subsectors expected to grow the fastest 2030-30 are Fabricated Metal Product Manufacturing, Chemical Manufacturing, and Electrical Equipment, Appliance, & Component Manufacturing at 24.8, 24.6, and 20.8 percent employment growth from 2020-30, respectively.

## Table 12: Manufacturing Industry Long-Term Occupational Projections

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Industrial Machinery Mechanics | 15,160 | 21,251 | 6,091 | 40.2 | $61,058 |
| Welders, Cutters, Solderers, and Brazers | 24,458 | 29,977 | 5,519 | 22.6 | $46,279 |
| First-Line Supervisors of Production and Operating Workers | 31,149 | 36,272 | 5,123 | 16.4 | $63,625 |
| Machinists | 17,375 | 21,667 | 4,292 | 24.7 | $48,278 |
| Industrial Engineers | 12,572 | 15,902 | 3,330 | 26.5 | $98,251 |
| Software Developers and Software Quality Assurance Analysts and Testers * | 14,274 | 17,443 | 3,169 | 22.2 | $129,014 |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 16,609 | 19,396 | 2,787 | 16.8 | $64,913 |
| General and Operations Managers | 15,499 | 17,921 | 2,422 | 15.6 | $103,423 |
| Heavy and Tractor-Trailer Truck Drivers | 14,471 | 16,620 | 2,149 | 14.9 | $45,853 |
| Mechanical Engineers | 10,975 | 12,944 | 1,969 | 17.9 | $98,372 |

Data Source: Texas Statewide Projections 2020 to 2030

Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463

* 2022 OEWS estimate - SOC and/or title change

# Agriculture, Forestry, Fishing and Hunting

The Agriculture, Forestry, Fishing and Hunting industry in Texas is one of the most robust in the country. In 2022, approximately 246,000 farms covered 126 million acres across the state generating $30.0 billion in agricultural cash receipts, which ranked fourth in the country. Texas ranks first in the country for cotton revenue and is third for cattle and calves, though cattle and calves generate the most agricultural revenue in the state, responsible for 38.5 percent of all agricultural cash receipts, while cotton is fourth in the state responsible for 10.9 percent of agricultural cash receipts.

Based on the portion of Agriculture, Forestry, Fishing and Hunting included in the Quarterly Census of Employment and Wages, the industry followed a trend of negative growth over the last five years. From first quarter 2018 to first quarter 2023, the Agriculture, Forestry, Fishing and Hunting industry shrank by 3.1 percent, losing 1,844 jobs. Overall, the industry is projected to gain 6,104 jobs by 2030, expanding to 65,406 jobs total.

Listed below are the Agriculture, Forestry, Fishing and Hunting industry jobs that pay a wage above the state median and are projected to be the most in-demand over the long term. Note: Many agriculture workers are considered self-employed and are therefore not included in the table below.

**Table 13: Agriculture and Forestry Industry Long-Term Occupational Projections**

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Farmers, Ranchers, and Other Agricultural Managers | 11,162 | 12,895 | 1,733 | 15.5 | $63,232 |
| First-Line Supervisors of Farming, Fishing, and Forestry Workers | 1,310 | 1,478 | 168 | 12.8 | $49,461 |
| Logging Equipment Operators | 817 | 921 | 104 | 12.7 | $48,369 |
| Accountants and Auditors | 165 | 184 | 19 | 11.5 | $69,597 |
| Bookkeeping, Accounting, and Auditing Clerks | 756 | 766 | 10 | 1.3 | $50,157 |
| First-Line Supervisors of Production and Operating Workers | 58 | 60 | 2 | 3.4 | $84,094 |
| First-Line Supervisors of Office and Administrative Support Workers | 235 | 231 | -4 | -1.7 | $44,062 |

Data Source: Texas Statewide Projections 2020 to 2030

Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463

# Mining, Quarrying, and Oil and Gas Extraction

The Mining, Quarrying, and Oil and Gas Extraction industry is projected to grow by 36.7 percent from 2020 to 2030, resulting in 67,850 jobs added. By 2030 the industry is projected to have 251,534 jobs. Service Unit Operators, Heavy and Tractor-Trailer Truck Drivers and Rotary Drill Operators are the top projected occupations for the industry.

According to not seasonally adjusted Current Employment Statistics data, employment in Mining, Quarrying, and Oil and Gas Extraction grew by 25.4 percent from **June 2020** to **June 2023**. Over this time period 44,900 jobs have been added as the industry has shown strong recovery from its pandemic lows

Mining, Quarrying, and Oil and Gas Extraction occupations projected to add the most jobs in the long term that pay an industry wage above the state median are listed below.

## Table 14: Mining, Quarrying, and Oil and Gas Extraction Industry Long-Term Occupational Projections

| Occupational Title | Employment 2020 | Employment 2030 | Change | Percent Growth | Median Annual Wage 2022 |
|---|---|---|---|---|---|
| Service Unit Operators, Oil and Gas | 14,047 | 20,174 | 6,127 | 43.6 | $47,428 |
| Heavy and Tractor-Trailer Truck Drivers | 10,117 | 15,116 | 4,999 | 49.4 | $45,993 |
| Rotary Drill Operators, Oil and Gas | 4,642 | 6,726 | 2,084 | 44.9 | $51,697 |
| Derrick Operators, Oil and Gas | 3,865 | 5,615 | 1,750 | 45.3 | $50,243 |
| Petroleum Engineers | 6,360 | 8,002 | 1,642 | 25.8 | $132,196 |
| Accountants and Auditors | 6,244 | 7,748 | 1,504 | 24.1 | $100,266 |
| Wellhead Pumpers | 4,774 | 6,092 | 1,318 | 27.6 | $75,443 |
| Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel | 1,940 | 2,865 | 925 | 47.7 | $87,883 |
| Geological and Hydrologic Technicians | 2,044 | 2,814 | 770 | 37.7 | $67,183 |
| Project Management Specialists and Business Operations Specialists, All Other | 2,306 | 2,970 | 664 | 28.8 | $104,281 |

Data Source: Texas Statewide Projections 2020 to 2030

Ranked by employment change for occupations with 2022 OEWS median wages higher than Texas median annual wage of $43,463

# VIII.  Glossary

## Local Area Unemployment Statistics (LAUS)

This Federal/State cooperative program produces employment and unemployment estimates by place of residence.

**Civilian Labor Force (CLF)** - All persons classified as employed or unemployed.

**Employed** - All persons 16 years and over who, during the reference week, (a) did any work at all (at least 1 hour) as paid employees, worked on their own business, profession, or on their own farm, or worked 15 hours or more as unpaid family workers, or (b) were not working but who had jobs from which they were temporarily absent. Each employed person is counted only once, even if the person holds more than one job.

**Employment Population Ratio** - The proportion of the civilian non-institutional population who are employed over the age of 16. Used in conjunction with the unemployment rate to evaluate the status of the labor force, it provides a measure of change in employment.

**Labor Force Participation Rate (LFPR)** - Represents the proportion of the non-institutional population that is in the labor force. In the Current Population Survey (CPS), the participation rates are usually published for sex-age groups, often cross classified by other demographic characteristics.

**Unemployed** - All persons aged 16 years and over who had no employment, were available for work, and had made specific efforts to find employment. Includes persons who were waiting to be recalled to jobs from which they had been laid off.

**Unemployment Rate** - The unemployed number divided by the civilian labor force number.

## Current Employment Statistics (CES)

This Federal/State cooperative program produces estimates drawn from a monthly survey of nonfarm business establishments used to collect wage and salary employment, worker hours and payroll by industry and area. It counts the number of jobs, not of people.

**Nonagricultural Jobs** - The total number of persons on establishment payrolls employed full or part time. Persons on the payroll of more than one establishment are counted in each establishment. Data exclude proprietors, self-employed, unpaid family or volunteer workers, farm workers, and domestic workers. Government employment only covers civilian employees.

**Actual or Not Seasonally Adjusted** - Describes the data series not subject to the seasonal adjustment process. In other words, the effects of regular, or seasonal, patterns have not been removed from these series.

**Seasonally Adjusted** - The effects of regular, or seasonal, patterns of hiring or layoffs (holidays, weather, etc.) have been removed from these series. These adjustments make it easier to observe the cyclical and other non-seasonal movements in a data series.

# Quarterly Census of Employment and Wages (QCEW)

A Federal/State cooperative program which collects and compiles employment and wage data for workers covered by State unemployment insurance laws, and Federal civilian workers covered by unemployment compensation for federal employees. State employment security agencies collect and compile quarterly Unemployment Insurance (UI) contribution reports which are submitted by all employees. These data are maintained in the State in macro and microdata forms, and sent to the Bureau of Labor Statistics (BLS).

**Average Weekly Wages (AWW)** - Average weekly wage values are calculated by dividing quarterly total wages by the average of the three-monthly employment levels (all employees) and dividing the result by 13, for the 13 weeks in the quarter.

# Occupational Employment Statistics (OEWS)

The Federal/State cooperative program which produces current estimates of industry staffing patterns through periodic surveys of the nonfarm wage and salary sector of the economy. Occupational wages are also made through the survey.

**Hybrid Wage**- OEWS estimates are calculated using data collected from six survey panels over three years. Because data will be collected under two different Standard Occupational Classification (SOC) systems, estimates for May 2020 will be based on a hybrid of the two classification systems. During the transition to the 2018 SOC system, OEWS estimates will be based on a "hybrid" structure that is a combination of the 2010 SOC and 2018 SOC.

**Industry Staffing Patterns** - The occupational make-up of an industry collected by the Occupational Employment Statistics (OES) survey

**Standard Occupational Classification (SOC)** - The SOC is a system for classifying all occupations in the economy. The 2010 SOC classifies workers at four levels of aggregation: major group, minor group, broad occupation, and detailed occupation. All occupations are clustered into one of the 23 major groups.

# Projections

The Texas Workforce Commission's Labor Market and Career Information Department produces industry and occupation employment projections. The program is funded by the Employment and Training Administration, U. S. Department of Labor. Projections are generated every two years for a 10-year period. The process of making employment projections depends on two main ingredients: industry employment and occupation employment within each industry (staffing patterns).

**Employment Projections** - Estimates of projected 10-year industrial and occupational employment for Texas and the 28 Workforce Development Areas.

**Long-Term Projection System (LTPS)** - Long-Term Industry Projection System (LTPS) was developed through the Asset Logistics Management Information System (ALMIS) Long-Term Industry Consortium. It is a PC-based system used to produce industry employment projections for Texas and the 28 Workforce Development Areas (WDAs) for a 10-year period. Texas and the WDA historical employment trends and U.S. relationships are used in conjunction with the forecast of Texas unemployment rates, gross state product, population, personal income, and labor force. The projections were developed through various types of regression and shift-share analyses.

# Miscellaneous

**Help Wanted OnLine** - The Conference Board's data series provides monthly measures of labor demand (advertised vacancies) at the national, regional, state, and metropolitan area levels.

**Current Population Survey (CPS)** – National monthly household survey of sample households approximately 60,000 of the non-institutional population 16 years of age and older, employment and unemployment, demographic data and related subjects which are analyzed and published by Bureau of Labor Statistics (BLS). Each month, labor force information from this survey is published by Department of Labor in Employment and Earnings, and in the Employment Situation Summary press release. Annual demographic data are published in the Geographic Profile of Employment and Unemployment. Although the CPS is best known as the source for the monthly national unemployment rate, annual average CPS data for states are used in the Local Area Unemployment Statistics (LAUS) program as benchmarks and monthly data are used either in the extrapolation procedures or directly where the estimates meet BLS reliability standards.

# Texas Geography

**Metropolitan Division (MD)** - A Metropolitan Statistical Area with a population of 2.5 million which is subdivided into smaller groupings is referred to as Metropolitan Divisions (MDs). An MD in Texas is made up of one or more counties.

**Metropolitan Statistical Area (MSA)** - A geographic area that contains at least one urbanized center of 50,000 or more population plus adjacent territory that has a high degree of social and economic integration with the core urban location. An MSA in Texas is made up of one or more counties.

**Metro Area** - Can refer either to a Metropolitan Statistical Area or a Metropolitan Division. Texas has 25 MSAs, including the Dallas-Fort Worth-Arlington MSA which is subdivided into two MDs.

**Workforce Development Area (WDA)** - The State of Texas is divided into twenty-eight (28) local workforce development areas. A WDA in Texas is made up of one or more counties and every county resides in a WDA.