



MOST DYNAMIC METROPOLITANS

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About the Walton Family Foundation

The Walton Family Foundation is, at its core, a family-led foundation. The children and grandchildren of our founders, Sam and Helen Walton, lead the foundation and create access to opportunity for people and communities. We work in three areas: improving K-12 education, protecting rivers and oceans and the communities they support, and investing in our home region of Northwest Arkansas and the Arkansas-Mississippi Delta. In 2017, the foundation awarded more than \$535 million in grants in support of these initiatives.

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EXECUTIVE SUMMARY

As the dominant economic geography of America, metropolitan statistical areas largely determine our success as a nation. These groups of counties with a large central core account for 88.6 percent of jobs, 89.1 percent of wages and 90.0 percent of Gross Domestic Product (GDP). Further, metropolitan statistical areas account for the bulk of innovation such as research and development and patenting activity. Understanding the mechanisms underpinning the growth of top-performing metropolitan areas, and sharing best practices, could assist other communities in boosting their economic fortunes. The Most Dynamic Metropolitan Index, ranking 379 metropolitan areas, seeks to provide an objective measure of the economic vibrancy of communities where the lion's share of Americans work and live.

Our Most Dynamic Metropolitan Index, and the analysis contained in this report provides objective insight into the communities providing economic opportunity for their residents, separating high performers from the low. Most Dynamic Metropolitan provides fact-based metrics on near-term and medium-term performance and prospects for long-term growth. The index allows economic development officials the ability to monitor their metro's vivacity relative to others on a national basis or within their region and state. We also look through the lens of the Heartland—the 20 states in the middle of the nation—to discern its performance and understand practices that can boost economic prospects.

While international and national economic and geopolitical factors can influence growth patterns, the index provides an objective measure of whether local development strategies have the desired effect. Additionally, Most Dynamic Metropolitan aids public-policy groups, elected officials, academics, businesses and other researchers in monitoring and assessing metropolitan dynamism across the nation.

The Most Dynamic Metropolitan rankings are generated using performance-based metrics such as job growth, average annual earnings and Gross Domestic Product (GDP) gains and a new metric, the proportion of total jobs at young firms. The young firm employment ratio influences economic growth as new firms develop new products, services and advance innovation. It encapsulates information on the capability of entrepreneurs to start businesses and scale them—critical for future job and wage gains. For example, just four metros out of the top 30 and 12 out of the top 100 have a young-firm share below the mean of all metropolitan areas.

We include new data on regional price parities from the Bureau of Economic Analysis (BEA). These regional price parities are indexes indicating whether goods and services are generally more or less expensive than the national average. We use the indexes to adjust income measures for varying inflation rates and differences in purchasing power across metropolitan areas. Per-capita personal income reflects these adjustments and can be viewed as a measure of longer-term economic development because it is the stock of all prior welfare improvements.

BELOW ARE KEY FINDINGS FROM MOST DYNAMIC METROPOLITANS

Positioned first in Most Dynamic Metropolitans is **Midland, Texas**. Located in the American Heartland, Midland held several top positions and had four other metrics where it was among the top 10. Midland is the capital of the Permian Basin that produces one in five barrels of oil in the U.S. The explosion in shale oil exploration activity is driving the economy and the Tall City is the most reliant on oil activity in the nation.

San Jose-Sunnyvale-Santa Clara, California, (Silicon Valley) is second overall. Its unparalleled technology innovation ecosystem placed it tops among metros with a population above 1 million. Its biggest challenge in the future will be high housing costs, thereby making it difficult to retain talent. The median housing price is \$1.25 million and rents are astronomical.

Midland, Michigan, ranked third, is home to the new Dow—the collection of material science and engineering assets from Dupont, Dow Chemical and Dow Corning. Midland has the highest per capita figure of engineers and chemists in the nation.

Next, at fourth, is **Elkhart-Goshen, Indiana**, where a rapid expansion in travel, tourism and recreation has fueled its growth: it is the recreational vehicle production capital of the world. Three of the top four metro's hail from the Heartland. Coming in fifth, is **Bend-Redmond, Oregon**. It owes much of its lofty position to travel, tourism and recreation. It has the highest proportion of workforce telecommuting in the nation—many to Silicon Valley.

St. George, Utah, is sixth, home to Zion National Park, world-class outdoor recreation options, and arguably the preeminent mountain biking event worldwide, Red Bull Rampage. **Austin, Texas**, is seventh overall. It has acquired well-deserved international recognition as an economic development model worthy of study. Austin has the 11th highest concentration of high-tech industries in the nation.

Greeley, Colorado, is eighth, and has a mix of food, fracking, wind turbines and several corporate facilities. By many measures, the economy of **San Francisco-Oakland-Haywood, California**, (ninth overall) has experienced more rapid tech-fueled growth over the past five years than its neighbor down the peninsula, Silicon Valley. The surge in economic growth in the **Seattle-Tacoma-Bellevue, Washington** metro area (10th overall) continues unabated as it is among the most innovative places in the world.

Reno, Nevada, is 11th, followed by **Provo, Utah**, at 12th, (but first among medium metropolitan areas) has been one of the hottest economies in the nation over the past decade. Next are **Lake Charles, Louisiana**, (13th), **Fort Collins, Colorado**, (14th), and **Gainesville, Georgia**, (15th).

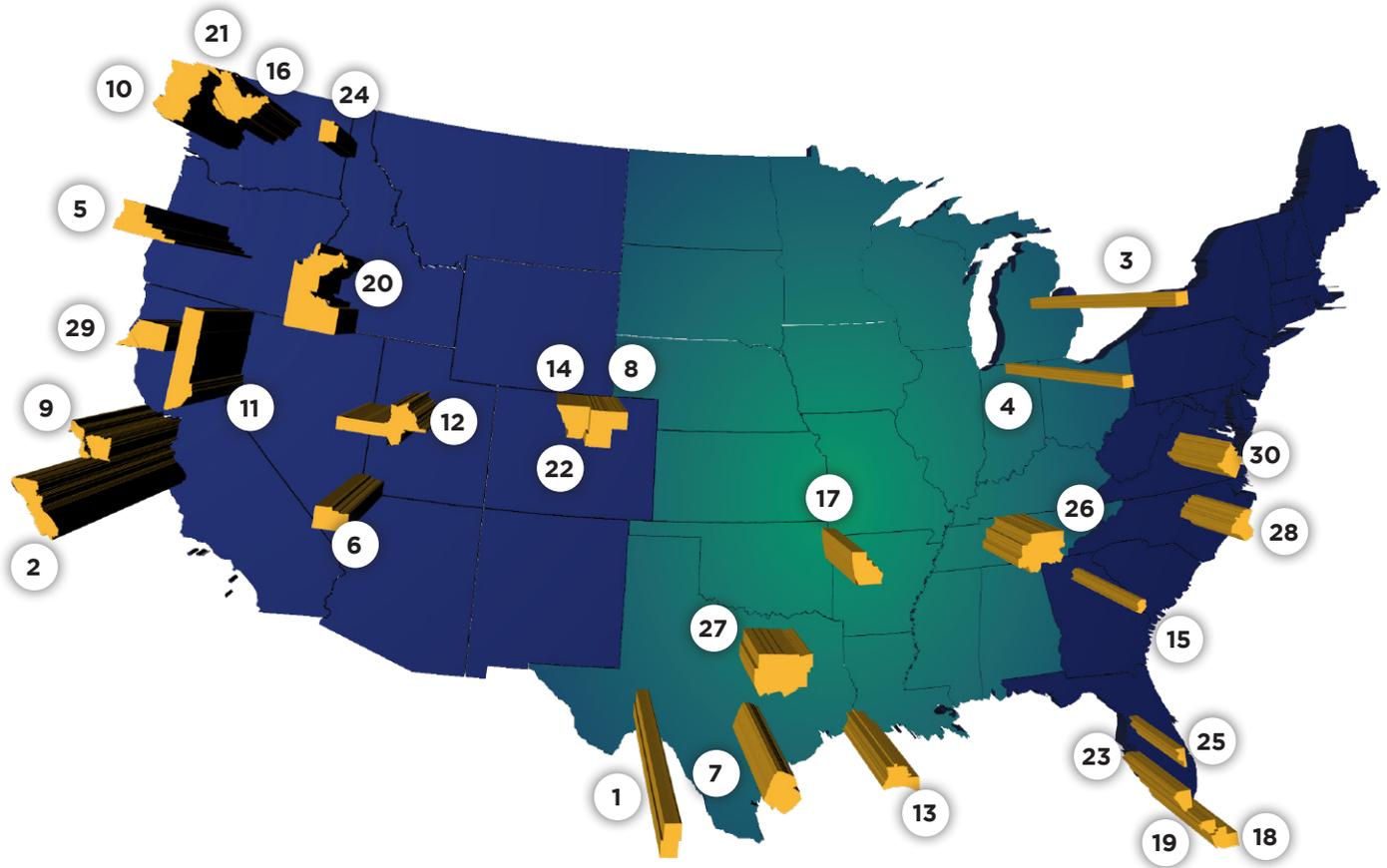
Wenatchee, Washington, is 16th, followed by **Fayetteville-Springdale-Rogers, Arkansas**, (Northwest Arkansas), which was second among medium metros (population of 500,000 to 999,999). Northwest Arkansas is a corporate, college and cultural center. **Naples-Immokalee-Marco Island, Florida**, (18th), **Cape Coral-Fort Myers, Florida**, (19th), and **Boise City, Idaho**, (20th), round out the top 20.

Other striking features of the findings include that only one large metro is in the bottom quartile, 23 are in the top quartile. Eleven out of 13 large Western metros are in the top quartile. The Heartland had eight metros among the top 30, substantially below its proportionate share.



Figure 1: Top 30 Metropolitans

Height Of Each Metro Reflects The Index Value



Rank	Index Value	Metro	Rank	Index Value	Metro
1	2.9795	Midland, TX	16	1.1081	Wenatchee, WA
2	2.5132	San Jose-Sunnyvale-Santa Clara, CA	17	1.0965	Fayetteville-Springdale-Rogers, AR-MO
3	2.4351	Midland, MI	18	1.0567	Naples-Immokalee-Marco Island, FL
4	2.1555	Elkhart-Goshen, IN	19	1.0241	Cape Coral-Fort Myers, FL
5	1.9654	Bend-Redmond, OR	20	0.9299	Boise City, ID
6	1.7048	St. George, UT	21	0.9182	Mount Vernon-Anacortes, WA
7	1.6149	Austin-Round Rock, TX	22	0.9048	Boulder, CO
8	1.6085	Greeley, CO	23	0.8959	North Port-Sarasota-Bradenton, FL
9	1.4944	San Francisco-Oakland-Hayward, CA	24	0.8870	Coeur d'Alene, ID
10	1.4283	Seattle-Tacoma-Bellevue, WA	25	0.8387	The Villages, FL
11	1.3911	Reno, NV	26	0.8372	Nashville-Davidson--Murfreesboro-Franklin, TN
12	1.3892	Provo-Orem, UT	27	0.8301	Dallas-Fort Worth-Arlington, TX
13	1.3178	Lake Charles, LA	28	0.8268	Raleigh, NC
14	1.3141	Fort Collins, CO	29	0.8234	Redding, CA
15	1.2092	Gainesville, GA	30	0.8233	Charlottesville, VA

Industry Characteristics

Common industry and structural characteristics separate top-performing metropolitan areas from lower performers over the evaluation period. Metropolitan areas with thriving professional, scientific and technical services were among the leaders. Categories such as scientific research services, engineering services, accounting and business management consulting services are in this mix. These sectors have been among the fastest-growing industries since 2012. Another group of industries boosting growth in many metropolitan areas are information and communication services, data processing services and hosting services, cloud-based software, data visualization software, computer systems design, AI and machine learning, mobile applications, web design, internet publishing, social media, digital media and gaming software.

Other key industries differentiating the top from the bottom performers are biomedical and the life sciences. The need for disease cures, effective treatment options and monitoring ongoing chronic conditions are powering research into drugs, diagnostics and a range of medical devices. High-tech and advanced manufacturing output has rallied since the Great Recession thrusting many metropolitan economies forward. High-tech manufacturing includes semiconductors, electronic instruments, computers, communications hardware such as routers and switches, energy-related cleantech, aerospace and aircraft, automotive, battery manufacturing, industrial control systems and material sciences.

Travel and tourism, recreation and lifestyle activities have advanced at a strong pace in recent years. Consumers postponed travel and tourism purchases during the Great Recession of 2007-2009. Pent-up demand for travel and tourism was unleashed when the economy improved. Tourism-destination locations, where visitors travel long distances to enjoy their amenities, benefited the most. Metropolitan areas with highly productive shale deposits or those located close to them prospered.

A negative factor for economic growth across a swath of metropolitans was a high dependence on mining activity, principally coal mining. A combination of natural gas and renewables gaining share in the electricity generation industry has caused coal's share of the energy portfolio to plummet. Metropolitan areas with adjacent communities dependent on agricultural crop production have witnessed slower economic growth. Prices of agricultural products dropped since 2014, harming economic fortunes of agricultural-based communities—most of whom reside in the American Heartland.

The escalation in tariffs to 25 percent on \$200 billion of Chinese imported goods imposed by the Trump administration, and China's retaliation of 25 percent on \$60 billion of U.S. goods, threatens to disrupt supply chains and increase the prices of intermediate and final business and consumer goods. Many metropolitan areas will witness substantial dislocations to their economic performance. Heartland communities will bear a double-burden—to manufacturing exports, and exports of agricultural commodities such as soybeans. It is in the best interest of both China and the U.S. to reach a compromise agreement. Otherwise, Chinese and U.S. communities will pay a hefty price.

Structural Characteristics

Structural characteristics of metropolitan areas differentiate top performers from the rest of the pack. Metropolitan areas with leading research universities and four-year colleges embedded within their business milieu recorded exemplary economic gains, holding other factors constant. Research universities are increasingly critical to metropolitan performance as their fundamental output—knowledge—is central to an economy driven by innovative endeavors.

A strong culture of entrepreneurship, buttressed by numerous public and private groups, boosted the performance of the overall metropolitan leaders. Metropolitan areas that support the expansion of entrepreneurs and small businesses are more dynamic and resilient in the face of structural change. Incubators, accelerators and a variety of spaces that provide services to new or recently established firms are important. Supporting this conclusion is that just four metros among the top 30, and 12 out of the top 100 have a young firm share below the average of all metropolitan areas.



Providing early-stage finance such as crowdfunding, angel investors and venture capital fuels startup activity and scale-up. Angel investors, and venture capitalists in particular, provide not mere money, but smart money. They bring expertise in management, product development and marketing. Moreover, they provide partnering opportunities. Metropolitan areas with a portfolio approach to economic development perform better over the long term.

Metropolitan areas with multiple community colleges developing curriculum geared to requirements of local employers gain a competitive advantage. Smaller metropolitan areas located closest to large metropolitan areas that are exhibiting stronger economic growth share in that prosperity. Stronger economic linkages create a spillover effect. The arts, cultural, recreational and lifestyle amenities provide substantial advantages for metropolitan areas. They retain more residents who might otherwise seek career opportunities in other locations.

Heartland Implications

While the Heartland has several metropolitan areas among the top performers, most metropolitan areas need to participate more fully in the knowledge-based economy. Technology sectors are underrepresented, too many economic development resources are devoted to smokestack chasing (heavy manufacturing recruitment), and too little emphasis is placed on supporting entrepreneurs. Financiers must become comfortable investing in early-stage firms in non-traditional sectors and more research universities need to embrace and pursue commercialization as a key component of their mission. The educational attainment and skills of residents must advance. A compelling narrative over the advantages of Heartland locations such as lower housing costs needs to be developed and conveyed for retaining and recruiting talent.

INTRODUCTION

Metropolitan Statistical Areas capture the preponderance of economic activity in the United States. If metropolitan areas are not performing well, growth in the American economy will stagnate. Further, innovative activities such as research and development, and patenting are concentrated in metropolitan areas. The long-term potential output of the U.S. is underpinned by the mechanisms determining economic growth at the metropolitan level. Consequently, it is critical to discern those factors and share best practices of top-performing metropolitan areas so that other regions can evaluate whether emulating some best practices could boost their economic performance.

The Most Dynamic Metropolitan Index is an objective measure of the economic vibrancy of metropolitan areas across the nation. The Most Dynamic Metropolitan Index seeks to provide fact-based metrics on near-term and medium-term performance and prospects for long-term growth. There is a variety of potential applications for this index. The index allows economic development officials the ability to monitor their metro's vitality relative to others on a national basis or within their region and state. While international and national economic and geopolitical factors can influence growth patterns, the index provides an objective measure of whether local development strategies have the desired effect. Additionally, Most Dynamic Metropolitan Index aids public-policy groups, elected officials, academics and other researchers and businesses in monitoring and assessing metropolitan dynamism across the nation. If economic outcomes are not benchmarked, it is difficult to understand how a region is performing. Most Dynamic Metropolitan Index provides that benchmark, allowing change-agents to discern and address economic weaknesses.

Metropolitan areas can pursue a variety of economic development strategies to achieve their goals for business expansion, job creation, income generation and expanding their tax base. Each metropolitan area must establish its pathway forward but should be aware of what factors have contributed to the success of other communities. We believe that the Most Dynamic Metropolitan Index provides additional information to assist metropolitan areas in improving their economic performance. The written analysis in this document is very detailed and provides a thorough perspective on what is working.

We utilize the metropolitan statistical area definitions developed by the U.S. Office of Management and Budget (OMB), based upon the most recent U.S. Census of 2010. A metropolitan statistical area (MSA) is defined as a region having a large population nucleus with an adjacent population bearing a strong degree of economic and social interaction, including such measures as commuting patterns. Metropolitan areas are groups of counties. Data availability allows us to include 379 MSAs in our analysis.

The Most Dynamic Metropolitan Index rankings are generated using performance-based metrics such as job growth, wage and Gross Domestic Product (GDP) gains and a new metric, the proportion of total jobs at young firms. The set of criteria is consistent with that used in our Most Dynamic Metropolitan Index.¹ This measure captures which metropolitan areas are building economic opportunity for their residents and for those that might desire to in-migrate. Our index is comprised of three types of metrics: recent economic development metrics and backward-and forward-looking metrics of longer-term economic development.

Measures of recent economic development are 2016-2017 average annual pay growth, 2016-2017 real GDP growth, 2017-2018 job growth and job growth over the most recent 12-months ending in December 2018. Measures of longer-term economic development are the 2017 level of per-capita personal income, 2013-2017 growth in average annual pay, 2013-2017 growth in real GDP, 2013-2018 job growth and the 2016 ratio of employment at firms five years or younger to employment at all firms (young firm employment ratio). The level of per-capita personal income can be viewed as a measure of longer-term economic development because it is the stock of all prior welfare improvements.

The young firm employment ratio has implications for future economic growth as new firms develop new products and drive innovation. It provides information on the ability of entrepreneurs to start new businesses and scale them—critical for future job and wage gains. The time period of each metric is restricted to data



availability, with the most recent data incorporated and longer-term growth rates having as close to a five-year span as possible.

We standardize all metrics via z-scores. That is, we calculate the mean and standard deviation of a metric across all metropolitan areas, subtract the mean of the metric from each metropolitan area's metric value, and divide that difference by the standard deviation of the metric. The result is a number telling us how many standard deviations above the mean (positive z-score) or below the mean (negative z-score) a metropolitan area's metric value is. A metropolitan area's index value is its average z-score across all nine economic development metrics. If a metropolitan area has a positive average z-score, then, on average, it performs better than the mean metropolitan area for each metric.

While most of our metrics are commonly used indicators of economic development, the young firm employment ratio is a relatively new measure. We use factor analysis to test our hypothesis that the ratio is an indicator of longer-term economic growth. Factor analysis is a statistical tool that can derive categories, called factors, from several variables by finding the ways clusters of variables move together. A factor analysis on all of our metrics tells us that we generally have the two factors we claimed to have above: one closely relating to variables such as 2016-2017 growth in average annual pay and 2017-2018 job growth. The second most closely relating to per-capita personal income, 2013-2017 growth in real GDP, 2013-2017 average annual pay growth and the young firm employment ratio. Thus, our hypothesis regarding the young firm employment ratio seems valid.

Beyond the new firm employment ratio, we incorporate new data on regional price parities from the Bureau of Economic Analysis (BEA). These regional price parities are indexes indicating whether goods and services are generally more or less expensive than the national average. Therefore, the indexes can be used to adjust income measures for differing inflation rates and differing levels of purchasing power across regions.

MEASURE TABLE

Measure	Time Period	Source
Young Firm Employment Ratio	2016	Census Bureau
Per-Capita Personal Income	2016	Bureau of Economic Analysis
Medium-Term Job Growth	2013-2018	Bureau of Labor Statistics
Short-Term Job Growth	2017-2018	Bureau of Labor Statistics
Short-Term Job Momentum	Dec. 2017-Dec. 2018	Bureau of Labor Statistics
Medium-Term Average Annual Pay Growth	2013-2017	Bureau of Labor Statistics
Short-Term Average Annual Pay Growth	2016-2017	Bureau of Labor Statistics
Medium-Term GDP Growth	2012-2017	Bureau of Economic Analysis
Short-Term GDP Growth	2016-2017	Bureau of Economic Analysis



OVERVIEW

Many of the top performing metropolitan areas share common industry and structural characteristics, separating them from lower performers over the evaluation period. Perhaps the most important differentiator was the degree to which metropolitan areas participated in knowledge-intensive, high value-added industries that hire an above average share of employees in STEM and invest more than the average share of revenues back into research and development. This manifests itself in high-tech service categories such as professional, scientific and technical services, along with information services and bioscience areas. West Coast metros benefitted the most from this industry composition, but some East Coast and Heartland locations are among the mix.

Industry Characteristics

Metropolitan areas with flourishing professional, scientific and technical services were boosted in the rankings. These include categories such as scientific research services, engineering services, accounting and business management consulting services. Professional, scientific and technical services have been among the fastest-growing industries since 2012. Metros with a high concentration of these activities were bolstered by the secular shift underway in the national economy. Examples of communities include San Jose, Austin, San Francisco, Seattle, Provo, Fort Collins, Boulder and Denver. Professional and technical services serve as important anchors for communities with a high concentration as they pay above-average wages and provide strong economic spillovers. Professional, scientific and technical services shape growth across a broad swath of communities.

Information and communication services, data processing services and hosting services, cloud-based software, data visualization software, computer systems design, Artificial Intelligence (AI) and machine learning, mobile applications, web design, internet publishing, social media, digital media and gaming software are another group of industries propelling growth in many metropolitan areas. These sectors are creating high-paying jobs at a prolific rate in the United States as the demand for these activities proliferates. These industries have a high multiplier effect on local economies. In many cases, three to four other jobs generate by one job in these sectors. Metros with a strong concentration, and the ability to expand them, are reaping the rewards. At the top of this list is San Francisco, closely followed by Seattle, Austin, Provo, Nashville, Boulder, Denver and Boston.

Other key industries differentiating the top from the bottom performers are biomedical and the life sciences. The demand for cures to disease, effective treatment options and monitoring ongoing chronic conditions are driving research into drugs, diagnostics and a range of medical devices. This research requires extensive scientific, medical and technical expertise. Most of these occupations pay in excess of \$150,000 annually. All of these metros have university research centers with expertise in the life sciences, especially in biotechnology. For example, in the Seattle metro area, life science and engineering research and development are almost 14 times greater than the U.S overall. San Francisco, San Jose, Raleigh, Austin, Nashville, Boulder and Boston have



large concentrations of these biomedical activities.

A rebound in high-tech and advanced manufacturing since the Great Recession has thrust many metropolitan economies forward. Semiconductors, electronic instruments, computers, communications hardware such as routers and switches, energy-related cleantech, aerospace and aircraft, automotive, battery manufacturing, industrial control systems and material sciences are among high-tech manufacturing. The high-wage occupations associated with these industries have strong ripple effects across the regional economy. Furthermore, they provide middle-class jobs for many technical professions that do not require a four-year college degree. Boise City, Reno, Dallas, Midland, Michigan, Austin, Dallas, Seattle, Provo, Nashville and San Jose are among those metros supported by the expansion in these manufacturing sectors.

Travel and tourism, recreation and lifestyle activities have advanced at a strong pace in recent years. Travel and tourism purchases were delayed during the Great Recession of 2007-2009. Pent-up demand for travel and tourism generated and when the economy improved, these deferred purchases accelerated. This was especially the case for tourism-destination locations where visitors travel long distances to enjoy their amenities. The resurgence in these sectors was aided by the preference for experiential experiences of millennials. The Millennial age cohort allocates less of its consumption toward hard assets and more toward soft amenities.

At the top of the list of places benefitting from travel and tourism, recreation and lifestyle activities is Heartland-located Elkhart-Goshen, Indiana. This might seem counter-intuitive since Elkhart is a manufacturing center. However, Elkhart is the top producer of recreation vehicles in the world, and the demand has exploded. Other smaller metropolitan areas such as Bend, Oregon; Saint George, Utah; Reno, Nevada; Fort Collins, Colorado; Boise City, Idaho, and Coeur d'Alene, Idaho, are in this group. Larger metropolitan areas such as Fayetteville-Springdale-Rogers, Arkansas; Naples, Florida; Cape Coral-Fort Myers, Florida; North Port-Sarasota-Bradenton Florida and Seattle are experiencing gains.

Oil prices recovered from 2012 to 2015 but collapsed again in 2016, harming the economic performance of metropolitan areas with a heavy reliance on exploration and the downstream pipeline. The exception being metropolitan areas with high productivity shale deposits or those located close to them. Overall first-place, Midland, Texas, is the capital of the Permian Basin, the most productive basin in the U.S. Lake Charles, Louisiana, is another metropolitan area reaping rewards, but it is due to having the largest liquefied natural gas export facility in the contiguous U.S. Greeley, Colorado, and Odessa, Texas, are among the beneficiaries, along with Dallas.

A critical restraint on economic advances across a swath of metropolitans was a high dependence on mining activity, principally coal mining. Coal's share of electricity generation has plummeted in recent years as natural gas has replaced it in the generation mix and renewables have gained market share. This has affected metropolitan areas in the eastern and western interior. Charleston, West Virginia, Cumberland, Maryland, and Beckley, West Virginia, are examples of metropolitan areas feeling the ill effects of declining coal production.

Metropolitan areas with adjacent communities dependent on agricultural crop production have witnessed slower economic growth from 2013 to 2018. Prices of agricultural products have fallen since 2014 and harmed the economic fortunes of those agricultural-based communities—most of whom reside in the American Heartland. The trade dispute between the U.S. and China will weigh heavily on whether many metropolitan areas in the Heartland remain less vibrant. China implemented tariffs on imports of American agricultural products in retaliation for U.S. tariffs placed on Chinese imported products. If these trade negotiations lead to a deal, it will benefit communities in the middle of the country.

Structural Characteristics

Key characteristics separating top performing metropolitan areas from their colleagues are structural. Metropolitan areas with leading research universities and four-year colleges embedded within the regional business milieu recorded exemplary economic gains, even after adjusting for other determinants. Research universities become ever more critical to metropolitan performance as their fundamental output—knowledge—

is central to an economy driven by innovative endeavors.² The best create substantial talent, particularly in STEM fields; license their IP to established firms or startups and by business engagement through consulting and sharing tacit information.

Several metropolitan areas with research universities—critical components of their metropolitan area’s innovation ecosystem— were among the leaders in Most Dynamic Metropolitan. These include Stanford, a uniquely entrepreneurial institution assisting to drive the San Jose metropolitan area; the University of Texas-Austin in the Austin metro area; the University of California, Berkeley and University of California, San Francisco in the San Francisco metro area; the University of Washington in Seattle; Brigham Young University in Provo-Orem; Vanderbilt University in Nashville; the University of Colorado-Boulder; Colorado State University in Fort Collins; the University of Arkansas-Fayetteville in Northwest Arkansas; North Carolina State University in Raleigh and the University of Virginia in Charlottesville. These universities, among others, had faculty engaged in the commercialization of their research and founded companies that led to job creation. Much of their impact was in technology-based industries. Additionally, human capital assists in attracting knowledge-intensive firms.

Metropolitan areas with a culture of entrepreneurship supported by numerous public and private groups are among the overall leaders and improved the performance of several others. A measure of entrepreneurship and scale-up success, the share of total employment represented by firms five years of age or fewer, is included in our metrics for Most Dynamic Metropolitan. While it should not be a surprise that metros scoring high on this measure performed well in our index since it is among the metrics, the relationships are intertwined and seemingly causal in nature. By examining other measures of economic performance such as job growth and gains in real GDP, they are closely correlated with metros with a high percentage of total employment at young firms. **Only four metros out of the top 30 and 12 out of the top 100 have a young-firm share below the mean of all metropolitan areas.** Metropolitan areas that support entrepreneurs and small businesses in expanding are more dynamic and resilient in the face of structural change. Incubators, accelerators and a variety of spaces that provide services to new or recently established firms are important.

Access to early-stage financing such as crowdfunding, angel investors and venture capital fuel startup activity and scale-up. Angel investors, and venture capitalists in particular, provide not mere money, but smart money. In other words, they have expertise in management, product development and marketing. Moreover, they provide partnering opportunities. San Francisco and San Jose have access to the densest venture capital located on Sand Hill Road. However, rising venture capital availability in Austin, Denver, San Diego, Seattle and Raleigh is spurring growth. Local angel investors are assisting smaller areas such as Bend, Oregon, and a variety of other Most Dynamic Metropolitan.

Metropolitan areas with a portfolio approach to economic development seem to perform better, in a fashion similar to that found for micropolitan areas. From our Most Dynamic Micropolitans,³ “Communities actively recruiting firms from other locations to relocate or start local establishments appear to achieve stronger economic growth. In addition, their approach supports indigenous expansion and startup activity. Communities with economic development officials actively engaged in scanning for best practices in regulatory and tax policies, technical assistance, strategies for workforce development and business retention and recruitment exhibit stronger economic growth.”⁴

Metropolitan areas with multiple community colleges developing curriculum geared to requirements of local employers seem to gain a competitive advantage. Employers must adjust to alternations in skill requirements within their industries to be competitive. Community colleges that quickly adapt curriculum lend support to their students in obtaining local employment. Apprenticeship programs established at local firms linked to the curriculum at community colleges and certification programs assist retention of graduates.

Smaller metropolitan areas located closest to large metropolitan areas that are exhibiting stronger economic growth share in that prosperity. Stronger economic linkages create a spillover effect. Access to sophisticated business services, adjacent angel and venture capital availability, supply-chain relationships and numerous other interactions explain the advantages of proximity. On average over the period of study, large metropolitan areas (population of one million or above) recorded higher economic advances than smaller ones.



The arts, cultural, recreational and lifestyle amenities provide substantial advantages for metropolitan areas; in particular, research points toward smaller communities that emphasize them early during the growth cycle reach a 750,000-population threshold sooner. They retain more residents who might otherwise seek career opportunities in other locations. Quality of place also includes good K-12 education, access to quality health care, crime rates and a variety of other factors. A growing body of evidence suggests a correlation between arts and culture and economic success.

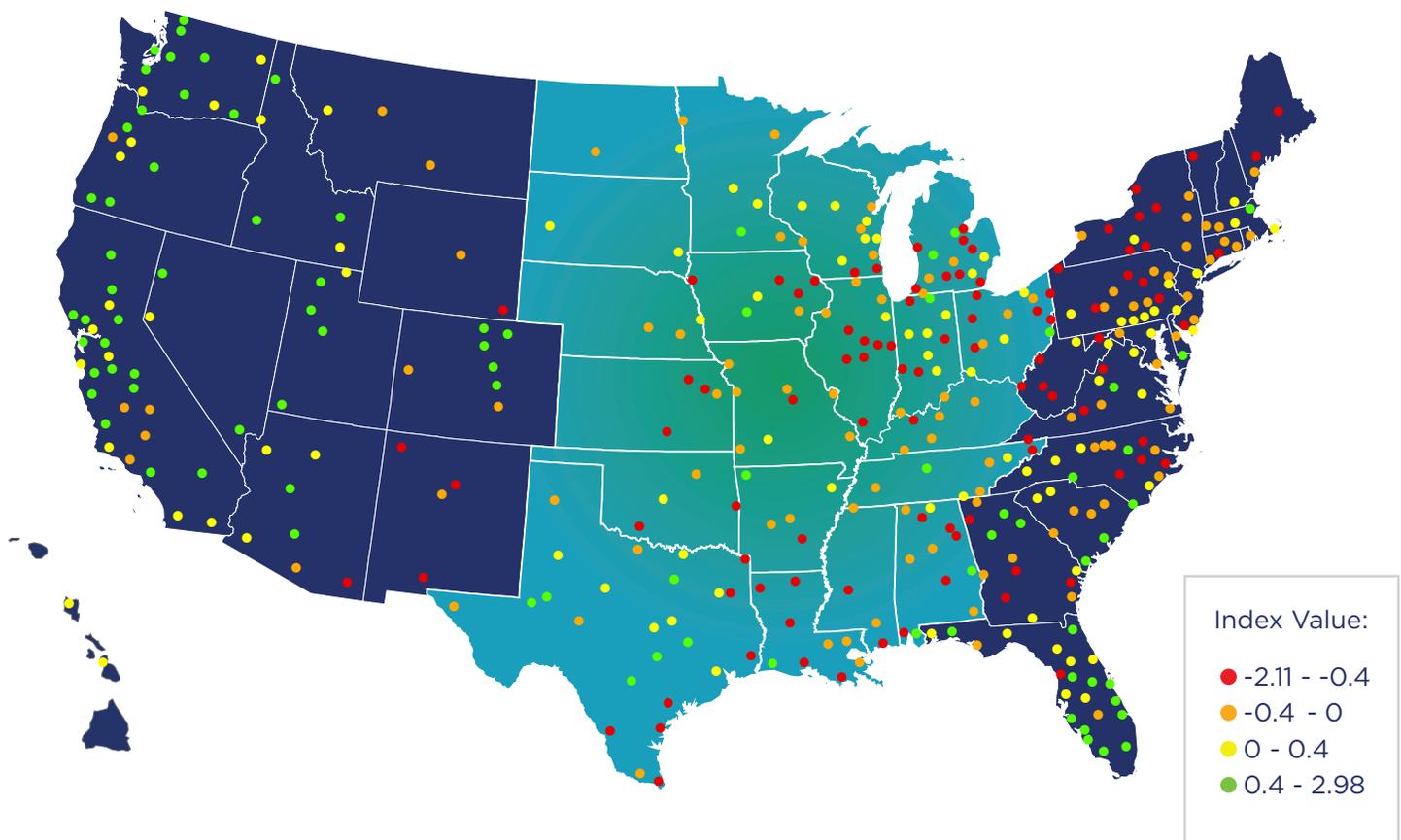
Figure 2 displays a map of all 379 metropolitan areas included in our analysis. The map breaks performance into quartiles, with the bounds of each quartile adjusted within a few hundredths to ease interpretation. Green dots mark the metros in the top quartile. The second quartile is demarcated by yellow, the third quartile by orange and the fourth quartile, by red. The pattern of colored dots is explained by the combination of the industry and structural characteristic highlighted above. Eighteen metropolitan areas in the Heartland are in the top quartile; if they represented their share among all metros in the nation, there should be 38.

Figure 4 displays the large metropolitan areas (population one million or above) represented by their distribution among all metros. Most striking is that only one large metro is in the bottom quartile of performers, while 23 are in the top quartile (their proportionate number would be just eight). The Heartland has five metros in the top quartile. All but two of the large Western metros are in the top quartile, while 11 are in it.

Figure 5 displays the medium metropolitan areas (population 500,000 to 999,999) represented by their distribution among all metros. The Heartland has two out of 18 medium metros in the top quartile, while the Western metros have 12 out of 16 medium metros in it.

Despite a substantially lower number of small metros in the West than in the Heartland, the West had 26 among in the top quartile, while the Heartland had just ten (see Figure 6).

Figure 2: Quartiles - All Metros



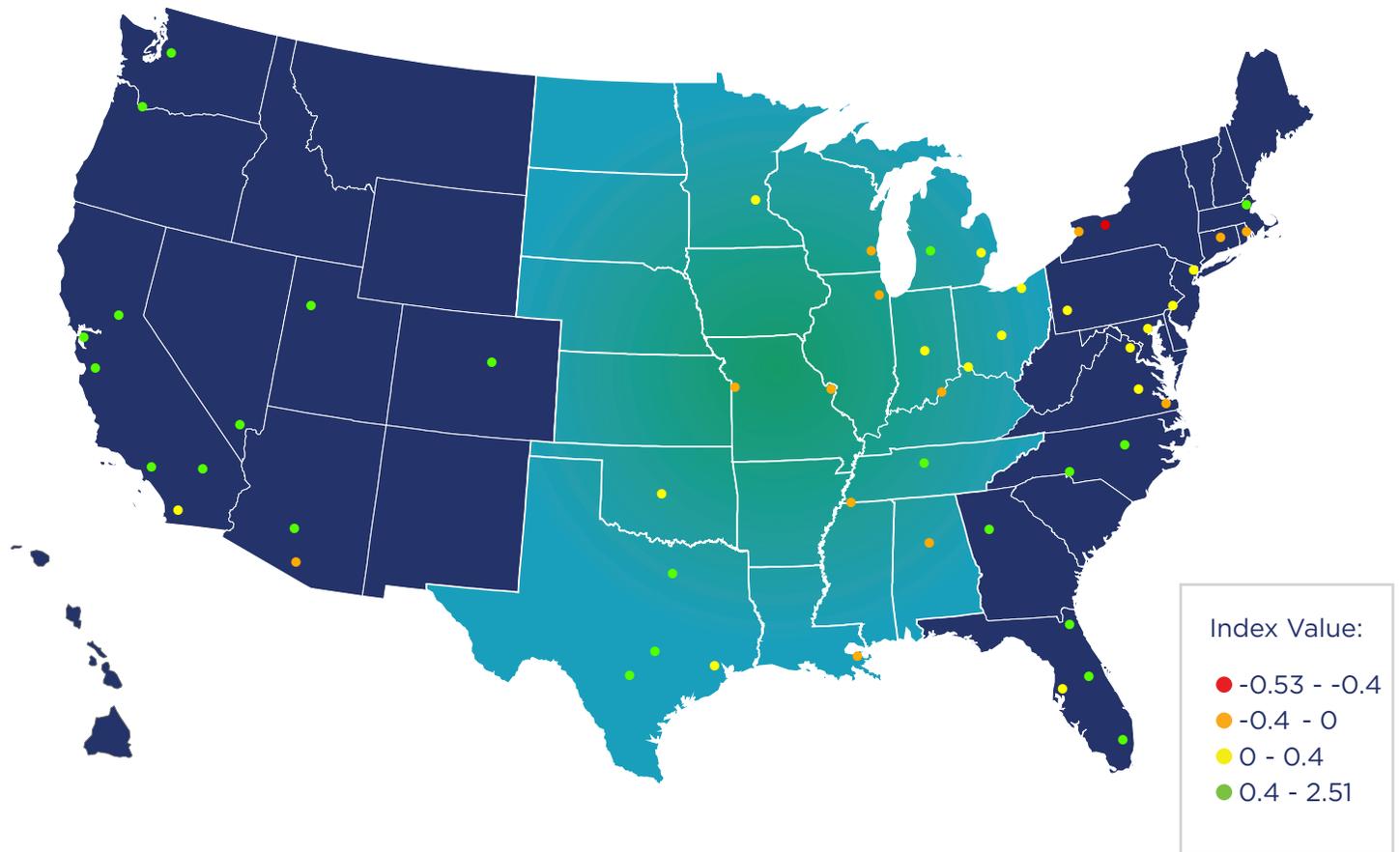
Note: The bounds of each quartile have been adjusted within a few hundredths to ease interpretation.

Figure 3: Top 30 Metropolitans

Rank	Index Value	Metro
1	2.9795	Midland, TX
2	2.5132	San Jose-Sunnyvale-Santa Clara, CA
3	2.4351	Midland, MI
4	2.1555	Elkhart-Goshen, IN
5	1.9654	Bend-Redmond, OR
6	1.7048	St. George, UT
7	1.6149	Austin-Round Rock, TX
8	1.6085	Greeley, CO
9	1.4944	San Francisco-Oakland-Hayward, CA
10	1.4283	Seattle-Tacoma-Bellevue, WA
11	1.3911	Reno, NV
12	1.3892	Provo-Orem, UT
13	1.3178	Lake Charles, LA
14	1.3141	Fort Collins, CO
15	1.2092	Gainesville, GA
16	1.1081	Wenatchee, WA
17	1.0965	Fayetteville-Springdale-Rogers, AR-MO
18	1.0567	Naples-Immokalee-Marco Island, FL
19	1.0241	Cape Coral-Fort Myers, FL
20	0.9299	Boise City, ID
21	0.9182	Mount Vernon-Anacortes, WA
22	0.9048	Boulder, CO
23	0.8959	North Port-Sarasota-Bradenton, FL
24	0.8870	Coeur d'Alene, ID
25	0.8387	The Villages, FL
26	0.8372	Nashville-Davidson--Murfreesboro--Franklin, TN
27	0.8301	Dallas-Fort Worth-Arlington, TX
28	0.8268	Raleigh, NC
29	0.8234	Redding, CA
30	0.8233	Charlottesville, VA



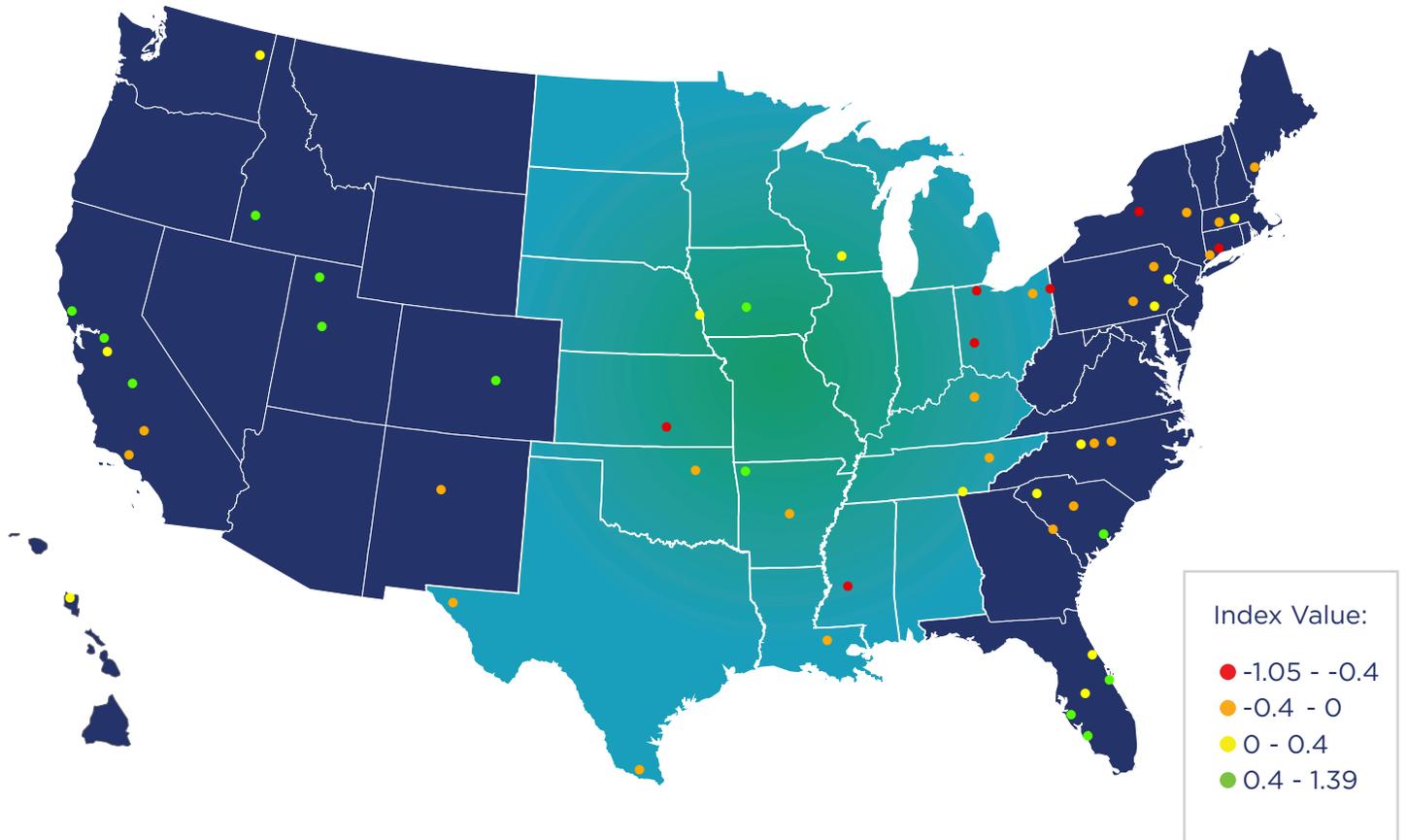
Figure 4: Quartiles - Large Metros



LARGE (Population of 1,000,000 or more)

Rank	Index Value	Metro
1	2.5132	San Jose-Sunnyvale-Santa Clara, CA
2	1.6149	Austin-Round Rock, TX
3	1.4944	San Francisco-Oakland-Hayward, CA
4	1.4283	Seattle-Tacoma-Bellevue, WA
5	0.8372	Nashville-Davidson-Murfreesboro-Franklin, TN
6	0.8301	Dallas-Fort Worth-Arlington, TX
7	0.8268	Raleigh, NC
8	0.7857	Denver-Aurora-Lakewood, CO
9	0.7429	Orlando-Kissimmee-Sanford, FL
10	0.5800	Boston-Cambridge-Newton, MA-NH

Figure 5: Quartiles - Medium Metros

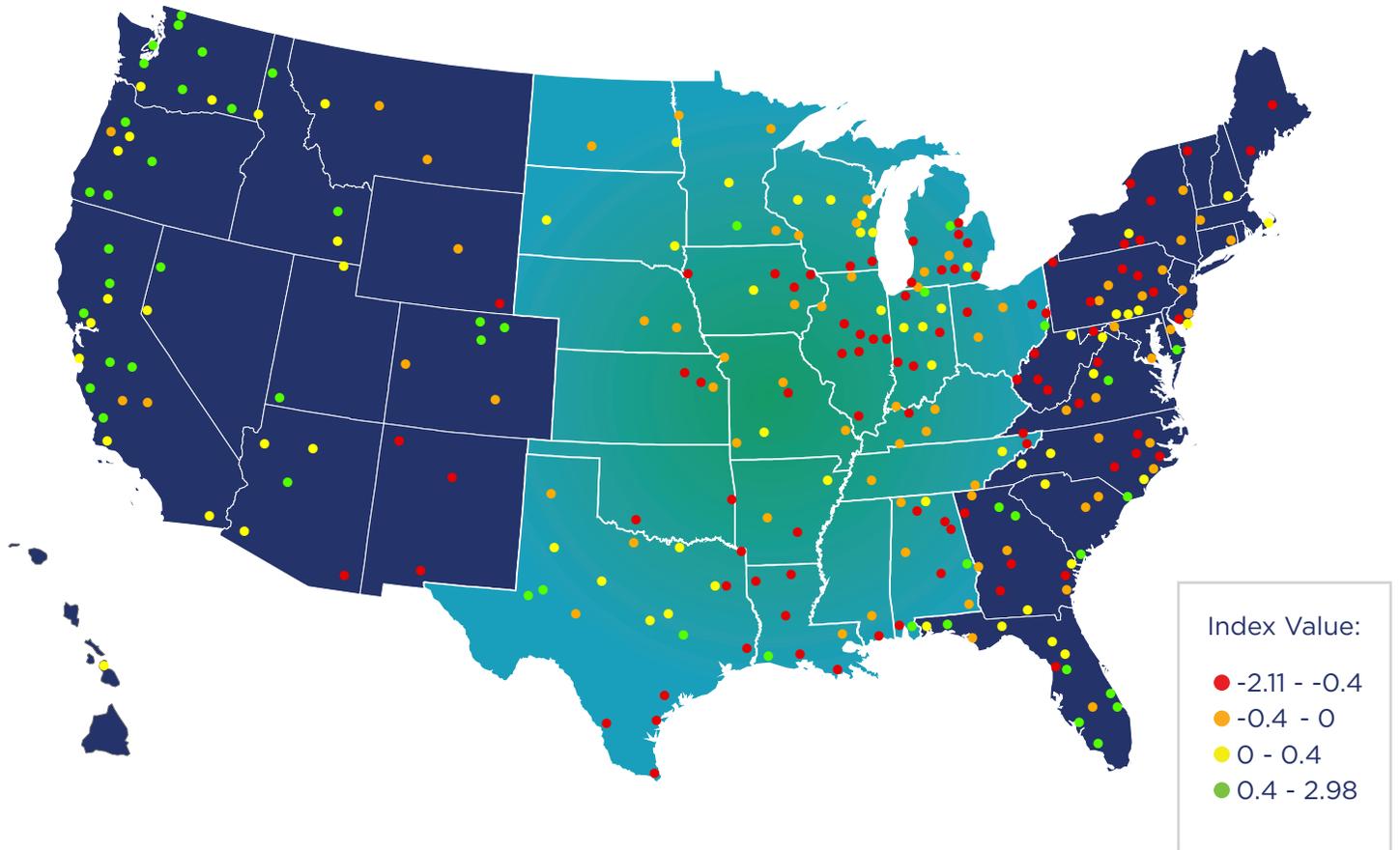


MEDIUM (Population of 500,000 to 999,999)

Rank	Index Value	Metro
1	1.3892	Provo-Orem, UT
2	1.0965	Fayetteville-Springdale-Rogers, AR-MO
3	1.0241	Cape Coral-Fort Myers, FL
4	0.9299	Boise City, ID
5	0.8959	North Port-Sarasota-Bradenton, FL
6	0.7967	Colorado Springs, CO
7	0.7619	Santa Rosa, CA
8	0.7143	Charleston-North Charleston, SC
9	0.6476	Palm Bay-Melbourne-Titusville, FL
10	0.5726	Des Moines-West Des Moines, IA



Figure 6: Quartiles - Small Metros



SMALL (Population of 499,999 or less)

Rank	Index Value	Metro
1	2.9795	Midland, TX
2	2.4351	Midland, MI
3	2.1555	Elkhart-Goshen, IN
4	1.9654	Bend-Redmond, OR
5	1.7048	St. George, UT
6	1.6085	Greeley, CO
7	1.3911	Reno, NV
8	1.3178	Lake Charles, LA
9	1.3141	Fort Collins, CO
10	1.2092	Gainesville, GA



**MOST DYNAMIC
METROPOLITANS**



#1 Midland, Texas

Founded as the midway point between Fort Worth and El Paso on the Texas and Pacific Railroad in 1881, **Midland, Texas**, takes the top position in our foundational Most Dynamic Metropolitan Index. The economic performance of Midland is exceptional—not only is it the fastest-growing metropolitan area, it is expanding at a pace more rapid than any micropolitan area in the United States as well, with a labor force that increased by over eight percent in 2018.

Our analysis shows Midland had consistent high-performance metrics. It hailed first in two categories: job growth in 2018 and job growth between December 2017 and December 2018. It ranked in the top 10 in four other index components: third in the growth of average annual pay in 2017; fourth in per capita income in 2016; seventh in real GDP growth in 2017 and eighth in the proportion of total employment at young firms. For the statisticians among our readers, Midland's performance was three standard deviation units above the mean of all metropolitan areas. For those less versed in statistics, that is an extremely low probability occurrence. Midland is the capital of the Permian Basin that produces one in five barrels of oil in the U.S.⁵ The explosion in shale oil exploration activity is driving the economy and the Tall City is the most reliant on oil activity in the nation.⁶

Less than a decade ago, the Permian Basin was viewed as an oil reservoir in remission and Midland had witnessed its best days. The fortuitous simultaneous development of horizontal drilling technology and advances in hydraulic fracturing techniques, combined with some of the thickest shale deposits in the U.S., have changed the fortunes of Midland and the communities of the Permian Basin. In 2018, Permian oil production increased by over a million barrels a day. Production has jumped by 400 percent since 2010. Many believe that production will eclipse the Ghawar field in Saudi Arabia, the world's largest, within three years. Even today, Permian oil production exceeds that of all 14 members of OPEC other than Saudi Arabia and Iraq.⁷ The Midland metro area is 100 times more dependent on the oil and gas extraction industry than the U.S. economy overall. Further, the metro is 73 times more reliant on support activities for mining than the rest of the nation, and five times more reliant than the nation on machinery, equipment and supply merchant wholesalers.⁸

Some Midland officials feel that the boom-and-bust cycles of the past could return. Drilling activity is extremely sensitive to the price of oil. When the price plummets, rigs are withdrawn and the entire supply chain contracts. However, it is likely that exploration activity in the Permian will not be as sensitive to oil price declines in the future. New technologies and techniques have brought the break-even price to around \$33 per barrel from over \$60 from just a few years ago.⁹ This has convinced majors such as Chevron, Exxon Mobil, BP and Shell to make significant new investments in the Permian despite the decline in oil prices in November 2018. Chevron has increased its production projection from 650,000 barrels per day to 900,000 by 2023. Chevron believes that close to 20 percent of its worldwide oil production will originate in the Permian by 2021.¹⁰

Gross Metro Product rose an estimated 8.8 percent in 2018 after jumping 14.8 percent in 2017. The unemployment rate averaged 2.5 percent for the 2018 calendar year and fell to 2.3 percent in December 2018. The multiplier effect of oil exploration on the supply chain and the induced effect on ancillary services through income

gains are substantial. Average annual earnings in oil exploration in Midland was \$91,000 in 2017, double the non-energy wage. High wages are paid to professionals at petroleum engineering service firms like BCKK Engineering, Dawson Geophysical Company and Hy-Bon Engineering because they possess specialized knowledge on the latest technological advances in geologic sciences used in the fracking industry. Specialized software firms, such as Enertia Software, support oil exploration, and are part of the dense cluster of activity.¹¹ According to S&P Global Platts, the expansion of oil pipeline transmission capacity will bring an anticipated 2.6 million barrels per day, providing another source of growth for the Midland area. The existing infrastructure is unable to transport the added oil production and much of it is going into local storage facilities, which are full.

Besides oil, ranching, agriculture, healthcare and transportation remain economic pillars; however, focused efforts on diversifying its economy are underway in Midland. Aerospace has emerged as an important engine of its economy. The Midland Altitude Chamber Complex supports the testing and qualification of space and pressure suits, payloads, components and trains new flight crews. RBC | Sargent Aerospace & Defense, a leading provider of precision-engineered customized components and aftermarket aviation services, has expanded in the metro area, along with several other aerospace suppliers establishing operations. As demand in aerospace has increased so has the need for information technology service firms. Percento Technologies has located in the metro area.

Both non-residential and residential construction have been primary beneficiaries of the spillover effects of oil exploration. The real value of total building permits surged by 38 percent in 2018—the highest since the previous peaks in 2013 and 2014. The rapid growth has forced many oil-related workers to live in temporary man-camps.¹² In December 2018, construction employment rose 7.2 percent from the same period in 2017. Single-family permits rose 34 percent in 2018 to 1,722 units. The Case-Shiller house price index rose 9.0 percent in 2018. Affordability is becoming an issue for many residents.

Consumer spending has grown at a rapid clip. Real retail sales increased by 35 percent in 2018 and auto purchases jumped by 32 percent—to the highest level on record.¹³ Several new restaurants are planned for 2019 as leisure and hospitality spending is growing. Hotel occupancy taxes advanced by 62 percent through October 2018 from the same interval in 2017.

Based upon the Longitudinal Employer-Household Dynamics, Quarterly Workforce Indicators, Midland is eighth in the nation in the percentage of total employment represented by young firms. Texas Governor Greg Abbott made a claim in January 2017 during his State of the State address that Midland generates more jobs attributable to startups than San Francisco. This led to an investigative search by politifact.com. Based upon 2014 Census Bureau information, it concluded that startups in San Francisco were responsible for 2.3 percent of total jobs while startups in Midland accounted for 4.5 percent.¹⁴ The analysis concluded that San Francisco excelled relative to Midland in the proportion of jobs at new technology firms.

Every thriving smaller community has a female entrepreneurial-success story which serves as a role model for others. Midland has Susie Hitchcock Hall, founder and owner of Susie's South Forty Confections, a maker of custom candies, and well known for its Texas Pecan Toffee that ships around the world.¹⁵ The Roden Entrepreneurial Development Center at the University of Texas, Permian Basin (UTPB) promotes building entrepreneurial skills. The program helps students develop a common frame of reference for the commercialization of innovative ideas best described as "Real Business" projects.¹⁶ UTPB has an Entrepreneurial Challenge that is a business plan competition. After qualification, entrants have access to pertinent resources like one-on-one business coaching. Midland also supports black businesses with the African American Chamber of Entrepreneurs, Inc.

Midland has a vibrant art and cultural scene that attracts and retains skilled workers and their families. The Midland Performing Arts Center is regarded as one of the best for a community of its size, and is home to the known Midland Symphony Orchestra. The Midland Chamber of Commerce is a key player in the economic growth of the community as it promotes quality of place with a primary focus on business development.



MIDLAND, TEXAS

2017 Population	170,675
Size Group	Small
Overall Z-Score	2.9795
Overall Ranking	1 st
Size-Group Ranking	1 st

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	8 th	6 th
Per-Capita Personal Income	4 th	3 rd
Medium-Term Job Growth	44 th	20 th
Short-Term Job Growth	1 st	1 st
Short-Term Job Momentum	1 st	1 st
Medium-Term Average Annual Pay Growth	96 th	74 th
Short-Term Average Annual Pay Growth	3 rd	3 rd
Medium-Term GDP Growth	14 th	8 th
Short-Term GDP Growth	7 th	7 th



#2 San Jose-Sunnyvale-Santa Clara, California

Many were prepared to declare that Silicon Valley was passé;¹⁷ however, its unparalleled technology innovation ecosystem placed **San Jose-Sunnyvale-Santa Clara, California**, second in our Most Dynamic Metropolitan areas and tops among metros with a population above one million. Economic growth slowed in 2017, but a burst of activity has pushed it back among the top job creators in the country. Year-over-year job growth, between December 2017 and December 2018, was 3.3 percent—37th among all metros in the nation and seventh for metropolitan areas with a population over 1 million. San Jose was first in the nation for the growth of real GDP and second in real average pay from 2012 to 2017. Its innovations in the softer side of technology include: AI, machine learning, cloud computing, data processing and hosting services, web design, social media, blockchain technology and autonomous vehicles that are keeping the region on an expansion path.¹⁸

San Jose performs well in several other metrics included in our analysis. Despite having a median house price of \$1.25 million and one of the highest costs of living in the nation, even after making the adjustments for relative purchasing power, San Jose's per capita income is fifth in the nation. An astonishing 26 percent of San Jose households earn more than \$200,000 annually and 39 percent earn \$150,000 or above.¹⁹ San Jose is 84th on the proportion of total employment at young firms; perhaps lower than might be expected, but it is the high share within the technology fields that distinguish San Jose from other regions. The high-skilled workforce fuels, and is fueled by, the symbiotic relationship that exists with the broad employment category of professional, scientific and technical services, the largest category in the San Jose metro. Between 2012 and 2017, professional, scientific and technical services added 32,600 jobs. Even with weaker gains in this category in 2017, growth in average annual pay was sixth in the nation.

Other information services created 21,600 jobs from 2012 to 2017, the most of any metro in the nation, and the preponderance were in cloud computing. The startup scene is still hot in this category, in 2017 alone, 5,800 new positions were added to this sector. One rapidly growing startup in this space is Cohesity, Inc.; the firm quadrupled its global employees over the past year.²⁰ Cohesity believes its growth prospects are so strong that it committed to additional space, permitting it to double its workforce again. Even traditional communications equipment makers are entering this market with Broadsoft, a communications software firm, acquired by Cisco for \$1.9 billion in late 2017.²¹

San Jose's success is driven by its ecosystem of innovation and entrepreneurship. Stanford is a bedrock of Silicon Valley's high-quality university research and commercialization with a unique breed of entrepreneurial undergraduates, graduate students and faculty fueling its economy. San Jose State University has one of the top-ranked computer sciences programs in the country courtesy of major tech firms' investments. These companies and smaller tech firms hire the computer programming talent that San Jose State produces—making it an underappreciated member of the Silicon Valley ecosystem. Santa Clara University and the nearby University of California, Berkeley are important institutions in the cluster. Tech stalwarts Alphabet, Apple, Cisco, Facebook, Hewlett-Packard, Intel and Oracle invest a high share of their revenues back into R&D in an attempt to keep ahead of newly emerging competition that might disrupt their current lines of business (see Figure



6 for a list of the top employers in the San Jose metropolitan area.) Further, they invest in early-stage firms (captive venture capitalists (VCs) that they may later acquire to develop a new product or service offering.

Many employees of large tech firms go on to establish their own enterprises, underpinning an entrepreneurial culture. A disproportionate share of these tech entrepreneurs was foreign-born. Studies performed by Joint Venture Silicon Valley indicate that approximately 40 percent of tech firms had a least one founder that was foreign-born. Research and development (R&D), technology transfer, patenting, angel investing, venture capital, management talent, initial public offerings (IPOs), mergers and acquisitions (M&A) and market capitalization are the capstones of the regional innovation ecosystem.²²

Around 15 years ago, venture capitalists from Silicon Valley publicized that they were often traveling abroad looking for attractive investment opportunities; many now hold the view that staying within a 50-mile radius of Sand Hill Road is a more efficient use of their time.²³ Most do not want to fly to the center of the U.S. It is hard to argue with this perspective as the density of knowledge creation in Silicon Valley provides numerous opportunities for investing and they can manage a broader portfolio of firms. Talent and the ongoing creation of human capital at California universities fuel this growth, in addition to technical expertise coming from abroad. Data from the Census Bureau for 2017 show that 51 percent of the region's residents 25 or older have graduated from college. A remarkable 24 percent hold an advanced degree, contrasted to only 12 percent in the U.S. population overall. Venture capital funding became even more concentrated in Silicon Valley and the surrounding region in 2018. Silicon Valley and San Francisco venture capital investments reached \$50 billion (\$19 billion in Silicon Valley) in 2018 representing 45 percent of all venture placements in the nation.²⁴ Internet-related firms recorded 38 percent of VC placements in Silicon Valley in 2018. However, early-stage angel investing declined substantially in 2018, indicating that the next generation of tech firms may not evolve at the same pace.

Rapid growth among tech firms is spurring demand for office, industrial and retail space. Tight office occupancy rates and the attendant rise in rent is inducing developers and large tech firms to add space. A wave of firms announcing expansions are led by Facebook, Google, Apple and Nvidia.²⁵ For example, Google has received approval to demolish 872,000 square feet at North Bayshore to build more than 2 million square feet in its place. In addition, construction continues at Google's new campus at Charleston East near Diridon Station. It plans on adding 20,000 jobs in the immediate area by 2035.²⁶ However, several tech titans such as Cisco have announced layoffs, with Cisco's coming as it moves from a communications-plumbing firm to a communications software networking company.

The friction generated by the scale of economic activity located in a dense peninsula is causing the centrifugal forces to limit future growth. As Silicon Valley added 34,000 jobs in 2018, it built just 12,000 new housing units. Developers face the challenge of ongoing opposition to necessary housing. Residents fear that more housing will lead to even-greater congestion problems. Since 2010, apartment rents have risen by 54 percent.²⁷ Because housing costs are beginning to outstrip compensation gains for many workers, Silicon Valley had a net domestic migration of negative 22,900 in 2017. What has become a challenge for Silicon Valley is now becoming an opportunity for non-coastal sections of the country with lower housing costs.

SAN JOSE-SUNNYVALE-SANTA CLARA, CALIFORNIA

2017 Population	1,998,463
Size Group	Large
Overall Z-Score	2.5132
Overall Ranking	2 nd
Size-Group Ranking	1 st

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	84 th	9 th
Per-Capita Personal Income	5 th	1 st
Medium-Term Job Growth	22 nd	6 th
Short-Term Job Growth	28 th	5 th
Short-Term Job Momentum	37 th	7 th
Medium-Term Average Annual Pay Growth	2 nd	1 st
Short-Term Average Annual Pay Growth	6 th	1 st
Medium-Term GDP Growth	1 st	1 st
Short-Term GDP Growth	8 th	1 st

Figure 6: Largest Employers in Santa Clara County

Employers listed alphabetically, * indicates private company headquartered in Santa Clara County

Employer Name	Industry
Adobe Inc*	Publishers-Computer Software Manuf.
Advanced Micro Devices Inc*	Semiconductor Devices Manuf.
Alphabet Inc*	Internet Search Engines
Apple Inc*	Electronic Computer Manuf.
Applied Materials Inc*	Semiconductor Machinery. Manuf.
California's Great America*	Amusement & Theme Parks
Christopher Ranch LLC*	Garlic Production
Cisco Systems Inc*	Computer Peripherals Manuf.
Ebay Inc*	E-Commerce
Flextronics International*	Semiconductor Devices Manuf.
Fujitsu Laboratories of America*	Research & Development Laboratories
Google LLC*	Internet Search Engines
HCL Technologies Ltd	Computer Software Manuf.
Hewlett-Packard*	Electronic Computer Manuf.
Intel Corp*	Semiconductor Devices Manuf.
Intuitive Surgical Inc*	Physicians & Surgeons Equip. & Supplies Manuf.
Lockheed Martin Space Systems	Satellite Equipment & Systems Manuf.
Lumileds Lighting Co*	Lighting Fixtures Supplies & Parts Manuf.
Maxim Integrated Products Inc*	Printed & Etched Circuits Manuf.
Microsoft Corp	Computer Software Manuf.
NASA	Federal Government-Space Research & Tech.
Stanford Children's Health	Hospitals
Stanford School of Medicine	Medical Schools
US Veterans Medical Center	Hospitals

Source: State of California Economic Development Department





#3 Midland, Michigan

Midland, Michigan, claims third in Most Dynamic Metropolitans and second among small metropolitan areas. Its job growth over the past few years has not been as stellar as other top performers, but advances in average annual pay and real GDP place it in the upper echelon. Midland's real GDP growth between 2012 and 2017 was second. However, average annual pay growth over the same interval, and in 2017, were first in the nation. Midland's 2017 z-score for average annual pay growth was roughly 11 standard deviations above the mean of all metropolitan areas. Its primary industry is chemical manufacturing with Herbert Henry Dow moving his fledgling company from his native Canada in 1897. Today's Dow is the result of a combination of material science assets from Dupont, Dow Chemical and Dow Corning.²⁸

Midland, Michigan, became a metropolitan area in 2013. However, Dow has long dominated its economy at 6,100 employees; its workforce accounts for approximately one-half of Midland's manufacturing employment.²⁹ This employment level is down from a few years ago, but the consolidation of material science research, management and operations of the combined organization has resulted in higher average compensation in Midland. As recently as 2015, the average annual earnings in Midland were below the national and Michigan averages, but currently, exceed both after rising \$5 per hour.³⁰

The material science and engineering assets of Dow in Midland are formidable. Dow provides customers with integrated technology platforms primarily serving core packaging, infrastructure and consumer end markets.³¹ Midland is unique for a smaller metro area having the chemical industry play such a dominant role in its economy. Dow is the anchor for a material science and engineering cluster.³² The supply chain effect of Dow's operations in the metro area extends from other manufacturing inputs to a wide selection of professional services. Based upon this tight supply-chain relationship, Dow directly or indirectly supports 18,000 in employment or 43 percent of all jobs in the Midland metropolitan area.

Dow exports more than half of its chemical output produced in the metro area. There have been no material signs of slowing in exports despite its products being subject to retaliatory tariffs from China. In the aftermath of the severe devastation inflicted by the Great Recession in Michigan's heavy manufacturing-dependent economy, former Governor Rick Snyder led a re-engineering of Michigan's tax code that vastly improved the competitive position of large firms based in the state. A Tax Foundation analysis demonstrates that Michigan's corporate tax rate is the eighth most competitive in the nation, a dramatic improvement from ten years ago. Dow has announced plans to convert its Midland manufacturing facility into a multi-company industrial park encompassing 2,600 acres.³³ Further, Dow's new Innovation Center in adjacent Bay County should provide substantial demand for new professional, technical and business services in the area.

Dow has an open and diverse management philosophy as evidenced by its CEO, Jeff Fitterling. Fitterling is a long-time Dow manager and holds the distinction as the second openly gay CEO of a major public company; the first was Tim Cook at Apple.³⁴ Dow has recorded a perfect score on the Human Rights Campaign Foundation's Corporate Equality Index every year since 2005, a strong endorsement of its LGBT-friendly

policies. In conservative Midland, this substantial statement allows Dow to recruit a deep and diverse talent base for the community. More than 40 percent of adults in the metro area have a bachelor's degree or above; it has the highest concentration of PhDs in the nation and more engineers and chemists per capita than any metro area in the nation.³⁵ Further, Midland has one of the highest ratios of patents to the population in the nation. Northwood University-Michigan is the largest four-year degree granting institution, but Central Michigan University and several other major institutions such as Michigan State University are nearby.³⁶

Midland's second-largest employer and part of the University of Michigan Health Systems is MidMichigan Health. Despite some recent year's pullback in health service employment in the community, MidMichigan has displayed its commitment by announcing a \$57 million expansion over the next three years.³⁷ MidMichigan Medical Center features the Neuroscience Institute and Pardee Cancer Center.³⁸ Midland's tight labor force, poses health professional recruiting challenges, it will have to attract staff from other parts of the state and beyond. Nevertheless, this expansion promises diversification of the local economy and should aid in attracting STEM workers for Dow and other employers.

Midland provides entrepreneurial support services for startup and scaleup firms through Midland Tomorrow, a countywide economic development agency. Midland Tomorrow states its goal is "enhancing quality of life for residents through retention and creation of quality jobs and diversification of the economic base."³⁹ The Innovation Center, an incubator/accelerator, provides a variety of educational services such as business planning and marketing to grow their businesses. This includes MITCON, a provider of information technology solutions. Another vital resource is Blue Water Angels, a group of high net-worth investors looking to place capital in promising companies that have prospects to offer a high rate of return.⁴⁰

Midland entrepreneurial support organizations have collaborated to garner several awards like the University of Michigan-Dearborn Center for Innovation Research, a 5-star "best practice" community.⁴¹ Right Answer.com is achieving success in the Software-as-a-Service industry. It delivers data solutions and documentation systems to chemical manufacturers. As recipients of the prestigious Phase 1 and Phase 2 Small Business Innovation Research Awards from the Centers for Disease Control and Prevention, Right Answer.com demonstrates its sophistication. It is developing drug safety information for over the counter medications to assess risks for pregnant mothers. Another client firm, Aberro Creative, is a marketing and advertising agency offering brand identity, graphic design, web design and video services.

Midland's cultural scene is vibrant with the Midland Center for the Arts at its core. It offers a variety of cultural amenities including science, the arts and theater. All the positive qualities ranked Midland nationally by Forbes as a great place to raise a family.⁴²



MIDLAND, MICHIGAN

2017 Population	83,411
Size Group	Small
Overall Z-Score	2.4351
Overall Ranking	3 nd
Size-Group Ranking	2 nd

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	196 th	141 st
Per-Capita Personal Income	71 st	34 th
Medium-Term Job Growth	320 th	214 th
Short-Term Job Growth	348 th	242 nd
Short-Term Job Momentum	229 th	148 th
Medium-Term Average Annual Pay Growth	1 st	1 st
Short-Term Average Annual Pay Growth	1 st	1 st
Medium-Term GDP Growth	2 nd	1 st
Short-Term GDP Growth	5 th	5 th



#4 Elkhart-Goshen, Indiana

Elkhart-Goshen, Indiana's growth, similar to many top micropolitan economies, has been fueled by a rapid expansion in travel, tourism and recreation. This is not surprising as Elkhart is the recreation vehicle (RV) capital of the world and placed fourth in Most Dynamic Metropolitans and third among small metropolitan areas. For example, the motor vehicle body and trailer manufacturing industry's concentration is 191.4 times that of the U.S. overall and the sector employs 30,200 in the metro area and represents 22 percent of total jobs in the metropolitan area.

Elkhart recorded six top-ten positions out of the nine metrics included in the evaluation. It held second in real GDP growth for 2017; third in growth in average annual pay from 2013-2017; fourth in both real GDP growth from 2013-2017 and job growth in 2018; fifth in the growth of average annual pay for 2017; and eighth in job growth from 2013-2017. Elkhart had the highest rate of job growth in the nation from 2009-2017.⁴³ This is, in part, due to the high cyclicity of the RV industry and the dramatic decline in sales and output during the Great Recession. However, there are secular trends underway contributing to the rising popularity of RVs. First, millennials value the experiential economy and have rediscovered the attractiveness of the RV as it permits greater immersion into the terrain of North America, driving sales higher. Second, gasoline prices fell dramatically since 2008 and the fuel efficiency of RV's rose, reducing operating expenses. RV shipments were 321,100 in 2013 and jumped to 504,600 in 2017, a percentage gain of 57.1. One remarkable statistic highlights the importance of the RV industry to Elkhart is that one in two RV's on the road in North America were built in the metro area.⁴⁴ Elkhart exports more than one-fifth of its production, predominately to Canada and Mexico.

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Another way to articulate the importance of the RV industry to Elkhart is to examine the local cluster's supply chain. Household and institutional furniture and kitchen cabinet manufacturing are 16 times more important to Elkhart than the nation overall. Additionally, other wood product manufacturing is 15 times more concentrated in Elkhart than for the nation, while plastic products manufacturing is 20 times more concentrated and architectural and structural metal manufacturing has nine times the concentration.

Thor is the largest RV manufacturer and employs 13,622 in the metro area.⁴⁶ Its recent \$2.5 billion acquisition of Erwin Hymer Group's North American and European operations created the largest RV manufacturer in the world.⁴⁷ It displays powerful Heartland credentials by its 2010 acquisition of the Heartland RV Company. Forest River is another large firm employing 10,000 in the metro area. Further, Lippert Components employs 5,500; specialized in manufacturing galvanized home roofing.⁴⁸ Tying approximately one-third of Elkhart's gross metro product to the RV industry.

This extensive local supply chain, along with other manufacturing operations, results in manufacturing representing 49.8 percent of employment in Elkhart versus 8.5 percent for the nation—resulting in a higher dependence on manufacturing than any other metropolitan area in the nation. The downside is that it makes Elkhart's economy among the most cyclical in the nation. The good news, at 2.8 percent, Elkhart's



unemployment rate is among the lowest in the nation. Moreover, this industry composition contributes to only 11.4 percent of its adult population having obtained a bachelor’s degree.⁴⁹ Community leaders are working to upskill the area’s workforce and address labor shortages by establishing the RV Technical Institute.⁵⁰

The multiplicative effects of the RV industry on the regional economy are extensive. Professional services such as accounting and design pay high wages and contribute to spillover effects to other sectors. The residential real estate market has witnessed strong demand as single-family housing permits rose by 35.5 percent from 2015 to 2017. Similar to the national economy, leisure and hospitality has witnessed job gains of 4.7 percent over the most recent 12 months through January 2019. Financial activities and trade are recording strong job gains as well.

The Elkhart and Goshen Chambers of Commerce and other partners understand the importance of small firms and advocate supporting entrepreneurs in starting and growing their businesses. Launch Elkhart is a relatively new partnership between the Chamber, City of Elkhart, the Community Foundation of Elkhart County and the Center for Business Excellence. Frontier Communications is providing high-speed internet access to many of the startups as their technical nature often requires it. The desire is to support and nurture entrepreneurship by providing the tools and services to be successful. Launch Elkhart states that the “venture is expected to become the assembly line of entrepreneurial success in Elkhart.”⁵¹ This is enabled by the social capital in the area built by trust and cohesion.⁵²

The region is focused on adding diversity to its economy and its entrepreneurial mix. The Greater Elkhart Chamber has established a Business Diversity Initiative to support minority entrepreneurship and to integrate these businesses into its commercial environment. Another recent effort includes the formation of a Women’s Council whose objective is to provide support for women in business through ongoing education and networking opportunities.⁵³ There are projects underway to provide housing in its downtown and river districts and to infuse a sense of place and promote cultural capital.⁵⁴ Another example of plans to diversify its economy includes a major medical expansion, which will cost \$175 million and employ 450.

ELKHART-GOSHEN, INDIANA

2017 Population	205,032
Size Group	Small
Overall Z-Score	2.1555
Overall Ranking	4 th
Size-Group Ranking	3 rd

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	291 st	201 st
Per-Capita Personal Income	183 rd	104 th
Medium-Term Job Growth	8 th	5 th
Short-Term Job Growth	4 th	4 th
Short-Term Job Momentum	41 st	30 th
Medium-Term Average Annual Pay Growth	3 rd	2 nd
Short-Term Average Annual Pay Growth	5 th	5 th
Medium-Term GDP Growth	4 th	3 rd
Short-Term GDP Growth	2 nd	2 nd



#5 Bend-Redmond, Oregon

Bend-Redmond, Oregon, is among the high-fliers of economic growth and “best” lists. The Bend metropolitan area is fifth in Most Dynamic Metropolitans and fourth in the small metropolitan category. Bend-Redmond records consistent high rankings included in our evaluation criteria. However, its best positions were second for job growth from 2013-2018 and third for real GDP growth from 2012-2017. The area’s economic advance had slowed somewhat from one-year ago when it led all metropolitan areas in GDP growth.⁵⁵ Similar to the leaders in Most Dynamic Micropolitans, it owes much of its lofty position to recreation, travel and tourism where it has an impressive cluster of related activity. For example, leisure and hospitality services in Bend-Redmond account for 15.4 percent of total employment, while they represent only 11 percent of U.S. jobs. Bend’s total payroll employment rose by 40 percent between 2010 and 2017; tops in the nation among metros.

Through thoughtful, well-articulated strategic planning, led by the Economic Development for Central Oregon (EDCO), the region has evolved to include aviation/aerospace and other advanced manufacturing, automotive, biomedical, brewing, IT hardware (including data centers) and software. EDCO has created a unique balanced portfolio approach to economic development in the region that includes business retention, expansion and an impressive focus on startups and scaleups.⁵⁶ Bend holds the distinction of leading the country with 12.1 percent of its workforce telecommuting each day. Many of these telecommuters spend much of their time outside of the community in Silicon Valley.⁵⁷ Bend is beginning to feel some of the same housing price pressures as Silicon Valley and other West Coast tech centers. However, Bend’s housing prices are still very affordable with a median home price of \$440,000, but they rose by 10 percent in 2018.

Although Bend’s concentration of high-tech industries is below the national average, it has experienced stellar growth in recent years. High-tech GDP expanded by 18.0 percent between 2012 and 2017.⁵⁸ Most of Bend’s high-tech success has been through homegrown or early-stage firms relocating rather than recruiting operations of large tech firms. New tech firms find Bend attractive due to the low cost of living, the recreational amenities and the availability of early-stage risk capital. Varieties of tech accelerators exist, but FoundersPad and the Innovation Center for Entrepreneurship associated with Oregon State University-Cascades are the hubs for the community.⁵⁹

Bend is one of a few smaller metros that has developed a substantive network of local angel firms. Local risk capital availability is critical to nurturing firms that are innovative and disruptive in their industries. Cascade Angels support Bend’s startup community and have deployed \$3 million across 20 investments throughout Oregon and the Northwest. Cascade Angel’s portfolio companies include regionally-based Amplion, Cairn, Droplr, InvestiPro, Odysys, LeadMethod, Manzama and Zero Transform. Julie Harrelson is one on the principals in the fund and was the 2017 Bend Chamber Woman of the Year.⁶⁰

Affton Coffelt was named Entrepreneur of the Year for 2018. She has grown her Broken Top Candle Company in just three years to national recognition in the clean candle industry.⁶¹ Central Oregon has a Network of Entrepreneurial Women (NEW) offering support and business development. Additionally, the Bend Venture



Conference is the largest angel conference in the West. Based upon information provided by the Center for American Entrepreneurship, Bend was fourth in the nation for growth in first financing of startups from 2013-14 to 2016-2017.⁶² Seven Peaks Ventures finalized its second fund of \$28 million.⁶³

EDCO has been a key collaborator for support of the entrepreneurial community. The support services include the Central Oregon PubTalks and the Stable of Experts. Bend measured success by registering one new business for every 28 residents in 2017—almost double the state average. Bend was 16th in the nation for the proportion of total jobs that were at young firms. EDCO introduced entrepreneur Adam Krefting to the Bend Venture Conference that led to him obtaining financing to launch CushCore. CushCore appears to have strong prospects in the mountain biking industry with a patent pending on its “tire suspension” systems. Medline Renewal is among those firms that have received growth support from both EDCO and the Redmond Economic Development Inc. (REDI). Founded in 1997 as MediSISS, the firm was established with the novel idea of transforming single-use medical devices into reusable ones. The largest private company in manufacturing and distribution of medical supplies acquired them in 2012. In July 2017 a custom-designed, 50,000 square foot facility was completed that included room for expansion.⁶⁴

Aerospace has a 30-year history in Bend that specialized in design on paper to flight. Today, the area has several innovators in composite (carbon fiber) fabrication that form a long supply-chain in Bend. Bend has an educated workforce without having a major research university, a testament to the attraction of the area. 33.7 percent of Bend residents age-25 and older hold a Bachelor’s degree, 2.9 percentage points above the U.S. average. Central Oregon Community College has the longest history in the community, but the expansion of Oregon State University-Cascades will dramatically increase the number of graduates with Bachelor’s and Master’s degrees.⁶⁵ Professional and business services are an engine of growth too; the sector has boosted employment by 7.1 percent in December 2018 as compared to the same month in 2017.

The region’s leisure and tourism industry is thriving. Employment in Leisure and hospitality services grew by 4.5 percent in 2018. The expanding brew industry seems to be both attracting tourists and benefiting from their visitation. Beginning around 2008, Bend began witnessing a substantial increase in the 65-year-old and over population, partly to the low cost of housing and recreational amenities available. One-fifth of residents are over the age of 65, substantially above the U.S. average. The number of retirees plus the Silicon Valley commuters has pushed the share of personal income from non-wage sources up to about 60 percent.

The demand for housing has soared and the Bend City Council is responding with progressive policies. The Council voted to permit the construction of duplexes and triplexes on smaller lots. This will lead to denser housing in the community and will boost new construction and the attendant level of construction employment. Bend has seen one of the highest rates of net in-migration in the nation, over 6,000 in 2017. This is critical for Bend, as its unemployment rate would plummet without it, and its overall growth, curtailed. Commercial construction is soaring as well. Pronghorn Resorts and six other hotels have announced plans to add 600 hotel rooms.⁶⁶ The Redmond Municipal Airport is undergoing an expansion that will boost capacity.

BEND-REDMOND, OREGON

2017 Population	186,875
Size Group	Small
Overall Z-Score	1.9654
Overall Ranking	5 th
Size-Group Ranking	4 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	16 th	12 th
Per-Capita Personal Income	91 st	45 th
Medium-Term Job Growth	2 nd	2 nd
Short-Term Job Growth	16 th	13 th
Short-Term Job Momentum	16 th	14 th
Medium-Term Average Annual Pay Growth	9 th	6 th
Short-Term Average Annual Pay Growth	15 th	11 th
Medium-Term GDP Growth	3 rd	2 nd
Short-Term GDP Growth	32 nd	26 th





#6 St. George, Utah

Home to Zion National Park, world-class outdoor recreation options, and arguably the preeminent mountain biking event worldwide, Red Bull Rampage, **St. George, Utah**, has a unique tourism position. Over time, those tourism draws have become labor draws as the metro has been on a population-growth tear in recent years.

Our index metrics show an economy that has capitalized on tourism and population growth: St. George had the fastest medium-term job growth of any metro, along with top-10 performances in the other two job growth measures, the young firm employment ratio and medium-term GDP growth. The economy's weak spots were in wage growth and the level of per-capita personal income, which were likely held down by the growing number of low-paying retail and hospitality jobs that accompany tourism.

The details of St. George's tourism growth are staggering. Zion, the area's major draw, has seen annual visitation nearly double from 2010 to 2017;⁶⁷ it is now the third-most-visited park in the U.S.⁶⁸ While world-famous The Narrows is probably the biggest draw to the park and was named by Earth Trekkers as the fifth-best day hike in the world, Angels Landing also made that list at ninth.⁶⁹ Annually occurring Red Bull Rampage, a one-of-a-kind event that provides the world footage of mountain bikers riding down cliff faces and jumping over the canyons, may only provide a few million dollars in economic impact, but its global broadcast has informed the well-traveled mountain biking world of the area's riding opportunities.⁷⁰ Beyond tourism, local governmental groups are beginning to use mountain bike trail expansion as a way to improve the quality of life for residents.⁷¹

St. George's natural amenities and its warm, dry climate are also drawing in retirees; among Utah counties with data available, St. George metro-encompassing Washington County has the largest 65-plus population share.⁷² Because of that large retiree population, and because of St. George's position in an otherwise isolated area, the metro's healthcare industry is large and growing. The share of metro workers in healthcare support occupations is more than 1.5 times as high as the national average, and Dixie Regional Medical Center recently completed an expansion that was the largest construction project in the metro's history.⁷³

Beneficial to all industries is the overall population trend in recent years, which includes being the nation's fastest-growing metro population from 2016 to 2017.⁷⁴ While retirees have certainly played a role, the population growth has come from across all age groups as they seek the metro's unique natural amenities, a community that values the build-out of resources such as mountain bike trails, and relatively low cost of living compared to nearby metros.⁷⁵ Out-of-state migration is also playing a major role, accounting for nearly 90 percent of the 2016-2017 growth.⁷⁶

Many of the new citizens are likely to have joined the growing tourism-related industries, but others are providing labor and skills to industries with lesser connections to tourism. That should be a welcome prospect to firms such as SkyWest Airlines, a growing regional airline that calls St. George home.⁷⁷ The airline, the nation's largest regional airline, has drawn acclaim from the airline industry and financial market commentators for its unique structure. The airline provides flights through larger airlines such as Delta and United, as opposed to offering its flights directly. This allows it to avoid fixed costs associated with directly scheduled flights.⁷⁸

SkyWest does have a connection to the metro’s tourism industry through the St. George airport, where SkyWest provides flights on behalf of four larger carriers. The airport has been operating since 2011, with passenger counts doubling from 2011 to 2018 as the region’s population and tourism appeal have grown.⁷⁹

RAM Manufacturing Company, possibly the metro’s most intriguing place of work for the growing labor force, also has an aerospace connection. The company, one of St. George’s longest-standing businesses, is an advanced manufacturer of solenoids, valves and manifolds for flying objects both within the earth’s atmosphere and beyond.⁸⁰ Its recent growth may also be outpacing that of the tourism industry, with an expansion that more than doubled the size of RAM’s facility. The expansion comes after the landing of contracts to make parts for future spacecraft traveling to Mars and beyond.^{81 82}

Metro leaders see a path toward an economy more diversified in the high-tech realm, with a very ambitious 10-year economic development plan established in 2018. Much of the plan focuses on creating a STEM talent pipeline through Dixie State University and helping that talent create tech startups.⁸³ The newly developed Dixie State University Innovation Plaza will support both of those endeavors. The plaza provides students and residents with entrepreneurial resources; it recently received a grant and matching donation to develop biological research labs and purchase equipment for a community makerspace.⁸⁴

Also part of the development plan was the opening of the new Dixie Technical College campus. The campus provides technical education in fields ranging from manufacturing to health services to web development,⁸⁵ and is located in a newly developed area that is signaling a burgeoning tech entrepreneurship ecosystem: Tech Ridge. A few of the early movers to Tech Ridge will serve as examples of successful entrepreneurship to future St. George tech startups. One of those companies is PrinterLogic, which is a software development company focused on removing organizations’ need for expensive print servers. In 2016, Inc. Magazine ranked the company as the eighth-fastest growing software vendor in the nation.⁸⁶ Executives at PrinterLogic and other Tech Ridge firms point out that the presence of housing, retail, tech firms and a technical college all on a scenic ridge – and surrounded by such unique mountain biking, hiking and other recreational opportunities – are creating an ecosystem with the potential to become the nation’s next great tech hub.⁸⁷

ST GEORGE, UTAH

2017 Population	165,662
Size Group	Small
Overall Z-Score	1.7048
Overall Ranking	6 th
Size-Group Ranking	5 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	6 th	5 th
Per-Capita Personal Income	369 th	265 th
Medium-Term Job Growth	1 st	1 st
Short-Term Job Growth	3 rd	3 rd
Short-Term Job Momentum	7 th	6 th
Medium-Term Average Annual Pay Growth	22 nd	18 th
Short-Term Average Annual Pay Growth	118 th	95 th
Medium-Term GDP Growth	9 th	5 th
Short-Term GDP Growth	21 st	17 th





#7 Austin-Round Rock, Texas

Any “Best” economic growth list had better include **Austin-Round Rock, Texas**, or it does not have credibility—and our Most Dynamic Metropolitans ranked it seventh overall and second among large metropolitan areas. Austin scores no lower than 51st in any single measure included in our analysis but stands out for being seventh in real GDP growth over the 2012-2017 period and ninth for real GDP growth in 2017. Austin has acquired well-deserved international recognition as an economic development model worthy of study and emulation; more international experts look to it for strategic planning advice than Silicon Valley.⁸⁸ In many respects, Austin is becoming a modern version of the IT-dominated Silicon Valley of old. However, Austin is much more than that with a diverse set of high-tech sectors including advanced manufacturing, creative and digital media technology, clean tech, life sciences, data management, among others.⁸⁹ Austin is 11th in the concentration of high-tech industries based upon 2017 information.⁹⁰

The diversification of Austin’s high-tech sector has made it more resilient and less prone to volatility associated with IT hardware. This diverse technology aides Austin in generating growth at different points of the business cycle. Dell Computer remains the largest private sector employer at 13,000, but it may relinquish that position in the future. Other major hardware employers include Samsung Austin Semiconductor, Apple Computer, NXP Semiconductors, Applied Materials, Freescale and Flextronics. These tech anchor firms are a major attraction for other high-tech service providers. The multiplier for these IT manufacturers can reach four to five—meaning another three to four people owe their jobs to them. Austin provides a conducive atmosphere for recruiting firms to relocate or expand. Austin consistently ranks as one of the best business climates with low taxes and an advantageous regulatory environment, while enjoying housing prices one-third of Silicon Valleys or San Francisco’s.⁹¹ Making it further attractive to firms, Austin has a dense concentration of talent.

The University of Texas-Austin (UT-Austin) has been a major contributor of talent to Austin for generations, but the compounding scale of its importance has hit a tipping point. UT-Austin is one of the most difficult public universities in the nation to gain acceptance,⁹² with 51,500 students enrolled in the 2017-2018 academic year. Nearly 45 percent of residents 25 or older have attained at least a Bachelor’s degree and a high proportion of degrees in the STEM fields.

At 11.1 percent, STEM occupations in Austin are substantially more concentrated than for the U.S. overall (6.3 percent), placing it at sixth among large metros in the nation.⁹³ Software developers had the most jobs (13,250), followed by sales representatives for technical and scientific products (10,010). However, based on a measure of concentration, location quotient (LQ), Material scientists are 5.25 times more important to Austin than the U.S. overall. Within Austin’s STEM occupations, Architectural & engineering managers had the highest median salary at \$152,560, closely followed by Computer & IS Managers at \$145,420.

UT-Austin plays a critical role in the region’s entrepreneurial ecosystem. The university generated \$17.6 million in licensing income and 10 firms in Texas were founded based upon its patents in Fiscal Year 2016.⁹⁴ Austin’s innovation comes from a variety of new firms. The Austin Chamber of Commerce and many other local institutions support startup and scaleup efforts. Austin was 30th among all metropolitan areas in the share of

total jobs that young firms represent. There are 90 incubators, accelerators, maker & co-working spaces, 6,500 high-tech companies; and in 2018, there were 124 VC deals and \$1.3 billion in VC investments. This was the first time that the VC total in Austin cracked \$1 billion.⁹⁵ WP Engine, a web hosting and managing platform for applications, garnered a \$250 million VC investment helping to push Austin past the \$1 billion mark. However, to keep this in perspective, this pales in importance to San Francisco's VC placements that were 20 times as large in 2018.

Austin is already Apple's largest location outside of Silicon Valley, but in December 2018, Apple unveiled expansion plans that could make them the largest employer in the region. Apple will invest \$1.0 billion in a new corporate campus adding 5,000 jobs in the first phase. It could ultimately house 15,000.⁹⁶ Apple's current workforce in Austin reached 6,000 and the planned expansion will add high-paying positions in research and development, engineering, finance, operations, sales and customer support.⁹⁷ Recently, Oracle announced plans to make Austin a hub for supplying its Oracle Cloud services. In March 2018, Oracle opened its 560,000 square foot corporate campus in Southeast Austin, and reports suggest a second similarly-sized development is underway.⁹⁸ Oracle also announced that an initial group of six firms was selected to operate in their first accelerator in the U.S.

However, it's not just high tech driving job creation in Austin. Add medical research, healthcare, travel and tourism, recreation, and throw in some arts, culture and a thriving music scene, and you have a recipe for a diverse, stable long-term growth model for Austin.⁹⁹ Leisure and hospitality services represent 12.4 percent of area employment, appreciably above the U.S. average. SouthXSouthwest (SXSW) is among the largest entertainment and talking head events in the nation. Professional and business services add another sector to the diversity of Austin's economy. These high-wage jobs employed 107,500 people in Austin in 2018, a 4.2 percent gain from 2017 and have more than doubled since 2007.

One of the largest restraints to future economic growth in Austin is its exceptionally low unemployment rate of 2.9 percent. Nevertheless, due to the attractiveness of Austin, it has one of the highest net migration rates in the nation at 35,000. This is 2 percent of the existing population, permitting the labor force to continue to expand. Nevertheless, rising concerns of the inclusiveness of this growth must be met with new policy approaches to sustain longevity.

AUSTIN-ROUND ROCK, TEXAS

2017 Population	2,115,827
Size Group	Large
Overall Z-Score	1.6149
Overall Ranking	7 th
Size-Group Ranking	2 nd

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	30 th	2 nd
Per-Capita Personal Income	51 st	23 rd
Medium-Term Job Growth	12 th	3 rd
Short-Term Job Growth	19 th	2 nd
Short-Term Job Momentum	29 th	5 th
Medium-Term Average Annual Pay Growth	29 th	4 th
Short-Term Average Annual Pay Growth	45 th	6 th
Medium-Term GDP Growth	7 th	2 nd
Short-Term GDP Growth	9 th	2 nd





#8 Greeley, Colorado

Greeley, Colorado, has an economy as unique as its founding – the city of Greeley, originally named Union Colony, was developed as a communal Utopian experiment centered on social conservatism.¹⁰⁰ The metro has long been an agricultural hub for Colorado, and metro-encompassing Weld County had the third-most cattle among all U.S. counties in 2012. More recently, the metro has home-grown and attracted several major corporate and manufacturing facilities, including those of State Farm Insurance, wind turbine producer Vestas and U.S.-leading beef and pork processor JBS. Over the past decade, the metro was swept up in the fracking boom, becoming a national leader in oil and gas production. Weld County's oil production was 89 percent of the state total in 2018.¹⁰¹

Greeley is another metro that performed well in every growth metric. It performed particularly well in both measures of GDP growth and 2017-2018 job growth, with top-six placements in each. Even in average annual pay growth, where the metro wasn't quite as outstanding as it was in job and GDP growth, Greeley was still 47th for medium-term growth and 13th for short-term growth. The metro's only weak point was its per-capita personal income level, which was a bit lower than the national metro average.

Greeley's position in the metrics reflects the fact that it had the fifth-fastest population growth of any metro from 2010 to 2017.¹⁰² The increase is partially from workers in nearby Denver moving to Greeley in search of affordable housing – this begins to explain the relatively low levels of wealth. Equally important are the metro's proximity to Rocky Mountain National Park, and its ability to attract quality firms and subsequent jobs.¹⁰³ The explosion in oil and gas production also didn't hurt.

One example of how the Greeley economy keeps producing jobs is also another example of just how unique this small metro is: Leprino Foods opened a mozzarella cheese production facility in 2011. It just finished an expansion that will bring employment to 600 people, and result in the facility using two-thirds of the milk produced in Colorado each year.¹⁰⁴ The sourcing of milk from Colorado means an even larger economic benefit to the metro than one might guess, due to the fact that Weld County is the top milk-producing county in the state.¹⁰⁵

The current plan for the metro seems to be to preserve the economic trends that are making it so successful. The City of Greeley continues to tout its business incentives, low costs of doing business and growing population to attract more firms:¹⁰⁶ J.M. Smucker, known for its peanut butter and jelly, is currently building a factory that will employ up to 500 people. In keeping with the uniqueness of the metro's firms, the factory will create J.M. Smucker's pre-made PB&J, the Uncrustable.¹⁰⁷ The operation will add to what is already a food-manufacturing hub thanks to companies like JBS and Leprino, with a ratio of food manufacturing employment to all employment at nearly 4.5 times the national average.¹⁰⁸

Outside of food production are firms such as the aforementioned Vestas, which produces wind turbine parts in the metro. After beginning metro operations in 2007 with an intent to employ 450 employees,¹⁰⁹ employment was nearly 2,300 10 years later. The company is now the metro's third-largest employer, and could see even

more growth in the lead up to the phase-out of a key wind energy tax credit over the next few years. After the tax credits are gone the future of Vestas is a bit more unclear, but one company executive believes wind energy is reaching a point where it is cost-effective without any subsidies.¹¹⁰

Another look at the metro’s list of top employers reveals just how large oil and natural gas extraction have become since the fracking revolution. Of the metro’s 33 companies with more than 200 employees in 2017, seven were directly involved in oil and natural gas.¹¹¹ However, a few years ago the metro experienced how jobs numbers can plummet almost as quickly as oil prices.¹¹² Add in new state regulations that many oil and natural gas companies claimed would lead to massive job loss – although that doesn’t seem to be coming to fruition,¹¹³ and it is clear why the industry poses a downside risk.

When it comes to adding entrepreneurship hub to the characteristics of this metro, the University of Northern Colorado and the East Colorado Small Business Development Center are playing a big role. While the university does not yet have the research commercialization statistics of some of its in-state peers, it has indicated efforts to help get faculty research to market.¹¹⁴ Additionally, the university and the small business development center have together developed the BizHub Collaborative, which is a virtual incubator that provides business counseling to entrepreneurs in the metro and surrounding areas.¹¹⁵ Outside of the university and center, Greeley’s entrepreneurship resources include growing coworking space ecosystem,¹¹⁶ which provides the metro’s entrepreneurs with affordable infrastructure and networking opportunities. Overall, Greeley’s startup scene isn’t yet that of Boulder, Fort Collins or Denver, but it is gathering the ingredients needed to get there.

Important to the future growth of both existing firms and startups is the region’s culture, which will play important roles in continuing recent population trends. To improve its culture, Greeley has worked on casting off its “cowtown” stereotypes, while still embracing its agrarian roots within a unique and expanding arts scene. That effort has included the AgriCulture Fest and Feast, which included a large community meal completely sourced from local farms. The festival “won the Governor’s Award for Outstanding Community Tourism Initiative,” an impressive feat in a state with so many tourism powerhouses.¹¹⁷ Other events such as the Greeley Multicultural Festival¹¹⁸ are indicators that Greeley welcomes all cultures, and that the metro’s workforce is ready to diversify alongside the nation’s workforce.

GREELEY, COLORADO

2017 Population	304,633
Size Group	Small
Overall Z-Score	1.6085
Overall Ranking	8 th
Size-Group Ranking	6 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	81 st	61 st
Per-Capita Personal Income	232 nd	146 th
Medium-Term Job Growth	11 th	7 th
Short-Term Job Growth	5 th	5 th
Short-Term Job Momentum	70 th	54 th
Medium-Term Average Annual Pay Growth	47 th	36 th
Short-Term Average Annual Pay Growth	13 th	10 th
Medium-Term GDP Growth	6 th	4 th
Short-Term GDP Growth	6 th	6 th





#9 San Francisco-Oakland-Haywood, California

By many measures, the economy of **San Francisco-Oakland-Haywood, California**, has experienced more rapid tech-fueled growth over the past five years than its neighbor down the peninsula, Silicon Valley. The enormous San Francisco metropolitan area includes Oakland and extends throughout the East Bay, housing 4.7 million people. San Francisco is ninth among all metros and third in the large metro category in our Most Dynamic Metropolitan Index. Even after adjusting for the high cost of living in the Bay Area, San Francisco has the sixth-highest per capita income. Between 2013 and 2017, San Francisco was sixth in the growth of average annual pay adjusted for inflation. The high-tech service sector has been propelling this expansion over the past decade, including mobile applications, social media, cloud-based software, internet publishing, gaming and digital media.¹¹⁹

A large percentage of these tech jobs has been provided by startups that turned into unicorns—Airbnb, Dropbox, Twitter and Zynga (market capitalization of at least \$1 billion) developed in the city’s and region’s unique entrepreneurial ecosystem that produces high impact firms which can be scaled more quickly. Through March 10, 2019, three more San Francisco-based firms have joined the list of unicorns, Calm, a startup aimed at providing an app-based meditation service; Chime, a bank app firm; and, Hims, a “men’s wellness” firm.¹²⁰ Nevertheless, the softer-side tech giants such as Salesforce, Oracle, Facebook and VMware are expanding—creating jobs at a prodigious rate. High-wage jobs in the professional, scientific and technical services rose by 75 percent over the last decade, only exceeded by Austin among metropolitan areas with a population exceeding one million residents.¹²¹ The unemployment rate has dipped below 3 percent in the metro area which is constraining future job gains.

There is scant evidence that early-stage equity investors are pulling back. Most people believe that Silicon Valley leads the nation in venture capital placements. This perception is based upon a view of the world from 10 years ago. Venture capital investments in San Francisco totaled \$31 billion in 2018; a leap of almost three times the amount in 2017.¹²² The 2018 amount was skewed by the \$12.8 billion investment made by Altria Group into JUUL Labs—a manufacturer of electronic cigarettes, but even the number of mega deals (above \$100 million) in 2018 rose to 37 from 16 in 2017. Other megadeals included Uber, Instacart, LYFT, DoorDash, Slack Technologies and OpenDoor Labs. More astonishing, San Francisco firms received triple the angel investment in 2018 (\$302 million) than Silicon Valley firms.

South San Francisco’s biomedical cluster remains an anchor of the region’s economy. It is the home of the biotech pioneer, Genentech that employs 8,800 in the region. The firm was an early collaborator with 23andMe, a leader in the genetic testing space for people desiring to know their ancestry.¹²³ The biotech expansion underway in the Mission Bay district assists in diversifying the City of San Francisco’s economy and provides jobs in commercial construction. The research prowess of the University of California, San Francisco is a critical component to the biomedical cluster. The overall vacancy rate in San Francisco is below 4 percent. However, many biotech firms are taking advantage of the lower commercial prices in the East Bay community

of Pleasanton. The most prominent among those companies is 10X Genomics; it is set to quadruple its space in the community.¹²⁴

Tesla’s CEO, Elon Musk, may be having some challenges with the U.S. Securities and Exchange Commission (SEC) due to his proclivity to tweet about production and finances, but the company’s expansion into the East Bay is reshaping the area’s economic structure. Tesla achieved an important benchmark during the third quarter of 2018 by producing 5,000 Model 3s in one week and a total of 53,000.¹²⁵ Logistical operations have not advanced at a commensurate rate and is restraining the production ramp up. Nevertheless, Tesla is adding jobs faster than any employer on the Oakland side of the Bay in Hawthorne, and has boosted employment to approximately 10,000. Tesla’s expansion is attracting automotive suppliers, tech support firms and automation and robotics investment.

The University of California, Berkeley, is an important member of the San Francisco metro area’s tech-focused economy. Not only is it an elite research university with many capable entrepreneurial students and faculty, but it provides much of the technical talent for the area’s firms. Since 2009, Berkeley undergraduates have founded 1,089 companies including Cloudera, Zynga, Auris Surgical Robotics, Machine Zone and Sapphire Energy.¹²⁶ This entrepreneurial energy is manifested in San Francisco’s 42nd position in the proportion of employment at young firms. Berkeley contributes to San Francisco’s high educational attainment, where an amazing 58 percent of residents over the age of 25 hold Bachelor’s degrees. In addition to innovation leadership, Berkeley is an anchor for diversity and community for the region, Berkeley employs 25,000 people, tying University of California, San Francisco for the metro’s top employer.

San Francisco’s economy did lose some momentum at the end of 2018 as its December 2018 year-over-year job growth fell to 123rd, but given the congestion, high housing prices, transportation challenges and tight labor market, its performance remains impressive. Since 2010, San Francisco has added jobs at a pace eight times that of new housing units, and rents are 43 percent higher over the past decade.¹²⁷ Business and public officials are working on expediting building permits approvals and altering restrictive zoning ordinances, but many forces oppose potential gentrification. However, in many respects, San Francisco is defying gravity, or more appropriately, centrifugal forces, by generating ever-higher levels of productivity from its human capital and innovation density.¹²⁸ Early warning signs are manifest in domestic net migration being negative during 2018.

SAN FRANCISCO-OAKLAND-HAYWOOD, CALIFORNIA

2017 Population	4,727,357
Size Group	Large
Overall Z-Score	1.4944
Overall Ranking	9 th
Size-Group Ranking	3 rd

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	42 nd	4 th
Per-Capita Personal Income	6 th	2 nd
Medium-Term Job Growth	38 th	13 th
Short-Term Job Growth	120 th	22 nd
Short-Term Job Momentum	123 rd	22 nd
Medium-Term Average Annual Pay Growth	6 th	3 rd
Short-Term Average Annual Pay Growth	11 th	2 nd
Medium-Term GDP Growth	13 th	4 th
Short-Term GDP Growth	56 th	12 th





#10 Seattle-Tacoma-Bellevue, Washington

The surge in economic growth in the **Seattle-Tacoma-Bellevue, Washington** metro area continues unabated as it is among the most innovative places in the world. Seattle is 10th overall and fourth within the large metro category in Most Dynamic Metropolitans. The University of Washington was named the most innovative public university in the world based upon its ability to “advance science, invent new technologies and help drive the global economy.”¹²⁹ Seattle’s performance places it in the top-tier across the metrics in our analysis, but its best growth measure was fifth in average annual pay over the 2013-2017 timeframe. Seattle’s many attributes place it in a unique position: 11 Fortune 500 firms, top tech employers, a world-renowned public research university, an emerging biotech cluster, outstanding small-firm growth, a hub of international trade and a tourism cluster. Seattle’s biggest challenge in the future might be a vocal minority that dwells on the income and outcome disparities that are real, but chooses a narrative that exaggerates their severity.¹³⁰

Boeing, Amazon and Microsoft are the three largest firms in the area employing, 64,300, 45,000 and 43,031.¹³¹ However, Seattle’s digital services of cloud computing, artificial intelligence and data visualization are driving job creation. Non-store retailers (where Amazon’s jobs are captured) added 25,700 jobs over the five-year period 2013-2017. Amazon, Blue Nile and Zulily added a combined 5,200 jobs in 2018.¹³² Boeing has shed a couple of hundred jobs over the past couple of years, but Aerospace products and parts manufacturing is 16.3 times more important to Seattle’s employment base than for the nation overall. Microsoft, under the leadership of CEO Satya Nadella had a resurgence becoming a leader in cloud computing and revived its market capitalization. Software publishing is 14 times more concentrated in Seattle than for the nation and based upon wages, nearly 20 times more dependent. Broadening its economic base, Seattle is the headquarters of Starbucks, Costco, Nordstrom, Alaska Air Group and Weyerhaeuser. All are socially critical institutions in the region.¹³³

Seattle has extensive support ecosystems in place for entrepreneurs. Startup Seattle serves the community with industry meetups, garage co-working spaces and assists in the navigation of available resources. Seattle’s incubators and accelerators include the Accelerator Corp., Entrepreneur’s Organization, the Founder Institute, Microsoft Ventures and Techstars. Additionally, it has several venture capital firms.¹³⁴ First quarter, 2019 data shows that 43 deals received financing with \$470 million committed, placing Seattle sixth in the amount raised.¹³⁵ Seattle is home to a highly educated workforce, 46 percent of adults 25-years old and above holding at least a Bachelor’s degree and 18 percent hold an Advanced degree. In late 2018, Seattle jumped to first in the nation in job growth at small businesses.¹³⁶

Seattle is gaining a reputation as an emerging life science hub as it is experiencing rapid growth.¹³⁷ The University of Washington is highly regarded in medical research and clinical practice. Further, the University of Washington graduated 1,252 biological and biomedical students in 2017 providing the required life sciences talent. Seattle has many other assets in its medical research and life science cluster. The Fred Hutchinson Cancer Research Center, the Allen Institute for Brain Science and the Institute for Systems Biology are important anchors. Collectively, these Seattle institutions received \$800 million in funding from the National Institutes

of Health (NIH) in 2018—placing it 8th in the nation. Seattle is a national leader in immunology therapies. Juno Therapeutics and Seattle Genetics, a pioneer in Hodgkin’s lymphoma, are key players. Seattle’s employment in life sciences rose 17.4 percent from 2014 to 2017, far surpassing the 4.1 percent national figure. Research and development in engineering and the life sciences have a concentration almost 14 times greater than the U.S.¹³⁸

The expansion of tech-service jobs continues at a solid pace. Professional, scientific and technical services added 23,800 jobs from 2013 to 2017 and the pace continued through 2018. According to CBRE Group Inc., Seattle led the nation in job growth in the technology field from mid-2016 to mid-2018 at 26 percent. This performance elevated Seattle above the San Francisco Bay Area for the first time in seven years.¹³⁹ Seattle is breeding another industry champion in the rapidly growing data visualization field. Tableau is among the leading innovators in this space. As the field of data analytics expands exponentially, it is imperative to develop effective visualization of data for non-scientists. The information sector in Seattle has average annual earnings per worker of \$204,000 in Seattle versus a national average of \$124,000. This reflects the knowledge intensiveness and the attendant higher mix of advanced degrees in this sector in Seattle.

Although growth in leisure and hospitality employment has fallen from 4.4 percent at the end of 2017 to 2.1 percent at year-end 2018, it continues to play an important role. Export growth has moderated out of the Port of Seattle, but the main issue is how negotiations with China over trade and intellectual property progress.

Seattle increased its minimum wage to \$16 per hour in January 2019. Although there do not appear to be broad negative employment effects thus far, the slowdown in employment growth in leisure and hospitality is sending cautionary warnings. The impetus behind the movement to increase the minimum wage is largely related to the unaffordability of housing. A measure of sustainability in housing is to compare the addition of jobs to the housing stock over a period of time. Between 2010 and 2017, Seattle added over three times as many jobs as housing units; thus pushing up housing and rental prices. Civic leaders are attempting to address this imbalance. Microsoft recently announced a \$500 million initiative to address the gap.¹⁴⁰

SEATTLE-TACOMA-BELLEVUE, WASHINGTON

2017 Population	3,867,046
Size Group	Large
Overall Z-Score	1.4283
Overall Ranking	10 th
Size-Group Ranking	4 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	177 th	28 th
Per-Capita Personal Income	13 th	4 th
Medium-Term Job Growth	37 th	12 th
Short-Term Job Growth	26 th	3 rd
Short-Term Job Momentum	36 th	6 th
Medium-Term Average Annual Pay Growth	5 th	2 nd
Short-Term Average Annual Pay Growth	14 th	3 rd
Medium-Term GDP Growth	27 th	7 th
Short-Term GDP Growth	18 th	3 rd





#11 Reno, Nevada

Due in part to a high dependence on casinos and gaming technology, the **Reno, Nevada** metro was more severely impacted by the Great Recession than the rest of the country. Since that economic trough, the metro's fast-growing cities of Reno and Sparks have led a major turnaround. Key to that economic rebound have been the construction and operation of the Tesla Gigafactory I - ironically located in Sparks - and the positive economic externalities it has provided.

While Reno performed better than the national metro average in every metric, the quickly expanding economy was a standout in job growth. The metro placed in the top six for all three job growth measures. The metro was also 21st and 16th in 2012-2017 and 2016-2017 GDP growth, respectively. Average annual pay growth was the metro's weakest area, which may be influenced by an increase in casino jobs in the rebound from the financial crisis. However, per-capita income is nearly a standard deviation above the national metro average, indicating that the level of pay is respectable.

Tesla has been central to the metro's recent growth. Construction started on the Gigafactory in 2014, after the region beat out several other metros to win the factory that will produce Tesla's batteries and possibly become the largest building in the world.¹⁴¹ Some of the incentives used to land the factory, such as large tax breaks, have been controversial,¹⁴² but the factory had an impressive 7,000 employees at the end of 2018. Add to that the 17,000 construction jobs for this still-under-construction factory, and the direct impact on the metro is tremendous. Beyond the direct effect, Tesla has been credited with attracting other firms to the area.¹⁴³ One of those firms is Switch, which built the world's largest data center near the Tesla campus.¹⁴⁴ On its webpage discussing the facility, Switch notes the explicit tax benefits of locating in Nevada.¹⁴⁵

Beyond Tesla and Switch, relative newcomers to Reno include Apple. The company decided to make Reno a data center location in 2012, and continues to expand its facility; the center will soon reach 1.2 million square feet.¹⁴⁶ Apple and Switch's data centers are benefiting from all of the sunlight in the Reno metro: both power their metro operations completely from green energy,^{147 148} and have been directly involved in solar farm expansions in the metro.^{149 150} Although not yet in development, Google purchased over 1000 acres near the Gigafactory in 2017, with the intent of building its own large data center.¹⁵¹

Distribution centers are also growing and being added in the metro, with firms realizing that Reno provides easy access to customers in both the Mountain West and West Coast. For example, Amazon finished a 600-plus employee fulfillment facility in 2015.¹⁵² Patagonia, the outdoor clothing and gear company that has developed a global customer base, saw the benefits of distributing from Reno over 20 years ago. As the company has grown, so has the Reno distribution center. The facility has doubled in size in a little more than a decade, and currently employs between 450 and 600 people, depending on the season.¹⁵³

Reno's relatively large tourism industry, which has a somewhat similar model to Las Vegas with its reliance on casino gaming and conventions, is showing signs that it has bounced back from the Great Recession; annual visitor numbers are above 5 million for the first time since the Great Recession. However, the roughly 1.5

million-visitor drop from the high of the last expansion to the recession low point shows just how dangerous a reliance on casinos and conventions can be.¹⁵⁴ Strong growth in other industries should improve stability during future recessions, although it is unclear how dependent Gigafactory employment will be on the also-cyclical auto industry.

One aspect of the metro that has helped in drawing companies and workers is its close proximity to Lake Tahoe. Because of that proximity, Reno can provide an impressive suite of recreation opportunities between its amenities and the Tahoe metros. The mountain biking, skiing and snowboarding scenes benefit from lift-access parks, as well as backcountry options. The metros' rivers and lakes offer opportunities including trout and salmon fishing, whitewater kayaking and rafting and sailing. Meanwhile, downtown Reno is home to the largest man-made climbing wall in the world, and the Tahoe area provides numerous natural rock options.¹⁵⁵

The region is not solely relying on the expansion of established firms for economic growth; there has been a recent push to cultivate an entrepreneurial spirit in the metro. Among the several tech startups that now call the industry home is Breadware, an Internet of Things development firm. Internet of Things describes technological developments that connect everyday **things** to the **internet**, allowing advancements such as cars that can quickly communicate with each other to avoid accidents, and mirrors that analyze us to indicate health risks¹⁵⁶ – with more than 150 corporate clients.¹⁵⁷ The metro has surrounded its startups with resources ranging from coworking and maker space Reno Collective¹⁵⁸ to the University of Nevada, Reno's Ozmen Center for Entrepreneurship. The center provides undergraduate and graduate programs in entrepreneurship, as well as student startup support.¹⁵⁹

RENO, NEVADA

2017 Population	464,593
Size Group	Small
Overall Z-Score	1.3911
Overall Ranking	11 th
Size-Group Ranking	7 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	127 th	97 th
Per-Capita Personal Income	55 th	23 rd
Medium-Term Job Growth	5 th	4 th
Short-Term Job Growth	6 th	6 th
Short-Term Job Momentum	6 th	5 th
Medium-Term Average Annual Pay Growth	162 nd	119 th
Short-Term Average Annual Pay Growth	82 nd	67 th
Medium-Term GDP Growth	21 st	13 th
Short-Term GDP Growth	16 th	13 th





#12 Provo-Orem, Utah

Provo-Orem, Utah, has been one of the hottest economies in the nation over the past decade, and its growth has not slowed. Provo-Orem comes in 12th overall and first among mid-sized metros. A recent study found that Provo had the fastest growth in technology jobs in North America since 2010, eclipsing San Francisco.¹⁶⁰ The Provo metro is in the center of Utah's "Silicon Slopes," with Salt Lake City at its Northern-most point then sweeping south through Ogden-Clearfield. Unlike other self-proclaimed Silicon copycats, it is deserving of the title with IM Flash Technologies, who produces 20 percent of the world's microchips and a prominent player in nanotechnology, serving as its anchor.¹⁶¹ Provo is the hub of a dynamic tech ecosystem with dominant firms, unicorns, a thriving startup scene, locally created talent and attracting millennials from around the nation. Provo's tech base includes ICT hardware, but software, computer systems design and the life sciences are propelling job growth.¹⁶²

Brigham Young University (BYU) is central to the success of the metro area. BYU has expanded its student base and is creating more STEM graduates with an entrepreneurial predisposition. BYU was fourth in the nation in an evaluation of which universities were best at commercializing IP through starting new firms or licensing the technology to existing ones.¹⁶³ BYU was the source for many of the region's unicorns. A great example is Domo, a cloud-based business analytics firm. Domo was founded in 2010 by a BYU graduate and went public in 2018.¹⁶⁴ Another more recent example of BYU students' entrepreneurial bent is Novi Security, founded in 2015 by Matthew Henningson. Novi grew out of an entrepreneur class he took in 2013. The idea was to develop a home-security system for renters that was portable. The Novi Cam was developed, "a portable, battery-powered home security system that has a motion detector, high definition camera, smoke sensor and siren built into it."¹⁶⁵

The region provides support for fledgling tech firms through its tech incubators like Startup DoJo, Boom Startup and Camp 4 group. Camp 4 hosts a weekly meeting called One Million Cups Provo that serves as a platform for local startups to engage with their peers, mentors and potential investors.¹⁶⁶ Provo has several local angel and VC investors but attracts Silicon Valley VC investment as well. The National Federation of Independent Businesses ranked Provo second in the nation, after Austin, as a location to start a business.¹⁶⁷ Many "Shark Tank" participants reside in the Provo area. This dynamic startup environment has resulted in Provo placing seventh in the nation in the proportion of total jobs represented by young firms. Perhaps Provo's biggest tech success story is Qualtrics International, a customer survey software provider that was acquired by SAP for \$8 billion.¹⁶⁸ Today, Provo's high tech jobs represent 11.1 percent of total employment; more than double the national average of 4.9 percent.¹⁶⁹ High-tech payrolls have increased eight percent over the past 12 months.

These impressive tech gains have had significant spillover effects. Only four metropolitan areas had faster real GDP growth than Provo during the 2013-2017 period. Wages have risen at a rapid pace fueling broad consumption and housing gains. Another contributing factor to Provo's impressive growth is its nutraceutical and natural products cluster with names such as DoTerra, Forever Green, NuSkin and Thrive. Additionally, the region's vast recreational amenities have proven to be a key advantage for its sports and product

manufacturers. Utah County has the youngest median age in the country at 26.1 and millennials comprise 30 percent of its labor force while baby boomers represent just 12 percent. Other advanced manufacturers such as Boeing, Blend Tech, Klune industries and Wavetronics are important players. Its key technology clusters, software publishers, semiconductor manufacturing and computer systems design are 8.2, 3.2 and 2.4 times more concentrated, respectively, than the nation overall. Colleges, universities and professional schools are more than five times as important to Provo as for the nation.

This rapid growth has pushed the unemployment rate down to 2.8 percent. There are signs that slower labor force growth is beginning to crimp hiring. Fortunately, Provo maintains a strong rate of in-migration and has a high birth rate. For example, over the past 25 years, births have outpaced deaths by a ratio of six to one. Strong housing demand has pushed median home and rental prices, and as an attempt to address the issue, the region is changing the zoning rules.¹⁷⁰ Provo is an emerging high tech center with a friendlier regulatory and tax climate than West Coast tech hubs, throw in the outdoor recreation opportunities and lower housing costs, along with strong, attractive features for firms and workers.

PROVO-OREM, UTAH

2017 Population	617,675
Size Group	Medium
Overall Z-Score	1.3892
Overall Ranking	12 th
Size-Group Ranking	1 st

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	7 th	2 nd
Per-Capita Personal Income	363 rd	51 st
Medium-Term Job Growth	4 th	1 st
Short-Term Job Growth	11 th	1 st
Short-Term Job Momentum	54 th	6 th
Medium-Term Average Annual Pay Growth	125 th	17 th
Short-Term Average Annual Pay Growth	200 th	25 th
Medium-Term GDP Growth	5 th	1 st
Short-Term GDP Growth	15 th	1 st





#13 Lake Charles, Louisiana

Much of **Lake Charles, Louisiana's** recent economic success is due to the fracking revolution in oil and natural gas production, but it is not an extraction hub. Instead, it is a natural gas export hub. The U.S. is now a major producer of natural gas, and that gas needs to be liquefied to be efficiently transported on ships to other countries. That is where Lake Charles comes in: the metro contains the first and largest liquefied natural gas (LNG) export facility in the contiguous U.S. within its Sabine Pass terminal. The facility liquefies natural gas brought in from across the US, and then transports it to ships that will deliver the fuel around the world.

Thanks largely to the construction and opening of the Sabine Pass facility, Lake Charles performed well in each medium-term growth measure. In particular, the metro was fourth in medium-term pay growth and third in medium-term job growth. Although still in the top 50 for many of the metrics, Lake Charles was not as strong in measures of short-term growth. This is likely explained by a winding down of construction along the Sabine Pass as LNG export terminals were completed.

The Lake Charles metro's position as an LNG exporter came from a mixture of fortuity and quick responses to that fortuity. The metro was already one of the nation's larger LNG import operations, and sits within a dense natural gas pipeline network. After the fracking revolution led to an overabundance of natural gas in the US, companies quickly worked to harness Lake Charles' existing infrastructure and create LNG export facilities. In early 2016, the metro became home to the first operational export facility in the contiguous US. By the end of 2018, the metro had nine liquefaction facilities, also known as trains, either in operation, being built or being planned. No other region of the contiguous US had more than three trains.¹⁷¹

Thanks to forecasts that natural gas demand will continue to grow around the world, because of its cost-effectiveness and relative environmental cleanliness in electricity production, more announcements regarding planned LNG export facilities have been made in recent months.¹⁷² That means construction will continue to play a major role in an economy that had a higher 2017 ratio of construction employment to total employment of any metro in the nation.¹⁷³ As more and more of the facilities are completed, construction employment will begin to fall. However, many of those construction jobs will be replaced by the high-paying engineering and technician jobs at the new facilities.

Beyond natural gas liquefaction, the Lake Charles metro holds some of the largest petroleum refineries in the United States.¹⁷⁴ In fact, it has the second highest 2017 intensity of petroleum refining employment in total employment of any U.S. metro.¹⁷⁵ The metro also has a presence in other petrochemical manufacturing. That presence is growing in the area as companies are adding operations to process shale gas from fracking into a multitude of industrial chemicals.¹⁷⁶

Lake Charles is also home to a large casino and gaming industry. The industry has recently seen growth due to an increased ability to attract Texan gamblers and to population increases. After a new casino was built in late 2015 to match the growth in gambling demand, total casino revenue increased nearly 50 percent in the area.¹⁷⁷ As long as Texas does not legalize casino gambling, this industry should see continued growth.

As alluded to, the Lake Charles metro economy should continue to benefit from LNG train growth over the next decade. Expected growth in U.S. oil refining, which also benefitted from the fracking revolution, could lead to additional economic expansion.¹⁷⁸ The question for Lake Charles is what happens when the effects of the fracking revolution run their course. What will be the next economic driver? The Southwest Louisiana Entrepreneurial and Economic Development Center hopes to turn homegrown, diversified entrepreneurship into that driver, with help from the center’s business incubator.

One of the incubator’s graduates is Waitr, an app-based and tech-centric food delivery service that started in 2013.¹⁷⁹ The company grew quickly, and now has services in cities from New Mexico to Virginia.¹⁸⁰ The company sold to a Lake Charles-connected entrepreneur for \$300 million in 2018,¹⁸¹ with much of the company’s operations remaining in the metro. The new ownership has provided funding for massive growth for a company with already impressive earnings: revenue increased nearly 300 percent from the first quarter of 2018 to the first quarter of 2019.¹⁸²

LAKE CHARLES, LOUISIANA

2017 Population	209,357
Size Group	Small
Overall Z-Score	1.3178
Overall Ranking	13 th
Size-Group Ranking	8 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	139 th	102 nd
Per-Capita Personal Income	87 th	43 rd
Medium-Term Job Growth	3 rd	3 rd
Short-Term Job Growth	24 th	19 th
Short-Term Job Momentum	32 nd	25 th
Medium-Term Average Annual Pay Growth	4 th	3 rd
Short-Term Average Annual Pay Growth	44 th	36 th
Medium-Term GDP Growth	25 th	16 th
Short-Term GDP Growth	189 th	127 th





#14 Fort Collins, Colorado

Like its neighbor Greeley, the **Fort Collins, Colorado** MSA is thriving from a constant influx of firms and labor. Located along the Front Range of the Rocky Mountains, the draw of natural amenities and high-tech job opportunities has made housing supply the limiting factor for economic growth.¹⁸³ Beyond firms and workers, the metro's Colorado State University is increasingly drawing students, with an 11 percent increase in enrollment from 2010 to 2018.¹⁸⁴

Strong population and industrial growth have led to respectable showings in every index metric. Out of all 379 ranked metros, Fort Collins performed no worse than 39th in any growth metric. As an indication that the metro is adding large numbers of job in high-productivity sectors, Fort Collins was 19th in medium-term job growth and 14th in medium-term average annual pay growth. The metro's worst performance, by far, was in the level of per-capita personal income, where it was effectively at the national metro average. However, the large number of students enrolled at Colorado State could be weighing down the average income level. The metro was 47th in the nation for the young firm employment ratio, but still well over a standard deviation higher than the average.

Many of the metro's high-productivity job gains have been in software development and tech-related manufacturing. For example, computer component manufacturing and software development company Broadcom, previously known as Avago, continues to expand in Fort Collins as it grows a corporate footprint that already made it one of the metro's largest employers.¹⁸⁵ Industrial control systems manufacturer Woodward is also bringing more jobs into the metro, as the Fort Collins-based company continues to relocate extra-metro operations to Fort Collins for improved efficiency.¹⁸⁶

The metro has also benefited from its pharmaceutical, agriculture and natural resource industries. One of Fort Collins' larger employers,¹⁸⁷ metro-based pharmaceutical company TOLMAR is growing inside and outside of the metro.¹⁸⁸ Other major employers in the industries include Nutrien, an agricultural and industrial chemical producer,¹⁸⁹ and Hach, an expanding water-testing product manufacturer.¹⁹⁰ Connected to Fort Collins' agriculture industry is its large brewery scene: The metro home-grew New Belgium Brewing Company, now one of the area's larger employers and the fourth largest craft brewery in the country.¹⁹¹ ¹⁹² Fort Collins is also home to one of the 12 U.S. Anheuser-Busch breweries.¹⁹³

Part of the reason for the strong agriculture presence in Fort Collins is Colorado State University. Ranked 55th in the world for agricultural sciences¹⁹⁴ and third in the U.S. for veterinary medicine by U.S. News,¹⁹⁵ the university provides a talent pipeline for existing ag-related firms and intellectual property for future startups. The university's strength in agriculture has been a major reason why the aforementioned enrollment growth is occurring, with agriculture- and natural resources-related program enrollment growth accounting for 87 percent of total growth from 2010 to 2018.¹⁹⁶

While Fort Collins' economic future depends on its ability to reduce housing market stress and retain the major corporations it has attracted, it also depends on the metro's ability to produce successful startups and keep

them once they mature. Fort Collins has already shown an aptitude for the latter. Beyond New Belgium Brewing Company, there is well-known OtterBox, which went from garage-based waterproof container production to a global phone case empire.¹⁹⁷ The two companies combine for more than 1,000 jobs in the metro.¹⁹⁸

Central to continuing homegrown startup success is Innosphere, one of the nation’s most respected tech incubators.¹⁹⁹ It has locations across the state, but started and is headquartered in Fort Collins. Innosphere is unique, in part, because it works closely with Colorado State to commercialize the university’s research,²⁰⁰ has its own seed fund for incubator members,²⁰¹ and has a large R&D lab space in Fort Collins.²⁰² One of the companies borne out of Innosphere’s connection to Colorado State is VetDC, a Fort Collins firm that develops animal cancer treatments from cutting-edge human treatments.²⁰³

As alluded to in the introduction, quality of life is something that sets Fort Collins apart, even among Colorado metros. Livability named Fort Collins the nation’s fourth “best city to raise a family,” citing the Rocky Mountains and the outdoor recreation activities they afford, Colorado State and a high number of sunny days.²⁰⁴ Add in the large brewery scene and the fact that the city of Fort Collins is one of the most bike-friendly cities in the country,²⁰⁵ and it is not surprising that Fort Collins is a place where people want to live, existing businesses want to relocate, and entrepreneurs want to base their startups.

FORT COLLINS, COLORADO

2017 Population	343,976
Size Group	Small
Overall Z-Score	1.3141
Overall Ranking	14 th
Size-Group Ranking	9 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	47 th	36 th
Per-Capita Personal Income	154 th	82 nd
Medium-Term Job Growth	19 th	9 th
Short-Term Job Growth	39 th	26 th
Short-Term Job Momentum	13 th	11 th
Medium-Term Average Annual Pay Growth	14 th	11 th
Short-Term Average Annual Pay Growth	24 th	18 th
Medium-Term GDP Growth	34 th	22 nd
Short-Term GDP Growth	13 th	11 th





#15 Gainesville, Georgia

Located about an hour northeast of downtown Atlanta, the **Gainesville, Georgia** metro is increasingly a manufacturing powerhouse. The main engine of the powerhouse is poultry processing, which is why Gainesville is referred to as the “Poultry Capital of the World.”²⁰⁶ All industries benefit from the area’s labor-drawing recreational amenity Lake Sidney Lanier, as well as the attraction of proximity to the Blue Ridge Mountains.

Our index metrics capture just how strong Gainesville’s growth has been since the Great Recession. The metro’s 2013-2018 and 2017-2018 job growths were both ranked tenth among all metros, and Gainesville’s job growth over the former period was sixth among metros with populations below 500,000. Looking at December 2017-December 2018 job growth, which is our best estimate of the current trajectory of job growth, the metro shows no sign of slowing down with the 14th fastest rate among all metros. Among the medium-term and short-term wage and GDP growth measures, Gainesville’s worst placement was still an impressive 28th among all metros. Gainesville had a per-capita personal income level that was slightly below the national metro average, but that should change quickly if the metro continues to outperform in growth measures.

To reiterate an important fact, the Gainesville metro is a manufacturing powerhouse. As a relatively small metro with roughly 85,000 workers, Gainesville has a massive 20,000 manufacturing workers. That works out to one in four workers being employed in the manufacturing industry, which is the 10th highest share among all US metros. The metro is even more of a standout in food manufacturing, with half of its 20,000 manufacturing workers employed in this industry. Its share of employment in food manufacturing is more than 11 times the national average, giving it the second highest employment intensity of any US metro.²⁰⁷

The main reason for the astronomical share of employment in food manufacturing is poultry processing. Five of the top 10 employers in Gainesville are poultry processors; combined, they equaled roughly eight percent of total metro employment in 2018.²⁰⁸ While a relatively mature industry in the metro, poultry producers continue to expand, with Victory Processing growing from 28 workers in 2006 to the metro’s fourth largest employer.²⁰⁹ ²¹⁰ Poultry is not the only segment where food production is growing, with King’s Hawaiian Bakery up to 650 employees after beginning operations in 2011.²¹¹ ²¹² By far the metro’s most unique member of the sector is the Wrigley’s chewing gum factory. Gum is indeed considered food and continues to grow after several decades.²¹³

Non-food manufacturing segments are increasingly bolstering higher levels of employment. To go along with growing automotive parts manufacturers, tractor manufacturer Kubota expanded its metro facilities and increased employment to nearly 1,700 in 2017.²¹⁴ ²¹⁵ ZF, a major innovator in transportation safety and green energy technology, has expanded its advanced manufacturing operations to become a top metro employer.²¹⁶ In more recent news, advanced vehicle and bicycle suspension maker, Fox Racing Shox, is relocating from California to Gainesville, a move that will add as many as 800 jobs.²¹⁷ Moves such as Fox’s will bring in not only a high number of jobs, but also high-paying ones as executives move into the area.

Gainesville’s biggest limiting factor for growth is its labor force size. Its unemployment rate has been at or below three percent since the middle of 2018,²¹⁸ and there are reports of companies being unable to fill large

numbers of job openings.²¹⁹ Thus, economic growth in the metro may be dictated by in-migration and the ability to attract commuters in the short run. However, a discussed solution to Georgia’s construction labor shortage may also provide the answer for Gainesville manufacturing. The proposed solution is to recruit women.²²⁰ Women in the Gainesville metro have lower labor force participation than in the rest of the country,²²¹ and women are underrepresented in both overall manufacturing and food manufacturing nationally.²²² To the extent that the latter two national phenomena exist in Gainesville, there is the potential to recruit women into the metro labor force and its food manufacturing industry.

Outside of the labor market concerns, the metro continues to increase its attractiveness for businesses. It recently added an inland port with a direct connection to the Savannah, Georgia, seaport. This will fast-track shipment of intermediate goods into and finished products out of the metro’s manufacturing facilities.²²³ The metro is also beginning to focus on home-growing businesses; the metro’s Brenau University has created a business incubator focused on growing startups that will remain in the metro, and provides benefits ranging from regulatory guidance to shared technology to a connection with Georgia Tech’s Enterprise Innovation Institute.²²⁴

GAINESVILLES, GEORGIA

2017 Population	199,335
Size Group	Small
Overall Z-Score	1.2092
Overall Ranking	15 th
Size-Group Ranking	10 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	156 th	112 th
Per-Capita Personal Income	210 th	125 th
Medium-Term Job Growth	10 th	6 th
Short-Term Job Growth	10 th	10 th
Short-Term Job Momentum	14 th	12 th
Medium-Term Average Annual Pay Growth	26 th	22 nd
Short-Term Average Annual Pay Growth	25 th	19 th
Medium-Term GDP Growth	28 th	17 th
Short-Term GDP Growth	25 th	21 st





#16 Wenatchee, Washington

Wenatchee, Washington, and preceding Gainesville are two sides of the same coin. In a world where many of the strongest metropolitan economies are increasingly dependent on high-tech manufacturing and services, these two metropolitans are thriving on agriculture and food processing. While Gainesville has poultry, Wenatchee's economy is centered on fruit.

The Wenatchee metro was not a standout in any single category, but it performed well in all of them. The metro's lowest ranking among short-term economic growth measures was 43rd, and its lowest among medium-term growth measures was 75th. Wenatchee's young firm employment ratio was more than 1.5 standard deviations above the national metro average, impressive for an economy so dependent on the mature agriculture industry.

Back to that agriculture industry, the two counties that make up the Wenatchee metro – Douglas and Chelan – are both among the top 11 counties in the U.S. for apple orchard acreage. Even more, Chelan County was second and fifth in pear and cherry acreage, respectively.

Several of the metro's largest companies grow and/or package and ship fruit. In fact, the Wenatchee metro has the highest intensity of employment in fruit and nut tree farming of any metropolitan area in the country, and has the fifth highest total employment in that industry.²²⁵ The latter is an impressive feat for one of the smaller metropolitans in the country.

Wenatchee's fruit production industry has played a notable role in recent growth, and one reason is organic fruit. Demand for organic food has exploded in recent years, and growers such as CMI and industry giant Stemilt have harnessed the region's natural advantages in organic fruit production.^{226 227} Stemilt is also leading an attempt to expand apple exports to Japan, which offers the metro's fruit firms even more upside potential moving forward.²²⁸

While natural market forces are providing significant upside risk, political forces have brought two major downside risks: One is immigration policy volatility at a time when fruit farmers are relying on migrant workers for extremely high shares of their employment.²²⁹ The other is trade policy activity, where Washington apple farmers have seen tariffs increases by three of their largest export markets.²³⁰ How these two political phenomena play out will significantly influence Wenatchee's future.

While fruit is at the core (pun intended) of the Wenatchee economy, the metro has become increasingly diverse over the past few decades. One growing sector is tourism. Mission Ridge Ski and Board Resort has increased in popularity over the past few decades,²³¹ Devil's Gulch is considered a jewel of the ever-growing mountain biking scene in Washington,²³² and the winery scene continues to gain traction.²³³ One of the more recent additions to the burgeoning tourism economy is Pybus Public Market, a farmers market that has uniquely combined aspects of some of the country's most popular markets to draw visitors from the surrounding region.²³⁴

Wenatchee has also developed a successful startup community, as implied by the aforementioned strong performance in the young firm employment ratio. Central to that development has been the region's low

energy costs, thanks to hydroelectric dams. Electricity-intense firms such as cryptocurrency miners and diamond manufacturers²³⁵ have moved into the area in droves, leading officials to ponder the best path to large-scale power grid growth.²³⁶ The region has also been successful at home-growing startups in recent years, thanks to groups such as the Greater Wenatchee Area Technology Alliance.²³⁷ The alliance has worked to create a successful entrepreneurial environment with resources such as the \$100,000 grand prize Freewheel Investment Conference²³⁸ and a small business development center. Overall, the addition of tech-centric young firms is providing Wenatchee with a much-needed reduction in exposure to immigration and trade policy.

WENATCHEE, WASHINGTON

2017 Population	118,478
Size Group	Small
Overall Z-Score	1.1081
Overall Ranking	16 th
Size-Group Ranking	11 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	27 th	22 nd
Per-Capita Personal Income	148 th	78 th
Medium-Term Job Growth	23 rd	11 th
Short-Term Job Growth	36 th	25 th
Short-Term Job Momentum	28 th	22 nd
Medium-Term Average Annual Pay Growth	75 th	61 st
Short-Term Average Annual Pay Growth	43 rd	35 th
Medium-Term GDP Growth	36 th	24 th
Short-Term GDP Growth	29 th	24 th





#17 Fayetteville-Springdale-Rogers, Arkansas-Missouri

Fayetteville-Springdale-Rogers, Arkansas-Missouri (Northwest Arkansas- NWA) is second among mid-sized metros and 17th overall. Bentonville is the fastest-growing community in the metropolitan area. The region has a unique economic composition of large Fortune 500 firms, the University of Arkansas (the state's flagship research university), a cluster of food and protein-related businesses, logistics expertise, an emerging startup location and a number of cultural (Crystal Bridges Museum of American Art as its anchor²³⁹) and recreation attractions such as bike trails and boating. The metro area was fourth in U.S. News & World Report's Best Places to Live. In many respects, Northwest Arkansas is a corporate, college and cultural center. The region is ninth in per capita income when adjusted for the cost of living and scores in the upper quartile of most metrics included in our evaluation. Economic growth did moderate in 2018, but it could not have continued at its rapid pace with unemployment down to 2.9 percent.

Northwest Arkansas' three Fortune 500 firms—Walmart, Tyson Foods and J.B. Hunt—serve as the business affixtures for the region. All are contributing to the growth in the metro area. Management of companies & enterprises, where corporate headquarters staff is recorded, has nearly seven times the concentration as the nation. Walmart is embarking on developing a new world-class headquarters in Bentonville (the northern part of the metro) and will do it in phases over several years. Walmart is restructuring its operations toward the e-commerce space, moderating the overall pace of job creation in the region during the past two years.²⁴⁰ Tyson Foods created a new technology center in 2017 and has recruited Silicon Valley executives to lead it.²⁴¹ J.B. Hunt, a national-leading trucking and logistics firm, expanded its corporate headquarters in 2017 and announced plans for a new 132,000 square foot technology and logistics operations center that will employ 1,000.²⁴² The Tyson and J.B. Hunt tech expansions will deepen the pool of technology talent in the region leading to hiring and recruitment of systems analysts, network designers and applications programmers.

There is an expanding supply chain in logistics and retail support services. A great example is CaseStack, a logistics aggregator for retail. Dan Sanker started the firm in Santa Monica, California, in 1999. He moved to Fayetteville in 2007 and established operations while leaving some functions in Santa Monica. CaseStack had approximately 280 employees, most in Fayetteville, at the time of its \$255 million acquisition by Hub Group in November 2018.²⁴³ Another example of cluster expansion is Movista, an enterprise-grade execution platform for retailers, brands and service providers.²⁴⁴ There are a number of startup and scaleup support organizations in the metro as it realizes that it must diversify its business ecosystem. Startup Junkie provides services to budding entrepreneurs while Endeavor provides a network of mentors to support more established management teams. Grit Studios is another important startup support organization. Fayetteville has the aspirational goal to become the Startup City of the South.

The Northwest Arkansas Council is an important business and community support organization whose mission is to “ensure the region's successful future by working with partners to advance quality of life, improve the region's workforce, create job opportunities, upgrade infrastructure and keep up with the region's impressive growth.”²⁴⁵ The NWA Council funded a study examining whether the regional healthcare sector was expanding

commensurate to support the quantity and quality that its residents required. The Council is moving forward to develop a plan to address some of the gaps in specialized care.²⁴⁶ Arkansas Children’s Hospital Northwest opened in 2018 and Mercy Northwest Arkansas has a major expansion underway.

The University of Arkansas (UA) has increased student enrollment and garnered more research grants. UA’s research expenditures grew to \$175 million in 2018, continuing the double-digit gains of recent years.²⁴⁷ UA has one of the best graduate entrepreneurship programs in the nation. UA has restructured its economic development group to better support faculty and students in starting firms and licensing IP and interacting with local businesses. The percent of the adult population 25 years or older with a Bachelor’s degree or above has risen to 32 percent, exceeding the national figure for the first time.²⁴⁸ The region has a high net in-migration rate and contributes to the labor force and population growth.

FAYETTEVILLE-SPRINGDALE-ROGERS, ARKANSAS-MISSOURI

2017 Population	537,463
Size Group	Medium
Overall Z-Score	1.0965
Overall Ranking	17 th
Size-Group Ranking	2 nd

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	191 st	24 th
Per-Capita Personal Income	9 th	2 nd
Medium-Term Job Growth	13 th	3 rd
Short-Term Job Growth	92 nd	13 th
Short-Term Job Momentum	108 th	16 th
Medium-Term Average Annual Pay Growth	103 rd	11 th
Short-Term Average Annual Pay Growth	18 th	2 nd
Medium-Term GDP Growth	11 th	2 nd
Short-Term GDP Growth	57 th	5 th





#18 Naples-Immokalee-Marco Island, Florida

The **Naples-Immokalee-Marco Island, Florida** metro (NIM) performed exceptionally well in the index, given that the area was devastated by Hurricane Irma in 2017. The NIM economy is dominated by the hospitality industry. With its combination of sandy beaches and famous wetland forests, the metro is a draw for both tourists and wealthy retirees.

In general, NIM performed well in longer-term measures of economic growth, with the 29th-best medium-term job growth and 32nd-best medium-term GDP growth. The metro was a relatively poor performer in medium-term wage growth, which is likely driven by growth in low-paying hospitality and retail jobs. Due largely to Hurricane Irma and its impact on infrastructure and tourism, NIM performed poorly in short-term economic growth measures. The one outlier was December 2017-December 2018 job growth, where the metro was 46th. This is the most recent economic indicator we use, and is evidence that NIM is bouncing back. NIM performed very well in our two non-growth measures. Its second-ranked per-capita personal income level is indicative of the metro's attraction for wealthy individuals. A 10th place finish in the young firm employment ratio, which was measured before Hurricane Irma, implies that the metro should have a steep growth path after rebuild.

Tourism in the metro is centered on the oceanfronts in Naples and on Marco Island, but those are not the only draws. Big Cypress National Preserve, the northernmost section of Everglades National Park and the Ten Thousand Islands National Wildlife Refuge provide unique opportunities to experience nature; they draw in significant numbers of outdoor lovers. NIM's tourism industry, like that of so many other tourist draws, has thrived since the end of the Great Recession unleashed pent up tourism demand. Even after Hurricane Irma's destruction and concerns over toxic red tides – phenomena caused by certain types of algae experiencing intense blooms, and possibly exacerbated by high levels of nutrient-rich agricultural and industrial runoff – the metro had all-time highs for visitor numbers and tourism spending.²⁴⁹

While the economy is highly dependent on hospitality, it is also home to growing high-tech firms. An example is Haynes, a precision heavy equipment part manufacturer that was purchased by Caterpillar subsidiary in 2015 with intentions to grow operations in the metro.²⁵⁰ Another reputable tech firm is Arthrex, a developer of advanced medical devices and surgical techniques²⁵¹ that is one of NIM's largest employers.²⁵²

The metro also has very respectable agricultural output. In particular, Collier County, which encompasses NIM, has ninth-most Valencia orange acres and the 13th-most field-grown tomato acreage of any county in the U.S.²⁵³ Immokalee-based Lipman Family Farms is North America's largest open-field tomato operation.²⁵⁴

Looking ahead, NIM would do well to continue expanding non-hospitality-related industries. Tourist destinations are generally the most impacted by economic downturns because many people can no longer afford vacations and second homes. As indicated by NIM's strong young firm employment ratio, the metro has a significant entrepreneurial network of accelerators, incubators and business development centers that are helping to diversify the economy.²⁵⁵ The question is whether NIM's young firms can reasonably grow within the metro.

Demand for housing by retirees, as well as wealthy individuals looking for vacation homes, is quickly driving up house prices and reducing affordability for prospective startup employees.²⁵⁶

NAPLES-IMMOKALEE-MARCO ISLAND, FLORIDA

2017 Population	372,880
Size Group	Small
Overall Z-Score	1.0567
Overall Ranking	18 th
Size-Group Ranking	12 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	10 th	8 th
Per-Capita Personal Income	2 nd	1 st
Medium-Term Job Growth	29 th	14 th
Short-Term Job Growth	336 th	231 st
Short-Term Job Momentum	46 th	34 th
Medium-Term Average Annual Pay Growth	312 th	215 th
Short-Term Average Annual Pay Growth	291 st	208 th
Medium-Term GDP Growth	32 nd	20 th
Short-Term GDP Growth	228 th	156 th





#19 Cape Coral-Fort Myers, Florida

Located in the county adjacent to the Naples-Immokalee-Marco Island metro is the **Cape Coral-Fort Myers, Florida** metro (CCFM). In many ways, CCFM is just a bigger version of its southern neighbor: beach-related tourism dominates, there is a large number of retirees, and the entrepreneurship scene is beginning to thrive.

Looking at CCFM's performance in the index metrics, the burgeoning startup culture is clearly visible. The metro placed fourth overall in the young firm employment ratio, and first among medium-sized metros. Among our top-30 metros in the overall index, no metro performed better than CCFM in the ratio. In other metrics, Hurricane Irma had the same impact on CCFM as it did on the Naples-Immokalee-Marco Island metro: CCFM generally performed well in medium-term growth metrics, but short-term growth metrics were weighed down by storm damage and recovery. A more positive performance in December 2017-December 2018 job growth is a good sign for the recovery efforts.

As mentioned, beach-related tourism drives the economy. As in many other tourism-centered areas, tourism in CCFM skyrocketed following the Great Recession.²⁵⁷ While higher wages were allowing families to travel more after the recession, increased dividends and other investment returns drove up retirees' monthly incomes. This led thousands of retirees to move into CCFM to enjoy its climate and other amenities. The metro population increased nearly 20 percent from 2010 to 2017, and growth in the retirement-age population accounted for more than half of that increase.²⁵⁸ Those retirees are using tourism resources year-round, and providing knock-on effects for the healthcare industry.²⁵⁹

Tourism and related hospitality are centered on Fort Myers Beach and Sanibel Island, the latter providing an enticing mixture of luxury amenities and nature explorations. The metro also draws in thousands for its tarpon fishing, and is considered the "Tarpon Capital of the World" because of its uniquely high density of the sport fishing from spring through fall. CCFM's tarpon have long appealed to famous sportswomen and sportsmen, drawing in industry magnates and presidents for over a century.²⁶⁰ Unfortunately, the metro's most popular attractions are at risk from red tide, the same phenomenon affecting Naples-Immokalee-Marco Island. The toxic algae blooms are at least a temporary downside risk to beach-focused business, and have the potential to have a much longer impact on the famous fishery as more and more marine animals die.

With so many natural and economic downside risks to a reliance on tourism and retirees, CCFM's growing entrepreneurship focus is a positive development. While many entrepreneurial resources are shared with CCFM's southern neighbor, it has a few unique assets all its own. One of those is newly developed RocketLounge, which is a tech co-working space, incubator and accelerator wrapped into a single entity. Another is Florida Gulf Coast University's Runway Program, which provides funding opportunities and a full suite of resources to student entrepreneurs.²⁶¹ One of the outputs of CCFM's entrepreneurial ecosystem is iGPS, creator of a children's smartwatch that allows parents to track and remotely interact with their children. The company was named one of the "15 most promising wearable technology startups" by **Startup City**.²⁶²

CAPE CORAL-FORT MYERS, FLORIDA

2017 Population	739,224
Size Group	Medium
Overall Z-Score	1.0241
Overall Ranking	19 th
Size-Group Ranking	3 rd

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	4 th	1 st
Per-Capita Personal Income	93 rd	13 th
Medium-Term Job Growth	6 th	2 nd
Short-Term Job Growth	132 nd	21 st
Short-Term Job Momentum	48 th	4 th
Medium-Term Average Annual Pay Growth	115 th	13 th
Short-Term Average Annual Pay Growth	90 th	8 th
Medium-Term GDP Growth	43 rd	8 th
Short-Term GDP Growth	197 th	27 th





#20 Boise City, Idaho

The **Boise City, Idaho** metro is quickly becoming an example of how to thrive on a young, technologically skilled workforce. With the attraction of nearby mountains, thousands of acres of public land to explore and high-paying tech jobs, the metro has drawn thousands of young workers in recent years.²⁶³

Boise performed well in all growth metrics, finishing in the top 70 overall and top ten among medium-sized metros for each growth metric. Job growth was a particular strong point, with the metro finishing 15th overall in 2013-2018 job growth and 22nd in 2017-2018 job growth. 20th place in 2016-2017 annual pay growth indicates that many of the job gains were likely high paying. The metro was below the national average in the level of per-capita personal income, but sustained wage growth will close that gap.

Part of the reason Boise is having such an influx of young, educated workers is that it is retaining Boise State graduates. The metro had the seventh-best graduate retention rate among metros in 2017, at 58 percent, and was only bettered by mature metros with populations of three million or more.²⁶⁴ Thus, Boise is uniquely succeeding in selling itself to its students and placing them in the market.

Arguably, Boise's biggest non-job selling point to young workers is the surrounding natural landscape. The city boasts around 200 miles of trails that begin within a mile of downtown. Central to that outdoor culture is Café Mulé, the now-famous remote, trailside coffee service delivered by Matt Bishop and his mule Richard. The two head deep into the hills on warm Saturday mornings, and provide coffee to any hikers who come out to meet them.²⁶⁵ The natural amenities are also being used to attract businesses interested in young, adventurous employees. Economic development officials are now taking leaders of possibly relocating businesses on mountain bike tours to demonstrate the resources the businesses could use to draw workers and build a unique work environment.²⁶⁶

Connected to the surrounding landscape are long-standing agriculture and food-processing industries. One of the anchors of those industries is the J.R. Simplot Company, creator of frozen french fries²⁶⁷ and one of the metro's largest employers.²⁶⁸ The company continues to grow its Boise footprint, and recently moved into a new and larger headquarters in Downtown Boise.²⁶⁹ Alongside J.R. Simplot, Amalgamated Sugar, one of the nation's largest sugarbeet processors, calls the metro home.²⁷⁰

The more recent drivers of the Boise economy have been the high-tech manufacturing and services industries. Leading the way is Micron, one of the nation's largest companies and a global leader in memory hardware production.²⁷¹ The company is the metro's largest for-profit employer, with more than 6,000 employees, and continues to expand.²⁷² While Micron is a long-established company, fast-growing new companies such as robotics-focused House of Design and wireless connectivity-focused Cradlepoint demonstrate the vitality of Boise's high-tech industries.²⁷³ Going back to the metro's impressive graduate retention rate, these high-tech firms are playing an outsized role in that phenomenon; 95 percent of Boise State computer science graduates remained in the Boise metro in 2017.

BOISE CITY, IDAHO

2017 Population	709,845
Size Group	Medium
Overall Z-Score	0.9299
Overall Ranking	20 th
Size-Group Ranking	4 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	102 nd	13 th
Per-Capita Personal Income	221 st	39 th
Medium-Term Job Growth	15 th	5 th
Short-Term Job Growth	22 nd	3 rd
Short-Term Job Momentum	58 th	7 th
Medium-Term Average Annual Pay Growth	70 th	6 th
Short-Term Average Annual Pay Growth	20 th	3 rd
Medium-Term GDP Growth	51 st	9 th
Short-Term GDP Growth	40 th	4 th





#21 Mount Vernon-Anacortes, Washington

The **Mount Vernon-Anacortes, Washington** metro (MVA) lies on fertile soil along the Puget Sound, and borders the also-successful Seattle-Tacoma-Bellevue and Wenatchee metros. Like similarly sized Wenatchee, MVA has a strong agricultural base anchored in non-traditional crops. Yet, due to its access to the Pacific Ocean, MVA also has some unique economic capabilities ranging from shipbuilding to aquaculture to refinement of shipped-in oil.

While MVA performed well in each metric, including the 12th-best medium-term GDP growth among all metros, it was a particular standout in wage growth. MVA was eighth overall in medium-term average annual pay growth, and seventh overall in short-term growth. This performance may have been partially influenced by a \$1.53 jump in Washington's minimum wage from 2016 to 2017,²⁷⁴ but the jump certainly does not explain all of the growth. Lesser wage growth performances in other Washington metros serve as evidence.

While MVA has a reliance on agriculture and natural resources, that reliance is spread over a wide breadth of common and not-so-common sub-industries. Metro-encompassing Skagit County is a national leader in tulip production, and draws in thousands to see its flower fields.²⁷⁵ Skagit County is also among the nation's largest counties for root vegetable production and aquaculture.²⁷⁶ Skagit Horticulture, seller of a variety of plants and horticulture supplies, and Draper Valley Farms, a free-range chicken farming and packaging company, are among the metro's largest employers.²⁷⁷ Separate from fruit and flower production, Puget Sound, rivers and the Cascade Mountains provide a multitude of outdoor recreation opportunities.²⁷⁸

Many of MVA's firms have strategically positioned themselves on the Puget Sound, and particularly in Anacortes. Shell²⁷⁹ and Marathon²⁸⁰ both have growing petroleum refineries near Anacortes that refine oil shipped from Alaska. Additionally, the Port of Anacortes is home to shipbuilder Dakota Creek Industries and an export facility.²⁸¹

The economy's most promising future drivers may be advanced manufacturing, engineering services and diagnostics. Manufacturing and engineering firm Janicki Industries is the metro's largest private, nonmedical employer by full-time employment,²⁸² and has undertaken projects in industries ranging from space exploration to alternative energy generation to boat manufacturing.²⁸³ The metro is also home to facilities for advanced materials engineering and manufacturing firms EDCO²⁸⁴ and Hexcel.²⁸⁵ PACCAR, the maker of Kenworth and Peterbilt semi-tractors, has an advanced semi-tractor testing facility in MVA.²⁸⁶

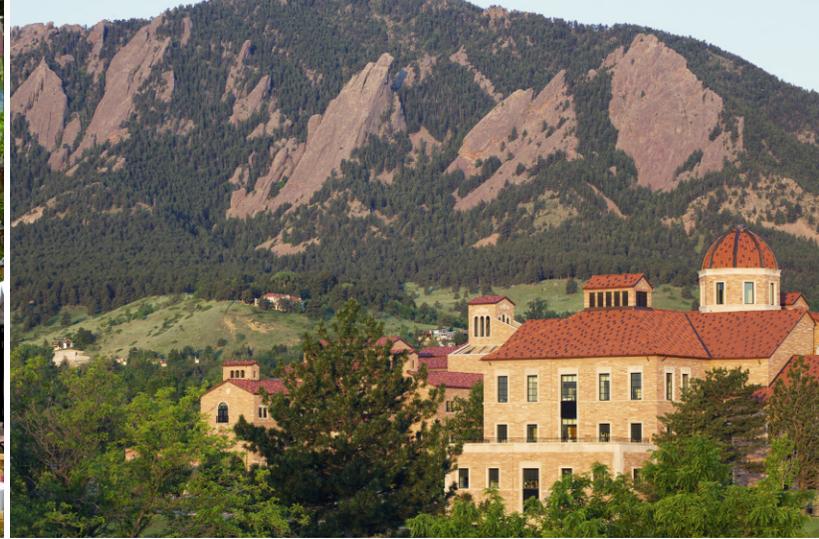
MVA has benefited from the recent phenomenon that is the retirement of the baby boomers. While Skagit County's 65-plus population share has not ballooned as much as in some other Washington counties, its share is much higher than the state and national levels.²⁸⁷ An increased retired population will drive up healthcare and retail spending in the metro, but can only last so long given the smaller size of younger generations. To create more sustainable economic growth into the future, MVA will need to improve its ability to market a relatively low cost of living²⁸⁸ and expansive amenities to draw in more young, educated workers and further grow its advanced industries.

MOUNT VERNON-ANACORTES, WASHINGTON

2017 Population	125,619
Size Group	Small
Overall Z-Score	0.9182
Overall Ranking	21 st
Size-Group Ranking	13 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	77 th	58 th
Per-Capita Personal Income	122 nd	63 rd
Medium-Term Job Growth	128 th	77 th
Short-Term Job Growth	152 nd	97 th
Short-Term Job Momentum	114 th	79 th
Medium-Term Average Annual Pay Growth	8 th	5 th
Short-Term Average Annual Pay Growth	7 th	6 th
Medium-Term GDP Growth	12 th	7 th
Short-Term GDP Growth	105 th	71 st





#22 Boulder, Colorado

Boulder, Colorado may be relatively small by population, but its list of high-tech R&D facilities and national research labs is anything but small. This metro, within a short drive of Denver, is anchored by the University of Colorado-Boulder and the scientists and engineers the school produces.

Boulder performed roughly a half a standard deviation or better than the national average in all index metrics. Its large high-value-added workforce has contributed to a per-capita personal income level that is 12th in the nation. The metro also had a young firm employment ratio nearly 1.5 standard deviations higher than the national average, for 44th. Boulder's worst metric ranking was 104th, corresponding to its medium-term average annual pay growth. Among all other metros, only four placed better than 104th in every metric ranking, and all four were in the top seven metros overall.

Boulder's performance in the index is tightly connected to its innovation culture, a culture which produced the fourth-most technology patents per capita from 2000 to 2015.²⁸⁹ Some of the largest high-tech companies in the world have research and/or manufacturing facilities in the metro. These include Google, which is looking to expand with a new R&D-focused campus;²⁹⁰ IBM, which has had a presence in Boulder for decades and is one of the metro's largest employers;²⁹¹ and Medtronic, a global leader in medical device development and manufacturing that employs more than 1500 people in the metro.²⁹² Boulder is also home to Ball Aerospace, a subsidiary of jar-maker Ball Corporation that undertakes advanced manufacturing projects in fields ranging from national security to space exploration; the aerospace firm began a major fixed capital expansion in 2017.²⁹³

Boulder also houses multiple national research labs and other notable not-for-profit, tech-centric facilities. Among these are the National Ecological Observatory Network,²⁹⁴ the National Center for Atmospheric Research and related University Corporation for Atmospheric Research,²⁹⁵ the National Oceanic and Atmospheric Administration's Earth System Research Laboratory,²⁹⁶ and National Institute of Standards and Technology Laboratories.²⁹⁷

Feeding all of this innovation is the University of Colorado-Boulder. A national top-50 public university with the 9th-ranked undergraduate aerospace engineering program,²⁹⁸ the school also has top-15 graduate programs in physical chemistry, applied math and multiple physics disciplines.²⁹⁹ The university's commitment to high-quality research is reflected in JILA, a STEM research institute that is the joint venture of the university and the aforementioned National Institute of Standards and Technology. The institute's foci range from laser design to quantum physics to the evolution of the universe, and its scientists include two Nobel laureates and two MacArthur Fellows.³⁰⁰

From the university's research have come several successful startups that further grow the metro's high-tech economy. Per the Milken Institute, the University of Colorado-Boulder is in the top 40 universities nationally for research commercialization.³⁰¹ However, Boulder's startup culture goes well beyond the university. Recent success stories include Canvas Technologies, a warehousing and transportation automation firm, which was bought by Amazon.³⁰² Another star is JumpCloud, an IT software firm, which has announced plans to add

nearly 50 engineers.³⁰³ JumpCloud’s growth is an example of how a strong startup community can drive an economy forward.

Like much of the rest of Colorado, the Boulder economy benefits from its worker- and firm-drawing natural amenities and culture. Boulder County is home to Longs Peak, one of the tallest mountains in the country.³⁰⁴ Boulder’s close proximity to world-class mountain biking, road biking, hiking, climbing, kayaking and skiing opportunities explains why the metro is a favorite for outdoors-loving professionals.³⁰⁵ Beyond the outdoor amenities, the restaurant scene earned Boulder the title of “America’s Foodiest Town” in 2010.³⁰⁶ Oskar Blues, the pub-turned-microbrewery-turned-craft brewing empire that arguably revolutionized craft brewing when it decided to can its beers instead of bottling them, has only increased the area’s cultural draw and helped lead the metro’s craft brewing explosion.³⁰⁷

Boulder’s biggest problem is that it has performed too well over the past few decades; the metro is struggling to find housing for its growing workforce, and housing costs are skyrocketing. In 2018, Boulder was ranked as the fifth-least affordable metro to own a home in the nation.³⁰⁸ Citizen groups are vocalizing their frustration that affordable housing efforts must increase, and they are correct. Boulder is not as attractive for workers if they are required to live increasingly further from their place of work to afford housing, and a loss of attraction for workers means a loss of attraction for startups and expanding firms.

BOULDER, COLORADO

2017 Population	322,514
Size Group	Small
Overall Z-Score	0.9048
Overall Ranking	22 nd
Size-Group Ranking	14 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	44 th	34 th
Per-Capita Personal Income	12 th	7 th
Medium-Term Job Growth	88 th	50 th
Short-Term Job Growth	83 rd	57 th
Short-Term Job Momentum	56 th	41 st
Medium-Term Average Annual Pay Growth	104 th	80 th
Short-Term Average Annual Pay Growth	31 st	25 th
Medium-Term GDP Growth	99 th	60 th
Short-Term GDP Growth	67 th	47 th





#23 North Port-Sarasota-Bradenton, Florida

The **North Port-Sarasota-Bradenton, Florida** metro (NPSB) is thriving for the same two reasons that most of Florida's other top-performing metros are: First, tourism demand quickly rebounded after the Great Recession, and continues to grow. Second, the baby boomers are retiring, and their increasingly healthy investment portfolios are making beachside retirement increasingly feasible.

Looking at NPSB's performance in our metrics, it does seem that the economy is moderating. In each of our analyzed growth categories – average annual pay growth, job growth and GDP growth – the metro ranked much higher in medium-term measures than in the recent, short-term measures. A particular highlight among these metrics is NPSB's medium-term job growth rate, which was 14th overall and fourth among medium-sized metros. While short-term growth measures do not give an overly positive signal of future growth, the metro's young firm employment ratio does: NPSB was also 14th overall in this metric and an impressive third in its size category.

Sarasota and Manatee Counties make up the geographic area that defines NPSB, and both are national retirement havens: Among the roughly 1,100 counties with data available, Sarasota County has the sixth highest 65 and older population share, and Manatee County has the 41st highest.³⁰⁹ The swelling of these counties' retirement populations in recent years have been major economic drivers. The economic segment receiving the most benefits is arguably the healthcare industry, which continues to expand with a multitude of recent announcements including for a new hospital.³¹⁰

The metro's other big driver, tourism, had a more than \$4 billion economic impact in 2018, and has seen several years of growth. Sarasota County, the larger of the two metro counties by tourism impact, saw a 34 percent growth in its visitor count from 2014 to 2018.^{311 312} Red tide, a phenomenon where certain types of algae have blooming periods so intense that the water turns toxic, did temper the growth trend by the end of 2018, but water quality has since improved.³¹³ NPSB's biggest tourism draw will always be beaches, but attractions such as Major League Baseball Spring Training are also revenue generators.³¹⁴ It should be noted that this tourism growth has been a bit of a double-edged sword: the tourism industry has certainly played a role in NPSB's respectable job growth number, but it is also likely to have contributed to weak job growth statistics due to the low-paying nature of tourism-related jobs.

While retiree service providers and tourism-related businesses make up much of the NPSB economy, there are several other companies and industries of note. One is Tropicana, which was founded in the metro and still has a 1,000-employee orange juice plant in Bradenton.³¹⁵ Manatee County is actually a national leader in tomato, orange and cucumber production.³¹⁶ Outside of agriculture, PGT Industries specializes in hurricane-proof windows and is one of the metro's largest employers.^{317 318} Sun Hydraulics, manufacturer of hydraulic valves and manifolds, is another major employer.^{319 320}

The tourism industry is a volatile one, and the nation's retiree population will eventually shrink; the metro's industries not exposed to these downside risks will need to continue to expand to ensure stable growth into

the future. The metro’s strong performance in the young firm employment ratio may be an indication that the expansion is already occurring. Digging further, it is clear that, like its fellow thriving Florida metros, NPSB has an outsized startup culture. A big part of that is Sarasota’s HuB, a tech-centric coworking space that over the past 10 years “has launched or incubated over thirty ventures...”³²¹ Additionally, there is serial entrepreneur Joy Randels, a Bradenton resident with several acquisitions and IPOs under her belt. She is both playing a direct role in the metro’s startups and advocating for other female entrepreneurs across the area and state.³²²

NORTH PORT-SARASOTA-BRADENTON, FLORIDA

2017 Population	804,690
Size Group	Medium
Overall Z-Score	0.8959
Overall Ranking	23 rd
Size-Group Ranking	5 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	14 th	3 rd
Per-Capita Personal Income	50 th	9 th
Medium-Term Job Growth	14 th	4 th
Short-Term Job Growth	74 th	8 th
Short-Term Job Momentum	101 st	14 th
Medium-Term Average Annual Pay Growth	119 th	15 th
Short-Term Average Annual Pay Growth	189 th	22 nd
Medium-Term GDP Growth	40 th	6 th
Short-Term GDP Growth	144 th	17 th





#24 Coeur d'Alene, Idaho

The **Coeur d'Alene, Idaho** metro has changed from an economy that historically extracted its natural resources via fur trading, mining and logging, to an economy centered on preserving its natural amenities for tourism and a fast-growing retiree community. Foremost among those natural amenities is Lake Coeur d'Alene, a picturesque lake surrounded by forested hills that has drawn national acclaim.³²³

The metro's performance in our index metrics reflects common characteristics of tourism-centric economic development: high shares of employment in retail and hospitality mean low per-capita income. However, the region's fast-growing tourism popularity and the resultant high demand for related labor are contributing to fast growth in GDP, jobs and wages. With December 2017-December 2018 job growth giving Coeur d'Alene its best metric ranking and being roughly 1.75 standard deviations above the national metro average, growth doesn't show any signs of moderation.

As discussed, Lake Coeur d'Alene is the metro's tourism anchor. Known as one of the clearest lakes in the U.S.,³²⁴ the lake and its framing hills provide opportunities for fishing, boating, cycling, hiking, eagle viewing and windsurfing. Situated on the lake is the large and upscale Coeur d'Alene Resort, with a lake-oriented golf course considered one of the most beautiful in the country.³²⁵ The resort also boasts what USA Today ranked as America's fourth-best Christmas lights show.³²⁶ Beyond the lake, there are several opportunities for mountain biking, hiking and whitewater rafting, with significant elevation change.³²⁷ Just outside of the metro is Kellogg, Idaho's Silver Mountain, which provides lift-access skiing and mountain biking.³²⁸ One of the major draws for tourists is the convenience of accessing a place that feels far off the beaten path; Spokane International Airport is less than hour away.

For many of the same reasons the region is popular to tourists, it is popular to retirees. The other retiree draw is affordability, with significantly cheaper housing than in the larger cities of the Pacific Northwest. The natural amenities and affordability, combined with a retiring baby boomer generation, have resulted in the metro's retiree population doubling since 2000.³²⁹ This has meant a larger base for industries such as retail, and almost continual expansion of healthcare facilities.³³⁰

Beyond tourism and retiree services, the metro has retained two of its legacy industries, in timber and mining. More than a century in existence, Hecla Mining is a multinational precious metals mining operation that still calls the metro home.³³¹ Similarly, Idaho Forest Group has grown its Coeur d'Alene business into one of the largest lumber operations in the country.³³² Not as closely tied to the area's natural resources, airline and aircraft service provider Empire Airlines³³³ and advanced input system Esterline – think of medical-grade sanitary keyboards – are both based in the metro.³³⁴ Business services firms are increasingly becoming tenets of the economy; call centers such as Qualfon have added large numbers of employees in recent years.³³⁵

As the metro becomes more reliant on hospitality-related industries and retirees continue to drive rapid population growth – the 60-and-over population is responsible for almost 10,000 people of the 15,000-person population increase from 2010 to 2017³³⁶ – citizens are beginning to wonder if Coeur d'Alene will become

the next high-cost-of-living western resort town.³³⁷ It may be difficult to stop the headwinds that are taking the metro down that path, but things can be done so that the above discussion of non-hospitality-related industries gets a bit longer. That may be where North Idaho College, the local community college, comes in. Shortly after being “named Entrepreneurial College of the Year by the National Association for Community College Entrepreneurship,” it was announced that the school had secured a nearly \$700,000 federal grant to create its Venture Center. The center will house a prototype lab and new entrepreneurship-focused education programs.³³⁸

COEUR D’ALENE, IDAHO

2017 Population	157,637
Size Group	Small
Overall Z-Score	0.8870
Overall Ranking	24 th
Size-Group Ranking	15 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	59 th	45 th
Per-Capita Personal Income	247 th	155 th
Medium-Term Job Growth	26 th	13 th
Short-Term Job Growth	31 st	22 nd
Short-Term Job Momentum	20 th	17 th
Medium-Term Average Annual Pay Growth	49 th	38 th
Short-Term Average Annual Pay Growth	52 nd	43 rd
Medium-Term GDP Growth	63 rd	36 th
Short-Term GDP Growth	75 th	50 th





#25 The Villages, Florida

If anyone is not calling **The Villages, Florida** metro the retirement capital of the world, that person should. The metro has far and away the nation's highest density of individuals 65 and older, at more than 50 percent of the total population.³³⁹ Located just west of Orlando and northeast of Tampa, The Villages metro is also Florida's only top-30 metro that does not contain a coastline.

The Villages performed relatively well across most index metrics. It had strong rankings in both medium- and short-term GDP growth, while also having respectable showing in medium-term job growth and short-term wage growth. Medium-term wage growth was by far its weakest component, with an index value more than 1.5 standard deviations below the national metro mean. This is likely explained by expanding retail and hospitality sectors driving up the number of low-wage earners in the metro. On the opposite end of the spectrum, the metro was fifth overall for its young firm employment ratio; at the very least, local entrepreneurs are taking advantage of the retiree boom.

Focusing on the growing retirement community, it is driving the metro's nation-leading population growth over the past few years.³⁴⁰ Growth in the 65 and older population explains roughly 92 percent of The Villages' rapid population growth from 2010 to 2017.³⁴¹ Central to the retiree population growth is the massive retirement community the metro is named after; The Villages retirement community is one of the nation's largest and most renowned retirement communities.³⁴² It also has not indicated any plans to stop growing.³⁴³ Beyond the warm climate that has drawn millions of retirees into Florida, a unique draw of The Villages is relative affordability. While the Florida's coastline is becoming increasingly unaffordable, this retirement community offers homes from \$150,000.³⁴⁴

As discussed for other metros, two industries that benefit the most from a large influx of retirees are healthcare and retail. That phenomenon certainly seems to exist in The Villages: Anchor Health Properties should complete its 200,000-square foot Center for Advanced Healthcare in 2020, offering a broad suite of medical specialists to the area.³⁴⁵ Meanwhile, plans of new Villages-related retail centers have been consistently announced over the last few years.³⁴⁶

While retirement community expansion is central to the area's success in our index, questions should arise regarding the sustainability of this path. Analysis of the distribution of the U.S. population by age will show that the baby boomers are providing retirement communities with many more retirees than the next few generations will. Thus, are communities such as The Villages overdeveloping and driving out more sustainable industries? This metro does have many respectable companies unrelated to The Villages, such as HVAC component manufacturer Metal Industries,³⁴⁷ but the sum of employment at such firms still pales in comparison to the number of jobs connected to retirees. Florida Gulf Coast University ranks each of the Florida metros on industry diversity, and, in a state that struggles with diversification overall, The Villages metro is one of the worst performers.³⁴⁸ Efforts must be made to ensure the transition from the current retiree boom is not a massive bust.

THE VILLAGES, FL

2017 Population	125,165
Size Group	Small
Overall Z-Score	0.8387
Overall Ranking	25 th
Size-Group Ranking	16 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	5 th	4 th
Per-Capita Personal Income	193 rd	111 th
Medium-Term Job Growth	20 th	10 th
Short-Term Job Growth	165 th	104 th
Short-Term Job Momentum	59 th	43 rd
Medium-Term Average Annual Pay Growth	347 th	247 th
Short-Term Average Annual Pay Growth	22 nd	16 th
Medium-Term GDP Growth	31 st	19 th
Short-Term GDP Growth	43 rd	33 rd





#26 Nashville-Davidson-Murfreesboro-Franklin, Tennessee

The **Nashville-Davidson-Murfreesboro-Franklin, Tennessee** metropolitan area, has been one of the best economic success stories for the Heartland region. Nashville is fifth in the large metro category and 26th overall. Nashville's real GDP grew 4.1 percent in 2017; placing the Music City fifth among metropolitan areas with real GDP in excess of \$100 billion—surpassed by only San Jose, Austin, Seattle and San Antonio.³⁴⁹ High tech has not been the primary source of growth as it has a lower dependence on this sector than the nation overall. A combination of eds (education), meds (medical), auto manufacturing, logistics and supply-chain fulfillment are boosting job and wage gains. Steady upper-tier performance over the past five years across our metrics has propelled Nashville. Job growth has moderated to twice the national pattern over the last year as opposed to triple that of the U.S. overall, which prevailed during the previous five years.

Capacity expansion and recovering production in the auto industry were making significant contributions to Nashville expansion during 2013-2017; however, auto sales plateaued restricting further advances. Manufacturing employment has fallen over the past twelve months. Nissan has major operations in Smyrna (employing over 10,000) and GM (4,000 workers) has its main plant in Spring Hill.³⁵⁰ GM has seen strong demand for its Cadillac XT5 and GMC Acadia. Logistics and warehousing expansion has been a new source of strength as job gains in late 2018 relative to the prior twelve months hit 7.9 percent. Amazon's new operations center will deepen logistics capabilities and increase its knowledge intensiveness. The new Amazon facility has been assigned the responsibility of optimizing Amazon's disparate supply chain.³⁵¹ Amazon has announced that it will hire 5,000, potentially making it one of Nashville's largest employers. Ironically, Amazon's decision to cancel its planned second headquarters in New York City could result in further expansion in Nashville.³⁵²

Nashville is home to one of the largest medical and health care complexes in the nation anchored by Vanderbilt University Medical Center (the largest employer in the metro area at 20,000) and HCA Inc. The Greater Nashville region has 250 health care firms, 17 are publicly traded, directly and indirectly employing 250,000 while generating \$46 billion (one out of every three dollars in the region) in local economic impact.³⁵³ Philips, a health technology innovator, has made several announced plans to expand—the latest is a downtown location to be renamed Philips Plaza and will employ 1,000 by the end of 2019.³⁵⁴ Further aiding the health technology cluster is The Laboratories of Innovations in Global Health Technologies at Vanderbilt University.

Nashville has a strong small business support system. Scale Nashville is a competitive six-month intensive training program comprised of three sections: 1) evaluation of the business model, 2) streamlining operations, and 3) building leadership skills.³⁵⁵ #Nashpreneurs is a twitter network created for and by Nashville entrepreneurs.³⁵⁶ Nashville.gov has a program to connect business owners to technical, financial and market resources.³⁵⁷ Nashville has a high share of total employment at young firms, indicating entrepreneurial success for the region. Professional and business services have been a source of job creation as it represents a high share of employment in the region. At 2.4 percent, Nashville's unemployment rate is the lowest in the nation for large metropolitan areas. This is beginning to restrain job gains. However, Nashville has maintained positive net migration around 25,000 for the past five years. Millennials have been flocking to the area, and when

combined with numerous local graduates, 36 percent of the population over the age of 25 holds at least a Bachelor’s degree. Nashville has one of the lowest education attainment gaps between African Americans (26 percent) and whites in the South.³⁵⁸

NASHVILLE-DAVIDSON-MURFREESBORO-FRANKLIN, TN

2017 Population	1,903,045
Size Group	Large
Overall Z-Score	0.8372
Overall Ranking	26 th
Size-Group Ranking	5 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	101 st	14 th
Per-Capita Personal Income	19 th	6 th
Medium-Term Job Growth	18 th	5 th
Short-Term Job Growth	102 nd	19 th
Short-Term Job Momentum	127 th	24 th
Medium-Term Average Annual Pay Growth	98 th	13 th
Short-Term Average Annual Pay Growth	219 th	33 rd
Medium-Term GDP Growth	15 th	5 th
Short-Term GDP Growth	38 th	5 th





#27 Dallas-Fort Worth-Arlington, Texas

The **Dallas-Fort Worth-Arlington, Texas**, metro area, is a huge complex with 7.4 million residents in 2017 and is sixth in the large metropolitan category and 27th overall. It has a multifaceted economy and has created jobs at a prodigious pace. For example, in 2018, Dallas added more jobs (116,400) than any other metro in the nation.³⁵⁹ It is the largest metro in the top 30 Most Dynamic Metropolitans, and you have to go down to 75th (Los Angeles) to find a more populous metro area. It is a remarkable accomplishment for a metro the size of Dallas to grow at such a rapid rate. The blended recipe for economic success leans heavily on company recruitment as it takes advantage of its attractive business climate with lower regulatory burdens and costs, along with its central location and excellent airline connections. Dallas' favorite target is California as it has recruited the headquarters of 39 California-based firms since 2010.³⁶⁰ In 2018, Dallas recruited Fortune 500 health care firm McKesson from San Francisco. One measure of Dallas' headquarter recruiting success has been that 14,000 positions in the management of companies and enterprises were added between 2012 and 2017, more than any other metropolitan area.³⁶¹ However, Dallas has several important tech industries, including semiconductors, electronic instruments, aviation and aerospace, telecommunications services, data processing, hosting and related services.³⁶²

Dallas has become a center of financial service activities. Since 2010, financial services employment expanded at a pace more than twice the U.S. average. Financial services represent 9 percent of total employment in Dallas, nearly double the composition of the U.S. overall. These are high-paying middle-class jobs with an average annual pay of \$63,250 in Dallas, \$5,000 above the national average.³⁶³ Major players include Bank of America Corp., JPMorgan Chase & Co., Citi and Capital One. Liberty Mutual, State Farm and Charles Schwab have substantial operations in the area. Telecommunication services have been a key source of job and wage gains, Dallas serves as the headquarters for AT&T's domestic and international operations. Most of this activity is located along the "Telecom Corridor" that stretches north of downtown Dallas through its suburbs of Richardson and Plano.³⁶⁴ Verizon has a large presence in Dallas with 8,100 employees, roughly one-half of AT&T's job base. Ericsson, Nokia and Samsung Telecommunications America also have their North American headquarters in the region.

Dallas is the headquarters of American Airlines with Dallas-Ft. Worth International serving as its hub. Southwest also calls Dallas home. Both have been increasing headcount in the metro and expanding flight operations, benefiting the Dallas economy. Semiconductor pioneer Texas Instruments is a major employer in the area and is contemplating an investment in a wafer fabrication plant.³⁶⁵ The University of Texas-Dallas supplies much of the local engineering talent. Defense electronics operations of Raytheon add to the diversity of the region's economy. Lockheed has been gearing up operations for its F-35 Joint Strike Force program. Dallas is a logistics hub and a key location for international trade.

The success in recruiting corporate headquarters and expanding operations of firms in the region have increased the need for professional support services. Professional, scientific and technical services added more jobs in Dallas over the 2012-2017 period than any other metro except the much larger New York area.

The Dallas Regional Chamber has a strategic economic development plan, “Building Tomorrow Together” that they execute to achieve success. Dallas has not placed all of its bets on corporate recruitment; it provides networking, support services and facilitates access to angel and venture capital.³⁶⁶ The diversity of the Greater Dallas economy makes it less susceptible to external events. Dallas is no longer highly dependent on oil; it is more closely tied to the fortunes of the natural gas industry.³⁶⁷

DALLAS-FORT WORTH-ARLINGTON, TEXAS

2017 Population	7,399,662
Size Group	Large
Overall Z-Score	0.8301
Overall Ranking	27 th
Size-Group Ranking	6 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	110 th	15 th
Per-Capita Personal Income	67 th	26 th
Medium-Term Job Growth	30 th	9 th
Short-Term Job Growth	37 th	8 th
Short-Term Job Momentum	38 th	8 th
Medium-Term Average Annual Pay Growth	167 th	22 nd
Short-Term Average Annual Pay Growth	232 nd	35 th
Medium-Term GDP Growth	24 th	6 th
Short-Term GDP Growth	41 st	6 th





#28 Raleigh, North Carolina

Raleigh, North Carolina, home to North Carolina State University (NCSU), is a critical component of the fabled Research Triangle and contributes to the strong record of innovation. Raleigh is seventh among large metropolitan areas and 28th overall in Most Dynamic Metropolitans. Raleigh scored above the mean on all nine metrics in our evaluation. The region contains corporate tech giants such as IBM and Cisco, but adds homegrown Red Hat and Citrix and a rich ecosystem for its startup community. Throw in thriving biotech/life sciences, advanced manufacturing, clean technology and contract research clusters, and you begin to appreciate the scope of Raleigh's knowledge-based economy. Among the largest 200 metros, Raleigh has the ninth-highest concentration of high-tech GDP and recorded the eighth-fastest growth in the nation between 2012 and 2017.³⁶⁸ This combination placed Raleigh first in a study of job growth related to STEM fields (both at tech and non-tech employers) for large metro areas.³⁶⁹

North Carolina State University supplies much of the academic research muscle. The PowerAmerica Institute's, a public-private partnership funded by the U.S. Department of Energy, mission is to expedite the commercial adoption of advanced semiconductor technology by cutting costs and boosting the reliability of wide-bandgap semiconductors.³⁷⁰ The presence of Citrix is related to this Institute. IBM's former laptop computer division, now owned by Lenovo, is still a major player. Former President Obama made NC State the southeast hub of the \$140 million Smart Innovation Institute, adding to the nine pre-existing institutes researching advanced materials, nanotechnology and other technologies.³⁷¹ Raleigh is the headquarters of the SAS Institute Inc., a pioneer in data analytics software, employing 5,600. RedHat has 2,000 knowledge workers.³⁷²

The biotech/life sciences industry is an important driver of economic growth in the region. The North Carolina Biotechnology Center, research hospitals and the innovative BTEC training facility are critical components of the cluster. There are 500 life science companies in the area with the biopharmaceutical anchors of GlaxoSmithKline, Biogen and Pharmaceutical Product Development, Inc. The average annual wage of biopharmaceutical firms is \$80,000.³⁷³ The depth of technical talent, along with these cluster resources, make Raleigh an attractive location for the life sciences. Educational attainment data for 2017 display that 46 percent of the population 25-years and older have obtained a Bachelor's degree, 15 percentage points above the national average, and 17 percent hold a graduate degree.³⁷⁴

The Raleigh area emphasizes providing support for entrepreneurs as a key component of its strategic portfolio approach to economic development. The Greater Raleigh Chamber of Commerce supports entrepreneurship in its Vision statement.³⁷⁵ The Triangle Startup Factory runs an intensive three-month program tailored for early-stage startups. Selected startups receive \$50,000 in seed capital, mentorship, and access to technology experts.³⁷⁶ It is the best-capitalized technology accelerator in the Southeast. There are a range of incubator, accelerators, angel investors and VCs that reside locally or fly in from around that nation. A report from the U.S. Chamber of Commerce concluded that the Raleigh-Durham area was fourth as a startup hub in the nation, "Raleigh-Durham may not be one of the largest startup communities in the country, but its well-connected ecosystem, density of startup activity, strong cultural foundation and deep talent pool positions it well to

thrive in the new digital economy.”³⁷⁷ Recent job growth has been impressive in professional and business services and the metro area has a high rate of net in-migration.

RALEIGH, NORTH CAROLINA

2017 Population	1,335,079
Size Group	Large
Overall Z-Score	0.8268
Overall Ranking	28 th
Size-Group Ranking	7 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	144 th	23 rd
Per-Capita Personal Income	48 th	21 st
Medium-Term Job Growth	27 th	8 th
Short-Term Job Growth	47 th	10 th
Short-Term Job Momentum	42 nd	9 th
Medium-Term Average Annual Pay Growth	79 th	8 th
Short-Term Average Annual Pay Growth	149 th	19 th
Medium-Term GDP Growth	29 th	8 th
Short-Term GDP Growth	92 nd	21 st





#29 Redding, California

After a two-hour drive north on Interstate 5 from Sacramento, one will enter the **Redding, California** metro, the de-facto economic hub of northern California. Historically built on natural resource extraction, Redding now provides urban services to the inhabitants of northern California's forests, farms, mountains and small towns.

Analyzing Redding's performance in our index, this is a metro that has experienced strong growth. Redding does have an underwhelming per-capita personal income level that is to be expected among small, relatively isolated metros, but that is the only area in which the metro underwhelms. Redding was more than a half a standard deviation better than the national metro average in all three job growth metrics. It had even stronger performances in wage growth measures, and had the 16th-fastest medium-term GDP growth among all metros. A respectable entrepreneurial environment is reflected in a young firm employment ratio more than a standard deviation above the average.

As mentioned, Redding has a history of natural resource extraction. Over much of the previous century, metal mining and logging/lumber manufacturing took turns as the area's economic driver. Some operations from that time still exist today, with the metro's Sierra Pacific Industries being one of the nation's largest lumber manufacturers.³⁷⁸ Meanwhile, companies such as Redding Lumber Transport have transformed expertise developed during those days to venture into activities beyond natural resource extraction.³⁷⁹

More recently, the metro has expanded into the northern California service hub it is today. The metro's two main medical centers, Mercy Medical Center and Shasta Regional Medical Center, are respectively the second and fourth largest employers in the metro. Meanwhile, the government of Shasta County, the county that encompasses the metro, is the largest metro employer due to a multitude of services offered. In addition, a major public service provider, the Redding city government is the fourth largest metro employer.³⁸⁰ Overall employment statistics also reflect the metro's role as a regional service provider, with the share of employment in areas such as utilities, health care and public administration being much higher than the national average.³⁸¹

One key to the area's economic development is how enticing of a place it is to live, which is ironic given that a nationally acclaimed mountain biking trail named Enticer was recently built in the metro.³⁸² The metro also boasts nationally recognized trout fishing, thanks in part to the Sacramento River running straight through the city of Redding;³⁸³ contains a massive trail network;³⁸⁴ was declared the unofficial capital of kayaking;³⁸⁵ has a pedestrian bridge that doubles as one of the world's largest sundials;³⁸⁶ and is home to destinations such as Shasta Lake and Lassen Volcanic National Park. All of these impressive outdoor amenities add up to major labor and tourism draws. They have also resulted in a recreational manufacturing sector with impressive membership.³⁸⁷ Among those members is The Fly Shop, a fly fishing shop that is also "the largest commercial fly distributor in the world."³⁸⁸

Redding has also become increasingly involved in tech industries. It is home to a multitude of high-tech companies ranging in specialty from medical device manufacturing to microscopy equipment manufacturing

to software development.³⁸⁹ The metro is also making a concerted effort to home-grow future tech companies with Shasta Economic Development Corporation's Shasta Venture Hub, an incubator and co-working space that connects startups to mentors, capital and relevant research. Corresponding with the Venture Hub is a goal to create 27 successful startups and 1000 tech jobs over the next ten years.³⁹⁰

For all of the metro's positives, there is one economic downside risk that looms large: wildfire. The metro was severely damaged by the 2018 Carr Fire, which was one of the most destructive wildfires in California history. Rebuilding is underway, but it is unclear how fear of another fire will deter residents from rebuilding and deter families from moving to the area in the future.³⁹¹

REDDING, CALIFORNIA

2017 Population	179,921
Size Group	Small
Overall Z-Score	0.8234
Overall Ranking	29 th
Size-Group Ranking	17 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	57 th	43 rd
Per-Capita Personal Income	223 rd	137 th
Medium-Term Job Growth	100 th	59 th
Short-Term Job Growth	95 th	64 th
Short-Term Job Momentum	83 rd	61 st
Medium-Term Average Annual Pay Growth	50 th	39 th
Short-Term Average Annual Pay Growth	26 th	20 th
Medium-Term GDP Growth	16 th	9 th
Short-Term GDP Growth	28 th	23 rd





#30 Charlottesville, Virginia

The **Charlottesville, Virginia** metro is small, but has a big history. It is home to the storied University of Virginia, in many ways the first university of its kind. Its creation and initial curriculum were overseen by several founding fathers and multiple U.S. presidents. Then there is Monticello, the architecturally and historically famous home of Thomas Jefferson. Its more recent history has been of the negative type, given the 2017 white supremacist rally that resulted in the death of an innocent counter-protestor. That unfortunate historical event, however, was created largely by individuals from outside the metro. Citizens inside the metro have written a story of notable economic development.

Charlottesville is another metro that performed better than the national average in every index metric. Its medium- and short-term GDP growth rates provided the lowest rankings, but were still roughly a quarter of a standard deviation above the national metro averages. The metro had the 16th highest per-capita personal income level overall, likely influenced by economy-dominating employment at the University of Virginia and associated medical facilities.

Focusing on the University of Virginia, it employs a massive one-quarter of all employees in the metro.³⁹² ³⁹³ It has also sustained its position as one of the nation's best public universities, currently ranked third by U.S. News.³⁹⁴ Thus, the university provides the metro access to quality and a quantity of graduates somewhat unique to smaller metros. As part of the statewide preparation for the arrival of Amazon HQ2 in Virginia, the university has announced "one of the first schools of data science in the nation..."³⁹⁵

The university has also done well in commercializing its research, ranking among the top 50 universities nationally in the activity.³⁹⁶ This ranking reflects the university's key role in Charlottesville's nationally recognized entrepreneurial ecosystem.³⁹⁷ It joins the Tom Tom Foundation, CvilleBioHub, Charlottesville Angel Network, Charlottesville Business Innovation Council, Charlottesville Technology Incubator and a multitude of other entrepreneurship resources in feeding human, physical and financial capital into the metro's entrepreneurship scene.

The scene has produced several notable companies over the past 10 years, but its most recent startups may be some of its most promising: Cavion, a University of Virginia-connected, a neurology-focused pharmaceutical company, broke a state record for Series A funding by a life science startup. It was part of the metro's 6-tech-startup group that obtained \$40 million in investments during the first three quarters of 2017.³⁹⁸ If startup trends continue, Charlottesville will retain increasing numbers of the world-class talent coming from its elite university.

Beyond the university and startup community is a broader ecosystem of firms that have oriented the university's human capital. These firms include defense company Northrop Grumman, which benefits from the flow of engineering and analytics graduates. They also include the dozens of more established life science companies that sometimes directly benefit from University of Virginia research.³⁹⁹

While the University of Virginia is the centerpiece of the economy, one repeated theme among employers and employees is that quality of life explains a lot of Charlottesville's success.⁴⁰⁰ The metro has topped many a list for quality of life and happiness over the years. Residents cite a unique culture and impressive urban amenities for a smile town.⁴⁰¹ Its proximity to Shenandoah National Park and the broader Blue Ridge Mountains, with their hiking, biking and skiing opportunities, also play an important role.

CHARLOTTESVILLE, VIRGINIA

2017 Population	233,793
Size Group	Small
Overall Z-Score	0.8233
Overall Ranking	30 th
Size-Group Ranking	18 th

Index Metrics	Overall Ranking	Size-Group Ranking
Young Firm Employment Ratio	55 th	42 nd
Per-Capita Personal Income	16 th	9 th
Medium-Term Job Growth	62 nd	30 th
Short-Term Job Growth	23 rd	18 th
Short-Term Job Momentum	72 nd	56 th
Medium-Term Average Annual Pay Growth	97 th	75 th
Short-Term Average Annual Pay Growth	83 rd	68 th
Medium-Term GDP Growth	144 th	90 th
Short-Term GDP Growth	138 th	94 th



OVERALL AND METRIC RANKINGS FOR ALL 379 METROPOLITAN AREAS

Metropolitan Area	Overall Rank	Overall Z-Score	2016 Young Firm Emp. Ratio Rank	2016 Per-Capita Personal Income Rank	2013-2018 Job Growth Rank	2017-2018 Job Growth Rank	Dec. 2017-2018 Job Growth Rank	2013-2017 Avg. Annual Pay Growth Rank	2016-2017 Avg. Annual Pay Growth Rank	2012-2017 GDP Growth Rank	2016-2017 GDP Growth Rank
Midland, TX	1	2.9795	8	4	44	1	1	96	3	14	7
San Jose-Sunnyvale-Santa Clara, CA	2	2.5132	84	5	22	28	37	2	6	1	8
Midland, MI	3	2.4351	196	71	320	348	229	1	1	2	5
Elkhart-Goshen, IN	4	2.1555	291	183	8	4	41	3	5	4	2
Bend-Redmond, OR	5	1.9654	16	91	2	16	16	9	15	3	32
St. George, UT	6	1.7048	6	369	1	3	7	22	118	9	21
Austin-Round Rock, TX	7	1.6149	30	51	12	19	29	29	45	7	9
Greeley, CO	8	1.6085	81	232	11	5	70	47	13	6	6
San Francisco-Oakland-Hayward, CA	9	1.4944	42	6	38	120	123	6	11	13	56
Seattle-Tacoma-Bellevue, WA	10	1.4283	177	13	37	26	36	5	14	27	18
Reno, NV	11	1.3911	127	55	5	6	6	162	82	21	16
Provo-Orem, UT	12	1.3892	7	363	4	11	54	125	200	5	15
Lake Charles, LA	13	1.3178	139	87	3	24	32	4	44	25	189
Fort Collins, CO	14	1.3141	47	154	19	39	13	14	24	34	13
Gainesville, GA	15	1.2092	156	210	10	10	14	26	25	28	25
Wenatchee, WA	16	1.1081	27	148	23	36	28	75	43	36	29
Fayetteville-Springdale-Rogers, AR-MO	17	1.0965	191	9	13	92	108	103	18	11	57
Naples-Immokalee-Marco Island, FL	18	1.0567	10	2	29	336	46	312	291	32	228
Cape Coral-Fort Myers, FL	19	1.0241	4	93	6	132	48	115	90	43	197
Boise City, ID	20	0.9299	102	221	15	22	58	70	20	51	40
Mount Vernon-Anacortes, WA	21	0.9182	77	122	128	152	114	8	7	12	105
Boulder, CO	22	0.9048	44	12	88	83	56	104	31	99	67
North Port-Sarasota-Bradenton, FL	23	0.8959	14	50	14	74	101	119	189	40	144
Coeur d'Alene, ID	24	0.8870	59	247	26	31	20	49	52	63	75
The Villages, FL	25	0.8387	5	193	20	165	59	347	22	31	43
Nashville-Davidson--Murfreesboro-Franklin, TN	26	0.8372	101	19	18	102	127	98	219	15	38
Dallas-Fort Worth-Arlington, TX	27	0.8301	110	67	30	37	38	167	232	24	41
Raleigh, NC	28	0.8268	144	48	27	47	42	79	149	29	92
Redding, CA	29	0.8234	57	223	100	95	83	50	26	16	28
Charlottesville, VA	30	0.8233	55	16	62	23	72	97	83	144	138
Merced, CA	31	0.8022	23	354	45	15	27	10	212	23	332
Colorado Springs, CO	32	0.7967	137	202	35	14	3	208	75	221	58
Idaho Falls, ID	33	0.7858	53	181	53	73	197	123	21	41	23
Denver-Aurora-Lakewood, CO	34	0.7857	130	42	42	70	124	80	37	52	47
Hilton Head Island-Bluffton-Beaufort, SC	35	0.7788	12	76	31	58	26	76	302	163	208
Crestview-Fort Walton Beach-Destin, FL	36	0.7714	41	77	47	8	89	153	251	162	53
Santa Rosa, CA	37	0.7619	62	155	39	90	157	19	80	26	63
Port St. Lucie, FL	38	0.7557	17	57	25	104	22	231	272	151	65
Orlando-Kissimmee-Sanford, FL	39	0.7429	114	332	7	12	19	111	205	64	161
Sebastian-Vero Beach, FL	40	0.7376	38	3	63	143	47	87	338	107	369
Bellingham, WA	41	0.7299	79	213	79	48	64	202	16	70	33
Charleston-North Charleston, SC	42	0.7143	78	136	50	150	82	40	110	39	34
Daphne-Fairhope-Foley, AL	43	0.6911	32	163	16	21	67	273	194	79	126
Punta Gorda, FL	44	0.6756	2	307	69	142	106	168	88	74	145
Salinas, CA	45	0.6518	96	125	80	43	62	60	72	38	236
Palm Bay-Melbourne-Titusville, FL	46	0.6476	68	237	76	111	10	246	94	98	27
Athens-Clarke County, GA	47	0.6425	119	326	73	40	9	85	371	17	24
Myrtle Beach-Conway-North Myrtle Beach, SC-NC	48	0.6377	40	347	49	67	12	63	112	145	174
Auburn-Opelika, AL	49	0.6364	24	294	58	224	122	62	41	49	39
Salem, OR	50	0.6082	106	328	48	106	93	18	54	20	162
Chico, CA	51	0.6071	66	291	82	56	30	66	63	71	182
Mankato-North Mankato, MN	52	0.6048	323	139	150	45	15	21	39	111	96
Wheeling, WV-OH	53	0.5826	369	133	359	359	344	13	2	109	3
Boston-Cambridge-Newton, MA-NH	54	0.5800	188	10	129	168	172	34	65	124	89
Charlotte-Concord-Gastonia, NC-SC	55	0.5755	194	72	24	68	135	105	216	56	49
Prescott, AZ	56	0.5753	18	367	41	63	61	238	106	115	36
Des Moines-West Des Moines, IA	57	0.5726	313	39	99	82	39	121	184	18	80
Madera, CA	58	0.5690	1	355	117	59	132	27	95	30	376
Miami-Fort Lauderdale-West Palm Beach, FL	59	0.5596	29	141	67	144	113	113	131	57	131
San Antonio-New Braunfels, TX	60	0.5564	91	182	60	155	284	151	226	8	30
Olympia-Tumwater, WA	61	0.5558	99	241	34	52	186	143	207	61	20
Las Vegas-Henderson-Paradise, NV	62	0.5538	61	238	17	35	25	259	340	69	95
Odessa, TX	63	0.5534	87	357	294	17	214	368	4	317	1

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Riverside-San Bernardino-Ontario, CA	64	0.5463	33	375	9	38	142	152	282	44	73
Portland-Vancouver-Hillsboro, OR-WA	65	0.5442	154	83	56	86	103	43	103	149	71
Yakima, WA	66	0.5441	94	277	71	9	99	45	30	194	283
Phoenix-Mesa-Scottsdale, AZ	67	0.5406	160	249	36	27	21	263	165	105	55
Fresno, CA	68	0.5374	36	309	28	51	86	74	227	68	262
College Station-Bryan, TX	69	0.5291	21	356	66	20	150	257	70	67	107
Atlanta-Sandy Springs-Roswell, GA	70	0.5284	143	98	51	109	84	137	203	37	76
Salt Lake City, UT	71	0.5270	129	150	52	60	75	84	160	102	115
Jacksonville, FL	72	0.5127	138	140	32	57	146	225	191	50	52
Grand Rapids-Wyoming, MI	73	0.4761	151	85	75	89	104	169	241	45	61
Ogden-Clearfield, UT	74	0.4689	67	290	40	116	76	112	221	65	74
Los Angeles-Long Beach-Anaheim, CA	75	0.4643	45	103	123	207	280	46	42	62	90
Salisbury, MD-DE	76	0.4596	122	84	146	330	60	64	217	10	109
San Luis Obispo-Paso Robles-Arroyo Grande, CA	77	0.4574	28	107	65	175	263	56	114	66	186
Walla Walla, WA	78	0.4518	11	217	106	13	129	61	35	262	373
Grants Pass, OR	79	0.4464	103	341	43	79	152	53	224	88	31
Stockton-Lodi, CA	80	0.4364	142	327	21	29	80	126	254	86	148
Bremerton-Silverdale, WA	81	0.4266	49	159	107	93	177	65	81	156	158
Napa, CA	82	0.4265	70	26	140	324	341	24	121	19	82
Medford, OR	83	0.4255	141	236	57	54	183	83	238	46	103
Sacramento--Roseville--Arden-Arcade, CA	84	0.4208	60	74	70	128	200	181	166	85	135
Santa Cruz-Watsonville, CA	85	0.3988	46	117	85	71	176	233	71	97	279
Valdosta, GA	86	0.3938	88	314	207	130	51	48	10	286	110
Kankakee, IL	87	0.3920	310	343	131	2	5	180	359	116	155
Ithaca, NY	88	0.3860	293	364	206	34	18	12	12	313	204
Winchester, VA-WV	89	0.3830	186	121	102	46	55	229	156	132	94
Sherman-Denison, TX	90	0.3784	22	243	154	76	24	351	111	146	124
Ames, IA	91	0.3707	126	280	130	98	250	36	73	195	14
Rapid City, SD	92	0.3696	111	78	180	94	34	55	173	236	163
Asheville, NC	93	0.3585	82	209	95	166	318	109	144	22	37
Wausau, WI	94	0.3544	315	82	178	77	79	37	91	91	157
Morgantown, WV	95	0.3517	146	278	209	114	225	28	19	76	69
Wilmington, NC	96	0.3494	58	227	83	297	299	69	33	48	83
Missoula, MT	97	0.3412	105	166	156	184	128	32	97	138	87
Winston-Salem, NC	98	0.3357	285	171	185	160	148	33	8	170	139
Killeen-Temple, TX	99	0.3331	123	256	120	124	69	16	34	299	188
Lubbock, TX	100	0.3304	98	274	112	87	43	131	175	101	191
Huntsville, AL	101	0.3299	157	68	105	42	17	308	305	225	165
Hickory-Lenoir-Morganton, NC	102	0.3241	215	297	169	170	133	35	55	114	22
Santa Maria-Santa Barbara, CA	103	0.3232	20	59	210	215	293	71	86	112	190
Indianapolis-Carmel-Anderson, IN	104	0.3201	292	30	111	115	102	201	96	113	116
San Diego-Carlsbad, CA	105	0.3198	52	130	87	127	147	245	181	120	147
Kennewick-Richland, WA	106	0.3159	148	270	61	55	71	186	164	118	187
Tyler, TX	107	0.3053	133	96	121	41	45	313	263	35	329
Abilene, TX	108	0.2993	121	226	258	119	217	223	48	87	12
Longview, WA	109	0.2876	216	230	94	97	65	254	56	133	62
Sioux Falls, SD	110	0.2801	283	11	132	194	143	39	213	175	207
Lakeland-Winter Haven, FL	111	0.2744	131	372	54	50	53	187	197	155	130
Barnstable Town, MA	112	0.2691	76	8	171	202	236	95	225	301	238
Tampa-St. Petersburg-Clearwater, FL	113	0.2448	97	233	55	85	191	178	277	95	176
Gettysburg, PA	114	0.2379	259	165	187	53	193	158	89	73	102
Columbus, IN	115	0.2369	378	61	109	65	40	255	220	173	51
Oklahoma City, OK	116	0.2330	118	118	192	80	115	316	104	77	143
El Centro, CA	117	0.2285	3	353	218	191	91	160	59	247	348
Lafayette-West Lafayette, IN	118	0.2276	361	352	145	30	8	52	129	226	253
Minneapolis-St. Paul-Bloomington, MN-WI	119	0.2272	260	21	155	174	189	136	132	121	146
Logan, UT-ID	120	0.2263	167	361	64	61	49	107	193	134	259
Lewiston, ID-WA	121	0.2245	298	186	104	64	66	124	185	223	78
Lake Havasu City-Kingman, AZ	122	0.2216	90	377	77	33	31	315	113	259	42
Manchester-Nashua, NH	123	0.2174	302	53	147	141	52	177	253	75	198
Flagstaff, AZ	124	0.2171	37	204	165	108	87	226	120	238	229
Chattanooga, TN-GA	125	0.2121	300	131	113	75	202	94	105	198	70
Eau Claire, WI	126	0.2081	257	160	255	206	144	20	51	152	72
Yuba City, CA	127	0.2062	13	307	68	211	371	42	214	83	140
Tallahassee, FL	128	0.2020	80	286	137	131	85	203	130	233	66
Madison, WI	129	0.1975	306	23	144	176	190	163	179	53	170
Ocean City, NJ	130	0.1961	89	56	153	44	2	345	374	207	320
Pensacola-Ferry Pass-Brent, FL	131	0.1744	176	244	78	117	90	88	242	186	177
Ocala, FL	132	0.1738	39	362	86	69	11	291	370	160	263



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Kahului-Wailuku-Lahaina, HI	133	0.1635	189	292	97	129	248	30	98	110	196
Cleveland-Elyria, OH	134	0.1612	299	27	261	157	78	247	146	129	85
New York-Newark-Jersey City, NY-NJ-PA	135	0.1609	86	28	142	213	245	183	107	217	221
Fort Wayne, IN	136	0.1570	335	152	164	91	63	156	124	136	151
Ann Arbor, MI	137	0.1512	217	44	159	158	195	133	188	180	114
Albany, OR	138	0.1500	266	322	33	18	33	140	346	167	341
Modesto, CA	139	0.1449	152	296	74	105	204	54	196	55	327
Worcester, MA-CT	140	0.1434	202	97	161	101	151	230	147	168	127
Sheboygan, WI	141	0.1388	342	52	170	107	251	73	267	90	84
Greenville-Anderson-Mauldin, SC	142	0.1373	239	192	96	136	220	157	169	80	106
Carson City, NV	143	0.1364	165	157	92	62	344	211	69	361	11
Washington-Arlington-Alexandria, DC-VA-MD-WV	144	0.1352	166	20	174	151	199	235	176	222	150
Columbus, OH	145	0.1347	242	65	110	205	169	206	201	104	149
Appleton, WI	146	0.1341	347	64	183	156	57	77	198	126	232
Pocatello, ID	147	0.1338	117	344	119	72	95	132	126	308	137
Jonesboro, AR	148	0.1338	71	305	72	88	97	243	249	231	227
Spartanburg, SC	149	0.1316	303	195	46	118	279	172	323	47	50
Vallejo-Fairfield, CA	150	0.1297	115	349	89	186	155	86	108	201	128
Richmond, VA	151	0.1282	233	32	139	229	198	256	128	148	111
Gainesville, FL	152	0.1242	107	275	90	147	139	216	148	204	132
Morristown, TN	153	0.1189	336	259	134	121	50	250	61	159	93
Omaha-Council Bluffs, NE-IA	154	0.1188	212	18	214	177	178	142	275	103	254
Waco, TX	155	0.1139	155	312	115	238	230	110	158	72	59
Kokomo, IN	156	0.1098	376	197	101	7	4	337	261	206	362
Houston-The Woodlands-Sugar Land, TX	157	0.1090	95	90	127	32	23	360	352	202	313
Spokane-Spokane Valley, WA	158	0.1045	173	235	148	281	116	118	57	171	113
Lancaster, PA	159	0.1025	206	149	126	159	188	164	206	89	167
Yuma, AZ	160	0.0978	108	370	215	301	237	81	9	33	298
Springfield, MO	161	0.0937	214	271	162	193	203	99	157	122	44
Fond du Lac, WI	162	0.0930	372	81	280	167	159	41	145	94	91
Eugene, OR	163	0.0905	145	267	84	84	283	141	229	143	153
St. Cloud, MN	164	0.0880	348	177	195	209	246	15	93	96	120
Cincinnati, OH-KY-IN	165	0.0852	264	25	168	231	109	220	295	165	125
Fargo, ND-MN	166	0.0773	267	31	181	305	210	116	240	60	172
Urban Honolulu, HI	167	0.0716	271	238	212	137	140	44	122	142	181
Allentown-Bethlehem-Easton, PA-NJ	168	0.0627	311	109	173	198	160	219	301	42	68
Staunton-Waynesboro, VA	169	0.0602	184	126	242	145	110	159	92	213	199
Deltona-Daytona Beach-Ormond Beach, FL	170	0.0567	50	304	59	154	330	147	180	153	265
Savannah, GA	171	0.0408	93	187	93	320	342	195	138	117	46
Detroit-Warren-Dearborn, MI	172	0.0375	204	73	160	262	298	91	163	157	97
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	173	0.0335	220	22	177	190	158	293	270	147	214
Chambersburg-Waynesboro, PA	174	0.0269	329	207	201	96	145	193	116	139	112
York-Hanover, PA	175	0.0269	324	151	223	197	138	144	68	185	100
Baltimore-Columbia-Towson, MD	176	0.0125	245	41	205	173	120	200	244	203	243
Pittsburgh, PA	177	0.0049	307	29	289	223	296	210	135	100	45
Green Bay, WI	178	-0.0049	330	60	203	204	73	221	290	150	156
Portland-South Portland, ME	179	-0.0055	222	69	190	246	265	82	183	166	179
Norwich-New London, CT	180	-0.0094	276	40	256	103	111	196	264	328	118
Visalia-Porterville, CA	181	-0.0118	34	338	81	81	205	25	258	84	379
McAllen-Edinburg-Mission, TX	182	-0.0196	26	379	103	112	107	279	325	123	160
Kansas City, MO-KS	183	-0.0250	231	49	122	146	212	261	306	183	224
Bowling Green, KY	184	-0.0352	162	331	108	126	247	102	312	131	183
Chicago-Naperville-Elgin, IL-IN-WI	185	-0.0542	219	38	200	274	241	190	178	200	206
Grand Junction, CO	186	-0.0572	203	289	194	99	181	333	58	316	35
Amarillo, TX	187	-0.0590	238	172	246	113	196	228	223	130	194
Augusta-Richmond County, GA-SC	188	-0.0611	294	234	118	66	264	89	154	245	274
Brunswick, GA	189	-0.0624	51	240	149	244	164	224	257	242	269
Tuscaloosa, AL	190	-0.0659	225	342	136	162	206	348	102	218	17
Birmingham-Hoover, AL	191	-0.0665	244	62	251	178	153	209	143	269	219
Lincoln, NE	192	-0.0674	190	103	248	236	278	128	150	141	212
Clarksville, TN-KY	193	-0.0702	140	279	179	203	44	248	100	347	173
Elizabethtown-Fort Knox, KY	194	-0.0726	73	179	176	240	88	271	262	354	129
San Angelo, TX	195	-0.0727	125	215	277	161	136	185	252	93	318
Jackson, TN	196	-0.0744	284	168	166	140	175	194	78	279	234
Providence-Warwick, RI-MA	197	-0.0788	237	88	196	192	232	175	211	224	195
Dalton, GA	198	-0.0834	377	335	143	172	74	100	199	54	292
Durham-Chapel Hill, NC	199	-0.0888	240	46	98	134	96	359	230	248	314
Springfield, OH	200	-0.0952	221	261	360	298	141	68	27	255	54
La Crosse-Onalaska, WI-MN	201	-0.1008	368	101	259	169	239	57	235	205	123

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Louisville/Jefferson County, KY-IN	202	-0.1025	269	86	135	279	321	93	278	127	205
Harrisburg-Carlisle, PA	203	-0.1043	343	99	197	233	119	276	134	187	152
Kalamazoo-Portage, MI	204	-0.1057	359	145	138	239	285	92	162	81	233
Rochester, MN	205	-0.1151	346	54	257	349	362	72	64	108	48
Iowa City, IA	206	-0.1266	208	75	217	257	266	127	265	154	281
Great Falls, MT	207	-0.1347	147	147	336	290	332	11	77	234	276
Tucson, AZ	208	-0.1355	185	313	226	139	94	307	79	341	77
Hattiesburg, MS	209	-0.1601	170	211	125	164	121	311	348	197	216
Pittsfield, MA	210	-0.1610	168	35	285	188	221	78	336	267	334
Grand Island, NE	211	-0.1614	207	123	343	273	271	51	171	211	142
Bismarck, ND	212	-0.1645	228	15	318	354	242	90	239	58	353
Oxnard-Thousand Oaks-Ventura, CA	213	-0.1646	56	124	198	171	131	299	345	276	330
Tulsa, OK	214	-0.1694	158	45	211	78	125	361	294	214	351
Springfield, MA	215	-0.1726	213	100	188	189	224	252	255	237	258
Casper, WY	216	-0.1746	69	7	377	254	290	377	46	360	10
Knoxville, TN	217	-0.1782	308	135	172	295	301	138	139	158	185
Akron, OH	218	-0.1881	227	80	231	237	170	277	350	92	273
Columbia, MO	219	-0.1904	159	144	283	299	286	129	283	140	201
Columbia, SC	220	-0.1916	249	189	124	300	161	176	271	125	335
Kingston, NY	221	-0.1937	100	218	237	216	218	237	204	272	240
Dover, DE	222	-0.1954	175	325	221	182	117	198	319	169	257
Grand Forks, ND-MN	223	-0.1967	254	89	334	326	219	23	327	78	322
St. Joseph, MO-KS	224	-0.1968	364	301	267	218	185	31	28	346	166
Lebanon, PA	225	-0.2015	287	185	284	289	338	67	62	174	159
State College, PA	226	-0.2089	136	329	268	312	344	59	231	59	180
Hanford-Corcoran, CA	227	-0.2110	9	373	182	271	310	150	299	250	300
St. Louis, MO-IL	228	-0.2184	286	24	204	265	228	264	279	249	287
Sumter, SC	229	-0.2197	253	318	240	212	209	282	36	298	117
Rockford, IL	230	-0.2220	301	201	296	163	320	212	32	307	64
Greensboro-High Point, NC	231	-0.2268	341	198	236	214	208	260	67	215	203
Lexington-Fayette, KY	232	-0.2297	229	113	133	272	275	236	343	137	237
Greenville, NC	233	-0.2300	183	248	243	221	311	145	228	230	141
Evansville, IN-KY	234	-0.2315	355	119	202	125	313	106	74	334	247
Buffalo-Cheektowaga-Niagara Falls, NY	235	-0.2328	258	112	265	208	244	122	233	246	301
Atlantic City-Hammonton, NJ	236	-0.2337	161	263	361	25	68	165	222	362	325
Lynchburg, VA	237	-0.2397	250	306	286	148	165	269	151	270	121
Florence, SC	238	-0.2407	279	246	213	196	187	292	210	182	184
El Paso, TX	239	-0.2459	132	365	141	133	130	262	287	287	296
Hagerstown-Martinsburg, MD-WV	240	-0.2496	353	317	269	220	92	280	159	178	119
Bakersfield, CA	241	-0.2572	15	358	250	122	118	352	317	241	352
Cleveland, TN	242	-0.2638	235	231	238	269	235	214	76	257	245
Albany-Schenectady-Troy, NY	243	-0.2648	295	43	222	278	324	189	293	191	239
Memphis, TN-MS-AR	244	-0.2746	268	138	175	135	201	310	247	303	295
Hot Springs, AR	245	-0.2798	116	265	324	316	258	130	60	344	164
Pueblo, CO	246	-0.2808	272	350	189	313	314	146	101	193	86
Corvallis, OR	247	-0.2841	104	255	116	253	319	204	260	366	101
Jacksonville, NC	248	-0.2843	64	102	316	260	137	323	304	315	299
Sebring, FL	249	-0.2845	63	351	158	371	98	218	167	312	226
Mansfield, OH	250	-0.2862	370	295	328	228	182	166	23	266	218
Little Rock-North Little Rock-Conway, AR	251	-0.2878	197	161	228	183	154	294	322	289	249
Glens Falls, NY	252	-0.2946	261	229	281	217	222	114	141	297	284
Milwaukee-Waukesha-West Allis, WI	253	-0.3006	252	33	245	255	294	251	321	283	231
Hartford-West Hartford-East Hartford, CT	254	-0.3024	350	14	273	200	259	300	316	311	213
Virginia Beach-Norfolk-Newport News, VA-NC	255	-0.3040	236	142	271	282	174	227	246	295	246
Bridgeport-Stamford-Norwalk, CT	256	-0.3103	169	1	313	303	156	367	375	342	372
Columbus, GA-AL	257	-0.3135	180	266	330	180	134	154	119	358	275
Davenport-Moline-Rock Island, IA-IL	258	-0.3203	354	79	309	187	255	287	53	359	108
Burlington, NC	259	-0.3242	327	299	232	287	231	161	99	310	122
Oshkosh-Neenah, WI	260	-0.3265	277	114	229	284	281	217	313	216	193
Florence-Muscle Shoals, AL	261	-0.3288	109	288	288	291	105	253	298	275	280
New Orleans-Metairie, LA	262	-0.3300	135	92	253	230	112	343	309	281	346
Lansing-East Lansing, MI	263	-0.3360	296	293	157	179	166	244	354	184	272
Baton Rouge, LA	264	-0.3364	149	146	199	222	234	234	334	293	336
Cape Girardeau, MO-IL	265	-0.3441	270	137	307	100	171	232	331	232	349
Scranton-Wilkes-Barre-Hazleton, PA	266	-0.3509	333	184	247	153	288	182	273	228	289
California-Lexington Park, MD	267	-0.3559	256	47	291	210	173	341	297	264	316
Billings, MT	268	-0.3569	205	111	262	306	257	173	236	119	368
Albuquerque, NM	269	-0.3634	181	303	224	123	77	322	347	261	338
South Bend-Mishawaka, IN-MI	270	-0.3650	309	116	167	288	300	199	268	260	277



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Joplin, MO	271	-0.3658	325	298	332	261	302	120	137	243	88
Dothan, AL	272	-0.3668	262	203	287	293	180	174	311	273	211
Blacksburg-Christiansburg-Radford, VA	273	-0.3714	178	346	298	283	100	242	192	274	278
Macon-Bibb County, GA	274	-0.3737	297	225	233	294	256	267	142	179	268
Trenton, NJ	275	-0.3754	289	17	91	49	35	365	373	369	370
Wichita Falls, TX	276	-0.3757	153	205	297	256	227	349	365	296	19
Altoona, PA	277	-0.3758	321	170	319	302	215	192	153	252	248
Hammond, LA	278	-0.3769	74	269	152	110	211	369	357	280	264
Panama City, FL	279	-0.3786	54	260	114	138	379	215	349	161	354
East Stroudsburg, PA	280	-0.3810	75	337	235	286	276	335	335	254	98
Duluth, MN-WI	281	-0.3917	352	176	278	226	262	239	115	268	267
Lawrence, KS	282	-0.3983	113	257	220	323	357	270	259	164	241
Bloomington, IN	283	-0.4015	195	339	345	379	368	7	38	239	26
Santa Fe, NM	284	-0.4019	48	36	323	241	270	366	366	320	192
Cedar Rapids, IA	285	-0.4122	365	34	295	267	292	108	170	235	364
Monroe, LA	286	-0.4182	164	208	326	285	291	318	337	82	235
Flint, MI	287	-0.4211	128	287	308	311	233	139	315	277	293
Owensboro, KY	288	-0.4222	263	228	264	248	326	148	307	209	288
Canton-Massillon, OH	289	-0.4247	312	173	302	309	308	319	66	189	202
Johnson City, TN	290	-0.4323	198	273	279	355	325	184	87	290	168
New Haven-Milford, CT	291	-0.4336	209	164	317	275	249	289	328	271	178
Lawton, OK	292	-0.4338	43	254	337	318	322	284	168	284	317
Homosassa Springs, FL	293	-0.4514	31	311	266	245	168	370	182	375	154
Manhattan, KS	294	-0.4634	124	174	290	264	194	268	378	177	169
Dubuque, IA	295	-0.4645	379	110	293	339	355	171	133	220	81
Monroe, MI	296	-0.4701	344	175	249	243	271	285	208	229	321
Roanoke, VA	297	-0.4720	318	120	315	234	81	290	355	305	312
Beaumont-Port Arthur, TX	298	-0.4742	85	178	321	347	365	38	155	181	371
Laredo, TX	299	-0.4806	25	376	151	252	274	357	326	304	244
Harrisonburg, VA	300	-0.4807	224	324	186	235	260	324	296	265	266
Dayton, OH	301	-0.4809	332	115	193	232	354	275	276	263	270
Rome, GA	302	-0.4842	337	219	184	219	269	295	324	212	310
Champaign-Urbana, IL	303	-0.4874	234	162	230	225	282	240	363	285	304
Mobile, AL	304	-0.4934	280	320	252	247	216	265	243	278	323
Lewiston-Auburn, ME	305	-0.5042	241	334	234	325	353	170	177	253	220
Burlington-South Burlington, VT	306	-0.5043	192	63	304	356	307	321	318	227	222
Niles-Benton Harbor, MI	307	-0.5053	248	105	244	322	287	278	342	219	333
Syracuse, NY	308	-0.5104	328	169	300	280	252	197	280	302	308
Reading, PA	309	-0.5237	334	153	219	149	192	134	250	190	378
Rochester, NY	310	-0.5307	281	143	276	242	304	241	281	323	328
Cheyenne, WY	311	-0.5368	201	95	333	335	254	303	190	292	344
Johnstown, PA	312	-0.5378	35	188	366	276	238	330	288	363	315
Racine, WI	313	-0.5493	218	128	274	315	167	346	269	356	303
Jackson, MS	314	-0.5539	243	167	208	199	328	350	360	240	285
Bloomsburg-Berwick, PA	315	-0.5554	373	212	351	346	295	117	266	172	210
Waterloo-Cedar Falls, IA	316	-0.5572	358	180	353	343	334	266	49	336	60
Shreveport-Bossier City, LA	317	-0.5587	226	155	358	340	343	326	218	135	200
Sioux City, IA-NE-SD	318	-0.5595	193	37	303	227	240	17	379	106	375
Wichita, KS	319	-0.5654	247	66	292	266	163	362	344	244	355
Jefferson City, MO	320	-0.5694	282	127	327	350	344	274	284	208	217
Warner Robins, GA	321	-0.5710	92	250	225	195	243	358	368	325	311
Battle Creek, MI	322	-0.5714	374	302	282	332	207	191	320	251	215
Toledo, OH	323	-0.5730	357	108	254	338	289	249	330	196	337
Terre Haute, IN	324	-0.5771	331	336	331	296	223	272	84	350	209
Muncie, IN	325	-0.5801	288	348	270	304	344	205	50	326	282
Weirton-Steubenville, WV-OH	326	-0.5802	304	264	371	367	268	58	17	258	347
Decatur, IL	327	-0.5857	316	58	338	263	267	188	332	352	342
Saginaw, MI	328	-0.5926	366	321	314	319	184	179	195	322	302
Jackson, MI	329	-0.5957	340	316	216	341	373	135	152	199	250
Decatur, AL	330	-0.5962	150	284	306	181	162	340	341	355	319
Gadsden, AL	331	-0.5987	171	310	227	277	344	325	308	300	242
Bangor, ME	332	-0.5992	273	340	344	333	336	101	136	282	251
Cumberland, MD-WV	333	-0.6109	199	282	342	307	309	301	187	319	223
Janesville-Beloit, WI	334	-0.6121	363	221	163	292	363	372	248	128	99
Anniston-Oxford-Jacksonville, AL	335	-0.6166	290	315	301	249	277	327	117	357	225
Texarkana, TX-AR	336	-0.6269	163	333	299	270	312	281	202	349	309
Parkersburg-Vienna, WV	337	-0.6327	319	258	376	365	344	213	40	192	134
Beckley, WV	338	-0.6393	200	262	374	364	375	375	29	324	4
Corpus Christi, TX	339	-0.6430	83	245	329	331	149	302	215	314	374

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Brownsville-Harlingen, TX	340	-0.6540	134	378	191	258	126	328	361	291	343
New Bern, NC	341	-0.6807	230	134	263	334	333	305	256	333	350
Lima, OH	342	-0.6919	375	214	312	362	377	149	125	294	133
Longview, TX	343	-0.6960	112	253	365	268	261	373	109	367	136
Fayetteville, NC	344	-0.7013	210	359	305	251	226	342	123	364	324
Kingsport-Bristol-Bristol, TN-VA	345	-0.7024	356	251	310	250	179	339	209	371	260
Las Cruces, NM	346	-0.7088	65	366	348	374	323	296	172	256	297
Montgomery, AL	347	-0.7148	211	191	260	310	297	338	362	288	340
Hinesville, GA	348	-0.7417	246	374	241	185	213	331	353	368	230
Muskegon, MI	349	-0.7533	274	319	239	352	366	320	310	176	290
Topeka, KS	350	-0.7782	317	129	311	351	356	304	285	327	306
Albany, GA	351	-0.7783	314	275	272	317	316	356	329	339	171
Fort Smith, AR-OK	352	-0.8001	251	323	340	353	306	288	186	353	307
Carbondale-Marion, IL	353	-0.8034	275	190	322	377	329	332	289	331	175
Binghamton, NY	354	-0.8059	345	281	357	344	358	207	161	335	252
Sierra Vista-Douglas, AZ	355	-0.8140	72	300	369	373	273	306	127	374	271
Utica-Rome, NY	356	-0.8207	326	272	341	360	316	309	174	321	305
Vineland-Bridgeton, NJ	357	-0.8518	265	368	275	201	340	334	351	318	339
Williamsport, PA	358	-0.8822	338	268	370	376	369	297	47	332	104
Springfield, IL	359	-0.8833	232	106	325	375	360	344	300	330	331
Watertown-Fort Drum, NY	360	-0.9280	179	242	339	308	359	222	234	376	367
Huntington-Ashland, WV-KY-OH	361	-0.9354	223	283	349	368	361	354	339	210	261
Farmington, NM	362	-0.9359	187	371	356	259	303	376	314	348	79
Alexandria, LA	363	-0.9421	182	158	347	314	331	353	364	306	365
Goldsboro, NC	364	-0.9435	349	330	352	357	315	314	292	329	286
Michigan City-La Porte, IN	365	-0.9551	320	199	350	366	364	317	237	337	294
Victoria, TX	366	-0.9581	19	219	375	378	378	374	140	309	255
Bay City, MI	367	-0.9922	322	200	364	328	305	258	358	351	357
Danville, IL	368	-1.0013	362	194	354	361	327	283	286	343	359
Gulfport-Biloxi-Pascagoula, MS	369	-1.0452	120	345	335	329	337	364	356	340	366
Youngstown-Warren-Boardman, OH-PA	370	-1.0472	255	206	363	369	344	286	303	345	361
Rocky Mount, NC	371	-1.0605	305	252	362	370	344	155	274	370	356
Bloomington, IL	372	-1.1238	371	94	355	337	335	371	372	188	360
Charleston, WV	373	-1.1512	367	132	372	363	376	329	245	373	256
Erie, PA	374	-1.1669	360	224	346	321	367	355	367	338	345
Pine Bluff, AR	375	-1.2323	278	360	373	358	372	298	85	372	358
Elmira, NY	376	-1.3352	351	285	368	372	374	336	333	365	326
Lafayette, LA	377	-1.5238	174	196	378	345	253	378	369	377	291
Peoria, IL	378	-1.6548	339	70	367	327	339	363	377	378	377
Houma-Thibodaux, LA	379	-2.1145	172	216	379	342	370	379	376	379	363



Overall and Size Category Rankings for Large Metropolitan Areas

Metropolitan Area	Overall Rank	Size Category Rank
San Jose-Sunnyvale-Santa Clara, CA	2	1
Austin-Round Rock, TX	7	2
San Francisco-Oakland-Hayward, CA	9	3
Seattle-Tacoma-Bellevue, WA	10	4
Nashville-Davidson--Murfreesboro--Franklin, TN	26	5
Dallas-Fort Worth-Arlington, TX	27	6
Raleigh, NC	28	7
Denver-Aurora-Lakewood, CO	34	8
Orlando-Kissimmee-Sanford, FL	39	9
Boston-Cambridge-Newton, MA-NH	54	10
Charlotte-Concord-Gastonia, NC-SC	55	11
Miami-Fort Lauderdale-West Palm Beach, FL	59	12
San Antonio-New Braunfels, TX	60	13
Las Vegas-Henderson-Paradise, NV	62	14
Riverside-San Bernardino-Ontario, CA	64	15
Portland-Vancouver-Hillsboro, OR-WA	65	16
Phoenix-Mesa-Scottsdale, AZ	67	17
Atlanta-Sandy Springs-Roswell, GA	70	18
Salt Lake City, UT	71	19
Jacksonville, FL	72	20
Grand Rapids-Wyoming, MI	73	21
Los Angeles-Long Beach-Anaheim, CA	75	22
Sacramento--Roseville--Arden-Arcade, CA	84	23
Indianapolis-Carmel-Anderson, IN	104	24
San Diego-Carlsbad, CA	105	25
Tampa-St. Petersburg-Clearwater, FL	113	26
Oklahoma City, OK	116	27
Minneapolis-St. Paul-Bloomington, MN-WI	119	28
Cleveland-Elyria, OH	134	29
New York-Newark-Jersey City, NY-NJ-PA	135	30
Washington-Arlington-Alexandria, DC-VA-MD-WV	144	31
Columbus, OH	145	32
Richmond, VA	151	33
Houston-The Woodlands-Sugar Land, TX	157	34
Cincinnati, OH-KY-IN	165	35
Detroit-Warren-Dearborn, MI	172	36
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	173	37
Baltimore-Columbia-Towson, MD	176	38
Pittsburgh, PA	177	39
Kansas City, MO-KS	183	40
Chicago-Naperville-Elgin, IL-IN-WI	185	41
Birmingham-Hoover, AL	191	42
Providence-Warwick, RI-MA	197	43
Louisville/Jefferson County, KY-IN	202	44
Tucson, AZ	208	45
St. Louis, MO-IL	228	46
Buffalo-Cheektowaga-Niagara Falls, NY	235	47
Memphis, TN-MS-AR	244	48
Milwaukee-Waukesha-West Allis, WI	253	49
Hartford-West Hartford-East Hartford, CT	254	50
Virginia Beach-Norfolk-Newport News, VA-NC	255	51
New Orleans-Metairie, LA	262	52
Rochester, NY	310	53

Overall and Size Category Rankings for Medium Metropolitan Areas

Metropolitan Area	Overall Rank	Size Category Rank
Provo-Orem, UT	12	1
Fayetteville-Springdale-Rogers, AR-MO	17	2
Cape Coral-Fort Myers, FL	19	3
Boise City, ID	20	4
North Port-Sarasota-Bradenton, FL	23	5
Colorado Springs, CO	32	6
Santa Rosa, CA	37	7
Charleston-North Charleston, SC	42	8
Palm Bay-Melbourne-Titusville, FL	46	9
Des Moines-West Des Moines, IA	57	10
Fresno, CA	68	11
Ogden-Clearfield, UT	74	12
Stockton-Lodi, CA	80	13
Winston-Salem, NC	98	14
Lakeland-Winter Haven, FL	111	15
Chattanooga, TN-GA	125	16
Madison, WI	129	17
Modesto, CA	139	18
Worcester, MA-CT	140	19
Greenville-Anderson-Mauldin, SC	142	20
Omaha-Council Bluffs, NE-IA	154	21
Spokane-Spokane Valley, WA	158	22
Lancaster, PA	159	23
Urban Honolulu, HI	167	24
Allentown-Bethlehem-Easton, PA-NJ	168	25
Deltona-Daytona Beach-Ormond Beach, FL	170	26
Portland-South Portland, ME	179	27
McAllen-Edinburg-Mission, TX	182	28
Augusta-Richmond County, GA-SC	188	29
Durham-Chapel Hill, NC	199	30
Harrisburg-Carlisle, PA	203	31
Oxnard-Thousand Oaks-Ventura, CA	213	32
Tulsa, OK	214	33
Springfield, MA	215	34
Knoxville, TN	217	35
Akron, OH	218	36
Columbia, SC	220	37
Greensboro-High Point, NC	231	38
Lexington-Fayette, KY	232	39
El Paso, TX	239	40
Bakersfield, CA	241	41
Albany-Schenectady-Troy, NY	243	42
Little Rock-North Little Rock-Conway, AR	251	43
Bridgeport-Stamford-Norwalk, CT	256	44
Baton Rouge, LA	264	45
Scranton--Wilkes-Barre--Hazleton, PA	266	46
Albuquerque, NM	269	47
New Haven-Milford, CT	291	48
Dayton, OH	301	49
Syracuse, NY	308	50
Jackson, MS	314	51
Wichita, KS	319	52
Toledo, OH	323	53
Youngstown-Warren-Boardman, OH-PA	370	54

Overall and Size Category Rankings for Small Metropolitan Areas

Metropolitan Area	Overall Rank	Size Category Rank
Midland, TX	1	1
Midland, MI	3	2
Elkhart-Goshen, IN	4	3
Bend-Redmond, OR	5	4
St. George, UT	6	5
Greeley, CO	8	6
Reno, NV	11	7
Lake Charles, LA	13	8
Fort Collins, CO	14	9
Gainesville, GA	15	10
Wenatchee, WA	16	11
Naples-Immokalee-Marco Island, FL	18	12
Mount Vernon-Anacortes, WA	21	13
Boulder, CO	22	14
Coeur d'Alene, ID	24	15
The Villages, FL	25	16
Redding, CA	29	17
Charlottesville, VA	30	18
Merced, CA	31	19
Idaho Falls, ID	33	20
Hilton Head Island-Bluffton-Beaufort, SC	35	21
Crestview-Fort Walton Beach-Destin, FL	36	22
Port St. Lucie, FL	38	23
Sebastian-Vero Beach, FL	40	24
Bellingham, WA	41	25
Daphne-Fairhope-Foley, AL	43	26
Punta Gorda, FL	44	27
Salinas, CA	45	28
Athens-Clarke County, GA	47	29
Myrtle Beach-Conway-North Myrtle Beach, SC-NC	48	30
Auburn-Opelika, AL	49	31
Salem, OR	50	32
Chico, CA	51	33
Mankato-North Mankato, MN	52	34
Wheeling, WV-OH	53	35
Prescott, AZ	56	36
Madera, CA	58	37
Olympia-Tumwater, WA	61	38
Odessa, TX	63	39
Yakima, WA	66	40
College Station-Bryan, TX	69	41
Salisbury, MD-DE	76	42
San Luis Obispo-Paso Robles-Arroyo Grande, CA	77	43
Walla Walla, WA	78	44
Grants Pass, OR	79	45
Bremerton-Silverdale, WA	81	46
Napa, CA	82	47
Medford, OR	83	48
Santa Cruz-Watsonville, CA	85	49
Valdosta, GA	86	50
Kankakee, IL	87	51
Ithaca, NY	88	52
Winchester, VA-WV	89	53
Sherman-Denison, TX	90	54
Ames, IA	91	55
Rapid City, SD	92	56
Asheville, NC	93	57
Wausau, WI	94	58
Morgantown, WV	95	59
Wilmington, NC	96	60
Missoula, MT	97	61
Killeen-Temple, TX	99	62
Lubbock, TX	100	63
Huntsville, AL	101	64
Hickory-Lenoir-Morgantown, NC	102	65
Santa Maria-Santa Barbara, CA	103	66
Kennewick-Richland, WA	106	67
Tyler, TX	107	68

Metropolitan Area	Overall Rank	Size Category Rank
Abilene, TX	108	69
Longview, WA	109	70
Sioux Falls, SD	110	71
Barnstable Town, MA	112	72
Gettysburg, PA	114	73
Columbus, IN	115	74
El Centro, CA	117	75
Lafayette-West Lafayette, IN	118	76
Logan, UT-ID	120	77
Lewiston, ID-WA	121	78
Lake Havasu City-Kingman, AZ	122	79
Manchester-Nashua, NH	123	80
Flagstaff, AZ	124	81
Eau Claire, WI	126	82
Yuba City, CA	127	83
Tallahassee, FL	128	84
Ocean City, NJ	130	85
Pensacola-Ferry Pass-Brent, FL	131	86
Ocala, FL	132	87
Kahului-Wailuku-Lahaina, HI	133	88
Fort Wayne, IN	136	89
Ann Arbor, MI	137	90
Albany, OR	138	91
Sheboygan, WI	141	92
Carson City, NV	143	93
Appleton, WI	146	94
Pocatello, ID	147	95
Jonesboro, AR	148	96
Spartanburg, SC	149	97
Vallejo-Fairfield, CA	150	98
Gainesville, FL	152	99
Morristown, TN	153	100
Waco, TX	155	101
Kokomo, IN	156	102
Yuma, AZ	160	103
Springfield, MO	161	104
Fond du Lac, WI	162	105
Eugene, OR	163	106
St. Cloud, MN	164	107
Fargo, ND-MN	166	108
Staunton-Waynesboro, VA	169	109
Savannah, GA	171	110
Chambersburg-Waynesboro, PA	174	111
York-Hanover, PA	175	112
Green Bay, WI	178	113
Norwich-New London, CT	180	114
Visalia-Porterville, CA	181	115
Bowling Green, KY	184	116
Grand Junction, CO	186	117
Amarillo, TX	187	118
Brunswick, GA	189	119
Tuscaloosa, AL	190	120
Lincoln, NE	192	121
Clarksville, TN-KY	193	122
Elizabethtown-Fort Knox, KY	194	123
San Angelo, TX	195	124
Jackson, TN	196	125
Dalton, GA	198	126
Springfield, OH	200	127
La Crosse-Onalaska, WI-MN	201	128
Kalamazoo-Portage, MI	204	129
Rochester, MN	205	130
Iowa City, IA	206	131
Great Falls, MT	207	132
Hattiesburg, MS	209	133
Pittsfield, MA	210	134
Grand Island, NE	211	135
Bismarck, ND	212	136



Overall and Size Category Rankings for Small Metropolitan Areas

Metropolitan Area	Overall Rank	Size Category Rank
Casper, WY	216	137
Columbia, MO	219	138
Kingston, NY	221	139
Dover, DE	222	140
Grand Forks, ND-MN	223	141
St. Joseph, MO-KS	224	142
Lebanon, PA	225	143
State College, PA	226	144
Hanford-Corcoran, CA	227	145
Sumter, SC	229	146
Rockford, IL	230	147
Greenville, NC	233	148
Evansville, IN-KY	234	149
Atlantic City-Hammonton, NJ	236	150
Lynchburg, VA	237	151
Florence, SC	238	152
Hagerstown-Martinsburg, MD-WV	240	153
Cleveland, TN	242	154
Hot Springs, AR	245	155
Pueblo, CO	246	156
Corvallis, OR	247	157
Jacksonville, NC	248	158
Sebring, FL	249	159
Mansfield, OH	250	160
Glens Falls, NY	252	161
Columbus, GA-AL	257	162
Davenport-Moline-Rock Island, IA-IL	258	163
Burlington, NC	259	164
Oshkosh-Neenah, WI	260	165
Florence-Muscle Shoals, AL	261	166
Lansing-East Lansing, MI	263	167
Cape Girardeau, MO-IL	265	168
California-Lexington Park, MD	267	169
Billings, MT	268	170
South Bend-Mishawaka, IN-MI	270	171
Joplin, MO	271	172
Dothan, AL	272	173
Blacksburg-Christiansburg-Radford, VA	273	174
Macon-Bibb County, GA	274	175
Trenton, NJ	275	176
Wichita Falls, TX	276	177
Altoona, PA	277	178
Hammond, LA	278	179
Panama City, FL	279	180
East Stroudsburg, PA	280	181
Duluth, MN-WI	281	182
Lawrence, KS	282	183
Bloomington, IN	283	184
Santa Fe, NM	284	185
Cedar Rapids, IA	285	186
Monroe, LA	286	187
Flint, MI	287	188
Owensboro, KY	288	189
Canton-Massillon, OH	289	190
Johnson City, TN	290	191
Lawton, OK	292	192
Homosassa Springs, FL	293	193
Manhattan, KS	294	194
Dubuque, IA	295	195
Monroe, MI	296	196
Roanoke, VA	297	197
Beaumont-Port Arthur, TX	298	198
Laredo, TX	299	199
Harrisonburg, VA	300	200
Rome, GA	302	201
Champaign-Urbana, IL	303	202
Mobile, AL	304	203
Lewiston-Auburn, ME	305	204

Metropolitan Area	Overall Rank	Size Category Rank
Burlington-South Burlington, VT	306	205
Niles-Benton Harbor, MI	307	206
Reading, PA	309	207
Cheyenne, WY	311	208
Johnstown, PA	312	209
Racine, WI	313	210
Bloomsburg-Berwick, PA	315	211
Waterloo-Cedar Falls, IA	316	212
Shreveport-Bossier City, LA	317	213
Sioux City, IA-NE-SD	318	214
Jefferson City, MO	320	215
Warner Robins, GA	321	216
Battle Creek, MI	322	217
Terre Haute, IN	324	218
Muncie, IN	325	219
Weirton-Steubenville, WV-OH	326	220
Decatur, IL	327	221
Saginaw, MI	328	222
Jackson, MI	329	223
Decatur, AL	330	224
Gadsden, AL	331	225
Bangor, ME	332	226
Cumberland, MD-WV	333	227
Janesville-Beloit, WI	334	228
Anniston-Oxford-Jacksonville, AL	335	229
Texarkana, TX-AR	336	230
Parkersburg-Vienna, WV	337	231
Beckley, WV	338	232
Corpus Christi, TX	339	233
Brownsville-Harlingen, TX	340	234
New Bern, NC	341	235
Lima, OH	342	236
Longview, TX	343	237
Fayetteville, NC	344	238
Kingsport-Bristol-Bristol, TN-VA	345	239
Las Cruces, NM	346	240
Montgomery, AL	347	241
Hinesville, GA	348	242
Muskegon, MI	349	243
Topeka, KS	350	244
Albany, GA	351	245
Fort Smith, AR-OK	352	246
Carbondale-Marion, IL	353	247
Binghamton, NY	354	248
Sierra Vista-Douglas, AZ	355	249
Utica-Rome, NY	356	250
Vineland-Bridgeton, NJ	357	251
Williamsport, PA	358	252
Springfield, IL	359	253
Watertown-Fort Drum, NY	360	254
Huntington-Ashland, WV-KY-OH	361	255
Farmington, NM	362	256
Alexandria, LA	363	257
Goldsboro, NC	364	258
Michigan City-La Porte, IN	365	259
Victoria, TX	366	260
Bay City, MI	367	261
Danville, IL	368	262
Gulfport-Biloxi-Pascagoula, MS	369	263
Rocky Mount, NC	371	264
Bloomington, IL	372	265
Charleston, WV	373	266
Erie, PA	374	267
Pine Bluff, AR	375	268
Elmira, NY	376	269
Lafayette, LA	377	270
Peoria, IL	378	271
Houma-Thibodaux, LA	379	272



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