ECONOMIC DEVELOPMENT STRATEGIC PLAN
UPDATE

TIP STRATEGIES

CITY OF FORT WORTH, TEXAS

JANUARY 2022

ACKNOWLEDGMENTS

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INTRODUCTION

Since adopting its first-ever economic development strategic plan in 2017, Fort Worth, Texas, (the City) has accelerated its growth. Developed with assistance from TIP Strategies, Inc., (TIP) and with guidance from a steering committee, the 2017 plan was structured around a bold vision and three goals that address competitiveness, creativity, and community vitality (see Figure 1).

The City and its economic development partners have made substantial progress on implementing the 2017 plan. The 2020 Census ranked Fort Worth as the 13th largest city in the nation, quickly ascending the ranks of big cities from its place as the 15th largest in 2017. The City's population is on track to pass the one million mark in 2024. Recent developments have heightened the profile of the City, from Dickies Arena to the opening of Texas Christian University (TCU) School of Medicine to continued development along the Trinity River corridor. In addition, Hillwood's investments at Alliance (and beyond) continue to make national news.

Fort Worth's appeal to creative businesses is on an upward curve as well. The Near Southside medical innovation district and entrepreneurial programs have garnered statewide attention. The City is also on the cusp of launching targeted development projects in historically underserved areas, including the Evans & Rosedale and Stop Six neighborhoods. These initiatives will further align neighborhood assets to support Citywide economic growth.

While progress is undeniable, Fort Worth continues to face significant challenges. The COVID-19 pandemic has radically changed not only the business landscape, but wider development patterns. An unbalanced tax base, major supply chain disruptions, uncertainty in corporate real estate, and increasing competitive pressures within the Dallas-Fort Worth metro area further complicate the picture.

Fortunately, the City is taking active measures to address the challenges that come with a rapidly changing economy. An update of the plan in light of these disruptions is both necessary and timely. In response to the turbulent economic landscape and to position Fort Worth for new opportunities, the City engaged TIP to update the 2017 plan and to align resources with priorities. This update is intended to guide Fort Worth's economic development efforts over the next five years.

FIGURE 1. 2017 STRATEGIC PLAN SUMMARY

2017 GOALS	2017 TARGET SECTORS	MAJOR ACCOMPLISHMENTS
1 Establish Fort Worth's **competitive** edge.	• Aerospace manufacturing & design • Transportation innovation • Life sciences delivery & innovation • Geotechnical engineering • International business • Corporate & regional headquarters (HQs) • Professional services • Financial services	• Launched ThriveinFortWorth.com. • Encouraged high levels of industrial development Citywide. • Created research and development (R&D) tax credits for incentive packages. • Launched Alliance Mobility Innovation Zone. • Added equity to bond criteria. • Attracted new investment in urban core (Evans & Rosedale, Stop Six, downtown, Stockyards, Panther Island, and Near Southside).
2 Become a hub for **creative** businesses.		
3 Ensure **community** vitality.		

STRATEGIC PLAN UPDATE

While the goals and initiatives laid out in the 2017 plan remain relevant, the need for action is more urgent now. This is due to a convergence of three major factors.

1. Economic disruptions and trends accelerated by COVID-19;

2. New opportunities for real estate development and business growth in Fort Worth; and

3. Ongoing workforce challenges, including social inequities, further exacerbated by the pandemic.

In response to these factors, Fort Worth's leadership must align its economic development partners to pursue a series of bold initiatives that accelerate the community's economic momentum. The initiatives outlined below are designed to advance major development projects, accelerate employment growth, and create new opportunities for equitable economic development.

BOLD INITIATIVES

- **INITIATIVE 1: INVESTMENT FRAMEWORK.** Adopt an investment framework to drive public-private development projects, align City incentives to create new jobs and private sector investment, and build capacity in Fort Worth businesses.
  - **1.1.** Deal Closing
  - **1.2.** Targeted Area Development
  - **1.3.** Business Equity
  - **1.4.** Innovation

- **INITIATIVE 2: EQUITABLE REAL ESTATE DEVELOPMENT.** Position Fort Worth for equitable real estate development Citywide—including catalyst projects in historically underserved areas and foundational infrastructure in new growth centers—through external funding, City resources, and private sector engagement.
  - **2.1.** Catalyst Projects in East and Southeast Fort Worth
  - **2.2.** Master Development Plan for West Fort Worth
  - **2.3.** Signature Projects in the Urban Core
  - **2.4.** Citywide Urban and Mixed-Use Development
  - **2.5.** Equitable Infrastructure Investments

- **INITIATIVE 3: HUMAN CAPITAL INVESTMENTS.** Focus on human capital investments that attract, retain, and develop a broad base of creative talent in Fort Worth.
  - **3.1.** Future-Focused Workforce and Industry Partnerships
  - **3.2.** Inclusive Talent Attraction and Retention
  - **3.3.** Higher Education Expansion
  - **3.4.** Small Business Capacity Building

TARGET SECTORS

In addition to a set of bold initiatives, the strategic plan update included a target sector refresh that evaluated current conditions to determine if the target sectors identified in the prior plan are still relevant (see Figure 1, page 1). Following an analysis of quantitative, qualitative, and strategic factors, the eight sectors from the 2017 plan were narrowed to five target sectors identified as priorities for business development moving forward. These five sectors have a strong presence in the City and demonstrate significant future growth potential to generate new investment. They build on the City's successful companies, creative people, and quality places to support the growth of a thriving local economy. See Appendix C for more information about the target industries.

FIGURE 2. TARGET SECTORS OVERVIEW

MOBILITY	AEROSPACE & DEFENSE	ENERGY	CULTURE	ANCHORS & INNOVATORS
• Automotive • Distribution & E-Commerce • Transportation & Logistics	• Aerospace Vehicles & Defense • Federal Government (Military) • Information Technology (IT) & Analytical Instruments	• Alternative Electric Power • Electric Power Distribution • Drilling Wells • Oil & Gas Machinery • Support Activities for Oil & Gas Operations	• Hospitality & Tourism • Performing Arts • Local Community & Civic Organizations • Local Hospitality Establishments	• Colleges, Universities, & Professional Schools • Hospitals • Research Organizations • Computer Services • Corporate Headquarters • Engineering Services • Biopharmaceutical Products

MOVING FORWARD

The 2017 economic development strategic plan laid a strong foundation for the City of Fort Worth to establish its competitive edge, become a hub for creative businesses, and ensure community vitality. Building off that foundation, the updated strategies outlined in this document provide a refresh and a roadmap to guide the City's economic development initiatives moving forward. The remainder of this document provides the City with the right tools and resources to capitalize on its strengths to drive further economic development success. If Fort Worth elected officials, City staff, and community leaders embrace the opportunities identified in this update, the City can become an even stronger competitor on the international stage for creative, high-growth businesses and the talented individuals who fuel them.

TRENDS AND TAKEAWAYS

An analysis of current economic trends is a necessary component to updating the City's economic development plan, along with stakeholder interviews and roundtables. Findings from these tasks shaped the strategic plan update and are summarized here.

ECONOMIC TRENDS

The COVID-19 pandemic has had widespread effects on the economy. Yet most of the major changes happening in the US economy—the forces shaping a transition from the 20th-century model of mass production to a 21st-century economy built on technology and global trade—were already well underway before COVID-19. Most of these economic trends were *accelerated*, not created, by the pandemic. Some of the most prominent trends that will affect the economic development potential of Fort Worth in coming years are highlighted below.

SUPPLY CHAIN RESTRUCTURING

The global supply chain was already experiencing slow growth due to trade policy and immigration restrictions in place before the onset of COVID-19. Yet, the COVID-19 pandemic compounded these issues, particularly related to the use of Chinese suppliers and offshore sourcing in general. While many supply chains have operated less expensively in overseas locations in the past, the pandemic has underlined the societal risks of leaving this production offshore.[1] With that, reshoring has come to the forefront. Reshoring can be beneficial by potentially reducing the total cost of products, improving balance sheets, and making product innovations more effective. In addition to reshoring of production functions, the reshoring of professional and back-office functions is another significant opportunity for economic development in the short- to mid-term.

ONLINE RETAIL

It is no surprise that the COVID-19 pandemic shifted sales away from brick-and-mortar establishments to e-commerce. In the fourth quarter (Q4) of 2019, the US Census Bureau estimated that online sales represented less than 12 percent of total US retail sales. Just two quarters later in Q2 of 2020, online sales represented nearly 16 percent of US retail sales, a level that would have taken several years without the disruption caused by COVID-19. The pandemic-induced spike in e-commerce activity leveled off in 2021, but the long-term trendline remains well above pre-pandemic levels. The total number of digital buyers is forecasted to reach 278 million by 2024, a 13 percent increase from 2019. These trends can negatively impact traditional retail outlets (e.g., malls, big-box chain stores, and small "mom and pop" retailers), but they also present new opportunities for the entire supply chain that supports e-commerce. Fort Worth is well positioned to capitalize on the physical e-commerce support systems (distribution, warehousing, transportation) and technology support systems (data centers, software, and financial technologies) as e-commerce continues to become a more prominent part of the economy.

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[1] Andrew Fish and Honora Spillane. "Reshoring Advanced Manufacturing Supply Chains to Generate Good Jobs." The Brookings Institution. July 23, 2020. https://www.brookings.edu/research/reshoring-advanced-manufacturing-supply-chains-to-generate-good-jobs/.

FIGURE 3. US ONLINE SALES AS A PERCENT OF TOTAL RETAIL SALES
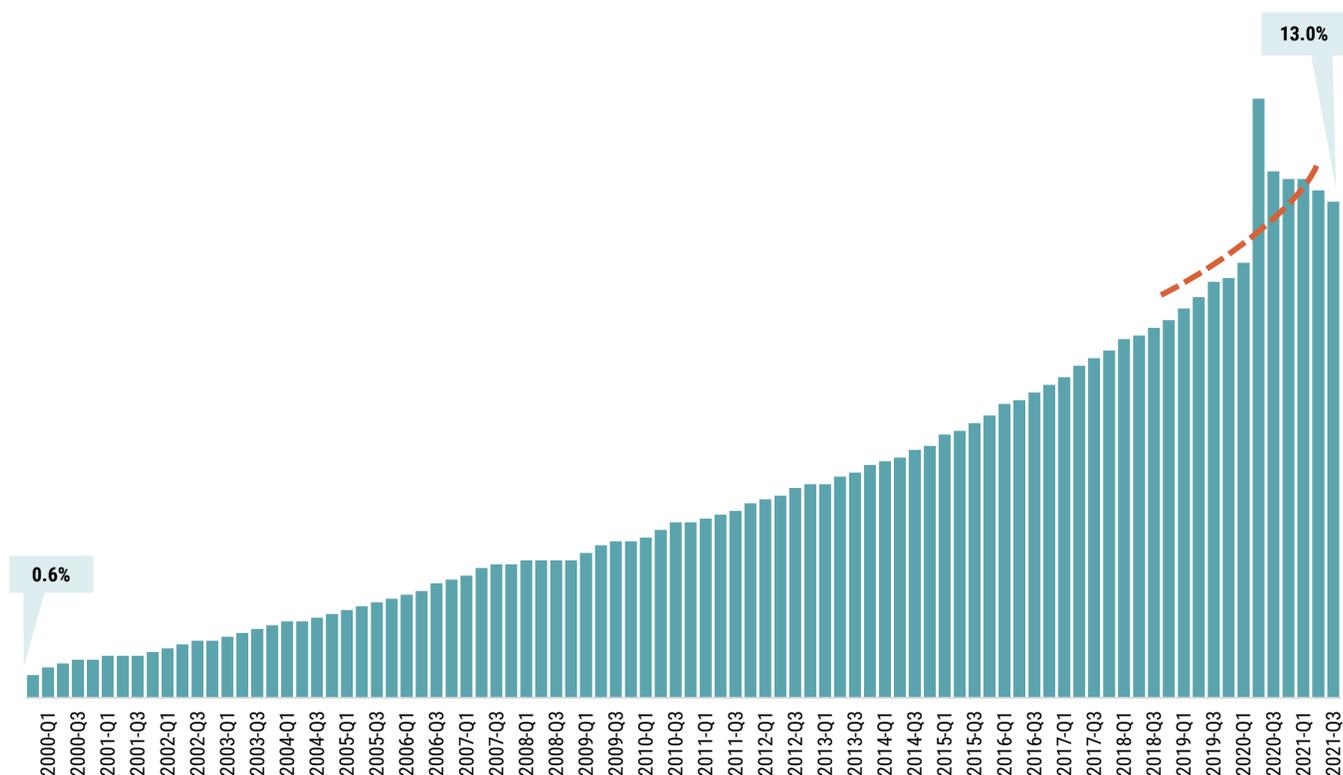
Sources: US Census Bureau; TIP Strategies, Inc.

WORK FROM HOME

Over the past two decades, the options for working in a nontraditional environment have increased steadily, but that trend was pushed to the limits at the onset of the COVID-19 pandemic when, in a matter of weeks, tens of millions of workers in the US began to work from home. Now, the question remains: is more widespread remote work here to stay? While some workers might continue to work from home indefinitely, a return to the office in some form is the most likely future scenario. An April 2021 survey of 275 executives found that nearly two-thirds (64 percent) of executives planned to return to the office to some degree during 2021. Yet, more than two-thirds (68 percent) of executives also said they would continue to operate with a hybrid model.[2] This has major implications on commercial real estate, especially in metro areas like Dallas-Fort Worth. At the same time, more workers than ever before have the freedom and flexibility to choose where they live in a remote work environment. This will create new patterns of domestic migration that could benefit attractive, affordable locations like Fort Worth.

[2] "Executives Share Their Plans for Returning to the Workplace." Deloitte. April 2021. https://www2.deloitte.com/us/en/pages/human-capital/articles/2021-return-to-workplace-survey.html.

LABOR SHORTAGES

As the economy has slowly started to rebound from the COVID-19 recession, another major labor market trend has emerged. The labor market participation rate is lower today than at the onset of COVID-19, leading to a dramatic shortage of US workers. The pandemic drove an acceleration of retirements in light of the health risks associated with in-person work. Women left the active labor force at a particularly alarming rate as remote schooling became more prevalent and as the childcare industry suffered major shortages of its own. The competitive market for talent is becoming increasingly fierce, and data shows that competition will not end anytime soon with labor shortages extending over the next generation. To stay competitive, it is well warranted for the City of Fort Worth to work just as much to attract workers as it does to attract jobs. See Figure 4.

FIGURE 4. SUPPLY AND DEMAND OF US WORKERS
COVID RECESSION ASIDE, THE US LABOR SUPPLY FACES LONG-TERM PRESSURE
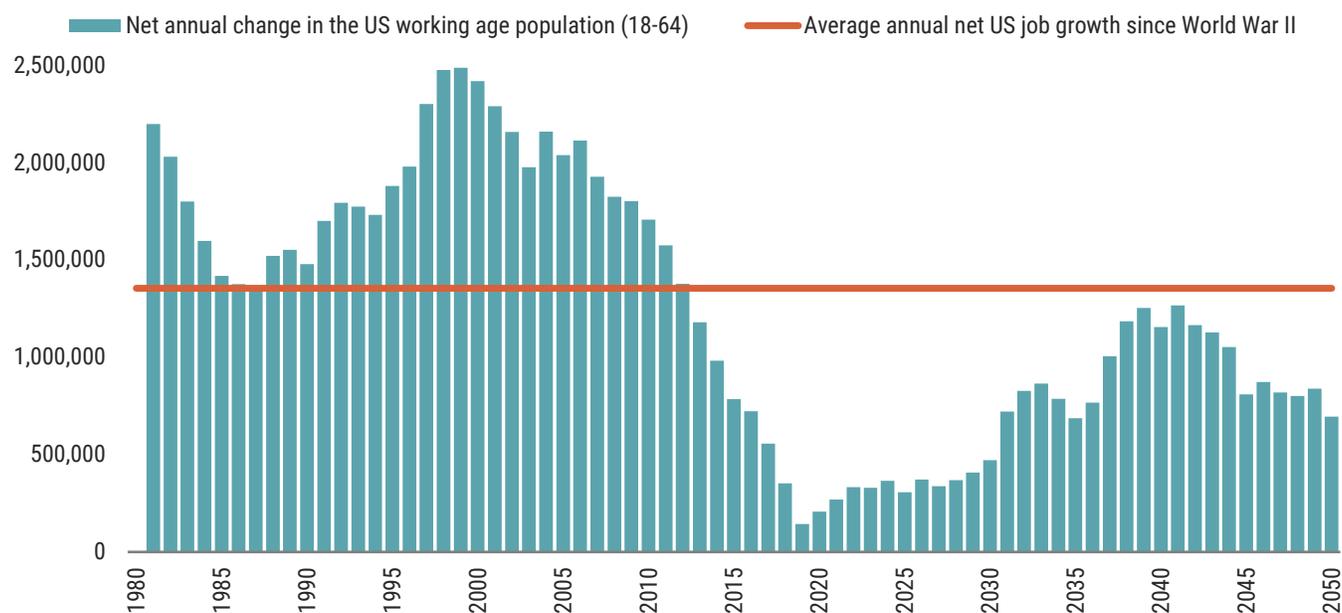
Sources: US Census Bureau, International Database; US Bureau of Economic Analysis, Current Employment Statistics; TIP Strategies, Inc.
Notes: Population estimates and projections are for the resident population. The US population components shown in the International Database might not match the official population components for the United States, in part, due to differences in how they are displayed (calendar year versus midyear-to-midyear estimates).

K-SHAPED RECOVERY

COVID-19's economic effects have had disparate impacts on different socioeconomic and demographic groups, so much so, that experts refer to it as a K-shaped recovery. Nearly all workers experienced significant job losses at the onset of the pandemic in the spring of 2020, but those with a bachelor's degree or higher have already gained back virtually all lost jobs. Meanwhile, those with a high school education, some college education, or an associate's degree have yet to recover the jobs lost due to the COVID-19 recession. To foster an equitable recovery, the City of Fort Worth must prioritize activities that improve educational attainment rates across the City while also working to dismantle barriers to participation in the local economy. See Figure 5.

FIGURE 5. K-SHAPED RECOVERY

CUMULATIVE CHANGE IN EMPLOYMENT
Millions of jobs from February 2020

Bachelor's degree or higher
0.7 million

Some college or associate degree
-2.3 million

High school or less
-2.4 million

◄ COVID-19 RECESSION
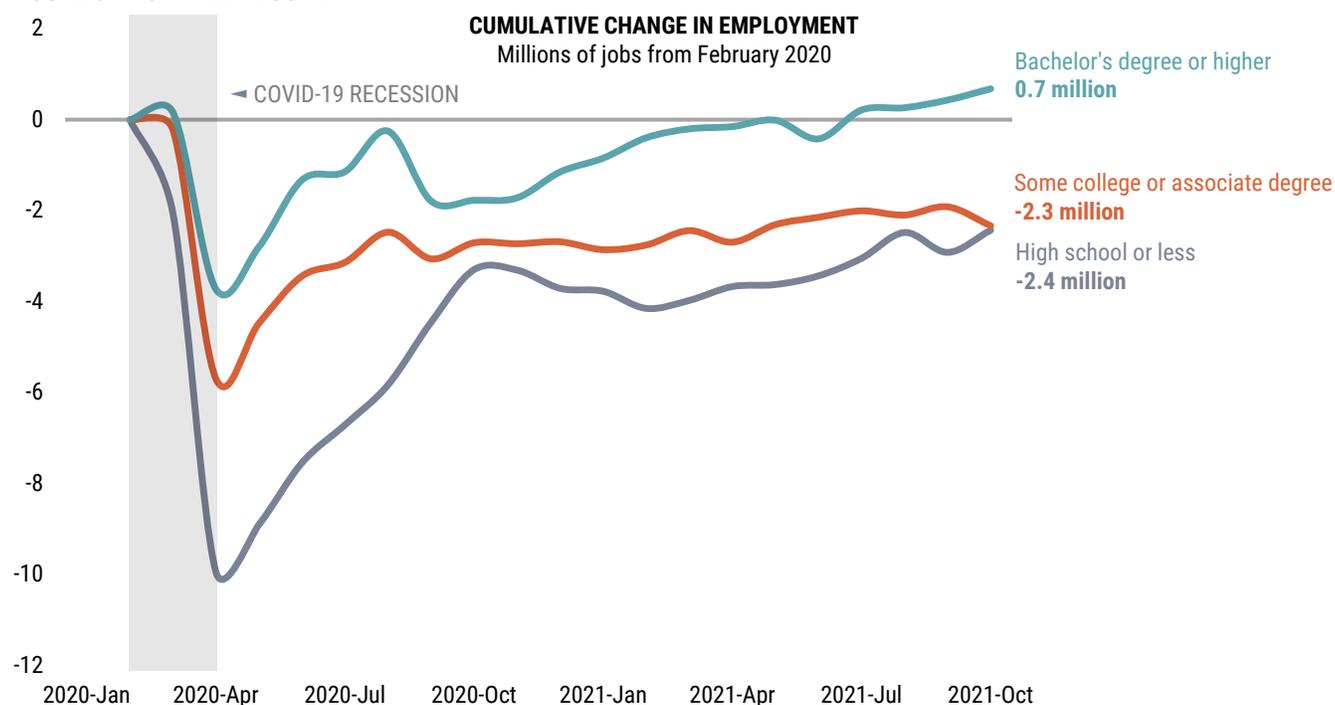
Sources: US Bureau of Labor Statistics, Household Survey (Current Population Survey); National Bureau of Economic Research (NBER); TIP Strategies, Inc.
Notes: Employment is seasonally adjusted and includes all workers age 25 and older. The current recession began in February 2020 and ended (officially) in April 2020.

SOCIAL EQUITY

Beyond the severe economic effects of COVID-19, 2020 witnessed a massive acceleration of community efforts aimed at addressing social equity. In the aftermath of the high-profile deaths of people of color, cities across the country witnessed passionate protests seeking relief from the burden of systemic racism and oppression. Yet, the effects of COVID-19 have only compounded the problem, causing significant inequities in the economic livelihood—and even health—of different socioeconomic and demographic groups. Essential workers are inherently at higher risk of being exposed to COVID-19 due to the in-person interactions these positions require. Meanwhile, workers who are Black or of African descent and Latinx or Hispanic are disproportionately represented in these occupations.[3] The City of Fort Worth has begun the necessary work to address these challenges, and the strategies in this update help propel that work even further.

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[3] "Health Equity Considerations and Racial and Ethnic Minority Groups." Centers for Disease Control and Prevention. November 30, 2021. https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html.

CLIMATE CHANGE

As natural disasters become a regular occurrence, the reality of current and impending climate change is an immediate and long-term issue. Wildfires in the West, hurricanes along the East Coast, and winter storms that halt the economy are not uncommon anymore. Certain industries and companies, more specifically, are leading the way in adopting green technologies that are revolutionizing and innovating current ways of doing business. A notable example is the production of electric vehicles (EVs). FedEx, one of the world's largest shipping companies, recently announced a $2 billion corporate investment in EVs.[4] Meanwhile, the global electric car stock is growing exponentially, up from approximately 7 million in 2019 to over 10 million in 2020.[5] The question remains: what does this mean for cities? For Fort Worth, this trend directly relates to target industries, including the potential to attract innovative companies ranging from EV manufacturers to green building technologies, such as the power over ethernet (PoE) innovation first deployed at The Sinclair hotel in downtown Fort Worth.

FUNDING

With $1.9 trillion in funding, the American Rescue Plan Act (ARPA) of 2021 aims to respond to the COVID-19 emergency and address its economic effects, including aid to households, small businesses, nonprofits, and industries such as tourism and hospitality.[6] Of the $1.9 trillion, $195 billion is slated for states and $130 billion for local governments. The state of Texas has been allocated nearly $16 billion in ARPA funds, while Tarrant County and the City of Fort Worth have been allocated roughly $400 million and $174 million, respectively. Meanwhile, the federal Infrastructure Investment and Jobs Act (passed in November 2021) allocates roughly $35 billion to Texas over five years for roads, bridges, pipes, ports, broadband, and other infrastructure projects. This enormous influx of federal funds provides the City of Fort Worth the opportunity to invest in some of its most promising opportunities that can generate a sizeable impact for the local economy.

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[4] David Shepardson. "FedEx CEO to Testify as US Lawmakers Make Green Infrastructure Push." Reuters. March 11, 2021. https://www.reuters.com/article/us-usa-infrastructure-evs/fedex-ceo-to-testify-as-u-s-lawmakers-make-green-infrastructure-push-idUSKBN2B31ZO.

[5] "Trends and Developments in Electric Vehicle Markets." *Global EV Outlook 2021.* IEA, Paris. https://www.iea.org/reports/global-ev-outlook-2021/trends-and-developments-in-electric-vehicle-markets.

[6] "American Rescue Plan Act of 2021." National Conference of State Legislatures (NCSL). March 9, 2021. https://www.ncsl.org/ncsl-in-dc/publications-and-resources/american-rescue-plan-act-of-2021.aspx.

REAL ESTATE ANALYSIS

The 2017 plan acknowledged the outsize importance of real estate development to overall economic vitality in Fort Worth. To provide a current picture of national real estate market trends and how they are affecting opportunities in the Dallas-Fort Worth metro area, a detailed analysis of CoStar data was conducted. Some of the most important findings are summarized below.

The US is in a golden age of industrial development and the Dallas-Fort Worth metro area is leading the way. According to Costar's Q3 2021 data, the metro area has 49.7 million square feet of industrial space currently under construction. This represents 11 percent of the total 451.3 million square feet underway across the US and is more than 20 million square feet higher than any other market (Phoenix and Atlanta each have roughly 29 million square feet underway, Chicago and Riverside-San Bernardino each have roughly 27 million square feet underway). To put this unprecedented growth opportunity into historical and geographical perspective, the Dallas-Fort Worth metro area currently is building more industrial space than the entire US was building in any given quarter during the Great Recession (2007–2009) and initial recovery from Q3 2009 through Q3 2011.

The rise of industrial development is being driven by a convergence of factors, including supply chain restructuring driven by trade policy (tariffs and protection of national industries), vertical integration of multiple industries, and the just-in-time delivery model of products to businesses and consumers. These factors are increasing demand for industrial space for everything from warehousing and logistics to manufacturing and data centers. The need for new industrial construction is elevated across the entire US but is especially pronounced in the Dallas-Fort Worth metro area, which is emerging as the premier central US hub to complement New York and Los Angeles, surpassing Chicago's long dominance as the major business and transportation hub in the middle of the country.

FIGURE 6. INDUSTRIAL SPACE UNDER CONSTRUCTION IN MAJOR METROS AS OF 2021 Q3
INDUSTRIAL SPACE UNDERWAY IN MARKETS WITH AT LEAST 100 MILLION SQUARE FEET (SF) OF EXISTING INVENTORY
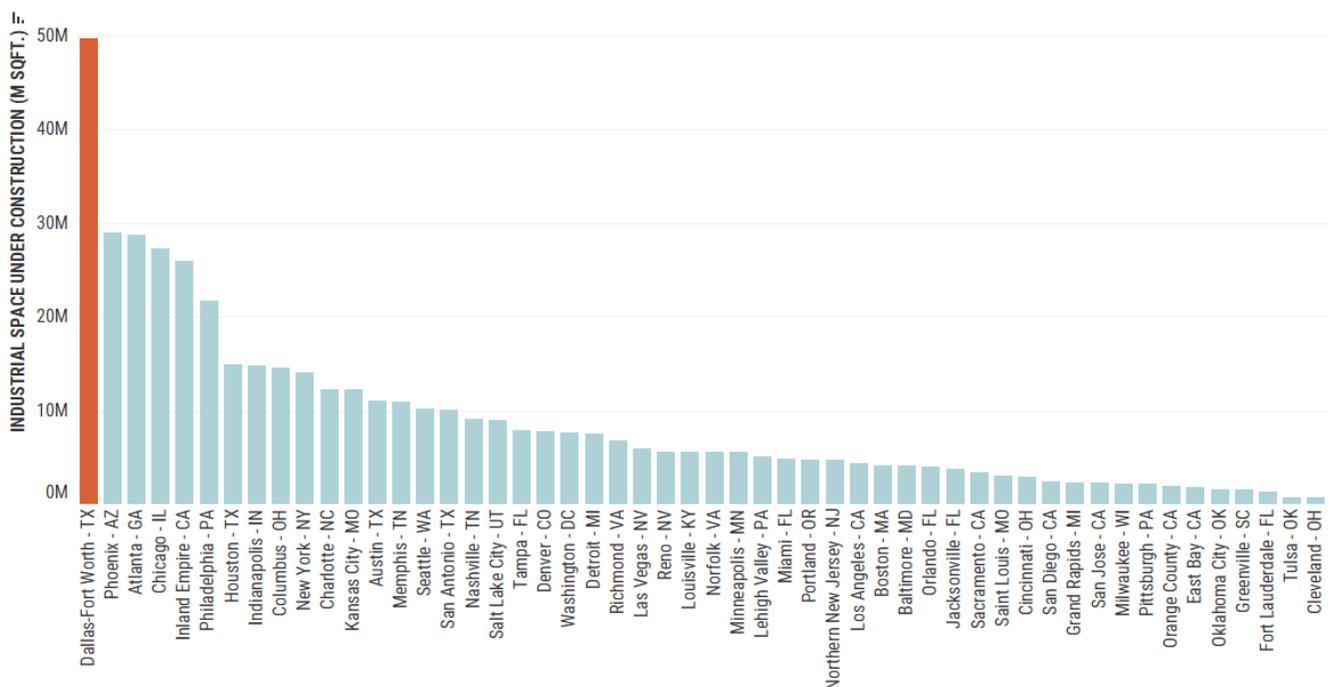
Sources: CoStar; TIP Strategies, Inc.

With the Dallas-Fort Worth market producing significantly more industrial space than any other major metro, at a time when the US is entering a historic industrial building boom, what is the opportunity for Fort Worth? The answer can be seen in Figure 7. Since adopting the 2017 plan, Fort Worth has consistently outpaced the Dallas-Fort Worth market in the construction of industrial space as a share of existing inventory. Since early 2019, the Fort Worth submarkets have averaged a rate of industrial construction roughly double that of the remaining submarkets across the Dallas-Fort Worth market, the nation's leading industrial market by total construction.

Fort Worth is uniquely positioned among American cities to attract future job growth and investment from industrial development. The development of Alliance as the nation's first pure cargo airport and its recent evolution as a technology-driven business center through the Alliance Mobility Innovation Zone has propelled the entire Dallas-Fort Worth region as the nation's leading inland transportation hub. Major warehousing and logistics facilities along the I-35 West corridor in South Fort Worth have also added millions of square feet to the City's industrial market in recent years. In addition, Dallas/Fort Worth International Airport's (DFW Airport) strong post-COVID recovery is an indicator of Fort Worth and the surrounding region's growing role as a global transportation hub. DFW Airport's passenger traffic in 2020 and early 2021 was second only to Hartsfield-Jackson Atlanta International Airport (ATL) and surpassed other major airports like Chicago's O'Hare International Airport (ORD) and Los Angeles International Airport (LAX) which it had trailed before the pandemic.

FIGURE 7. INDUSTRIAL CONSTRUCTION RATES: FORT WORTH TREND COMPARISON
COLORS REPRESENT THE FORT WORTH MARKET, THE REMAINING SUBMARKETS IN THE DALLAS-FORT WORTH METRO AREA MARKET, THE METRO AREA MARKET AS A WHOLE, AND THE NATIONAL MARKET
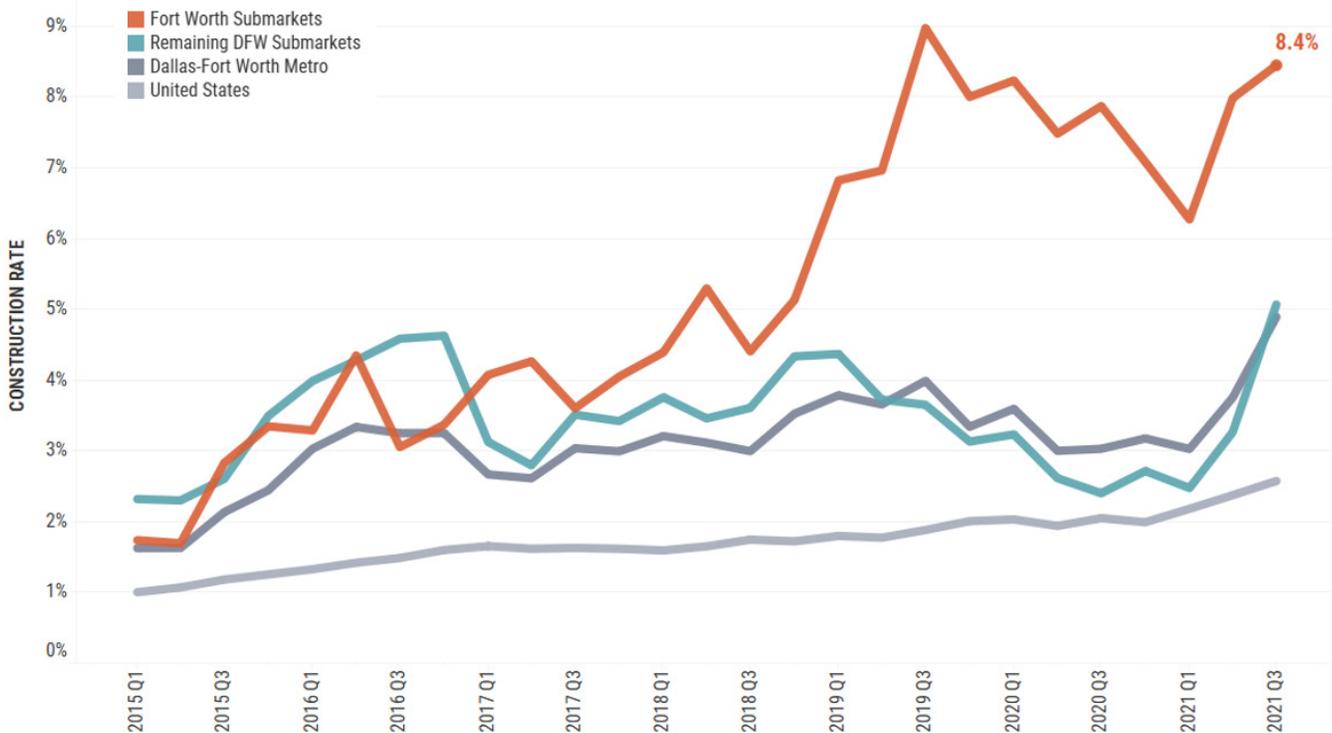
Sources: CoStar; TIP Strategies, Inc.
Note: Construction rate is calculated as the quotient of square footage under construction and total industrial inventory for a given region and quarter.

FIGURE 8. INDUSTRIAL VACANCY RATES: FORT WORTH TREND COMPARISON
COLORS REPRESENT THE FORT WORTH MARKET, THE REMAINING SUBMARKETS IN THE DALLAS-FORT WORTH METRO AREA
MARKET, THE METRO AREA MARKET AS A WHOLE, AND THE NATIONAL MARKET

Sources: CoStar; TIP Strategies, Inc.
Note: Vacancy rate is calculated as the quotient of available vacant square footage and total industrial inventory for a given region and quarter.

If industrial development is hitting its stride in a new era of unparalleled growth, **the US commercial office market is in an age of profound uncertainty and wide geographic disparities.** The ambiguous outlook for commercial office space is being driven by uncertainty on the demand side (most major corporations continue operating in and planning for a hybrid model of remote and in-person work for their professional workforce), uncertainty on the design side (redesign of existing spaces to accommodate a more flexible workforce and the potential for renewed growth of coworking options), and a wave of expiring leases that could further skew the office market.

Adding to the uncertainty is a new divergence between downtown and suburban office space that begs a question of whether downtowns will suffer at the expense of the suburbs, running counter to the nationwide resurgence of downtowns that picked up steam from the end of the Great Recession up until 2020. For the past two decades, vacancy rates of office space in US downtown markets and US suburban markets remained similar, never more than 1.5 percent of difference between the two categories. That changed in 2020, when downtown office vacancy rates spiked upward while suburban vacancy rates grew slowly and then leveled off. As of 2021 Q3, US downtown vacancy rates were at 12.8 percent and suburban vacancy rates were at 9.4 percent.

The US office construction rate has fallen to its historical average (since Q1 2000) of 1.7 percent of existing inventory as of Q3 2021, after a period of somewhat higher construction (2 percent from Q2 2019 through Q2 2020). **The Dallas-Fort Worth office market's construction rate of 1.8 percent is nearly identical to the US,** with 7.2 million square feet of space underway. This rate of office development is less than half of the leading tech hubs—San Jose, Austin, Seattle, and Boston—where office construction continues at a rapid pace. In the expensive, land-constrained New York market, 23.3 million square feet of office space is underway, representing one-sixth of the entire US office construction.

FIGURE 9. OFFICE CONSTRUCTION RATE IN MAJOR METROS AS OF 2021 Q3
OFFICE SPACE UNDERWAY AS A PERCENTAGE OF EXISTING INVENTORY IN MARKETS WITH AT LEAST 60 MILLION SQUARE FEET (SF) OF EXISTING INVENTORY
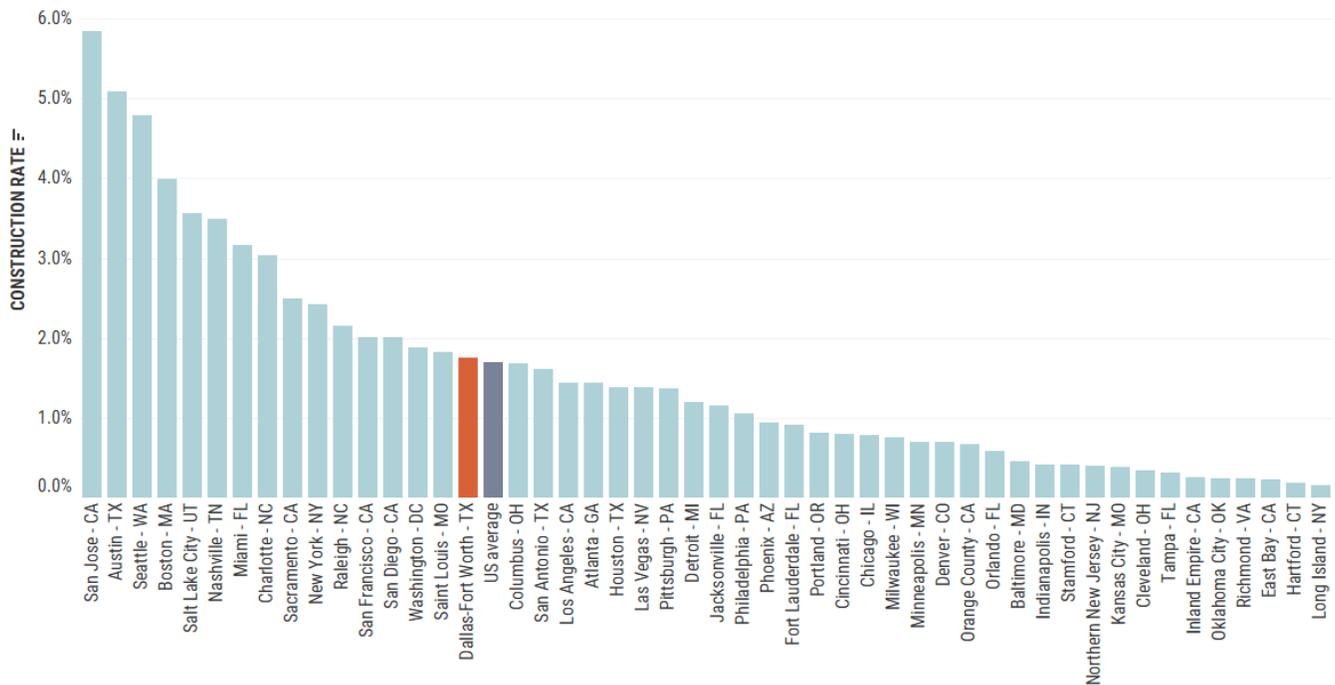
Sources: CoStar; TIP Strategies, Inc.
Note: Office construction rates are calculated based on square feet.

With the pace of office development in the Dallas-Fort Worth market on par with the US office market, what is Fort Worth's position within the region? Figure 10 (page 13) provides a window into how Fort Worth fits into the larger office market. From 2017 Q3 until 2019 Q2, the Fort Worth submarkets had a much higher share of office space underway as a share of existing inventory than the remainder of the Dallas-Fort Worth market. The vast majority of that space was the roughly 1.8-million-square-foot American Airlines HQ that was completed in 2019 in the far eastern section of Fort Worth near DFW Airport, with a smaller share represented by the roughly 280,000-square-foot Frost Tower that was completed in downtown Fort Worth in 2018. With the exception of the American Airlines HQ, Fort Worth has consistently lagged the rest of the metro area in office development.

The Dallas-Fort Worth office market reflects its lopsided industry clusters, with the bulk of major corporate HQs, professional services, and tech firms located in the office submarkets of downtown and Uptown Dallas, stretching northward through Richardson, Plano, and Frisco along the US-75 and Dallas North Tollway corridors and northwestward along the I-35E and US-114 corridors through Irving, Grapevine, Southlake, and Westlake. Over the past several years, a limited amount of new office development has occurred outside of these corridors—including in downtown Fort Worth, southwest Fort Worth, and Alliance—but the dominance of the region's primary corporate centers continues. The urban setting of downtown and Uptown Dallas, along with the increasingly dynamic suburban mixed-use centers of Legacy West in Plano, Frisco Station in Frisco, and Las Colinas in Irving, provide a ready-made environment for the attraction of major corporations and their educated workers. The challenge for Fort Worth over the next five years will be to drive public-private development projects centered on creating new office space in the urban core to shift regional dynamics and position the City as a leading business and tech hub.

FIGURE 10. OFFICE CONSTRUCTION RATES: FORT WORTH TREND COMPARISON
COLORS REPRESENT THE FORT WORTH MARKET, THE REMAINING SUBMARKETS IN THE DALLAS-FORT WORTH METRO AREA MARKET, THE METRO AREA MARKET AS A WHOLE, AND THE NATIONAL MARKET
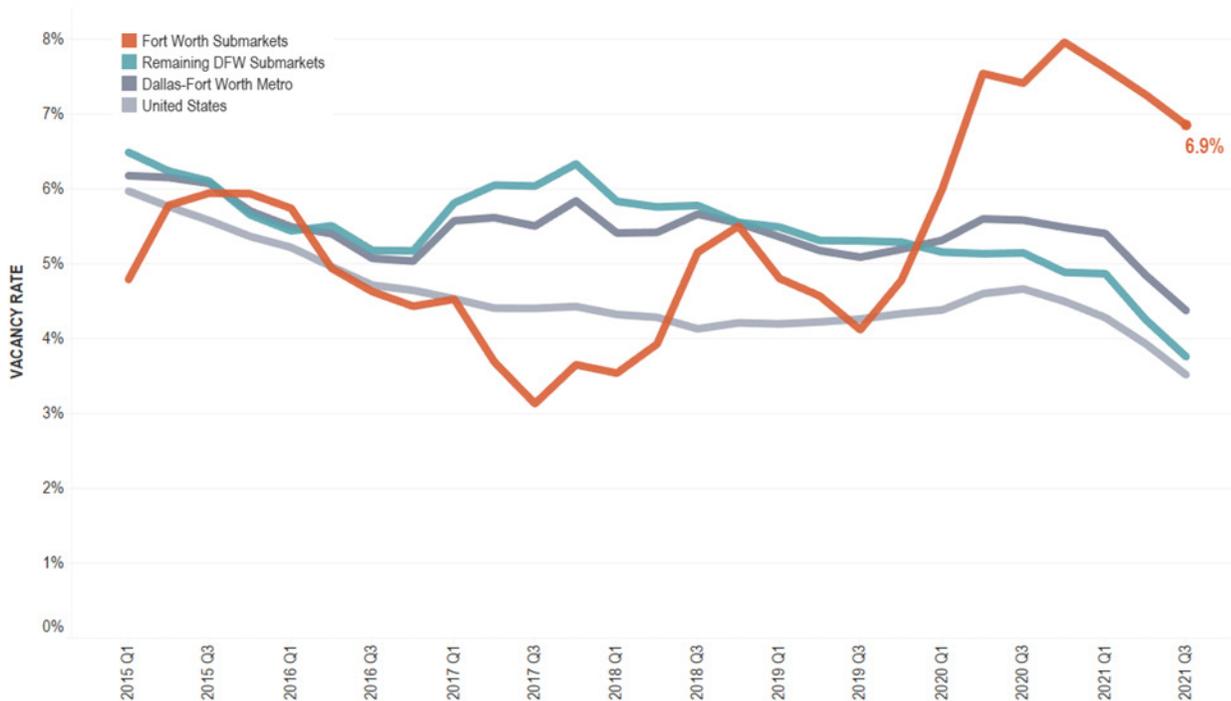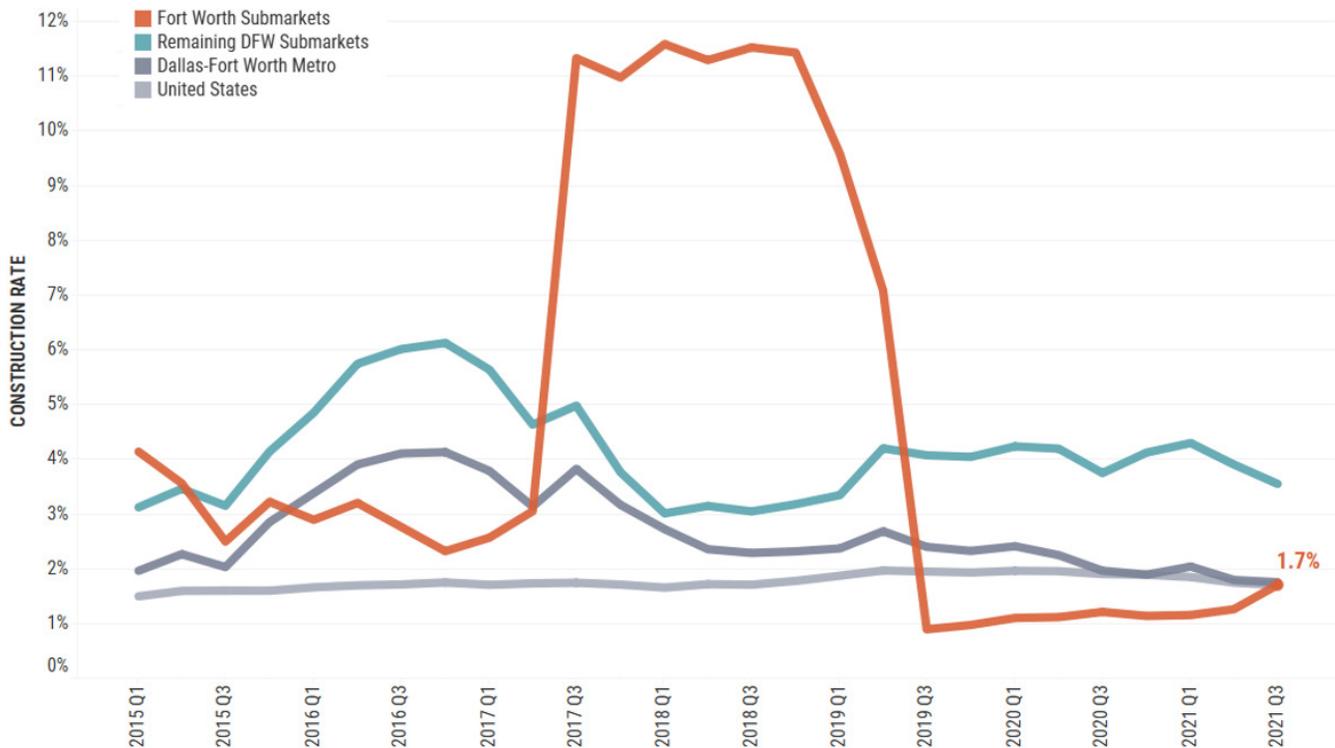

Sources: CoStar; TIP Strategies, Inc.
Note: Construction rate is calculated as the quotient of square footage under construction and total industrial inventory for a given region and quarter.

COMMUTING PATTERNS

The City of Fort Worth continues to be a net importer of workers with a 2019 labor force made up of 459,345 people. However, only one out of every three Fort Worth labor force participants (33.5 percent or 153,793) both live and work within the City limits. Unsurprisingly, Dallas is the next major employment destination for Fort Worth residents with more than 30,000 commuters. Despite an upward trend of Fort Worth residents commuting out of the City over the past 10 years, there is also an upward trend of workers commuting into the City for work over the same period. As of 2019, over 305,000 workers live outside of Fort Worth and commute to work inside the City, a 35.4 percent increase over the past 10 years. Most of these workers commute from Arlington, Dallas, Parker County, Grand Prairie, and North Richland Hills, in descending order.

FIGURE 11: COMMUTING TRENDS, FORT WORTH, 2008–2019

Commuting into the City means a person lives outside of the City and works inside of the City. Commuting out of the City means a person lives inside of the City and works outside of the City.

Sources: Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES); TIP Strategies, Inc.
Note: Only includes workers or residents of Texas and Oklahoma.

STAKEHOLDER INPUT

To supplement the quantitative analysis, TIP conducted individual interviews with City leadership and facilitated a series of roundtables with stakeholders. These roundtables included economic development and tourism partners, workforce development staff, higher education representatives, community revitalization organizations, innovation and technology leaders, major employers, and real estate developers. More details on stakeholder input can be found in Appendix B.

Takeaways from this outreach include the following.

- *Areas with the Greatest Economic Potential.* Roundtable participants identified Alliance, East Fort Worth/Lancaster, and Southeast Fort Worth as the City's top geographic areas with the greatest economic potential over the next five years (see Figure 12).

- *Areas with the Greatest Need for Targeted Economic Development Efforts.* Similarly, roundtable participants identified the top geographic areas with the greatest need for targeted economic development as East Fort Worth/Lancaster, Southeast Fort Worth, and downtown Fort Worth/Sundance Square (see Figure 12). This takeaway will be discussed in further detail under 1.2 Targeted Area Development.

- *Metrics for Success.* To identify potential metrics for gauging the success of new economic development initiatives, roundtable participants were asked to provide their top three metrics for measuring economic success. Suggested metrics included high wage job growth, startups and new business creation, and retention and expansion of existing businesses. Roundtable participants were also asked to consider metrics that would be useful for gauging success when building a more equitable economy. With this lens, participants added improved educational attainment as a top metric.

FIGURE 12: ROUNDTABLE PARTICIPANT PERSPECTIVES ON SELECTED AREAS OF FORT WORTH
RANKING OF GREATEST ECONOMIC POTENTIAL AND GREATEST NEED FOR TARGETED ECONOMIC DEVELOPMENT

SELECTED AREAS	WITH THE GREATEST ECONOMIC POTENTIAL OVER THE NEXT FIVE YEARS	WITH THE GREATEST NEED FOR TARGETED ECONOMIC DEVELOPMENT
Alliance	❶	—
East Fort Worth/Lancaster	❷	❶
Southeast Fort Worth	❷	❶
Panther Island	❸	❹
Near Southside	❹	❹
Stockyards	❺	—
Chisholm Trail Parkway	❺	—
I-35 SW Corridor in South Fort Worth	❻	❸
Downtown/Sundance Square	❻	❷
Walsh Ranch	❻	—
Cultural District	❼	—
Meacham Airport area	❽	—
CentrePort/Far East Fort Worth	—	❺

Source: TIP Strategies, Inc.

STRATEGIC PLAN UPDATE 2022–2026

The strategic plan update aims to refocus Fort Worth's economic development work on three initiatives. With these priorities, the City can further advance its vision to compete internationally for high-growth businesses and creative talent.

- **INITIATIVE 1: INVESTMENT FRAMEWORK.** Adopt an investment framework to drive public-private development projects, align City incentives to create new jobs and private sector investment, and build capacity in Fort Worth businesses.

- **INITIATIVE 2: EQUITABLE REAL ESTATE DEVELOPMENT.** Position Fort Worth for equitable real estate development Citywide—including catalyst projects in historically underserved areas and foundational infrastructure in new growth centers—through external funding, City resources, and private sector engagement.

- **INITIATIVE 3: HUMAN CAPITAL INVESTMENTS.** Focus on human capital investments that attract, retain, and develop a broad base of creative talent in Fort Worth.

These three initiatives and the actions identified under each are meant to provide the City with a roadmap to organize its economic development activities and strengthen the City's economic vitality over the next five years.

INITIATIVE 1. INVESTMENT FRAMEWORK
Adopt an investment framework to drive public-private development projects, align City incentives to create new jobs and private sector investment, and build capacity in Fort Worth businesses.

There are many partners involved in driving economic development in Fort Worth, namely the City's Economic Development Department, the Fort Worth Chamber, the Fort Worth Hispanic Chamber of Commerce, the Fort Worth Metropolitan Black Chamber of Commerce, and Visit Fort Worth. Yet, there remains an opportunity for greater collective impact through an established investment framework. To maximize impact, the City can align its tools, resources, and partnerships around four verticals: (1) deal closing, (2) targeted area development, (3) business equity, and (4) innovation. By bringing together the City, its economic development partners, and the private sector around these four verticals, the City can generate a significant return on investment.

FIGURE 13. INVESTMENT FRAMEWORK VERTICALS

Deal Closing. The deal closing vertical funds Citywide marketing efforts and provides financial incentives to companies considering new projects that contribute significant capital investment and new employment opportunities to Fort Worth's economy.

Targeted Area Development. The targeted area development vertical invests in priority geographic areas and corridors to enhance equitable development efforts in Fort Worth.

Business Equity. The business equity vertical provides programming and resources to create opportunities for firms owned by women and people of color in the City of Fort Worth.

Innovation. The innovation vertical catalyzes projects that will propel the City of Fort Worth toward tech-enabled development, Smart City infrastructure, and innovative growth.

Fort Worth faces a highly competitive environment for new projects. As a result, the investment framework will be most successful if the City prioritizes funding for each of the four verticals. While $2 million has been dedicated for deal closing (see 1.1 Deal Closing), there is a pressing need to fund additional economic development activities. A commitment to targeted development, equity, and innovation will allow Fort Worth to offer benefits across a wider spectrum than just recruiting new companies. Fortunately, there is a policy solution that can encompass all of these activities. The creation of a new fund to support economic development can be structured in a way that is both targeted and sustainable.

Multiple tax increment financing districts (TIFs) are approaching termination. As those TIFs expire, the City should use that increment to lower property taxes and build the Economic Development Initiatives Fund (EDIF) to support the investment framework outlined in this section. The City's Tax Increment Finance District policy should be updated to align with those objectives. Under this revised policy, staff would forward a recommendation to the City Council as each TIF expires. The recommendation would outline the suggested revenue split between lowering property taxes and building the EDIF. The City Council in place at the time of a TIF expiration would have the authority to approve EDIF allocations. Ultimately, the use of sunsetting TIF revenues for economic development initiatives will allow the City of Fort Worth to compete more effectively for innovative and high-impact projects.

1.1. DEAL CLOSING

Working with the Fort Worth Chamber, the deal closing vertical will enhance marketing efforts to raise the City's profile and provide incentives to attract significant capital investment and new employment opportunities to the City. The City recently approved its budget for the next fiscal year to include an annual allocation of $2 million for economic development incentives. With this funding secured, the deal closing fund should prioritize projects within target sectors to maximize impact. See Appendix C for more information about the target sectors.

1.1.1. Deploy asset-driven, high-impact external marketing campaigns to raise Fort Worth's profile in support of deal closing and redevelopment opportunities.

1.1.2. Prioritize deal closing funds for projects within the list of target sectors: mobility, aerospace & defense, energy, culture, and anchors & innovators.

1.1.3. Align deal closing fund processes with recommendations from the City's Task Force on Race and Culture.

- Incentivize projects that pay at or above median wages to raise the per capita income levels in the City.

- Provide more aggressive incentives for projects in underserved areas.

1.1.4. Develop scoring guidelines that address the following questions.

1. Will the project fit with the City's goals?

2. Are the incentives appropriate?

3. Can the project support existing businesses in Fort Worth?

4. Is the project able to support expansion or relocation?

1.2. TARGETED AREA DEVELOPMENT

Roundtable participants identified East Fort Worth/Lancaster and Southeast Fort Worth as the top two geographic areas with the greatest need for targeted economic development. While recent developments like the Evans & Rosedale project are making significant headway on this front, there remains an opportunity to uplift Southeast and East Fort Worth even further with capital investment to match. Along with these areas, roundtable

participants identified downtown Fort Worth/Sundance Square as an area in need of targeted economic development. While downtown Fort Worth continues to be a major economic engine for the City, efforts to develop new Class A office space in the district and to expand the Fort Worth Convention Center and nearby hotel capacity will propel that strength even further.

1.2.1.   Partner with the Fort Worth Local Development Corporation to launch a land banking project to identify prime redevelopment opportunities in underserved areas of Fort Worth.

- Address available parcels of land and existing facilities through the land banking project and include information on size, zoning, and proximity to relevant infrastructure and utilities.

1.2.2.   Advance catalyst development projects in Southeast and East Fort Worth, anchored by major employers, mixed-use developments, and neighborhood amenities. (See 2.1 Catalyst Projects in East and Southeast Fort Worth.)

- Target $250 million in capital investment in the area by 2026.

1.2.3.   Drive public-private partnerships to expand office space in the urban core, hotel and convention facilities in downtown, and redevelopment of aging shopping malls and big-box retail developments across the City. (See 2.3 Signature Projects in the Urban Core.)

1.2.4.   Conduct small area plans for targeted districts with a high concentration of aging shopping malls, big-box retail developments, and suburban strip retail corridors. (See 2.4 Citywide Urban and Mixed-Use Development.)

1.3. BUSINESS EQUITY

While corporate HQ relocations are of great benefit to the economy, those efforts should be balanced with cultivating existing local businesses, particularly business equity firms. During the entrepreneurship and technology roundtable, participants identified access to capital as the least adequate existing resource for Fort Worth entrepreneurs. One opportunity to strengthen that is by engaging community development financial institutions to provide access to flexible and affordable financing options. These capital support programs must be intentional in supporting startups and small businesses owned and operated by people who identify as women, Black or of African descent, Latinx or Hispanic, Indigenous or Native American, Asian or Pacific Islander, and other persons of color.

1.3.1.   Continue to support CDFI Friendly Fort Worth's launch to expand community development financial institution (CDFI) capacity for Fort Worth businesses, concentrated on small businesses and startups identified as business equity firms.

- Work with economic development partners to reach the goal of $100 million in new CDFI financing over the next five years.

1.4. INNOVATION

The innovation vertical catalyzes projects that will propel the City of Fort Worth toward tech-enabled development, Smart City infrastructure, and innovative growth. The opportunity for innovation in the City is ripe as companies within the target sectors are leading the way in revolutionizing current methods of doing business, from EV manufacturing to green building technologies.

1.4.1.   Invest in green enhancements to the City's resource, energy, water, and waste efficiency processes.

1.4.2.   Incentivize green building development, including the construction or renovation of a structure that results in a net positive outcome in terms of energy, materials, or water use efficiency.

1.4.3.   Host reverse pitch competitions to solicit innovative solutions to City issues and industry challenges.

- Start by holding a small pilot event that invites City departments and major employers to present their most urgent unsolved problems in need of an innovative solution to a group of local entrepreneurs and investors.

1.4.4. Invest in new technologies and infrastructure that positions Fort Worth as a leading city in future-oriented mobility, including electric vehicle (EV) infrastructure.

- Work with City departments, the Alliance Mobility Innovation Zone, local and regional utilities, transportation partners, and the private sector to invest in rapid deployment of EV charging stations at major employment areas throughout the City, including large office complexes, manufacturing and industrial districts, healthcare facilities, entertainment districts, and educational campuses.

- Leverage state and federal utility programs aimed at accelerating development of EV infrastructure to fund charging stations and other related infrastructure investments.

1.4.5. Support the creation of a privately funded venture fund and accelerator in Fort Worth.

HOW IS PROGRESS MEASURED?

Figure 14 (page 19) shows suggested metrics related to the investment framework, including existing metrics from the 2017 plan as well as new metrics relevant to the post COVID-19 economy. They are intended to help measure progress in a way that can be readily communicated to a broader audience. While not every metric outlined below falls under the direct jurisdiction of the City's Economic Development Department, each metric signals an important measure of economic progress.

GREATER PORTLAND INC'S REVERSE PITCH COMPETITION.

In response to Portland, Oregon, Smart City goals, Greater Portland Inc (GPI) developed a two-part reverse pitch competition and networking event to connect the region's public sector and the tech community to collaboratively address community challenges. For the first part, each agency/city/organization presented at least one challenge to an audience of problem-solving technology firms. Then, each technology firm pitched its problem-solving capacity to the audience of agencies. Following the pitches, teams from both sides ranked the presentations and matches were made by GPI. In the second part, agencies and tech companies that matched highest met one-on-one to answer questions, tackle additional problem solving, and plan potential next steps.

Source: www.greaterportland2020.com/techchallenge.

FIGURE 14. SUGGESTED METRICS RELATED TO INITIATIVE 1
NEW METRICS INDICATED WITH SYMBOL (▶)

TOPIC(S)		DESCRIPTION	DATA SOURCE
Headquarters/ business recruitment		Number of headquarters recruited	City Economic Development Department, Fort Worth Chamber, media reports
		Number of businesses recruited	City Economic Development Department, Fort Worth Chamber, media reports
Tax base sustainability		Number of hotel rooms within a 10-minute walk of the Convention Center	Office of the Texas Governor, Texas Economic Development & Tourism, Texas Hotel Performance reports
		Square feet of Class A office space in and around downtown	Regional commercial real estate brokerage (e.g., JLL).
Targeted geographic areas	▶	Dollar value of capital investment in Southeast and East Fort Worth	Business interviews, surveys, media reports
Small business/ startup creation	▶	Number of new businesses formed, disaggregated by worker demographic characteristics	US Census Bureau, Quarterly Workforce Indicators; business interviews; surveys; media reports
	▶	Dollar value of CDFI financing	CDFI Friendly Fort Worth
Innovation	▶	Number of green buildings under development	City Development Services Department
	▶	Number of Fort Worth startup exits (acquisitions or initial public offerings—IPOs)	PitchBook Data, Crunchbase, TechFW, Sparkyard, media reports
	▶	Dollar value of seed, angel, and venture capital (VC) investment in Fort Worth companies	National Venture Capital Association, PitchBook Data, Crunchbase, TechFW, Sparkyard, media reports
	▶	Number of seed, angel, and VC investment deals in Fort Worth companies	National Venture Capital Association, PitchBook Data, Crunchbase, TechFW, Sparkyard, media reports

INITIATIVE 2. EQUITABLE REAL ESTATE DEVELOPMENT

Position Fort Worth for equitable real estate development Citywide—including catalyst projects in historically underserved areas and foundational infrastructure in new growth centers—through external funding, City resources, and private sector engagement.

A major takeaway from stakeholder interviews and roundtables was the need to target economic development to fuel equitable growth. East and Southeast Fort Worth, West Fort Worth, and downtown provide ripe opportunities to target specific areas that can accommodate new investment. Recent developments in the Stop Six and Evans & Rosedale areas of East and Southeast Fort Worth are great starts, but there remains even more opportunity to uplift the area and its residents. Leveraging the development opportunities centered on Walsh Ranch in West Fort Worth, the City can lead the way in transforming the area into a thriving and prosperous community with good job opportunities, expanded housing options, and expanded infrastructure to meet the needs associated with both. Meanwhile, supporting growth in the urban core will help support overall economic growth for the City.

To support strong connectivity across the City, regional transportation and broadband internet also warrant focused efforts. Expanded roadways can help residents access major employment centers, while broadband expansion helps residents access information and resources. Investments are also needed to enhance other critical infrastructure, including water and wastewater, to prepare the City for its continued growth. The City of Fort Worth can maximize the impact of these investments by pursuing external funding opportunities from the federal or state governments and even philanthropic sources.

2.1. CATALYST PROJECTS IN EAST AND SOUTHEAST FORT WORTH

East and Southeast Fort Worth have been largely overlooked for major development projects for too long. The community has inequitably been perceived as ill-suited for significant real estate investment and business development. That narrative needs to change if Fort Worth is to achieve its goal of becoming a City that values diversity, equity, and inclusion.

2.1.1.   Advance the public-private development projects at the Evans & Rosedale urban village and surrounding area to attract additional investment, real estate development, and job growth.

2.1.2.   Advance the Stop Six Choice Neighborhood Initiative to create new mixed-income residential units and neighborhood amenities.

- Work with local residents, economic development partners, and the area real estate community to invest in new and revitalized housing and commercial sites in the Stop Six area.

2.1.3.   Work with local Fort Worth restaurant owners and operators, along with national chains operating in the area, to identify and develop sites for new sit-down restaurants in East and Southeast Fort Worth.

2.1.4.   Encourage the opening of a new grocery store in the area to improve access to fresh, healthy foods.

2.2. MASTER DEVELOPMENT PLAN FOR WEST FORT WORTH

Draft a master development plan for the West Fort Worth area along IH-20 and IH-30 corridors, centered around the Walsh Ranch development.

2.2.1.   Increase industrial and residential development in the area.

- Set a goal of developing 10 million square feet of new industrial space by 2026.
- Set a goal of developing 5,000 new housing units by 2026 and incentivize the development of a diverse, attainable housing stock.

2.2.2.   Prioritize the incorporation of environmentally sustainable development in this area with green products, processes, places, and buildings with partners under the innovation vertical.

2.3. SIGNATURE PROJECTS IN THE URBAN CORE

Concentrate activities on signature real estate development projects that drive new investment—especially new Class A office space and major mixed-use projects—into strategic sites in downtown Fort Worth and each of the surrounding districts in Fort Worth's urban core.

2.3.1. Pursue a major expansion and redevelopment of the Fort Worth Convention Center.

- Target an expansion of 250,000 square feet of new meeting and exhibit space, roughly doubling the capacity of the Convention Center to 500,000 square feet of functional space.

- Add 2,000 new hotel rooms within a 10-minute walk of the Convention Center by 2026.

- Incorporate new residential mixed-use buildings, along with new hotel space, as part of the redevelopment of nearby surface parking lots in close proximity to the Convention Center.

2.3.2. Launch public-private partnerships to develop at least one million square feet of Class A office space in and around downtown Fort Worth by 2026.

- Pursue a master lease agreement approach that helps provide the City backstop for new commercial office space.

- Make incentives available to modernize and increase the competitiveness of aging and functionally obsolete downtown commercial buildings.

- Make incentives available for new construction of downtown commercial office space, dependent on a threshold of contiguous available downtown office inventory. For example, if the inventory of available Class A space does not include contiguous spaces of at least 100,000 square feet, the incentive for new construction would be available.

2.3.3. Continue working with the iter8 Health Innovation Community to attract medical services, life sciences innovation, and supportive businesses into the district.

2.3.4. Support the long-term development of Panther Island.

- Pursue federal and state funding to advance key infrastructure investments that make the Panther Island vision a reality.

- Work with the local, regional, and national real estate community to position Panther Island as a premier investment opportunity for Class A office development and mixed-use development projects.

2.3.5. Focus City resources on the long-term redevelopment of Butler Place to accommodate high-density mixed-use development, including residential high-rises and Class A office projects.

2.3.6. Promote major mixed-use projects and supporting smaller-scale projects that bring new office space, urban housing, retail/restaurant space, and hotel/entertainment space into the West 7th Street Cultural District.

- Evaluate long-term redevelopment opportunities for Farrington Field and adjacent surface parking lots.

2.3.7. Continue supporting high-quality redevelopment projects in and around the Fort Worth Stockyards National Historic District.

- Partner with Trinity Metro, area landowners, and the real estate community to pursue transit-oriented development projects within a 10-minute walk of the TEXRail North Side Station.

2.4. CITYWIDE URBAN AND MIXED-USE DEVELOPMENT

Transform strategic sites and corridors with existing suburban and low-density uses to diverse, walkable, mixed-use districts with new and reactivated spaces for workers and entrepreneurial companies.

2.4.1. Prepare master plans for strategic properties, such as the vacant and underutilized retail spaces at the Altamesa Boulevard/McCart Avenue intersection and similar commercial sites, to facilitate redevelopment and revitalization.

- Evaluate all options for future investment, including land banking, public-private partnerships for redevelopment, anchor institutions (such as higher education or healthcare), and housing development, as part of the master plan.

2.4.2. Support redevelopment of aging big-box retail and shopping centers to attract new private sector investment that aligns with market opportunities.

- Consider high-growth business opportunities for existing retail areas, including nontraditional uses, such as distribution centers, Amazon locker pickup locations, cloud kitchens (commercial facilities purpose-built to produce food specifically for delivery through app-based, delivery-only restaurant business models), and other rapidly growing business functions that would benefit from a location near retail uses.

2.4.3. Pursue redevelopment of large surface parking lots surrounding existing shopping malls and big-box retail properties with mixed-use, urban, residential buildings with housing units at different price points to provide diverse housing options.

- Work with landowners and real estate professionals to include portions of ground-floor space for bars/restaurants, office space, and hospitality/entertainment functions where the market supports additional commercial space.

2.4.4. Revise land use and development regulations with input from City departments, landowners, and the real estate community to allow and incentivize ground-floor commercial space in multifloor, mixed-use structures along high-traffic arterial roads, such as Camp Bowie Boulevard and Altamesa Boulevard.

2.4.5. Provide public green spaces with bike paths, hiking trails, and similar amenities connecting sites within retail areas to each other and with surrounding sites along major commercial corridors and adjacent neighborhoods.

2.5. EQUITABLE INFRASTRUCTURE INVESTMENTS

Invest in the necessary infrastructure to support industrial and residential expansion and to assist Fort Worth residents in accessing employment opportunities.

2.5.1. Review fiber and 5G capabilities using resources like Federal Communications Commission maps.

- Work with broadband providers to ensure access and network resilience for local businesses and residents.
- Facilitate rapid deployment of 5G mobile network technology across the City, especially in major employment areas and commercial corridors.

2.5.2. Advocate for transportation infrastructure investments in new roadway capacity to enhance workforce access to major employment centers in the City.

2.5.3. Create a more streamlined permitting process for equitable infrastructure investments.

2.5.4. Pursue external funding (federal, state, philanthropic) for development project implementation.

> **DETAILS**
> The US Economic Development Administration (EDA) can be a key source of funds for project implementation. For example, in August 2021, the EDA awarded a county in New Mexico over $1M to build fiber optic infrastructure to support business expansion. Caldwell, Texas, was awarded a $713,000 grant to fund roadway, water, and sewer infrastructure to support the development of an industrial park.

2.5.5. Build a shared understanding of all external funding available (federal, state, philanthropic) for economic and community development projects.

- Create a database to gather all funding opportunities in one place to share with City departments and economic development partners.

- Develop a comprehensive list of potential projects for major funding sources as part of the database.

- Host workshops to educate community leaders, decision-makers, elected officials, and the media on external funding opportunities and how they work.

2.5.6. Work with regional partners to apply for and use external funding more effectively.

HOW IS PROGRESS MEASURED?

Figure 15 shows suggested metrics related to equitable real estate development, including existing metrics from the 2017 plan as well as new metrics relevant to the post COVID-19 economy. They are intended to help measure progress in a way that can be readily communicated to a broader audience. While not every metric outlined below falls under the direct jurisdiction of the City's Economic Development Department, each metric signals an important measure of economic progress.

FIGURE 15. SUGGESTED METRICS RELATED TO INITIATIVE 2
NEW METRICS INDICATED WITH SYMBOL (▶)

TOPIC(S)		DESCRIPTION	DATA SOURCE
Tax base sustainability		Square feet of new industrial space	Tarrant Appraisal District and regional commercial real estate brokerage (e.g., JLL)
		New housing units	Tarrant Appraisal District and regional commercial real estate brokerage (e.g., JLL)
		Square feet of retail development and/or redevelopment	Tarrant Appraisal District and regional commercial real estate brokerage (e.g., JLL)
		Square feet of Class A office space in and around downtown	Regional commercial real estate brokerage (e.g., JLL)
		Number of hotel rooms within a 10-minute walk of the Convention Center	Office of the Texas Governor, Texas Economic Development & Tourism, Texas Hotel Performance reports
Urban core	▶	Square feet of meeting and exhibit space in the Convention Center	Fort Worth Convention Center, Visit Fort Worth
Innovation	▶	Broadband access	Federal Communications Commission, US Census Bureau (American Community Survey, 1-year estimates)

INITIATIVE 3. HUMAN CAPITAL INVESTMENTS

Focus on human capital investments that attract, retain, and develop a broad base of creative talent in Fort Worth.

Businesses across the country are experiencing severe challenges related to the labor market. The City of Fort Worth is no exception to this crisis. Competition for workers is fierce and will be a determining factor for the City's future economic prosperity. To meet these human capital challenges, the City must address the issue on all fronts—local workforce development, talent attraction, and talent retention.

Developing Fort Worth's existing workforce is a key focus area. Following the best practices of the DFW Regional Aerospace Consortium, the City should support the creation of other employer-led partnerships working to address critical workforce needs in target industries. These partnerships can work to build the needed talent base for target industries by collaborating with education and training organizations to create curriculums that meet the needs of the job market, by offering upskilling opportunities to current employees and by providing on-the-job training for new recruits.

Even with rapid population growth, the City can still benefit from talent attraction and retention efforts. These efforts can bring people to the City who will then spend and invest locally. With that, Fort Worth should launch a talent attraction and retention initiative to support employers with their recruitment. Building off the strong presence of the City's higher education institutions, this initiative could be transformational for the City.

3.1. FUTURE-FOCUSED WORKFORCE AND INDUSTRY PARTNERSHIPS

Partner with Workforce Solutions for Tarrant County and the Fort Worth Chamber to create and expand industry-driven workforce partnerships centered on current and future in-demand occupations and skills of target industries: mobility, aerospace & defense, energy, culture, and anchors & innovators.

3.1.1.   Convene target industry leaders to identify priority skills and occupations to meet the needs of the job market.

- Work with employers to identify in-demand jobs with on-the-job training opportunities that allow Fort Worth workers to advance along a clear career path.

3.1.2.   Work with education and training partners to create curriculum (degree, certificate, and industry credential training programs) centered around in-demand occupations and priority skills.

3.1.3.   Support existing programs that work to overcome barriers to employment, including transportation and childcare access.

3.2. INCLUSIVE TALENT ATTRACTION AND RETENTION

By embracing an inclusive talent strategy, Fort Worth can tell a compelling and true story about its brand and image as a place to live and work. That message should be targeted to broad-based audiences, starting with existing Fort Worth residents, then moving to people residing elsewhere in the Dallas-Fort Worth metro area, then moving to residents in other big Texas metro areas (Houston, Austin, San Antonio), and finally moving out to residents of other large metro areas in top in-bound migration destinations (Chicago, Atlanta, Los Angeles, New York, and even international locations). In addition, Fort Worth should focus its talent attraction and retention efforts on numerous highly targeted audiences with specific skills and experience that match with local employer and industry needs.

3.2.1.   Support talent recruitment of major employers by providing them with marketing resources that effectively promote the City of Fort Worth to potential employees in partnership with the Fort Worth Chamber.

- Highlight Fort Worth's newest and most exciting amenities, like developments in the Magnolia Avenue and South Main Street (SoMa) area, to attract young professionals.

- Target priority occupations (see action 3.1.1), remote workers, and former residents who left the City, in addition to young professionals, to grow the City's workforce.

3.2.2. Maintain support of the iter8 Health Innovation Community's expansion by targeting the recruitment of highly skilled talent to address key medical specialties.

3.2.3. Assist Visit Fort Worth in their efforts to expand the City's Modern West image, while also promoting the City's rich cultural history through the Discover Diverse Fort Worth campaign.

3.2.4. Promote civic and volunteer organizations, like Leadership Fort Worth, to deepen connections between the workforce and the community in an effort to retain talent.

- Work with economic development partners and local business leaders to maintain engagement and mentorship of Leadership Fort Worth graduates after they complete the civic leadership program.

3.3. HIGHER EDUCATION EXPANSION

Continue supporting enrollment growth, R&D investments, and physical expansion of higher education institutions in Fort Worth's urban core and across the City.

3.3.1. Engage higher education institutions as sources of talent from outside of the City.

- Set a goal of an overall increase of 10,000 enrolled college and university students in the City by 2026.
- Set a goal of reaching $100 million of annual academic R&D investments at Fort Worth higher education institutions by 2026.
- Set a goal of creating 5,000 new on- and off-campus student housing units Citywide by 2026 and work with economic development partners and the real estate community to increase student housing development.

3.3.2. Work closely with the Texas A&M University School of Law and the University of Texas at Arlington (UTA) Fort Worth campus to expand both institutions' downtown footprint, programs, and student enrollment.

3.3.3. Continue working with the TCU School of Medicine to grow the institution's programs, facilities, and R&D capabilities associated with the Near Southside Medical District.

3.3.4. Advance the work of Tarrant County College (TCC), Fort Worth Independent School District (ISD), and other local K–12 school districts to enhance the skills and education of Fort Worth's youth and adult population to access higher-wage employment opportunities.

- Partner with TCC to substantially increase online training and skills acquisition for Fort Worth residents.

3.3.5. Continue working with Texas Christian University to advance its development as a leading academic institution.

- Encourage a greater emphasis on entrepreneurship, business engagement, and R&D investments linked with target industries.

3.3.6. Continue supporting Texas Wesleyan University's role as an anchor institution and catalyst for economic opportunity in Southeast Fort Worth.

3.3.7. Continue supporting the development of Tarleton State University's Fort Worth campus as an anchor institution and catalyst for real estate development in Southwest Fort Worth.

3.4. SMALL BUSINESS CAPACITY BUILDING

Expand neighborhood-scale small business development and build capacity in Fort Worth small businesses, with a focus on business equity firms.

3.4.1. Work with the Fort Worth Metropolitan Black Chamber of Commerce, the Fort Worth Hispanic Chamber of Commerce, and other partners to increase outreach to business equity firms, many of which face greater challenges (especially during periods of economic disruption like the recent COVID-recession and subsequent economic recovery) than other businesses.

- Work with local and regional partners to highlight success stories of founders of Fort Worth business equity firms that have grown their companies locally through testimonials, blog posts, podcasts, and other marketing activities.

3.4.2. Assist small businesses that serve the local Fort Worth market (or a specific neighborhood or district within the City) if they choose to expand their reach (i.e., become export-oriented).

> **DETAILS**
>
> - One approach to help Fort Worth small businesses become more export-oriented is to offer financial support, equipment, or marketing expertise to help a local restaurant or craft food/beverage company make products specifically for export outside of the local Fort Worth or regional Dallas-Fort Worth market. This model has already taken place organically with numerous Fort Worth craft breweries and restaurants, which could serve as a case study.
>
> - Another approach that could be pursued is to work with small service-oriented companies (such as building maintenance, lawn care, or heating, ventilation, and air conditioning [HVAC] companies or professional services firms, including legal, advertising/marketing, or accounting) that primarily serve customers in Fort Worth and the surrounding metro area. Many of these businesses, with the proper support, could expand to serve customers in other parts of Texas and surrounding states.

3.4.3. Partner with local landowners, developers, and investors to create coworking spaces and similar startup and business facilities in the neighborhoods and corridors where Fort Worth residents live and work.

- Focus this effort on facilities in predominantly residential areas of Fort Worth including the repurposing or shared use of assets such as libraries and other community facilities.

HOW IS PROGRESS MEASURED?

Figure 16 (page 27) shows suggested metrics related to human capital investments, including existing metrics from the 2017 plan as well as new metrics relevant to the post COVID-19 economy. They are intended to help measure progress in a way that can be readily communicated to a broader audience. While not every metric outlined below falls under the direct jurisdiction of the City's Economic Development Department, each metric signals an important measure of economic progress.

FIGURE 16. SUGGESTED METRICS RELATED TO INITIATIVE 3
NEW METRICS INDICATED WITH SYMBOL (▶)

TOPIC(S)		DESCRIPTION	DATA SOURCE
High-wage job growth		Number of jobs that pay above area median wages and/or above median wages within the industry	US Bureau of Labor Statistics (Quarterly Census of Employment and Wages), Texas Workforce Commission, business interviews, surveys, and media reports
Creative individuals	▶	Academic research and development funding	National Science Foundation
	▶	Number of enrolled college and university students in the City	UTA, TCU, Texas Wesleyan, TCC, Tarleton State University, Texas A&M University School of Law, and other higher education institutions in the City
	▶	New on- and off-campus student housing units	UTA, TCU, Texas Wesleyan, TCC, Tarleton State University, Texas A&M University School of Law, and other higher education institutions in the City
	▶	High school educational attainment rate	Fort Worth ISD and other area ISDs, US Census Bureau (American Community Survey, 1-year estimates)
	▶	Postsecondary educational attainment rate	Fort Worth ISD and other area ISDs, US Census Bureau (American Community Survey, 1-year estimates)
Quality of place		Share of residents working from home or working remotely	US Census Bureau (American Community Survey, one-year estimates)
	▶	Walk score for City of Fort Worth as a whole and for neighborhoods	Walkscore.com
	▶	Bike score for City of Fort Worth as a whole and for neighborhoods	Walkscore.com

Source: TIP Strategies, Inc.

APPENDIX A. 2017 PLAN OVERVIEW

Since the adoption of the 2017 plan, the City of Fort Worth has implemented recommendations within the plan with significant success. Highlights of success stories are outlined below.

FIGURE 17. 2017 ECONOMIC DEVELOPMENT STRATEGIC PLAN GOALS

GOAL 1	GOAL 2	GOAL 3
Establish Fort Worth's **competitive** edge	Become a hub for **creative** businesses	Ensure **community** vitality

2017 Goal 1. Establish Fort Worth's competitive edge.

In the 2017 plan, there were four initiatives supporting the overall goal of establishing Fort Worth's competitive edge: elevating Fort Worth's profile, attracting new businesses to the City, improving business retention and expansion, and expanding workforce and industry partnerships. During TIP's 2019 progress update, interviewed respondents reinforced the idea that one of the biggest challenges for Fort Worth is developing a unique identity within the Metroplex that gets the City noticed by site selectors. To address that, the City recently contracted Schaefer Advertising Co., a local marketing firm, to refresh its economic development marketing activities. Over the next three years, the firm will develop a robust marketing plan with resources for the City and its economic development partners. The City will begin enhancing its marketing abilities soon thereafter.

Meanwhile, in an effort to bolster target industry recruitment, the City of Fort Worth, in partnership with the Fort Worth Chamber, launched the ThriveinFortWorth.com website. ThriveinFortWorth.com builds out relevant details highlighting what makes Fort Worth competitive for the growth of target industries and emerging opportunities. The website includes information from area business executive testimonials to specific information on incentive programs and economic development initiatives.

Finally, the City has witnessed massive industrial progress in recent years with nearly 15 million square feet of current industrial development. This is in part due to the City's efforts to ensure protections for significant industrial districts with concentrations of manufacturing, transportation, and warehousing businesses. The City has also worked with other City departments to include economic development priorities as part of the review process and has supported owner-initiated zoning for industrial districts and adjacent areas.

2017 Goal 2. Become a hub for creative businesses.

Since 2017, the City of Fort Worth has made great strides in becoming a hub for creative businesses, namely through its work enhancing the Near Southside Medical Innovation District and its support of entrepreneurship. The TCU School of Medicine (formerly known as the TCU and UNTHSC School of Medicine) opened in 2019, establishing a major anchor institution in the heart of Near Southside. The district has also witnessed significant growth of urban residential developments, in addition to the blossoming of Magnolia Avenue and South Main Street (SoMa) into vibrant and hip urban areas. In the same manner, the City continues to build on the strengths of the arts community and world-class museums to provide a stimulus to the local economy through tourism and talent attraction.

Meanwhile, Fort Worth is the home of a vibrant community of entrepreneurs with backing from organizations like Sparkyard and TechFW. In support of local entrepreneurs, the City's Economic Development Department has also created programs like the business plan competition. This competition aims to give local entrepreneurs the tools, strategies, and mindsets needed to grow their concepts into flourishing businesses. The recent winners of the competition attended six weeks of one-on-one business counseling, professional development workshops, and coaching from industry experts. Additionally, to further advance innovation efforts, the City introduced research and development tax credits as part of its 2019 incentive revisions.

2017 Goal 3. Ensure community vitality.

In the 2017 plan, there were three initiatives under the overall goal of ensuring community vitality. These initiatives focused on accelerating downtown Fort Worth's progress, aligning neighborhood assets, and restructuring small business support. The City continues to invest in downtown with improvement projects for Heritage Park and Paddock Park. Housing units continue to be developed in the urban core, along with hotels with the recent opening of the AC Hotel Fort Worth Downtown. The Sinclair hotel has brought innovation downtown by converting its power source to be completely supported by ethernet cables. Meanwhile, Texas A&M University School of Law's continued growth in enrollment and its rising status on national rankings—ascending from unranked on the *US News and World Report*'s listing of the 150 best law schools in 2014 to number 53 in 2021— provides a strong anchor educational institution in downtown, alongside UTA's downtown campus.

The City of Fort Worth has also propelled neighborhood projects to support community vitality. In early 2021, the US Department of Housing and Urban Development granted a $35 million Choice Neighborhoods Implementation Grant to transform the Stop Six neighborhood in Southeast Fort Worth. Building on the pre-existing assets in Stop Six, this funding will primarily be used to build modern, mixed-income housing. The funding will also provide community resources, public amenities, and neighborhood services to revitalize a long-neglected neighborhood. Meanwhile, the Evans & Rosedale area is also planning forthcoming development in its urban village. A master developer will begin working to transform the area into a mix of urban living and neighborhood retail with gathering places and green spaces.

To restructure small business support, the City conducted an audit of the small business support mechanisms available in the City following the adoption of the 2017 plan. The resulting *Small Business & Entrepreneurial Ecosystem Assessment & Strategy* (December 11, 2019) analyzed the City's local entrepreneurial ecosystem and outlined areas of focus to help the local entrepreneurial ecosystem thrive. As such, small business support organizations and programs are better equipped to provide more effective and efficient services to grow the base of local firms.

2017 Tools and Resources

For the first time, the City is including equity as criteria in the May 2022 bond election. With guidance from the Fort Worth Task Force on Race and Culture, the City is evaluating bond projects on their ability to eliminate racial and cultural disparities. This is a step in the right direction to ensure that the City of Fort Worth is working toward building a more equitable economy. Additionally, since the adoption of the 2017 plan, the City Economic Development Department was reorganized and expanded for greater organizational impact and stronger partnerships with other economic development entities, like Visit Fort Worth. Yet, there remains even more opportunity for collaboration.

The 2017 strategic plan identified eight target industries.

1. Aerospace manufacturing & design
2. Transportation innovation
3. Life sciences delivery & innovation
4. Geotechnical engineering
5. International business
6. Corporate & regional HQs
7. Professional services
8. Financial service

APPENDIX B. ENGAGEMENT AND OUTREACH

As part of this work, TIP conducted interviews with elected officials and City staff and facilitated five stakeholder roundtables. Themes from these outreach activities were summarized in the Trends and Takeaways section (beginning on page 4).

ELECTED OFFICIALS AND CITY STAFF

Interviews were conducted with the following individuals between July 2021 and September 2021. Insights gained from these discussions helped illustrate progress made on the 2017 plan, identify new priorities that have emerged since the plan's completion, and highlight impacts from the COVID-19 pandemic.

- Mayor Mattie Parker
- Councilmember Carlos Flores, District 2
- Councilmember Michael D. Crain, District 3
- Councilmember Cary Moon, District 4
- Councilmember Gyna Bivens, District 5
- Councilmember Jared Williams, District 6
- Councilmember Leonard Firestone, District 7
- Councilmember Chris Nettles, District 8
- Councilmember Elizabeth M. Beck, District 9

- David Cooke, City Manager
- Jay Chapa, Deputy City Manager
- Dana Burghdoff, Assistant City Manager
- Fernando Costa, Assistant City Manager
- Valerie Washington, Assistant City Manager
- Robert Sturns, Director of Economic Development
- Christina Brooks, Director of Diversity & Inclusion
- Economic Development Department staff

STAKEHOLDER ROUNDTABLES

TIP facilitated five stakeholder roundtables during August 2021. Participants were identified by the City and included public and private sector perspectives.

- Economic development and tourism
- Workforce and higher education
- Neighborhood and community revitalization

- Technology and entrepreneurship
- Major employers and developers

As part of the stakeholder roundtable discussions, participants were asked to share their views on opportunities and challenges using an interactive polling tool (Mentimeter). Information gathered from Mentimeter helped guide the strategic plan update and identify areas for continued efforts.

Questions asked of roundtable participants are shown as follows.

1. What have been Fort Worth's biggest economic development successes over the past few years?
2. What economic development opportunities for Fort Worth excite you the most?
3. What are the biggest challenges to talent attraction and retention in Fort Worth?
4. What are the three highest priority metrics to measure for economic success?
5. How can Fort Worth build a more equitable economy?
6. What are the three highest priority metrics to measure to build a more equitable economy in Fort Worth?
7. What three areas have the greatest economic potential in the next five years?

8. What three areas have the greatest need for targeted economic development efforts?

9. In one word or phrase, how would you describe collaboration between employers and education/training providers?

10. In one word or phrase, what is the biggest obstacle to starting a business in Fort Worth?

11. In one word or phrase, what is the biggest obstacle to operating a business in Fort Worth?

12. For startups and small business, does Fort Worth provide adequate business networking opportunities, access to capital, real estate space, access to talent?

13. What industries in Fort Worth offer the greatest opportunity for innovation?

14. In one word or phrase, what about Fort Worth is advantageous to your business?

15. Is the city adequately equipped to support your development efforts?

16. Do you see commercial office space rebounding post COVID-19?

17. What types of real estate development would have the greatest economic benefit in Fort Worth?

APPENDIX C. TARGET INDUSTRIES

While this strategic plan update builds on the foundation of the 2017 plan, the City of Fort Worth is facing a much different economic landscape than it was five years ago. In response, this strategic plan update includes a target industry refresh, which analyzed current conditions to determine if the eight emerging opportunities identified in the 2017 plan were still applicable.

- Aerospace manufacturing & design
- Transportation innovation
- Life sciences delivery & innovation
- Geotechnical engineering
- International business
- Corporate & regional HQs
- Professional services
- Financial services

Following an analysis of quantitative, qualitative, and strategic factors, the eight sectors from the 2017 plan were refined to narrow the focus to five target sectors identified as priorities for business development moving forward.

- Mobility
- Aerospace & defense
- Energy
- Culture
- Anchors & innovators

These five target sectors have a strong presence in the City. They also demonstrate significant future growth potential to generate new investment. They build on the City's successful companies, creative people, and quality places to support the growth of a thriving local economy.

FIGURE 18. TARGETING APPROACH

QUANTITATIVE
What do the data tell us?

QUALITATIVE
What have we learned about the City's assets and challenges?

STRATEGIC
What trends, relationships, and new innovations will create future opportunities?

The selection of target industries is traditionally based on a defined set of quantitative factors, such as workforce access, available sites and infrastructure, proximity to suppliers and customers, and industry concentration. A more holistic approach considers qualitative input (focus groups and interviews with economic development professionals, site selectors, and business leaders) and strategic factors (such as business climate, taxes, and incentives at the local and state levels).

The analysis completed by TIP in 2017 as part of the City of Fort Worth's economic development strategic plan took this approach and identified eight emerging opportunities for the City to target. The 2022–2026 plan update includes a target industry refresh that starts with the solid foundation of work already completed and refines the focus of Fort Worth's business development activities.

FIGURE 19. EMPLOYMENT CLUSTERS—TRADED VS. LOCAL
EMPLOYMENT IN 2020 BASED ON CLUSTER TYPE

LOCAL CLUSTERS

- Primarily serve local markets.
- Present in virtually every market.
- Location is not dependent on competitive advantage.

TRADED CLUSTERS

- Serve outside markets.
- Free to choose where they locate.
- Tend to be highly concentrated in a few regions that have specific advantage.

Fort Worth — Traded 37%, Local 63%

US — Traded 34%, Local 66%
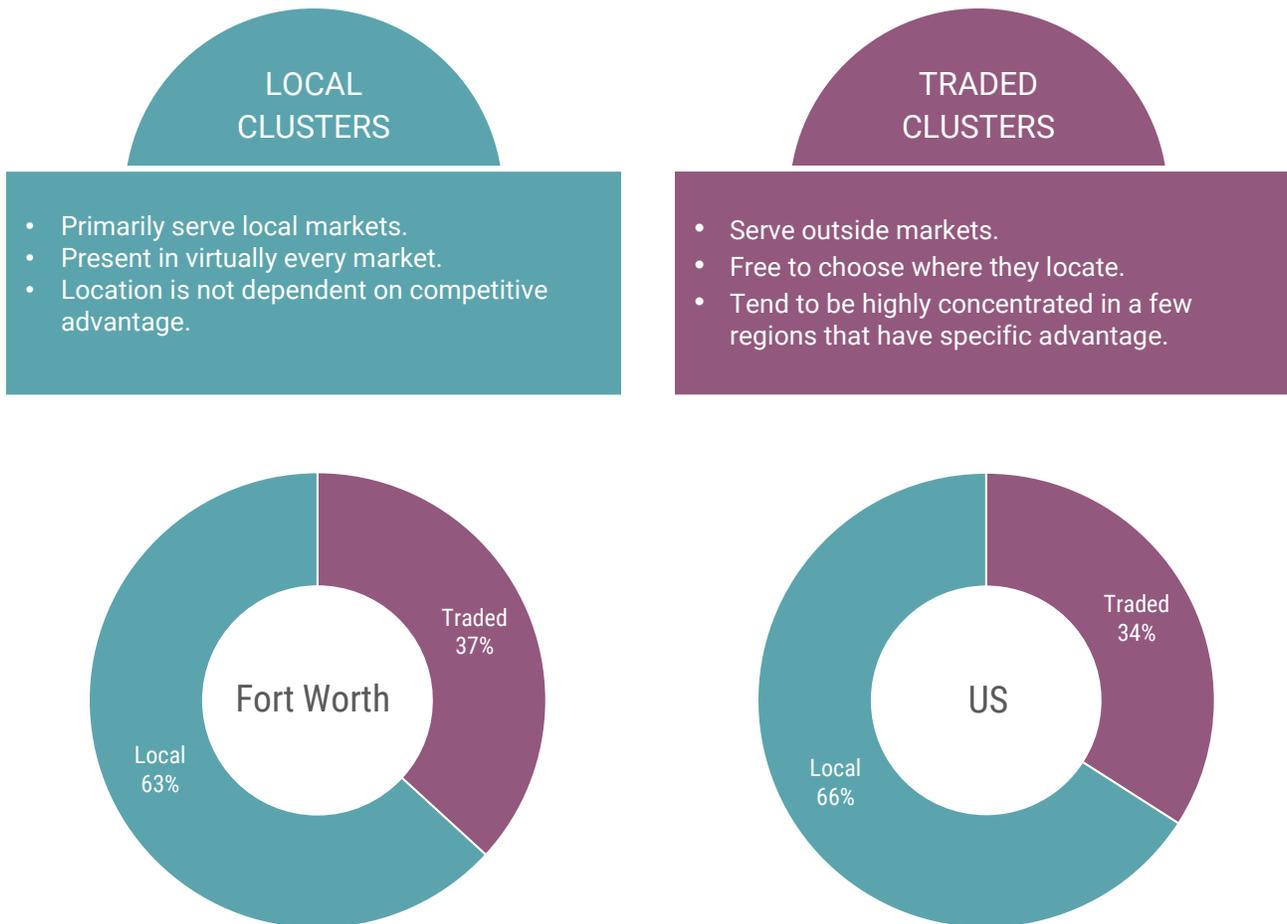
Sources: US Bureau of Labor Statistics; Economic Modeling Specialists International (Emsi) 2020.3—Quarterly Census of Employment and Wages (QCEW) Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness, Harvard Business School; TIP Strategies, Inc.
Note: The cluster methodology developed at Harvard Business School has been adjusted by TIP Strategies, Inc., to align with the six-digit North American Industry Classification System (NAICS) classifications used by Emsi.

WHY IT MATTERS

Increasing the ratio of traded-to-local clusters is a common strategy for enhancing economic prosperity. Traded clusters are emphasized by economic developers because they include industries and firms that typically produce goods and services for customers beyond the local region. These traded activities are thus more likely to produce externally generated revenues, which can, in turn, help boost local tax coffers. As an example, a dental office might serve local customers exclusively, while a manufacturing plant, a data center, or a hotel would typically serve paying customers beyond the local area. The ability of traded clusters to serve larger markets also presents greater opportunity for employment growth, whereas a dental office might face more finite geographic limits to expansion.

FIGURE 20. EMPLOYMENT CLUSTERS—WEIGHT (SIZE AND CONCENTRATION)
TRADED CLUSTERS EMPLOYING THE MOST WORKERS LOCALLY IN 2020
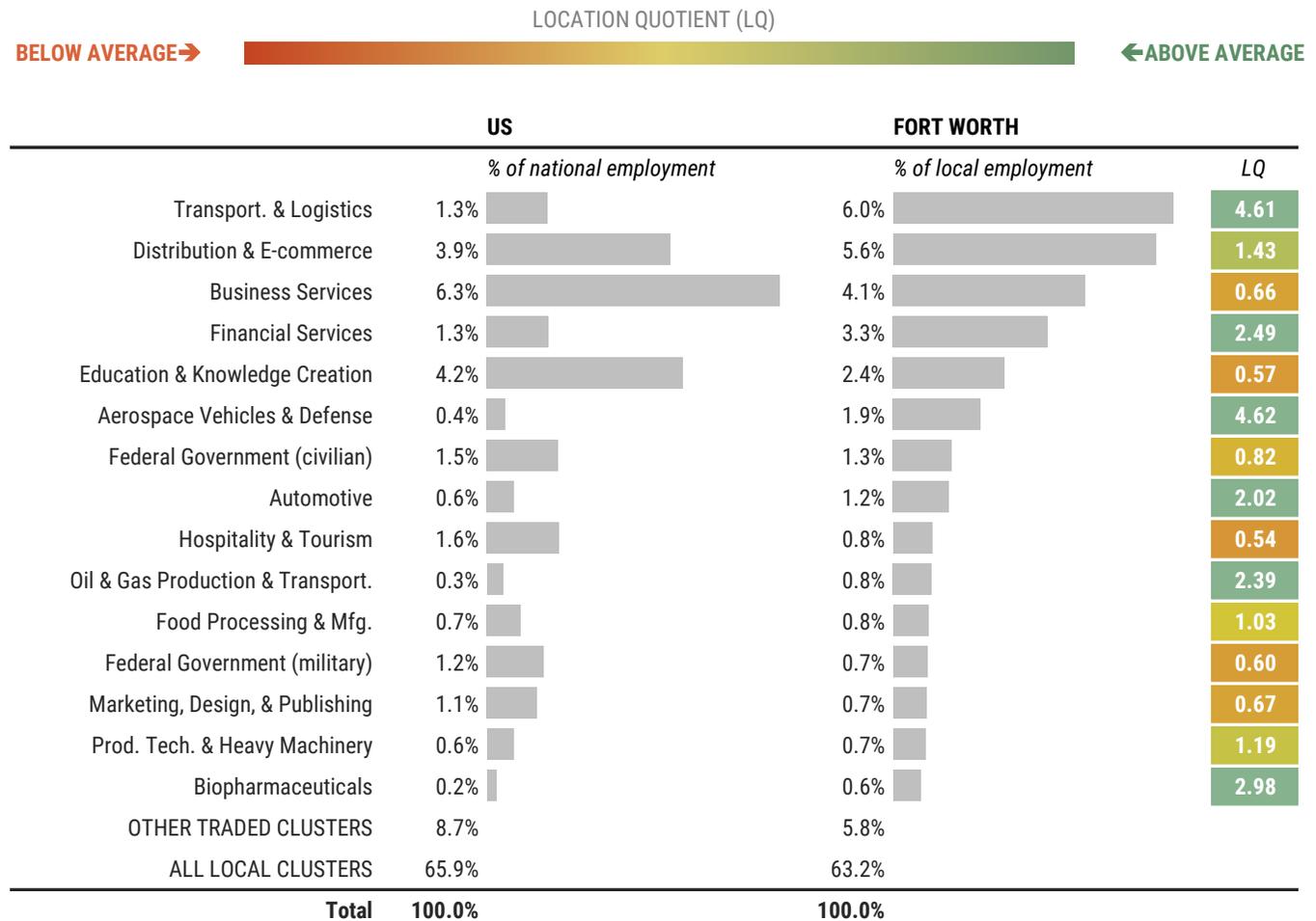
LOCATION QUOTIENT (LQ)

BELOW AVERAGE➔   ⬅ABOVE AVERAGE

	US	FORT WORTH	
	% of national employment	% of local employment	LQ
Transport. & Logistics	1.3%	6.0%	4.61
Distribution & E-commerce	3.9%	5.6%	1.43
Business Services	6.3%	4.1%	0.66
Financial Services	1.3%	3.3%	2.49
Education & Knowledge Creation	4.2%	2.4%	0.57
Aerospace Vehicles & Defense	0.4%	1.9%	4.62
Federal Government (civilian)	1.5%	1.3%	0.82
Automotive	0.6%	1.2%	2.02
Hospitality & Tourism	1.6%	0.8%	0.54
Oil & Gas Production & Transport.	0.3%	0.8%	2.39
Food Processing & Mfg.	0.7%	0.8%	1.03
Federal Government (military)	1.2%	0.7%	0.60
Marketing, Design, & Publishing	1.1%	0.7%	0.67
Prod. Tech. & Heavy Machinery	0.6%	0.7%	1.19
Biopharmaceuticals	0.2%	0.6%	2.98
OTHER TRADED CLUSTERS	8.7%	5.8%	
ALL LOCAL CLUSTERS	65.9%	63.2%	
Total	**100.0%**	**100.0%**	

Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness, Harvard Business School; TIP Strategies, Inc.
Note: The cluster methodology developed at Harvard Business School has been adjusted by TIP Strategies, Inc., to align with the six-digit NAICS classifications used by Emsi.

WHY IT MATTERS

While local clusters (such as dental offices) typically account for a similar share of employment across communities of varying size, the share of total employment represented by traded clusters (such as automotive assembly plants) might differ dramatically from one community to the next. Traded clusters that account for a larger-than-average share of total employment can suggest areas of competitive advantage. This figure compares the distribution of employment by cluster in the US (first column) with the local area (second column). The third column uses location quotients (LQs) to convey the intensity of employment locally relative to the US. If a traded cluster represents 1 percent of US employment and 5 percent of local employment, its LQ would be 5.0, meaning that the traded cluster in the local area is five times as large as would be expected based on national patterns.

FIGURE 21. EMPLOYMENT CLUSTERS—PROJECTED GROWTH
TRADED CLUSTERS WITH THE HIGHEST PROJECTED LOCAL JOB GAINS, 2020-2025

	US	FORT WORTH	
	5-year % change in national employment	5-year % change in local employment	net gain
Financial Services	3.8%	20.3%	+3,940
Distribution & E-commerce	5.3%	6.9%	+2,270
Business Services	9.3%	8.1%	+1,948
Transport. & Logistics	2.9%	4.0%	+1,397
Performing Arts	1.7%	15.6%	+467
Aerospace Vehicles & Defense	2.7%	4.0%	+440
Education & Knowledge Creation	4.6%	3.0%	+418
Downstream Metal Products	2.1%	15.7%	+340
Marketing, Design, & Publishing	4.2%	6.9%	+292
Federal Government (military)	1.1%	5.9%	+254
Automotive	2.5%	3.3%	+231
Wood Products	0.6%	15.2%	+139
Agricultural Inputs & Services	1.8%	6.4%	+116
Vulcanized & Fired Materials	-2.7%	12.2%	+76
Video Production & Distribution	6.2%	41.0%	+67
Medical Devices	5.3%	9.0%	+60
Environmental Services	8.2%	14.1%	+57
Federal Government (civilian)	1.5%	0.6%	+45
ALL TRADED CLUSTERS	3.9%	4.5%	+9,664
ALL LOCAL CLUSTERS	3.4%	7.0%	+25,850
Total	**3.6%**	**6.1%**	

Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness, Harvard Business School; TIP Strategies, Inc.
Note: The cluster methodology developed at Harvard Business School has been adjusted by TIP Strategies, Inc., to align with the six-digit NAICS classifications used by Emsi.

WHY IT MATTERS

Understanding anticipated job growth in traded clusters is an essential element of the targeting process. This figure compares projected net job gains in percentage terms over a five-year horizon for the US (first column) and the local area (second column). The column on the far right shows projections (in numeric terms) for local net job gains in traded clusters in descending order. The last three rows of the exhibit—showing projected job growth aggregated for traded clusters, local clusters, and total employment—can help inform strategic discussions and refine goals for the future.

FIGURE 22. TALENT DEMAND INDICATORS
ANALYSIS OF UNIQUE LOCAL JOB POSTINGS DURING CALENDAR YEAR 2020

INTENSITY OF JOB POSTINGS RELATIVE TO US

BELOW AVERAGE →   ← ABOVE AVERAGE

HIGH-DEMAND LOCAL OCCUPATIONS	location quotient	HIGH-DEMAND LOCAL SKILLS	location quotient
First-Line Supervisors of Production and Operating Workers	1.71	Corrective And Preventive Action (CAPA)	1.84
Medical and Health Services Managers	1.51	Quality Control	1.75
Pers. Svc. Mgrs., All Oth.; Ent. & Rec. Mgrs., Exc. Gambling; & Mgrs., All Oth.	1.47	Auditing	1.47
Accountants and Auditors	1.41	Warehousing	1.46
Maintenance and Repair Workers, General	1.39	Basic Life Support	1.41
Sales Reps., Whlsl & Mfg., Except Tech/Scientific Products	1.37	Budgeting	1.41
Registered Nurses	1.35	Nursing	1.36
First-Line Supervisors of Office & Admin. Support Workers	1.28	Data Analysis	1.28
Computer User Support Specialists	1.27	Billing	1.21
General and Operations Managers	1.23	Forecasting	1.21
Sales Managers	1.19	Purchasing	1.20
Stockers and Order Fillers	1.10	Project Management	1.20
Customer Service Representatives	1.01	Accounting	1.19
Computer Occupations, All Other	0.91	Cardiopulmonary Resuscitation (CPR)	1.17
Software Devs. & Software Qual. Assurance Analysts/Testers	0.91	Strategic Planning	1.15
Fast Food and Counter Workers	0.86	Customer Relationship Management	1.14
First-Line Supervisors of Food Prep. & Serving Workers	0.85	SQL (Programming Language)	1.11
Retail Salespersons	0.84	Finance	1.10
First-Line Supervisors of Retail Sales Workers	0.82	Selling Techniques	1.04
Heavy and Tractor-Trailer Truck Drivers	0.30	Restaurant Operation	1.02

Sources: Emsi 2020.3; TIP Strategies, Inc.

WHY IT MATTERS

An analysis of job postings can help reframe an understanding of the local job market from the employer's perspective rather than simply through the lens of government statistics. This back-of-the-envelope analysis uses job postings from the prior calendar year to identify the most sought-out occupations (first column) and the most frequently occurring words and phrases (second column). LQs are used to approximate the local intensity of recruiting efforts and illustrate employer demand for specific hard skills. A help-wanted ad that appears locally at five times the relative rate as the US would have an LQ of 5.0; likewise, a specific skill that appears more frequently in local postings than the national average would have an LQ greater than 1.0, suggesting higher demand in the local market. The results should prompt strategic questions about the alignment of the region's talent pipeline with the needs of employers and with target (traded) clusters.

FIGURE 23. TARGETING FRAMEWORK

TRADED and LOCAL clusters and subclusters emerge from the analysis...

...to provide a foundation for
TARGET SECTORS

AUTOMOTIVE	
DISTRIBUTION & E-COMMERCE	MOBILITY
TRANSPORTATION & LOGISTICS	

AEROSPACE VEHICLES & DEFENSE	
FEDERAL GOVERNMENT (MILITARY)	AEROSPACE & DEFENSE
IT & ANALYTICAL INSTRUMENTS	

ALTERNATIVE ELECTRIC POWER	
ELECTRIC POWER DISTRIBUTION	
DRILLING WELLS	ENERGY
OIL & GAS MACHINERY	
SUPPORT ACTIVITIES FOR OIL & GAS OPS.	
NATURAL GAS DISTRIBUTION	

HOSPITALITY & TOURISM	
PERFORMING ARTS	CULTURE
LOCAL COMMUNITY & CIVIC ORGANIZATIONS	
LOCAL HOSPITALITY ESTABLISHMENTS	

COLLEGES, UNIVERSITIES, & PROFES. SCHOOLS	
HOSPITALS	
RESEARCH ORGANIZATIONS	
COMPUTER SERVICES	ANCHORS & INNOVATORS
CORPORATE HEADQUARTERS	
ENGINEERING SERVICES	
BIOPHARMACEUTICAL PRODUCTS	

Sources: US Economic Development Administration; Institute for Strategy and Competitiveness, Harvard Business School; TIP Strategies, Inc.

MOBILITY

FIGURE 24. TARGET SNAPSHOT

FORT WORTH	TOTAL	TARGET
2020 Establishments	—	—
2020 Employment	582,949	75,028
Net Chg., 2010−2020	+98,870	+19,232
Pct. Chg., 2010−2020	+20.4%	+34.5%

FIGURE 26. EMPLOYMENT OUTLOOK

US OVERALL	TOTAL	TARGET
Net Chg., 2020−2025	+5,652,930	+414,222
Pct. Chg., 2020−2025	+3.6%	+4.5%
FORT WORTH	TOTAL	TARGET
Net Chg., 2020−2025	+35,468	+3,898
Pct. Chg., 2020−2025	+6.1%	+5.2%

FIGURE 25. TARGET CONCENTRATION
LOCATION QUOTIENT TREND

FIGURE 27. TARGET COMPONENTS
ANNUAL EMPLOYMENT

FIGURE 28. TARGET GROWTH
ANNUAL PERCENT CHANGE IN EMPLOYMENT
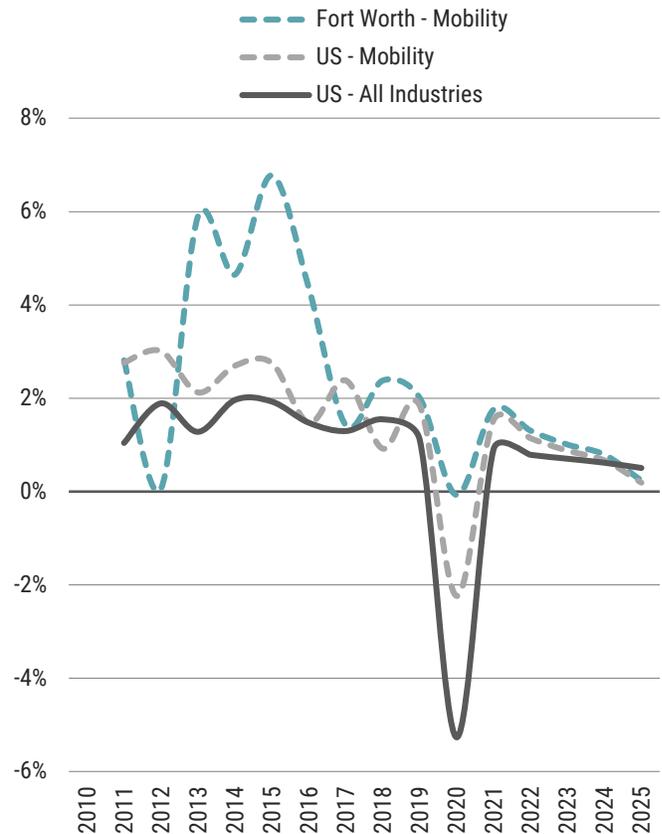
Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
Notes: The cluster methodology developed at Harvard Business School has been adjusted by TIP Strategies, Inc., to align with the six-digit NAICS classifications used by Emsi. See textbox below Figure 20, page 34, for a discussion of location quotients.

FIGURE 29. TARGET STAFFING PROFILE

LOCATION QUOTIENT (LQ) & RELATIVE EARNINGS

BELOW AVERAGE➔   ⬅ABOVE AVERAGE

STANDARD OCCUPATIONAL CLASSIFICATION		EMPLOYMENT			EARNINGS	
Code	Description	2020 Jobs	% of Target	LQ (US= 1.00)	Local Hourly Median	Relative to US (US=1.00)
53-7062	Laborers & Material Movers, Hand	7,124	9.5%	1.06	14.25	0.95
53-3032	Heavy & Tractor-Trailer Truck Drivers	4,404	5.9%	0.73	23.23	1.03
53-7051	Industrial Truck & Tractor Operators	4,258	5.7%	1.67	17.35	0.96
43-4181	Reservation & Ticket Agents	4,161	5.5%	7.04	28.68	1.52
53-2031	Flight Attendants	4,019	5.4%	4.55	41.17	1.45
53-7065	Stockers & Order Fillers	3,974	5.3%	1.08	14.31	1.02
49-3011	Aircraft Mechanics & Service Technicians	2,687	3.6%	4.44	38.45	1.21
41-4012	Sales Reps, Non-Technical and Scientific Products	2,579	3.4%	0.50	27.34	0.92
43-4051	Customer Service Representatives	2,573	3.4%	0.97	17.00	0.99
51-2098	Miscellaneous Assemblers & Fabricators	2,428	3.2%	0.96	13.91	0.86
53-2011	Airline Pilots, Copilots, & Flight Engineers	2,072	2.8%	3.45	79.23	1.03
43-5071	Shipping, Receiving, & Inventory Clerks	1,459	1.9%	0.90	15.53	0.92
11-1021	General & Operations Managers	1,219	1.6%	0.64	47.28	0.95
43-1011	First-Line Supervisors, Office & Administrative	1,209	1.6%	1.19	27.52	0.98
53-1047	First-Line Supervisors of Transportation Workers	1,132	1.5%	0.99	26.58	1.01
43-9061	Office Clerks, General	1,091	1.5%	0.70	16.31	0.96
43-5011	Cargo & Freight Agents	756	1.0%	1.18	21.54	1.02
53-7064	Packers & Packagers, Hand	748	1.0%	0.67	11.88	0.88
53-3033	Light Truck Drivers	696	0.9%	0.55	17.35	0.98
49-9071	Maintenance & Repair Workers, General	620	0.8%	0.99	18.49	0.94
43-3031	Bookkeeping, Accounting, & Auditing Clerks	612	0.8%	0.59	19.15	0.94
43-5061	Production, Planning, & Expediting Clerks	534	0.7%	1.23	23.59	0.99
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	513	0.7%	0.89	17.71	0.91
13-1198	Business Operations Specialists, All Other	512	0.7%	0.87	38.52	1.04
49-1011	First-Line Supervisors of Mechanics & Repairers	504	0.7%	1.27	33.47	0.99

Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
Note: The cluster methodology developed at Harvard Business School has been adjusted by TIP Strategies, Inc., to align with the six-digit NAICS classifications used by Emsi.

WHY IT MATTERS

Each target industry is underpinned by its workforce, making the occupational composition of each target worthy of further analysis. This figure shows each target's largest occupational contributors. The number of local jobs for each occupation is shown along with the occupation's weight (in percentage terms) within the target. The LQ compares the occupation's local weight to its national weight within this target. An LQ that exceeds 1.00 indicates a local occupation employed more heavily by the local target industry than national patterns might imply, while an LQ below 1.00 indicates relatively lighter local reliance on the occupation. Median local hourly earnings accompany the occupations shown in the exhibit. Wage ratios exceeding 1.00 indicate higher pay than the same occupation might expect nationally, while ratios below 1.00 suggest relatively lower compensation than the national level.

AEROSPACE AND DEFENSE

FIGURE 30. TARGET SNAPSHOT

FORT WORTH	TOTAL	TARGET
2020 Establishments	—	—
2020 Employment	582,949	16,608
Net Chg., 2010−2020	+98,870	+658
Pct. Chg., 2010−2020	+20.4%	+4.1%

FIGURE 32. EMPLOYMENT OUTLOOK

US OVERALL	TOTAL	TARGET
Net Chg., 2020−2025	+5,652,930	+156,062
Pct. Chg., 2020−2025	+3.6%	+3.9%
FORT WORTH	TOTAL	TARGET
Net Chg., 2020−2025	+35,468	+678
Pct. Chg., 2020−2025	+6.1%	+4.1%

FIGURE 31. TARGET CONCENTRATION
LOCATION QUOTIENT TREND

FIGURE 33. TARGET COMPONENTS
ANNUAL EMPLOYMENT

- Information Technology & Analytical Instruments
- Federal Government (military)
- Aerospace Vehicles & Defense
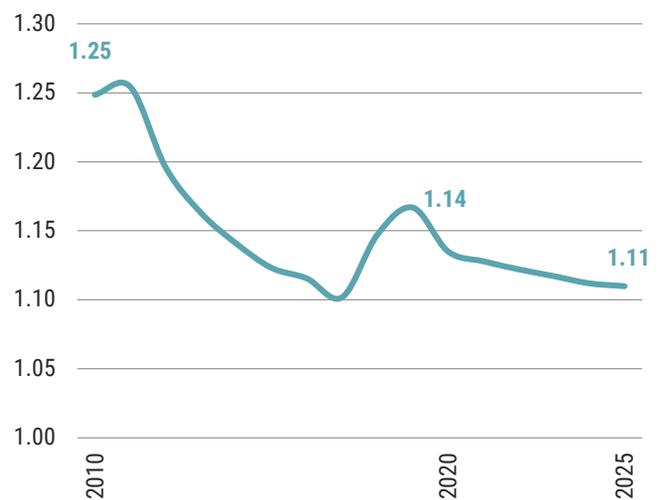
FIGURE 34. TARGET GROWTH
ANNUAL PERCENT CHANGE IN EMPLOYMENT
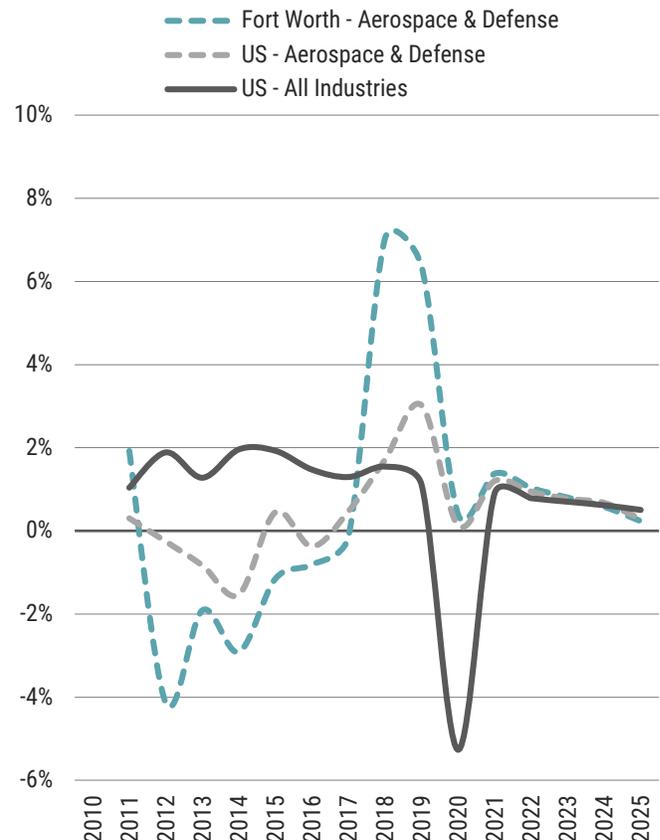
- Fort Worth - Aerospace & Defense
- US - Aerospace & Defense
- US - All Industries

FIGURE 35. TARGET STAFFING PROFILE

LOCATION QUOTIENT (LQ) & RELATIVE EARNINGS

BELOW AVERAGE➔   ←ABOVE AVERAGE

STANDARD OCCUPATIONAL CLASSIFICATION		EMPLOYMENT			EARNINGS	
Code	Description	2020 Jobs	% of Target	LQ (US= 1.00)	Local Hourly Median	Relative to US (US=1.00)
55-9999	Military-only	2,213	13.3%	0.53	17.23	1.02
51-2011	Aircraft Structure & Systems Assemblers	916	5.5%	6.95	27.56	1.08
15-1256	Software Developers, Analysts, & Testers	645	3.9%	0.59	48.49	0.92
17-2112	Industrial Engineers	591	3.6%	2.14	44.73	1.05
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	560	3.4%	2.32	17.71	0.91
17-2011	Aerospace Engineers	512	3.1%	4.58	61.75	1.08
49-3011	Aircraft Mechanics & Service Technicians	430	2.6%	1.35	38.45	1.21
51-4041	Machinists	373	2.2%	2.57	20.69	0.94
13-1198	Business Operations Specialists, All Other	360	2.2%	1.21	38.52	1.04
17-2141	Mechanical Engineers	344	2.1%	2.05	43.86	1.01
51-2098	Miscellaneous Assemblers & Fabricators	311	1.9%	1.37	13.91	0.86
51-2028	Electrical, Electronic, & Electromechanical Assemblers	292	1.8%	0.59	17.26	0.99
49-2091	Avionics Technicians	280	1.7%	2.40	29.22	0.90
13-1028	Buyers & Purchasing Agents	264	1.6%	2.11	34.40	1.08
13-1081	Logisticians	247	1.5%	1.35	34.40	0.94
51-9161	Computer Numerically Controlled Tool Operators	239	1.4%	3.14	19.56	0.96
15-1211	Computer Systems Analysts	239	1.4%	1.63	44.11	0.98
51-1011	First-Line Supervisors, Production & Operations	231	1.4%	1.80	29.93	0.99
43-5061	Production, Planning, & Expediting Clerks	216	1.3%	2.08	23.59	0.99
11-9041	Architectural & Engineering Managers	194	1.2%	1.46	71.46	0.99
17-2071	Electrical Engineers	193	1.2%	1.26	47.03	0.97
43-5071	Shipping, Receiving, & Inventory Clerks	186	1.1%	2.12	15.53	0.92
17-2199	Engineers, All Other	182	1.1%	1.73	51.44	1.03
11-1021	General & Operations Managers	174	1.1%	0.82	47.28	0.95
17-2072	Electronics Engineers, Except Computer	169	1.0%	1.20	57.38	1.11

Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
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ENERGY

FIGURE 36. TARGET SNAPSHOT

FORT WORTH	TOTAL	TARGET
2020 Establishments	—	—
2020 Employment	582,949	4,314
Net Chg., 2010−2020	+98,870	+291
Pct. Chg., 2010−2020	+20.4%	+7.2%

FIGURE 38. EMPLOYMENT OUTLOOK

US OVERALL	TOTAL	TARGET
Net Chg., 2020−2025	+5,652,930	+10,564
Pct. Chg., 2020−2025	+3.6%	+1.5%
FORT WORTH	**TOTAL**	**TARGET**
Net Chg., 2020−2025	+35,468	-566
Pct. Chg., 2020−2025	+6.1%	-13.1%

FIGURE 37. TARGET CONCENTRATION
LOCATION QUOTIENT TREND

FIGURE 39. TARGET COMPONENTS
ANNUAL EMPLOYMENT

FIGURE 40. TARGET GROWTH
ANNUAL PERCENT CHANGE IN EMPLOYMENT
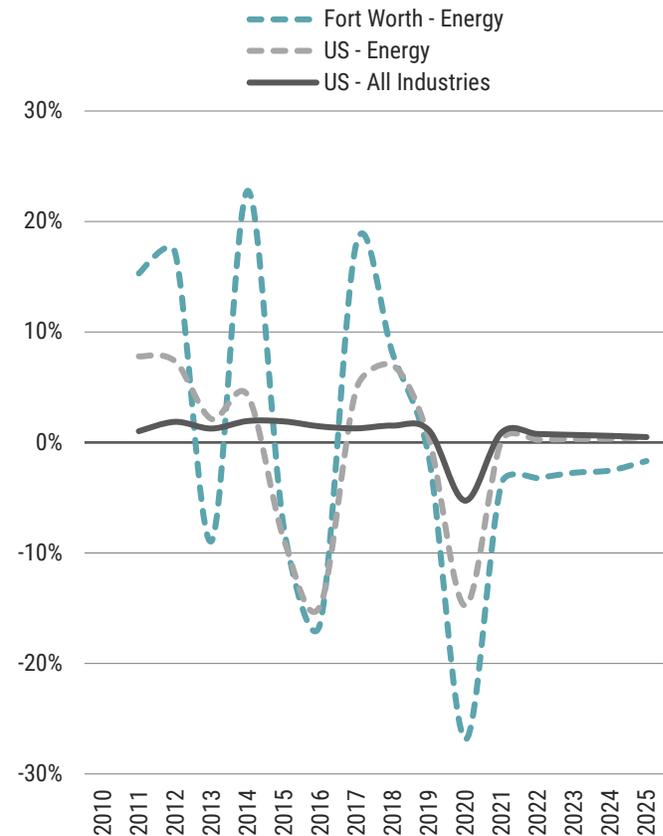
Sources: US Bureau of Labor Statistics; Emsi 2020.3−QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
Notes: The cluster methodology developed at Harvard Business School has been adjusted by TIP Strategies, Inc., to align with the six-digit NAICS classifications used by Emsi. See textbox below Figure 20, page 34, for a discussion of location quotients.

FIGURE 41. TARGET STAFFING PROFILE

LOCATION QUOTIENT (LQ) & RELATIVE EARNINGS

BELOW AVERAGE➔   ⬅ABOVE AVERAGE

STANDARD OCCUPATIONAL CLASSIFICATION		EMPLOYMENT			EARNINGS	
Code	Description	2020 Jobs	% of Target	LQ (US= 1.00)	Local Hourly Median	Relative to US (US=1.00)
51-2098	Miscellaneous Assemblers & Fabricators	193	6.0%	3.99	13.91	0.86
47-5071	Roustabouts, Oil & Gas	141	4.4%	0.74	20.77	1.10
47-5013	Service Unit Operators, Oil & Gas	126	3.9%	0.69	18.97	0.83
53-3032	Heavy & Tractor-Trailer Truck Drivers	101	3.1%	0.86	23.23	1.03
51-4121	Welders, Cutters, Solderers, & Brazers	100	3.1%	1.96	19.85	0.94
53-7072	Pump Operators, Except Wellhead Pumpers	96	3.0%	5.34	16.81	0.73
11-1021	General & Operations Managers	85	2.6%	1.06	47.28	0.95
47-1011	First-Line Supervisors, Construction & Extraction	80	2.5%	0.69	27.59	0.87
43-9061	Office Clerks, General	63	1.9%	0.98	16.31	0.96
47-5012	Rotary Drill Operators, Oil & Gas	61	1.9%	0.83	26.71	1.03
49-9041	Industrial Machinery Mechanics	56	1.7%	0.72	24.45	0.92
53-7062	Laborers & Material Movers, Hand	53	1.6%	1.49	14.25	0.95
41-4012	Sales Reps, Non-Technical and Scientific Products	53	1.6%	2.18	27.34	0.92
51-1011	First-Line Supervisors, Production & Operations	53	1.6%	1.09	29.93	0.99
13-1198	Business Operations Specialists, All Other	51	1.6%	0.83	38.52	1.04
49-9012	Control & Valve Installers & Repairers	50	1.6%	0.58	16.75	0.58
47-5081	Helpers--Extraction Workers	49	1.5%	1.13	15.40	0.85
17-2141	Mechanical Engineers	48	1.5%	2.21	43.86	1.01
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	46	1.4%	1.38	17.71	0.91
51-4041	Machinists	45	1.4%	2.25	20.69	0.94
43-4051	Customer Service Representatives	40	1.2%	0.64	17.00	0.99
11-9198	Personal Service & Recreation Managers, All Other	38	1.2%	1.14	41.31	1.03
49-9081	Wind Turbine Service Technicians	37	1.1%	2.56	23.43	0.89
17-2112	Industrial Engineers	35	1.1%	2.04	44.73	1.05
43-5071	Shipping, Receiving, & Inventory Clerks	34	1.1%	3.94	15.53	0.92

Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
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CULTURE

FIGURE 42. TARGET SNAPSHOT

FORT WORTH	TOTAL	TARGET
2020 Establishments	—	—
2020 Employment	582,949	64,447
Net Chg., 2010−2020	+98,870	+8,550
Pct. Chg., 2010−2020	+20.4%	+15.3%

FIGURE 44. EMPLOYMENT OUTLOOK

US OVERALL	TOTAL	TARGET
Net Chg., 2020−2025	+5,652,930	+816,077
Pct. Chg., 2020−2025	+3.6%	+4.1%
FORT WORTH	TOTAL	TARGET
Net Chg., 2020−2025	+35,468	+5,372
Pct. Chg., 2020−2025	+6.1%	+8.3%

FIGURE 43. TARGET CONCENTRATION
LOCATION QUOTIENT TREND

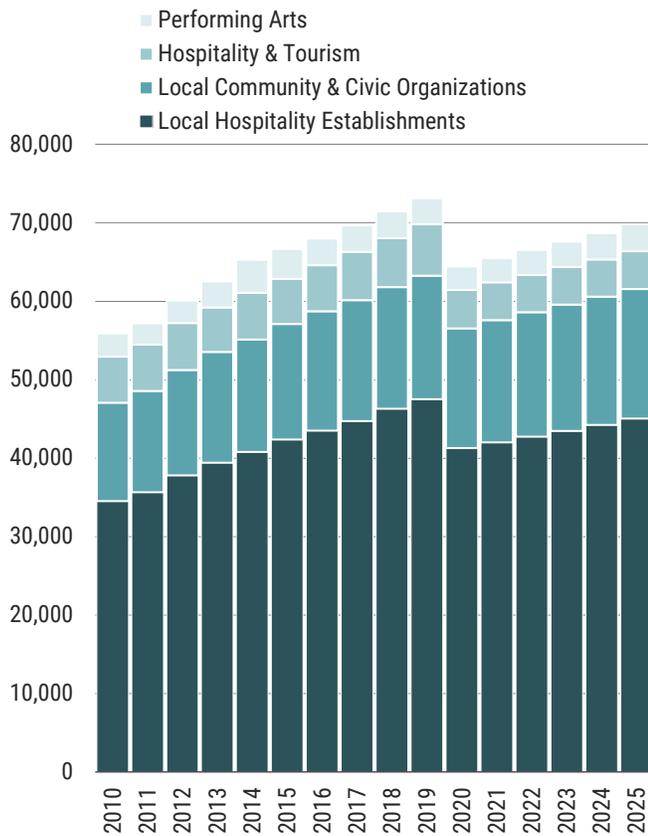## FIGURE 45. TARGET COMPONENTS
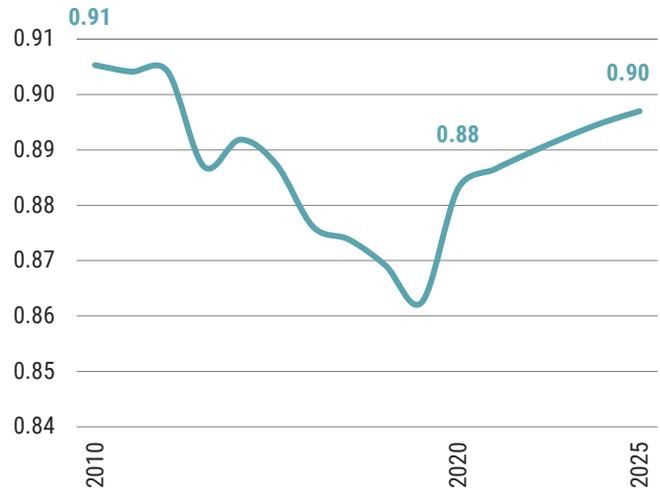ANNUAL EMPLOYMENT

FIGURE 46. TARGET GROWTH
ANNUAL PERCENT CHANGE IN EMPLOYMENT
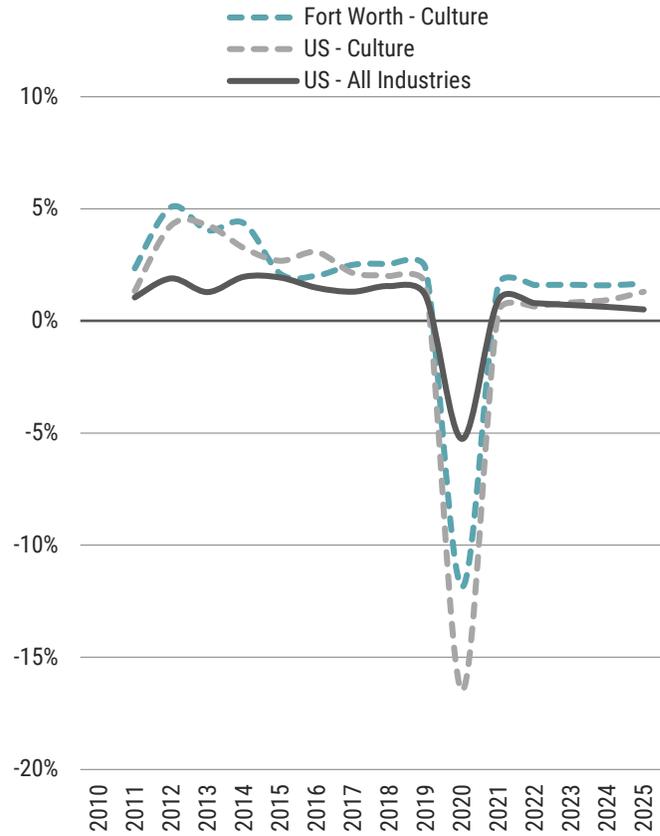
Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
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FIGURE 47. TARGET STAFFING PROFILE

LOCATION QUOTIENT (LQ) & RELATIVE EARNINGS

BELOW AVERAGE→   **←ABOVE AVERAGE**

STANDARD OCCUPATIONAL CLASSIFICATION		EMPLOYMENT			EARNINGS	
Code	**Description**	**2020 Jobs**	**% of Target**	**LQ (US= 1.00)**	**Local Hourly Median**	**Relative to US (US=1.00)**
35-3023	Fast Food & Counter Workers	13,157	20.4%	1.37	9.83	0.86
35-3031	Waiters & Waitresses	6,552	10.2%	1.09	8.42	0.74
35-2014	Cooks, Restaurant	3,853	6.0%	1.10	12.40	0.90
35-1012	First-Line Supervisors of Food Prep & Services	2,908	4.5%	1.18	15.17	0.91
35-2011	Cooks, Fast Food	1,762	2.7%	1.00	9.77	0.83
41-2011	Cashiers	1,708	2.7%	1.33	11.18	0.93
31-1128	Home Health & Personal Care Aides	1,388	2.2%	0.27	10.66	0.82
53-3031	Driver/Sales Workers	1,224	1.9%	1.74	14.90	1.11
35-9011	Dining, Cafeteria, & Bar Attendants	1,119	1.7%	1.10	9.06	0.75
21-2011	Clergy	1,116	1.7%	1.43	23.56	0.96
35-3011	Bartenders	1,052	1.6%	0.73	8.42	0.70
35-2021	Food Preparation Workers	1,037	1.6%	0.69	11.42	0.91
11-1021	General & Operations Managers	923	1.4%	1.09	47.28	0.95
35-9021	Dishwashers	906	1.4%	0.81	9.88	0.81
35-9031	Hosts & Hostesses, Food-Related	882	1.4%	0.89	9.12	0.79
43-9061	Office Clerks, General	856	1.3%	1.09	16.31	0.96
43-6014	Secretaries & Administrative Assistants, All Other	819	1.3%	1.05	17.99	0.96
37-2012	Maids & Housekeeping Cleaners	766	1.2%	0.63	10.91	0.88
11-9051	Food Service Managers	755	1.2%	1.00	24.20	0.98
37-2011	Janitors & Cleaners, Except Maids & Housekeeping Cleaners	744	1.2%	1.02	13.06	0.94
21-2021	Directors, Religious Activities & Education	668	1.0%	1.45	24.62	1.14
49-9071	Maintenance & Repair Workers, General	640	1.0%	0.93	18.49	0.94
27-2042	Musicians & Singers	621	1.0%	1.15	34.05	1.30
39-9031	Exercise Trainers & Group Fitness Instructors	613	1.0%	0.80	18.58	0.97
43-3031	Bookkeeping, Accounting, & Auditing Clerks	523	0.8%	1.11	19.15	0.94

Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
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ANCHORS AND INNOVATORS

FIGURE 48. TARGET SNAPSHOT

FORT WORTH	TOTAL	TARGET
2020 Establishments	—	—
2020 Employment	582,949	51,702
Net Chg., 2010−2020	+98,870	+9,384
Pct. Chg., 2010−2020	+20.4%	+22.2%

FIGURE 50. EMPLOYMENT OUTLOOK

US OVERALL	TOTAL	TARGET
Net Chg., 2020−2025	+5,652,930	+1,119,758
Pct. Chg., 2020−2025	+3.6%	+6.0%
FORT WORTH	**TOTAL**	**TARGET**
Net Chg., 2020−2025	+35,468	+3,627
Pct. Chg., 2020−2025	+6.1%	+7.0%

FIGURE 49. TARGET CONCENTRATION
LOCATION QUOTIENT TREND

FIGURE 51. TARGET COMPONENTS
ANNUAL EMPLOYMENT

- Research Organizations
- Biopharmaceutical Products
- Engineering Services
- Corporate Headquarters
- Computer Services
- Colleges, Universities, & Professional Schools
- Hospitals
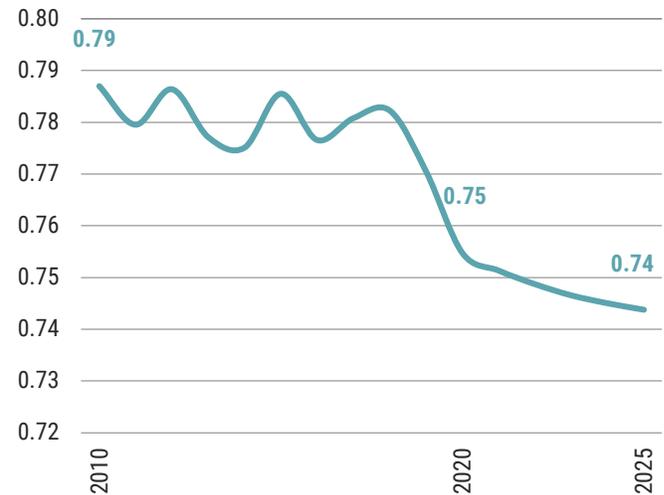
FIGURE 52. TARGET GROWTH
ANNUAL PERCENT CHANGE IN EMPLOYMENT
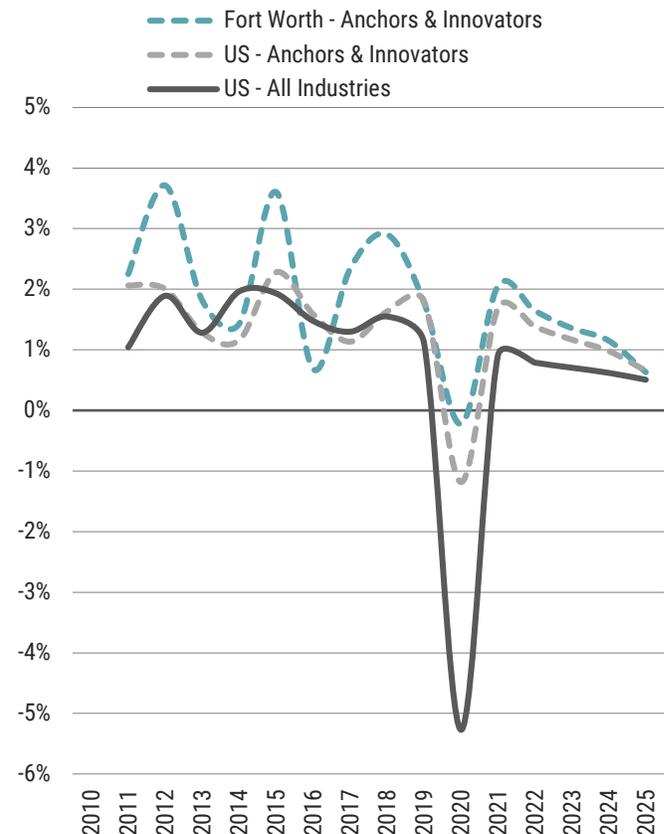
- Fort Worth - Anchors & Innovators
- US - Anchors & Innovators
- US - All Industries

Sources: US Bureau of Labor Statistics; Emsi 2020.3−QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
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FIGURE 53. TARGET STAFFING PROFILE

LOCATION QUOTIENT (LQ) & RELATIVE EARNINGS

BELOW AVERAGE➜   ←ABOVE AVERAGE

STANDARD OCCUPATIONAL CLASSIFICATION		EMPLOYMENT			EARNINGS	
Code	Description	2020 Jobs	% of Target	LQ (US= 1.00)	Local Hourly Median	Relative to US (US=1.00)
29-1141	Registered Nurses	6,251	12.1%	1.18	37.14	1.03
25-1099	Postsecondary Teachers	5,087	9.8%	1.07	34.65	0.94
15-1256	Software Developers, Analysts, & Testers	1,585	3.1%	0.78	48.49	0.92
43-9061	Office Clerks, General	1,113	2.2%	0.95	16.31	0.96
31-1131	Nursing Assistants	1,052	2.0%	0.90	14.66	0.99
13-1198	Business Operations Specialists, All Other	1,014	2.0%	1.03	38.52	1.04
43-6013	Medical Secretaries & Administrative Assistants	997	1.9%	1.98	17.33	0.97
43-4051	Customer Service Representatives	835	1.6%	1.03	17.00	0.99
15-1211	Computer Systems Analysts	767	1.5%	0.89	44.11	0.98
43-6014	Secretaries & Administrative Assistants, All Other	743	1.4%	0.69	17.99	0.96
15-1232	Computer User Support Specialists	703	1.4%	0.84	21.61	0.85
29-2018	Clinical Laboratory Technologists & Technicians	682	1.3%	1.30	26.40	1.01
17-2051	Civil Engineers	634	1.2%	1.37	41.38	0.97
11-1021	General & Operations Managers	624	1.2%	0.93	47.28	0.95
11-9111	Medical & Health Services Managers	622	1.2%	1.35	48.81	0.98
31-9092	Medical Assistants	553	1.1%	1.54	16.28	0.94
43-1011	First-Line Supervisors, Office & Administrative	492	1.0%	0.93	27.52	0.98
29-2098	Medical Records & Health Technicians, All Other	486	0.9%	1.25	20.43	0.96
37-2011	Janitors & Cleaners, Except Maids & Housekeeping Cleaners	450	0.9%	0.71	13.06	0.94
29-1126	Respiratory Therapists	444	0.9%	1.44	30.61	1.01
13-2011	Accountants & Auditors	439	0.8%	0.80	33.75	0.95
11-9033	Education Administrators, Postsecondary	400	0.8%	0.80	47.54	1.02
43-3031	Bookkeeping, Accounting, & Auditing Clerks	394	0.8%	0.84	19.15	0.94
11-3021	Computer & Information Systems Managers	390	0.8%	0.66	68.18	0.94
29-2034	Radiologic Technologists & Technicians	374	0.7%	1.04	29.29	0.98

Sources: US Bureau of Labor Statistics; Emsi 2020.3—QCEW Employees, Non-QCEW Employees, and Self-Employed; US Economic Development Administration; Institute for Strategy and Competitiveness at Harvard Business School; TIP Strategies, Inc.
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