CHAPTER 2: ECONOMIC TRENDS

The prosperity of Fort Worth is linked to domestic and international changes. During the 1970s and 1980s, the local economy was driven primarily by a large and successful aerospace and defense industry. Substantial cutbacks in defense contracts prompted the City to begin working towards diversifying its economy in the 1990s, largely through small business development. The result is an economy that is today diversified in many industry sectors such as services, trade, manufacturing, transportation, communication, and construction. This diverse workforce helped Fort Worth weather the recent Great Recession, as the city fared better than many others. However, Fort Worth is not immune to national trends which resulted in significant job losses and slow economic growth.

The Fort Worth area continues to see an increase in the total number of natural gas wells tapping the Barnett Shale throughout the city and surrounding counties, although at a significantly reduced rate from recent years. Although weak natural gas prices have affected the overall production of natural gas across the nation, production rates continue to make Fort Worth a leader in Texas’ energy production. Tarrant County is currently ranked #2 in top gas producing counties for 2016 by the Texas Railroad Commission. As long as natural gas exploration and production continues in and around Fort Worth, the associated jobs and lease revenue from natural gas wells will continue to contribute to the local economy.

This chapter discusses some of the major economic indicators for the region, details some of the major economic attributes of the City of Fort Worth, and correlates national and international events to regional trends. Assessing these factors provides the basis for making reasoned assumptions about future economic growth and land development needs.

There are three reasons for attempting to assess and predict changes in the economy. First, the costs of providing certain City services are related to the level of economic activity. Industrial and commercial enterprises require water, wastewater, police, fire, environmental, and other services. The costs of providing certain water and wastewater services are partially offset by impact fees, but many other municipal services have no corresponding revenue source. Estimates for quantity and type of streets, public transportation facilities, schools, water and sewer facilities, and other community facilities are all based on the amount and spatial distribution of population and economic activity in the city.

Second, just as it costs money to provide services to businesses, these same businesses provide tax dollars that pay for the services. The City must be able to predict whether a public investment will ultimately pay for itself. The rate at which the economy expands drives growth not only in population, but also in sales taxes, property taxes, hotel taxes, impact fees, and other revenue sources.

Median family income for the Fort Worth-Arlington HUD Metro FMR Area increased from $61,300 to $69,400 between 2002 and 2016, an average annual increase of 0.89% over the 15-year period.
Lastly, knowledge about the economy is useful in predicting land use needs and in creating policy. An expanding economy and population generally means more land is being developed. Every sector of the economy uses land in a specific way. By analyzing the growth trends in the various sectors, the amounts of land that will be needed for commercial and industrial uses in the future can be predicted. Policies can be developed to encourage growth in appropriate areas with adequate infrastructure and community facilities, while allowing for the efficient provision of additional facilities and services as needed.

**Median Household Income by Planning Sector**

According to the U.S. Census Bureau’s American Community Survey (ACS) 2011 to 2015, the citywide median household income is $53,214. The ACS reports the median family income at $62,345, the median married couple family income at $77,453 and the median non-family household income at $34,509.

Redevelopment in the Downtown, Southside/Medical District, TCU/Westcliff, Arlington Heights, and Western Hills/Ridglea sectors have brought higher median incomes to those areas. At the same time, continued suburban residential and commercial development, along with industrial developments, have kept the median income higher in many areas outside Loop 820.

Median family income analyzes combined incomes of related (by birth, marriage, or adoption) household members. Similarly, median household income analyzes income levels of one or more unrelated individuals residing together in a housing unit. The 2015 ACS Census data reports a $125,375 median family income Downtown, well above the estimated citywide median family income of $62,345.

The Southside, Southeast, Western Hills/Ridglea, and the Northside sectors had the highest concentrations of median household incomes below $30,000 in the American Community Survey 2011–2015. Inversely, the Downtown, Arlington Heights, Wedgewood, Eastside, Far North, Far Northwest, and Far West sectors had the highest concentrations of median household incomes greater than $50,000 in the American Community Survey 2011–2015.

**Personal Income**

Personal income is the income received by all persons from all sources. Personal income is the sum of net earnings by place of residence, property income, and personal current transfer receipts. Personal income is measured before the deduction of personal income taxes and other personal taxes. Per capita personal income for the Fort Worth-Arlington MD was estimated at $47,916 in 2015, which exceeds the state average of $46,947 and is slightly above the national average of $47,669, according to the U.S. Bureau of Economic Analysis. The Fort Worth-Arlington MD figure for personal income increased by 3.7 percent annually between 2005 and 2015.

**Chapter 2: Economic Trends**

![Median Household Income by Census Block Groups, ACS 2011 – 2015](image)
**Total Employment and Job Growth**

According to the North Central Texas Council of Governments’ employment forecast, employment in the City of Fort Worth will continue to rise by 2.5 percent, reaching approximately 900,000 jobs within the city limits in 2040. The Perryman Group, Inc., an economic research and consulting firm, forecasts job growth in the Fort Worth-Arlington Metropolitan Division (MD) to continue, though at a slightly slower rate than that of the late 1990s. Between 1990 and 2000, the Fort Worth-Arlington MD gained jobs at a rate of 3.2 percent per year according to the Perryman Group. Total job growth is expected to slow to 2.3 percent annually through the year 2020. The Perryman Group forecasts a total of 1,155,000 jobs in 2021 for the Fort Worth-Arlington MD.

More broadly, the State Comptroller projects that job growth in the State of Texas is expected to decrease from a 1.63 percent annual average growth rate between 2000 and 2016 to 1.42 percent annual growth from 2017 to 2040.

Future job growth will likely be linked to Fort Worth’s large percentage of undeveloped or underutilized land and a vast ETJ of approximately 300 square miles that is mostly vacant. By comparison, many other cities in the Fort Worth-Arlington MD are landlocked and are rapidly developing the remainder of their vacant land. Provided it is wisely developed, Fort Worth’s large supply of vacant buildable land can be a significant driver of future economic growth and job creation.

**Employment by Planning Sector**

The Far North planning sector exhibited the most significant employment growth in the city between 1990 and 2000, adding almost 47,251 jobs at an average annual growth rate of 16.9 percent. The Far North sector’s job growth can be attributed primarily to new jobs in the Alliance Airport area, including Alliance Gateway and the Intermodal facility. Jobs were also added in Fossil Creek, Mercantile Center, and Mark IV industrial parks. The Northeast sector added 15,132 new jobs, at an average annual growth rate of 3.3 percent. The Downtown sector ranked third in number of new jobs, with approximately 15,070 new jobs, at an annual growth rate of 2.4 percent. Other growth areas included the TCU/Westcliff sector, with a large new shopping center; the Western Hills/Ridglea sector, which benefited from the recommissioning of the Naval Joint Reserve Base; the Eastside sector, which includes CentrePort and several new retail establishments; and the Northside sector, where the Stockyards have been redeveloped into an entertainment district. Only the Far West sector has performed poorly in job growth, as there has been primarily residential development west of Loop 820.

**Employment by Industry**

The Fort Worth-Arlington MD has a highly diversified economy. The area is an important manufacturing, commercial, transportation, and financial hub and provides a large number of cultural and recreational opportunities. It has also become a major area for natural gas exploration and development. According to the Perryman Group, the metro division houses approximately 8.72 percent of Texas’ residents and currently generates 7.92 percent of the state’s real gross product (output) while accounting for 8.25 percent of the state’s total employment. Over the long term, Fort Worth-Arlington MD in 2016. (Source: Perryman Group Inc., 2016, Fort Worth-Arlington Metro Division)

2016 Employment by Industrial Sector

- Services 40.2%
- Trade 16.4%
- Government 1.6%
- Agriculture 0.2%
- Mining 2.4%
- Construction 5.4%
- Durable Manufacturing 5.7%
- Nondurable Manufacturing 7.6%
- Information 5.8%
- Finance, Insurance, & Real Estate 1.4%
- Services 0.2%
- Government 1.6%

Services and Trade were the largest employment sectors in the Fort Worth-Arlington MD in 2016. (Source: Perryman Group Inc., 2016, Fort Worth-Arlington Metro Division)

2040 Projected Employment by Industrial Sector

- Services 46.2%
- Trade 15.5%
- Government 1.3%
- Agriculture 0.2%
- Mining 2.4%
- Construction 5.4%
- Durable Manufacturing 5.7%
- Nondurable Manufacturing 7.4%
- Information 5.0%
- Finance, Insurance, & Real Estate 1.2%
- Services 0.2%
- Government 1.6%

Services and Trade are forecast to remain the largest employment sectors in the Fort Worth-Arlington MD in 2040. (Source: Perryman Group Inc., 2016, Fort Worth-Arlington Metro Division)
Worth-Arlington MD is predicted to achieve notable growth across a variety of industries. Over the next 5 years, the Perryman Group forecasts a total gain of 112,903 wage & salary employment jobs in the Fort Worth-Arlington MD, a gain of 2.17 percent annually.

The following estimates and forecasts of employment by industry are only available for jobs within the Fort Worth-Arlington MD, the primary area from which Fort Worth draws its workforce. According to the Perryman Group, through the year 2040, all industries in the Fort Worth-Arlington metro area are anticipated to see an expansion in the number of workers.

- Historically, the service sector has grown rapidly nationwide. With new, efficient communications, businesses are increasingly able to sell services in distant markets, making services an export commodity. The services sector in the Fort Worth-Arlington MD increased by 42,097 new jobs over the past five years (2012 to 2016), representing the largest employment sector growth, and it is forecast to grow by an additional 51,313 jobs between 2016 and 2021, representing a 2.4 percent compound annual growth rate. The service sector currently accounts for approximately 40 percent of the Fort Worth-Arlington MD’s total wage and salary employment. By 2040, services is projected to be responsible for approximately 46 percent of the workforce in the metro division. The services sector is forecast to account for the largest amount of real gross product gain from 2017 to 2040 for the Fort Worth-Arlington MD. The increase is expected to be approximately $34.33 billion.

- Trade experienced an increase of 19,425 total jobs in the five years from 2012 to 2016. The trade sector is forecast to grow by 12,877 new jobs between 2017 and 2021, representing a 1.48 percent compound annual growth rate.

- The manufacturing industry primarily shrunk between 2001 and 2010. However, in 2011, the industry began growing and has now recovered from most of the job loss experienced during that time. From 2011 to 2016 this sector grew by approximately 5,200 new jobs. The Perryman Group projects another 4,200 jobs added to this sector between 2017 and 2021, at an approximately 0.89 percent compound annual growth rate.

- Government grew by 6,552 jobs between 2012 and 2016. This job increase is reflective of the need for all levels of government to maintain their level of services as the service area continues to grow. The government sector is forecast to grow by 6,157 jobs between 2017 and 2021, representing a 0.89 percent compound annual growth rate.

- Transportation, warehousing, and utilities (TWU) increased by 9,618 jobs between 2012 and 2016, and is forecasted to grow by 5,656 jobs between 2017 and 2021, representing a 1.42 percent average annual increase. According to the International Trade Administration, Texas exports to Mexico decreased from $94.4 billion in 2012 to $92.7 billion in 2016, a 2 percent decrease. Total exports from Texas decreased from approximately $265 billion in 2012 to $233 billion in 2016, an approximately 12 percent decrease.

- Construction in the Fort Worth-Arlington MD decreased by nearly 5,930 jobs between 2009 and 2010 due to a decrease in home building associated with

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increased foreclosures and an overall unhealthy housing market. However, between 2011 and 2016, construction employment nearly normalized to pre-crash levels. Employment in construction is forecast to grow by 2,944 jobs between 2017 and 2021, representing a 1.05 average annual increase.

- Finance, insurance, and real estate (FIRE) in the Fort Worth-Arlington MD grew by 1,685 jobs between 2012 and 2016, and is forecast to grow by 2,752 jobs between 2017 and 2021, representing a 0.09 percent average annual increase.

- Mining in Texas is dominated by oil and gas production, and this sector tends to suffer in years when crude oil and gas prices are low. The number of operating Texas oil and gas rigs fell to 306 in April 2002, reflecting such a drop in prices. However, exploration in the Barnett Shale helped natural gas production, resulting in an increase in rig count to 607 in 2005. With crude oil and gas prices currently low, the Texas rig count as of February 10, 2017 was 362, representing about 48 percent of all active rigs in the United States. Between 2008 and 2009, the Perryman Group reported a decrease of about 3,200 mining related jobs in the Fort Worth-Arlington MD, indicative of the drilling slowdown in Texas that occurred at that time. The mining industry has since rebounded from this employment drop with minor fluctuations in employment from year to year. The Perryman Group estimates 16,980 mining jobs in the Fort Worth-Arlington MD in 2016. The mining sector is projected to continue growing at a rate of 2.64 percent between 2017 and 2021, adding 2,395 jobs.

- Agriculture has remained stable at around 2,000 jobs in the Fort Worth-Arlington MD for the past five years. The industry is forecast to experience slight growth between 2016 and 2021, adding approximately 38 jobs for a 0.33 percent average annual increase.

Approximately 69 percent of wage and salary workers are currently in the services, government, and trade industries. Over the long-term forecast horizon (2040), those three sectors will account for almost 73 percent of employment in the Fort Worth-Arlington Metro Division.

**Unemployment**

In 2016, the City of Fort Worth unemployment rate was 3.9 percent, slightly lower than the State of Texas’s unemployment rate of 4.5 percent. Nationwide, the unemployment rate was 4.9 percent. Unemployment rates have steadily decreased in Fort Worth over the last several years, showing a recovery from the rising rates that began in 2008.

**Unemployment by Census Block Group**

Many parts of the City of Fort Worth have experienced long-term high unemployment rates. Estimates of the civilian labor force and unemployed persons from the American Community Survey 2011 – 2015 by census block group reveal that the areas east of Interstate-35W and south of Interstate-30 have the highest concentrations of unemployment rates above ten percent. The unemployment rates in these sectors show little sign of changing in the near future. The 2011 – 2015 American Community Survey estimated an 7.5 percent unemployment rate for the City of Fort Worth for that period, reflecting the local impact of the Great Recession.

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Fort Worth’s 2016 unemployment rate of 3.9 percent moves the city closer to pre-recession unemployment rates. (Source: Bureau of Labor Statistics, 2016, Fort Worth - Arlington Metro Division)
Real Gross Area Product
Real gross area product is the final value of all goods and services produced during a given time period, adjusted for inflation. The Perryman Group is the sole source of estimates for regional figures. Within the Fort Worth-Arlington Metropolitan Division, real gross product is projected to grow from $123.628 trillion in 2016 to $150.293 trillion in 2021, which equates to an average annual growth rate of 3.59 percent. Statewide, the Perryman Group projects the real gross state product to continue to grow at 4.11 percent annually between 2016 and 2021, rising from approximately $1.496 trillion to $1.830 trillion. The Perryman Group also projects the U.S. real gross domestic product to increase at an annual average rate of approximately 2.96 percent over the same time span.

Retail Sales
According to the State Comptroller, total retail sales in Fort Worth increased approximately 12.62 percent annually from $9.33 billion in 2011 to $15.22 billion in 2015. During the same time period, retail sales in the Fort Worth-Arlington MD grew by 4.72 percent annually ($32.15 billion to $39.74 billion), while the Dallas-Plano-Irving MD averaged a 1.98 percent increase annually ($71.75 billion to $78.86 billion).

In 2015, per capita retail sales in Fort Worth totaled $18,264 per person, a 15% increase from 2014, somewhat higher than the Fort Worth-Arlington MD retail sales of $16,589 and the Dallas-Plano-Irving MD, which had a per capita retail sales figure of $16,754.

For the Fort Worth-Arlington MD, the Perryman Group predicts overall retail sales to grow at a 3.77 percent annual growth rate between 2016 and 2040. According to their projections, 2040 retail sales in the Fort Worth-Arlington MD will be approximately $100.099 billion, an increase of $58.940 billion from 2016.

Cost of Living
The 2016 annual consumer price index (CPI) in the Dallas-Fort Worth area continues to be lower than most other large metropolitan areas in the country, according to the U.S. Bureau of Labor Statistics. In 2016, the Dallas-Fort Worth annual CPI was 220.7, compared to Atlanta at 225.5, Los Angeles at 249.2, and Boston at 260.5. Although CPI figures are not available for the city, evidence indicates that Fort Worth’s cost of living is lower than that of many other cities in the Metroplex. Housing represents a large portion of all items used to calculate the CPI. The median sale price of a home in Fort Worth was $185,000 in 2016, compared to $280,000 in Dallas, according to the Real Estate Center at Texas A&M University.

Inflation is the change in the CPI, or the percentage rise in the prices of common consumer items. From 2011 to 2015, the nation as a whole witnessed a 1.31 percent average annual inflation rate. During that same period the Dallas-Fort Worth area saw a slightly lower inflation rate of 1.22 percent. By comparison, the average annual inflation rate between 2005 and 2009 nationwide was 2.45 percent while the Dallas-Fort Worth area was 2.15 percent.

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The Texas Comptroller predicts that the CPI in the United States will rise by an average of 2.36 percent per year from 2016 – 2040.

**Challenges and Opportunities**
The changing economy provides Fort Worth with several challenges and many opportunities. The national, state, and local economies emerged from a slowdown after September 11, 2001. Fort Worth fared well during this time due to its diverse economy and its close proximity to Alliance and D/FW airports and the NAFTA Interstate 35 corridor. In addition, the community’s pro-business stance has helped diversify the Fort Worth economy.

Between 2002 and 2007, Fort Worth and the entire Metroplex experienced strong economic growth. However, the national Great Recession that started in 2008 impacted Fort Worth by 2010, with local unemployment rising from 4.6 percent in 2007 to 8.5 percent by the end of 2010 (compared to 9.7 percent for the nation). The Great Recession was slow to affect Fort Worth and its negative impacts were not as severe in Fort Worth as was the case in many other parts of the country.

These factors provide Fort Worth with a firm foundation for growth in future years. However, the policies and programs of the City must be continuously examined to ensure that they help mitigate the impacts of economic downturns, while promoting and enhancing Fort Worth’s economic strengths.